Investment governance and the integration of environmental, social and governance factors

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Foreword

The manner in which institutional investors approach environmental, social and governance (ESG) issues is gaining increased attention across OECD countries. Pension funds, insurers and asset managers should be equipped to understand and respond to potential risks and opportunities arising from ESG-related factors in order to safeguard the assets that they invest on behalf of their beneficiaries and clients. At the same time, regulators must be confident that institutional investors meet the required standards of prudence and care when they include ESG considerations in their portfolio decisions. This paper examines how different countries and investors are acting to reconcile ESG analysis - which deals to a large extent with risks that fall outside the bounds of traditional financial models - with prudential, risk-based regulations.

The paper presents the findings of an international stock-taking of the regulatory frameworks that apply to institutional investment in different jurisdictions and how these frameworks are interpreted by institutional investors in terms of their ability or responsibility to integrate ESG factors in their governance processes. It builds on OECD work on the regulation of insurance company and pension fund investment and is linked to OECD instruments, in particular the *OECD Principles of Private Pension Regulation* and the *G20/OECD High-Level Principles of Long-term Investment Financing by Institutional Investors*. It also supports the OECD's work on responsible business conduct which aims to assist multinational enterprises in the financial sector in applying the *OECD Guidelines for Multinational Enterprises*.

This paper was prepared by Emmy Labovitch (Principal Administrator, OECD Directorate for Financial and Enterprise Affairs) under the supervision of Pablo Antolin (Head of the Private Pensions Unit, OECD Directorate for Financial and Enterprise Affairs). It benefits from comments made by Delegates to the Working Party on Private Pensions and to the Insurance and Private Pensions Committee. Some elements of this research were submitted to the Green Finance Study Group of the G20 for discussion at the July meeting of G20 Finance Ministers. The OECD would like to thank the French Presidency of the COP21 for encouraging this research.

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Introduction

This paper examines how pension funds, insurance companies and asset managers approach environmental, social and governance (ESG) risks and opportunities in their portfolio investments, and whether current investment governance standards in legal and regulatory frameworks encourage or discourage them from integrating ESG factors in investment decision-making.[1] Concerns have been raised that investment governance standards may be unduly restrictive and so discourage institutional investors from taking ESG factors into account in their analysis, even when ESG integration could lead to more resilient investment portfolios.

We define ESG integration as:

- The recognition in the institutional investor's investment policy or principles that ESG factors may impact portfolio performance and so affect the investor's ability to meet its obligations; and
- Using analysis of those impacts to inform asset allocation decisions and securities valuation models (or employing third parties to do so).

The current document presents the findings of the OECD's stock-taking exercise of the regulatory frameworks that apply to institutional investment in various jurisdictions and how institutional investors interpret these frameworks in terms of ESG integration. Work undertaken included:

- Face-to-face interviews with a number of institutional investors to collect information on their approach to ESG investing, and surveys of a larger group of pension funds, insurance companies and asset managers to follow up on areas of particular interest highlighted by the interviews and to complete our picture of how institutional investors integrate ESG factors;
- The circulation of surveys to regulators in OECD and non-OECD jurisdictions to gather information and views from regulators and policymakers on existing policy and regulatory frameworks and the policy drivers shaping institutional investment governance;[2]
- Desk research including a review of evidence of the financial impact of ESG factors on portfolio investments and a review of the academic literature on the interpretation of the fiduciary duties of institutional investors and how this might affect investment behaviour.

The key findings of this report are:

- Regulatory frameworks allow scope for institutional investors to integrate ESG factors into their investment governance. However, difficulties remain for investors in reconciling their obligations towards their beneficiaries with ESG integration. Lack of regulatory clarity, practical complexity and behavioural issues may discourage ESG integration.

1. Environmental, social and governmental (ESG) factors are indicators used to analyse a (investee) company's prospects based on measures of its performance on environmental, social, ethical and corporate governance criteria.

2 The OECD would like to thank the International Organisation of Pension Supervisors (IOPS) for the contributions of its members to this survey exercise.

- ESG factors influence investment returns through their impact on corporate financial performance and through the risks they pose to broader economic growth and financial market stability.
- There are technical and operational difficulties in measuring and understanding ESG-related portfolio risks; however a growing number of tools are becoming available that enable institutional investors to integrate ESG factors to a greater or lesser extent.

The structure of this document is as follows:

Section I describes the regulatory frameworks in selected OECD and non-OECD countries and the extent to which these frameworks support the integration of ESG factors in the governance processes of institutional investors.

Section II discusses the various ways in which institutional investors interpret their obligations towards their members and beneficiaries, and how these different interpretations affect their approach to ESG integration.

Section III reviews academic and empirical evidence of how ESG risks and opportunities can influence investment performance.

Section IV provides an overview of different ESG investment strategies used by institutional investors, and the challenges that they face in applying them.

Section V concludes.

Section I: Regulatory frameworks

Regulatory frameworks for investment governance that are built on risk-based controls and prudential standards do not usually refer explicitly to ESG issues (although this is changing in a number of jurisdictions). Regulatory frameworks for the most part do not prevent ESG integration, and other legislation or voluntary codes may encourage institutional investors to take ESG factors into account in their investment governance. However, institutional investors may lack clarity as to how ESG integration fits with their legal, regulatory and other obligations.

Governance of institutional investments – why does ESG matter?

ESG issues are increasingly relevant for institutional investors. From an investment perspective, ESG factors, especially those related to climate change, are seen as potentially important drivers of portfolio risk and return. From a policy perspective, there is a desire to harness the financial weight of institutional investors to support global accords such as the Paris Agreement and the Sustainable Development Goals.[3] The G20 Leaders' Communiqué referenced the importance of green finance for the first time following the Hangzhou Summit of September 2016.[4] Civil society is also putting growing pressure on institutional investors to use their influence to change ESG practices at investee companies.

At the same time, institutional investors must be able to reconcile their actions in terms of ESG issues with their obligations to their members, beneficiaries, policyholders and clients (hereafter referred to as "beneficiaries"). Institutional investors set their investment strategy to meet their financial commitments: defined benefit pension funds must be able to pay the pensions they have promised and insurance companies must honour the policies they have written. Prudential standards aim to ensure that they will do so. Defined contribution funds and asset managers in most jurisdictions do not have equivalent financial liabilities, but may be held to similar governance standards in terms of safeguarding clients' assets.

Understanding ESG issues and the potential impact of ESG factors on both their investment strategy and the broader operating environment is therefore an integral part of good governance for institutional investors. However, there is some evidence and concern that many institutional investors interpret regulatory frameworks as prohibiting the consideration of ESG factors in investment decisions.[5]

3. The Paris Agreement is a global climate treaty negotiated at COP21 that aims to hold further global warming below two degrees Celsius. The 17 Global Sustainable Development Goals set out economic, social and environmental ambitions for UN member states.
4. G20 Leaders' Communique Hangzhou Summit
5. Eurosif (2016), PRI (2015a).

Prudential standards and investor obligations

Regulation of institutional investment is increasingly focused on governance, as it moves away from quantitative constraints in favour of risk-based controls and prudential standards. Pension funds and insurance companies are subject to similar standards of behaviour with regards to portfolio investments in all the jurisdictions under review:[6]

- Investing prudently
- Acting in the best/sole interests of beneficiaries
- Taking a long-term view
- Avoiding conflicts of interest
- Diversifying the portfolio

Asset managers are subject to some or all of these standards in only a small number of jurisdictions. In general, asset managers do not have "beneficiaries", rather they have clients, and their client relationships do not give rise to balance sheet liabilities. However, asset managers can have a strong influence on institutional investment governance: they provide investment opinion as well as products and often have considerably more resources devoted to research than all but the biggest institutional investors. Asset owners often outsource investment decisions to their asset managers, who thereby become instrumental in determining whether in practice their clients meet the prudential standards expected of them.

Regulatory frameworks in the jurisdictions under review rarely make explicit reference to ESG factors, although this is beginning to change. Therefore it is up to institutional investors to decide whether and to what extent ESG integration is consistent with prudential standards, risk controls, legal requirements, conflict of interest safeguards and any other obligations they may have towards their beneficiaries. A wide range of interpretations is possible, given that these standards neither rule in nor rule out ESG integration. Investors might consider ESG issues to be non-financial, qualitative and concerned with uncertain risks and rewards that are beyond their beneficiaries' investment horizons, so they do not have a place in prudent investment decision-making. Alternatively, an investor might conclude that analysis of ESG factors provides valuable insight into both the quality of investee companies and macro-economic trends, so that it would not be prudent to ignore them.

Similarly, risk-based controls generally do not explicitly refer to ESG factors. Pension funds and insurance companies are expected to identify, measure and manage long-term risks and these are understood by both regulators and investors to be financial risks. The major exception is France, where from 2017 institutional investors will have to report on the financial risks they face in relation to the consequences of climate change as well as the measures taken to reduce these risks. In the Netherlands, insurers and pension funds are required to demonstrate "controlled and ethical operational management" which includes an understanding of non-financial risks. In Chile, pension funds are asked but not evaluated on whether they consider ESG risks. A scientific advisory committee to the

6. Sources of information for individual jurisdictions: surveys completed by regulators; European Commission (2014).

European Systematic Risk Board recently recommended that future stress tests of the pensions sector include climate-related risks.[7]

Even where they are not explicitly mentioned, legal and regulatory frameworks provide scope to incorporate ESG factors in investment governance to the extent that they are expected to have a material impact on financial performance. Furthermore, since institutional investors are usually subject to process tests rather than outcome tests – they have to show that they have made investment decisions in good faith and based on a suitable level of due diligence and analysis – they would not be failing in their duties to their beneficiaries if the anticipated financial risks did not materialise.

In common law jurisdictions, some institutional investors – notably trustees of trust-based, defined-benefit pension schemes – have a legally binding fiduciary duty towards their beneficiaries in addition to being held to the prudential standards common to all investors. Fiduciaries have additional obligations of loyalty and care that may affect their interpretation of prudential standards and of how ESG integration can help or hinder them in discharging their duties.

For example, an institutional investor who has a purely contractual relationship with their beneficiaries (an agreement to meet whatever payments have been promised) could decide to reduce the carbon footprint of the portfolio by divesting from carbon-intensive sectors as long as this does not jeopardise their ability to make the necessary payments. A fiduciary responsible for a defined benefit pension scheme might feel constrained by their additional obligation to safeguard their beneficiaries' financial interests, rather than simply make contracted payments, as divestment may be seen as conflicting with standard portfolio theory (divestment shrinks the universe of potential investments and its long-term impact on risk-adjusted returns is uncertain).[8]

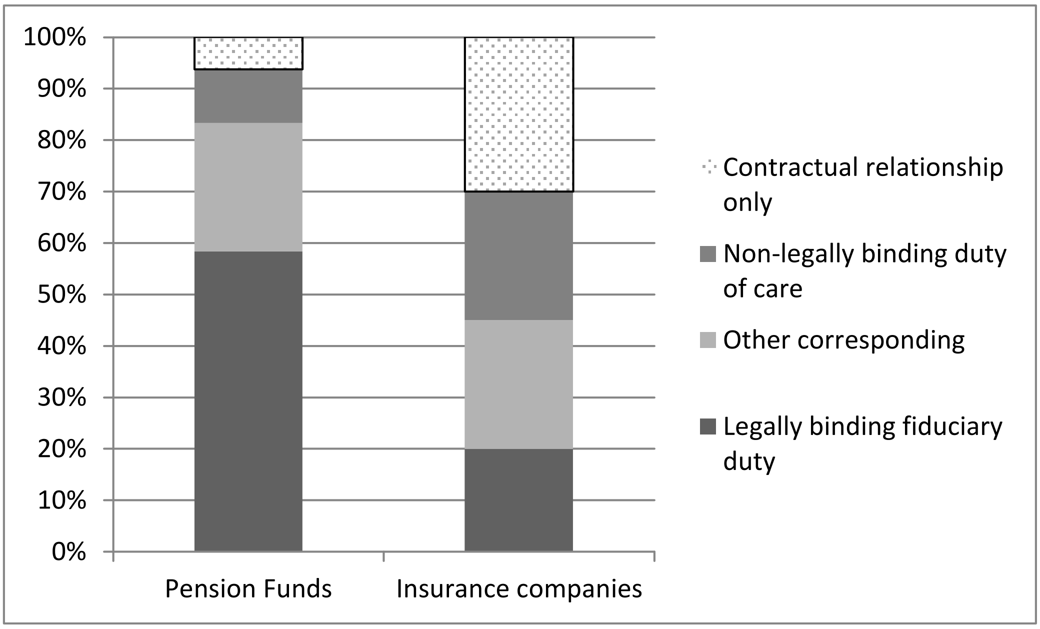
It should be noted that in several jurisdictions, institutional investors who have a contractual relationship with their beneficiaries may have other, legally binding obligations that correspond to a “fiduciary duty”, or are deemed to owe a similar duty of care to beneficiaries by nature of their relationship, i.e. that the beneficiaries have entrusted their assets to them (Figure 1). It is also noteworthy that some pension funds and asset managers who do not have a legally binding fiduciary duty nonetheless believe that they do. They may also take on fiduciary obligations voluntarily, for example by adopting the CFA Institute’s Pension Trustee Code of Conduct which includes terms such as “acting in good faith”,[9] or subscribing to national codes such as Portuguese Association of Investment Funds, Pension Funds and Asset Managers Code of Practice.

7. *Too late, too sudden: transition to a low carbon economy and systemic risk* (February 2016): https://www.esrb.europa.eu/pub/pdf/asc/Reports_ASC_6_1602.pdf.

8. Please see Appendix 1 for a discussion of how interpretations of fiduciary duty are evolving.

9. Code of Conduct for Members of a Pension Scheme Governing Body

Figure 1. Institutional investors' obligation to beneficiaries



Based on 28 responses to questionnaires sent to Regulators.

One possible reason why institutional investors believe that ESG integration is inconsistent with their obligations is that they confuse ESG investing with ethical investing, i.e. accepting lower financial returns from an investment made in order to support a particular cause. This is not acceptable under prudential or fiduciary standards, and those regulatory frameworks that do mention ESG consistently link the consideration of ESG issues to financial outcomes. In Ontario, guidance for administrators distinguishes between the consideration of ESG factors to evaluate expected portfolio risks and returns and the consideration of ESG factors for non-financial goals. In Australia, trustees are expected to demonstrate via appropriate analysis that investment strategies with an ESG focus are in the best interests of beneficiaries, including in terms of liquidity and diversification. However, in practice a moderate degree of ethically-motivated investing is tolerated (e.g. tobacco divestment).

Regulators in a number of jurisdictions have taken steps to clarify that regulatory frameworks do not prohibit ESG integration, as long as it does not jeopardise portfolio performance:

- In the US, the Department of Labor confirmed that fiduciaries may legitimately consider ESG factors if they have a bearing on financial analysis provided that the overall decision-making process is in line with existing standards and recognised that there has been an evolution in the data and methodologies that can be used in financial analysis.[10] in the Department of Labor's guidance also applies to "Economically Targeted Investments" (i.e. investments whose purpose is not purely financial) as long as the investment is otherwise appropriate for the plan and is financially and economically equivalent to competing investment choices.

10. ERISA Interpretive Bulletin 2015-01, effective 26 October 2015.

- In the UK, the Pensions Regulator published a new Defined Contribution Code and trustee guides in July 2016; these reflect the findings of the Law Commission's study of trustees' duties that there is no legal obstacle to taking ESG into account and they encourage trustees to take into account risks that affect the long-term sustainability of investments.[11]
- In South Africa, the 2011 Amendment to the Pension Funds Act states that "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."
- The proposed revisions to the EU's IORP Directive, which is expected to be passed by early 2019, are noteworthy for the extent to which they explicitly reference ESG within the discussion of prudential standards, and for the influence of civil society in this aspect of the revision process. They explicitly recognise that within the prudent person rule, IORPS can take into account the potential long-term impact of their investments on ESG outcomes. The relevant Articles of the proposed revisions are shown in Box 1.

Box 1. Proposed revisions to the IORP Directive

IORPII establishes the "prudent person" rule as the underlying principle for pension fund governance and investment. Recital 41a sets out the importance attached to ESG factors, in terms of both the potential impact of ESG factors on portfolio risks and returns and institutional investors' role as long-term investors. Schemes are however free to conclude that they do not need to take ESG factors into account in their investment policy, for example because it is too costly or complex relative to their scale.

"Environmental, social and governance factors as referred to in the UN Principles for Responsible Investment are important for the investment policy and risk management systems of IORPs. Member States should require IORPs to explicitly disclose where these factors are considered in investment decisions and how they are part of their risk management system. The relevance and materiality of environmental, social and governance factors to a scheme's investments and how they are taken into account should be part of the information provided by the scheme under this Directive."

These points are expanded in the following Articles:

Article 20 Investment rules: "Within the 'prudent person' rule, Member States shall allow IORPs to take into account the potential long-term impact of investment decisions on environmental, social, and governance factors"

Article 22 General governance requirements: "The system of governance shall include a consideration of environmental, social and governance factors related to investment assets in investment decisions, and shall be subject to regular internal review"

Article 26 Risk management: "The risk-management system shall cover, *proportionate* to their size, internal organisation and the nature, scope and complexity of their activities, risks which can occur in the *IORPs* or in undertakings to which tasks or activities have been outsourced at least in the following areas, *where applicable…environmental, social and governance risks relating to the investment portfolio and the management thereof*"

11. "Is it Always About the Money? Pension Trustees' duties when setting an investment strategy: Guidance from the Law Commission", July 2014.

Box 2. Proposed revisions to the IORP Directive (cont.)

Article 29 Own risk assessment: "the risk assessment…, having regard to the size and internal organisation of the IORP as well as to the nature, scale and complexity of the IORP's activities, [shall include] the following…where environmental, social and governance factors are considered in investment decisions, an assessment of new or emerging risks, including risks related to climate change, use of resources and the environment, social risks and risks related to the depreciation of assets due to regulatory change"

IORPII also supports the interpretation of "long term view" that looks beyond matching financial liabilities.

Article 7 Activities of an IORP: "As a general principle, where relevant, IORPs shall take into account the aim of having an equitable spread of risks and benefits between generations in their activities."

Additionally, Recital 34 specifically mentions the suitability of low carbon and climate resilient infrastructure projects for pension fund investment.

Source : IORPII full text, http://data.consilium.europa.eu/doc/document/ST-10557-2016-ADD-1/en/pdf.

In those jurisdictions where no steps have been taken to clarify the status of ESG integration, the reasons given were as shown in Table 1.

Table 1. Reasons for not clarifying the status of ESG investing

	Pension funds	Insurance companies	Asset Managers
Other priorities	Canada – Saskatchewan, Hong Kong		
No demand from institutional investors or public	Slovakia	Slovakia	Slovakia
Too early to fully understand impact of ESG		Quebec	Quebec
Too sophisticated for local market		Mauritius	
Implicitly understood that ESG integration is permitted	Finland, Mexico, Switzerland, Hong Kong	Finland, Switzerland	
Currently under consideration whether to make explicit reference to ESG	Chile, Japan	Chile	Chile

Other policy measures and voluntary initiatives influencing ESG integration

Institutional investment governance is influenced by other policy measures and voluntary initiatives. These can signal that institutional investors may – or even should – interpret prudential standards as supporting ESG integration (for example, reporting standards and stewardship codes). However, some policy may discourage ESG integration (for example, triennial valuations). Lack of harmonisation and common definitions is also an obstacle to more widespread application of ESG analysis: there is no definitive terminology to describe the components of ESG and interpretations of ESG vary within the investment communities and across jurisdictions.

Table 2. Are institutional investors required to disclose their approach to ESG investing?

	Pension funds	Insurance companies	Asset Managers
Albania	No	No	No
Australia	Yes	Yes	Yes
Austria	Yes – to regulator; to members upon request	No	
Belgium	Yes – social transparency report		
Canada	No, except Ontario where required for local pension funds. In Alberta, voluntary codes encourage disclosure	No	
Chile	No	No	No
Denmark	Yes – if a responsible investment policy exists	Yes – if a responsible investment policy exists	Yes – if a responsible investment policy exists
Dominican Republic	No		
Estonia		No	
Finland	No	No	
France	Yes – to regulator and public, ESG policy and contribution to climate goals	Yes – to regulator and public, ESG policy and contribution to climate goals	Yes – to regulator and public, ESG policy and contribution to climate goals
Germany	Yes – ethical, social and environmental factors, at the start of a contract	No	
Hong Kong	No		
Hungary	No – voluntary codes encourage disclosure	No	
Israel	No	No	No
Italy	Yes – extent of ESG integration and exercise of voting rights	No	Yes if specific ESG label
Japan	No – voluntary codes encourage disclosure	No	
Lithuania	No	No	No
Macedonia	No		
Mauritius	No	No	No – voluntary codes encourage disclosure
Mexico	Yes	No	
Netherlands	Yes – whether an ESG policy is in place and if not, why not	No	
Poland	No		
Portugal		No	No
Slovakia	No	No	No
Spain	Yes – extra-financial risks including ESG	No	
Sweden	Yes	No – voluntary codes encourage disclosure	No – the Swedish Investment Fund Association has introduced voluntary carbon reporting for funds.
Switzerland	No	No	No
Uganda	No – voluntary codes encourage disclosure		
United Kingdom	Yes – in SIP		Yes – under the FCA's Conduct of Business Rules, produce a statement of commitment to the Stewardship Code or explain why it is not appropriate to business model
USA	No – voluntary codes encourage disclosure; DOL currently seeking public comments on ESG disclosure	No – voluntary codes encourage disclosure	No – voluntary codes encourage disclosure
IORPII	Yes – to regulator, members and prospective members		
Solvency II		No	

Source: OECD survey and Blackrock (2016).

Reporting requirements

In several jurisdictions, pension funds, insurance companies and asset managers are required to report on whether and how they take ESG factors into account, as shown in Table 2. This gives a strong indication that institutional investors are permitted to integrate ESG factors into their investment governance. (Note that the term “sustainability” may be used alongside or instead of “ESG”).

France has introduced the most far-reaching requirements in terms of ESG reporting by institutional investors. Under Article 173-VI of the Energy Transition Act, they must provide information not only on how they integrate ESG factors in their investment and voting decisions but also on the climate risks they face and how their portfolio construction contributes to the transition to a low carbon economy. This is part of a package of measures designed to increase transparency and encourage both retail and professional investors to consider and start addressing ESG issues, with an emphasis on climate-related risks; other measures include a new labelling system for environmentally-friendly mutual funds and tighter carbon disclosure requirements. For now, the legislation does not specify templates or methodologies to be used in the reporting, as the emphasis is on raising awareness of ESG issues and disseminating best practice while recognising that different types of investor operate under different regulatory frameworks, but institutional investors must describe and justify their approach (including, if applicable, why they choose not to disclose such information).

Table 3. Stewardship codes

Jurisdiction	Name of code	Year	Regulator/industry/other
Canada	Principles for Governance, Monitoring and Shareholder Engagement	2012	Industry
EU	Code for External Governance	2011	Industry
Finland	*Each pension fund must publish its own stewardship code*		*Industry*
Hong Kong	Principles of Responsible Ownership	2016	Regulator
Italy	Stewardship Principles for the Exercise of Administrative and Voting Rights in Listed Companies	2015	Industry
Japan	Principles for Responsible Institutional Investors	2014	Regulator
Kenya	Draft Stewardship Code for Institutional Investors for Public Exposure	2015	Regulator
Korea	*Draft Stewardship code pending*		*Industry*
Malaysia	Code for Institutional Investors	2014	Industry
Netherlands	Best Practices for Engaged Share Ownership	2011	Industry
South Africa	Code for Responsible Investing	2011	Industry
Switzerland	Guidelines for Institutional Investors, governing the exercise of participation rights in public limited companies	2013	Industry
Taiwan	Stewardship Consultation	2015	Stock Exchange
United Kingdom	Stewardship Code	2012	Regulator
United States	DOL Interpretive Bulletin IB 2016-01 provides guidance on proxy voting activities by private pension plan trustees abd specifically references the consideration of ESG issues.	2016	Regulator

Source: OECD survey and ICGN

Stewardship codes

Stewardship codes are in place in several jurisdictions (Table 3). Stewardship – which may also be referred to as “active ownership” – does not constitute ESG integration in itself but is often part of an ESG investment strategy. It entails enhancing the value of portfolio investments by engaging with investee companies, often through a dialogue about ESG practices such as board composition or other aspects of “responsible” behaviour. Stewardship codes are usually voluntary or imposed on a “comply-or-explain” basis and may be introduced by regulators, as in Japan, or by industry bodies, as in Canada. Organisations such as Eurosif (European Sustainable Investment Forum) are also influential in encouraging good stewardship practices.

Corporate disclosure

Institutional investors cannot undertake stewardship activities or integrate ESG factors into their investment analysis unless they have information about the ESG-related behaviour and business exposure of investee companies.[12] Corporate disclosure regimes vary substantially in terms of what data must be reported and how it should be calculated. OECD/CDSB (2015) found that 15 of the G20 countries had mandatory corporate climate change reporting schemes in place and that all of these required reporting of direct greenhouse gas emissions, but that only two required reporting beyond national boundaries and only six required reporting of emissions related to consumption of purchased energy.

Efforts to encourage transparency on ESG issues and especially environmental disclosure are accelerating, but reporting requirements are usually voluntary (“comply or explain”) and are not prescriptive on the methods or metrics to be used. This means that data is incomplete and not directly comparable across companies, sectors and countries.

- In Denmark, financial statements must include environmental information and link this to overall corporate strategy and performance.
- In South Africa independently-assessed integrated reporting is required on a “comply or explain” basis.[13]
- In the US, publicly traded companies are required to disclose material risks to their business related to climate change.
- The 2014 EU Directive on disclosure of non-financial and diversity information affects over 6 000 companies. From fiscal year 2017, these companies should include environmental and social information in their annual reports (on a comply-or-explain basis).[14] The European Commission will publish non-binding guidelines on methodologies and KPIs.

12 . Principle V of the *G20/OECD Principles of Corporate Governance* encourages companies to "disclose policies and performance relating to business ethics, the environment and, where material to the company, social issues, human rights and other public policy commitments".

13. “An integrated report is a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term.” International Integrated Reporting Council, 2013.

14. Non-financial reporting directive, www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/intm/144945.pdf

- In France, the stricter reporting of climate exposures that apply to institutional investors also extends to corporates. Transparency codes have been published in France by AFG, the industry association.

The Financial Stability Board Taskforce on Climate-related Financial Disclosures (TCFD) was established in 2015 to "develop voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders" and is expected to deliver its final report in December 2016.[15]

Stock exchanges

Stock exchanges in a number of markets including South Africa, Brazil, Australia and Hong Kong include ESG information in their listing requirements, usually on a "comply or explain" basis. Fifty-seven exchanges have signed up to the UN's Sustainable Stock Exchanges Initiative that aims to encourage transparency on ESG issues.[16] Many stock exchanges have developed sustainability-related indices, including the Dow Jones Sustainability Index, FTSE4Good, the Stoxx Europe Sustainability Index, the NYSE Euronext Low Carbon 100 Europe Index, the Bombay BSE Greenex and the Johannesburg Stock exchange SRI Index.[17] Other policies supportive of ESG integration

In a number of jurisdictions, prudential standards and risk-based controls are complemented by other policies that encourage the integration of ESG factors in investment governance:

- The European Commission's Action Plan on Building a Capital Markets Union (September 2015) makes specific reference to "harnessing finance to deliver environmental sustainability".[18]
- The Dutch National Bank is conducting research into sustainable investing by Dutch pension funds – without imposing standards or definitions on what constitutes "sustainability" – and into the exposure of the Dutch financial sector to potentially stranded assets.[19]
- The 2014 amendment to the EU Shareholder Rights Directive aims to increase transparency in the investment chain and set out a framework for stronger engagement between companies and their shareholders (Article 3f-h).
- The Finnish Pension Alliance (TELA), to which all Finnish pension funds belong, has issued common principles of ESG investment.
- In Mexico, pension funds may include ESG factors in their own codes of best practice.
- Several countries limit institutional investments in some "unethical" sectors – for example, the Netherlands, Belgium, Ireland, Italy, Luxembourg and Spain ban investments in cluster munitions producers.

15. TCFD website
16. sseinitiative website
17. Source: Baron, R. (2014).
18. CMU Action Plan
19. Source: interview with DNB supervisory officials, APG Pension Doc, February 2016.

- California state law now requires CalSTERS and CalPERS (pension funds for public sector workers) to sell their holdings in companies that derive at least half their revenues from mining thermal coal.

Potential regulatory obstacles

Although prudential standards are not in themselves obstacles to ESG investing, institutional investors may be subject to other regulatory constraints that limit their ability to integrate ESG factors.

In some jurisdictions, institutional investors are required to invest a large proportion of their assets in the domestic market. Where capital markets are less developed, this is likely to mean that they will not have access to securities with rated or reported ESG characteristics, and it will not be cost-effective to invest in research resources to identify ESG investment opportunities abroad.

Many jurisdictions mandate the use of credit ratings agencies to rate bonds as suitable for institutional portfolios, but credit ratings agencies are not required to analyse ESG factors (although they increasingly do so).

Some regulation may lead institutional investors to focus on medium term liquidity risks and so discount longer-term ESG risks. Classification systems for insurance portfolios might discourage investment in long-term environmental projects, for example if they penalise illiquid assets. Some environmentally-focused asset classes might attract additional regulatory scrutiny because they are relatively unfamiliar and classified as "alternative investments"; this can discourage investors because the extra compliance work required is too great compared to the size of the planned investment – sustainable forestry has been cited as an example of this. Triennial valuations for pension funds arguably lead both asset owners and asset managers to orient their investment strategies towards short-term indicators.

Solvency II – the EU-wide regulatory regime for insurance – uses Value at Risk measures as the basis for determining capital requirements. It has been argued that this reduces the willingness of institutional investors to pay attention to ESG factors, by forcing insurers to cut their portfolio weightings in equities, the asset class for which ESG strategies are most developed. Similarly, if pension funds are required to implement de-risking strategies they will move out of equities and into high-grade bonds. This in turn discourages asset managers from developing ESG product offerings.

Ceres (2014) argues that US insurance companies are "highly regulated for financial solvency. There are specific regulations, for example, pertaining to diversification of investment assets, restrictions on types of assets and capital requirements that reflect investment and underwriting risk. However, these existing regulations may not adequately reflect emerging risks, especially risks related to climate change."

A lack of regulatory scrutiny of non-financial reports might reduce ESG integration to a box-ticking or "green washing" exercise. Only five EU countries include specific ESG content requirements in the statement of investment principles produced by pension funds. The UN PRI recently highlighted free-rider issues with some of its signatories.[20] This problem is compounded by the lack of expertise at the senior level of most

20. PRI from principles to performance, https://10.unpri.org/wp-content/uploads/2016/04/PRI-final-report_-single-pages.pdf

institutional investors; only one regulator reported that it imposed compulsory ESG training for pension fund trustees.

Summary and policy implications

Regulatory frameworks provide scope for ESG integration but do not necessarily encourage it. Policymakers might want to encourage institutional investors to integrate ESG factors in their investment governance, for example if they consider that this would enhance the efficiency and the risk-discovery function of financial markets, or in support of other goals.

Regulators might therefore wish to clarify the distinction between taking ESG factors into account in investment policy and portfolio decisions for financial reasons, and ethically motivated investing. They might also consider how to address remaining regulatory barriers to ESG integration, and whether other measures such as reporting requirements could support ESG integration by different types of investor.

Section II: Institutional investors' duties – where does ESG fit in?

Interpretations of institutional investors' responsibilities and how ESG integration can contribute to them vary. Institutional investors face practical and behavioural barriers in reconciling their obligations towards their beneficiaries and integrating ESG factors in their investment governance.

There are contrasting views as to how ESG integration fits with institutional investors' duties. Important considerations for institutional investors in adapting their governance processes to recognise ESG issues include: evolving views of what constitutes prudent investment, fiduciary responsibilities and beneficiaries' interests; evidence of the financial impact of ESG-related risks and opportunities; how the portfolio risk of climate change is assessed; technical capabilities and competing priorities.

There are marked differences amongst institutional investors in terms of their appetite for and understanding of ESG integration. Some take no account of ESG factors in their portfolios; others implement an investment policy that promotes specific future ESG goals. The Asset Owners Disclosure Project found that nearly half of the world's 500 biggest asset owners are taking no action on managing climate risk within their portfolios.[21]

Different interpretations of investors' duties co-exist

Some institutional investors remain reluctant to adapt their governance processes because they see a conflict between their responsibility to protect the financial interests of their beneficiaries and the consideration of ESG factors. ESG factors are typically perceived as "non-financial" – they do not (yet) have a market price – so it may be difficult for institutional investors to integrate ESG factors into conventional financial and risk models. They may also be perceived as long-term factors, whereas institutional investment mandates tend to focus on financial performance over a three or five year horizon.

Despite the long-term nature of their liabilities, institutional investors may measure investment performance over a relatively short time frame, because of the prevalence of quarterly reporting cycles for both investors and the companies in which they invest, and of mark-to-market evaluations (see Box 2 for a discussion of traditional portfolio management and ESG investing). Quarterly reporting habits are being challenged by companies such as Unilever[22] and investors such as the Environment Agency Pension Fund (EAPF),[23] who argue that excessive attention to short-term performance numbers diverts attention from long-term value creation.

21. Asset Owners Disclosure Project, Global Climate 500 Index 2016.

22. Unilever announced in 2011 that it would stop producing full quarterly reports, because hese encouraged management to work only towards the next set of numbers. Source: McKinsey Quarterly, May 2014.

23. The EAPF announced in 2016 that it would change its investment monitoring and move away from traditional benchmarking and quarterly reporting. Source: Pensions Expert, 18 April 2016.

Box 3. Traditional portfolio management and ESG integration

Traditional portfolio management is heavily influenced by Modern Portfolio Theory (MPT) and the Capital Asset Pricing Model (CAPM). These are founded on the concepts of market efficiency and mean variance portfolio optimisation: the market price of assets will adjust to reflect ESG risks, and investors should try to diversify away as much security-specific risk as possible within the portfolio in order to focus on market or systemic risk. In theory, therefore, institutional investors should not avoid individual securities with poor ESG characteristics on risk-reward grounds, because any potential valuation downside is already reflected in the price. Nor should they avoid whole sectors, such as tobacco or carbon, as this limits their ability to diversify the portfolio.

MPT is criticised on two grounds: firstly, that it is inadequate to the complexity of today's markets and secondly, that it leads to herding behaviour amongst financial market participants.[1] This makes MPT unsupportive of the integration of ESG factors into investment governance: while it does not necessarily rule out the use of ESG factors in financial modelling when it is anticipated that they will have a financial impact on an investment, it is ill-equipped to model the types of discontinuous risk associated with climate change (for example, a one-time change in policy on carbon pricing or subsidies to clean energy, that causes a sudden re-pricing of related assets); this situation is unlikely to improve because MPT is not forward looking so it discourages innovation in investment strategy.

Furthermore, it is argued that MPT has behavioural effects that discourage the consideration of ESG factors. MPT encourages a conservative approach to portfolio management that is likely to make investors focus on financial metrics at the expense of ESG factors. This is exacerbated by the frequent (if not necessarily correct) interpretation of "prudent investing" as meaning to act in the same way as the peer group, which makes investors cautious about challenging prevailing investment theory and practice.[2] This in turn encourages them to measure investment success by reference to peer practices and market benchmarks, which the Kay Review of UK Equity Markets and Long-Term Decision Making found to be one of the reasons why institutional investors often take too short-term a view of portfolio performance.[3]

Finally, Litterman (2011) argues that a CAPM approach will not lead to an optimal risk-return tradeoff, because markets are not in equilibrium. Carbon emissions are not priced, but there is a high probability that this will change and that the change will be sharp and sudden. Thus following a market benchmark will in fact increase your exposure to the risk of a sharp fall in the value of carbon emitters. This problem is exacerbated by the construction of market benchmarks – 2° (2015) estimate that the S&P500 has a 10% exposure to oil and gas compared to only a 3% share in the US economy.

[1] Rajan, A. (2012), Markowitz, H. (2006), Dawson, P. (2015).

[2] The standard under US law requires the "skill care and diligence of a like person engaged in a similar enterprise".

[3] Kay, J. (2012).

This decision is further complicated when the analysis of ESG risks and opportunities is expanded to cover different time horizons and perspectives. ESG-related risks may impact different cohorts of beneficiaries in different ways, while ESG-related benefits may be perceived differently by different groups of beneficiaries. For example, some investors believe that in future, beneficiaries will value non-monetary returns to their investments such as air quality, thus they have a responsibility to invest in such a way as to secure such benefits.[24] A 2015 YouGov survey for Good Money Week showed that 54% of Britons who hold investments want their pensions or savings to have some positive impact on the world and that almost a third of adults wanted a fossil-free option for their savings, rising to 46% among under-35s and 52% of millennials (18-24 years).[25] There is very little comparable research conducted by institutional investors themselves, in part because of logistical difficulties and concerns about how to frame the questions in order to gain useful, unambiguous answers (for example, would respondents give the same answers if they were informed that there might be a financial trade-off).

In addition, institutional investors may fear that there is a trade-off between the interests of today's and tomorrow's beneficiaries. For example, a pension fund trustee might believe that a company that is seeking new funding will create severe environmental damage in the long run, but that its shares will do very well in the short term. Should the investor buy the stock today in order to reap the benefits for current retirees, or decide not to help finance the company because of the threat to future retirees (today's contributors)?

However the substantial rise in assets managed according to responsible principles and the growing number of signatories to groups such as the PRI,[26] the IIGCC[27] and the Montreal Carbon Pledge[28] indicate that a growing number of institutional investors believe that integrating ESG factors is consistent with their responsibilities to their beneficiaries. This reflects a number of developments:

- Institutional investors appear to be increasingly convinced that ESG considerations can impact financial performance: in a recent survey by the CFA Institute, 73% of respondents took ESG issues into account in their investment analysis and of these, 63% said that they did so primarily to help manage investment risks.[29]

- Some leading institutional investors argue that there is no conflict between their responsibilities towards their beneficiaries and ethically-motivated investing, regardless of the financial impact: the Norwegian oil fund's decision to blacklist tobacco stocks cost it an estimated USD 1.9 billion in lost returns.30 This implies

24. Such a view is in keeping with the UN Brundtland Commission's definition of sustainable development, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

25. Source: Good Money Week "Make Our Money Count", www.goodmoneyweek.com/media/latest-news/make-our-money-count-public-demand-sustainable-pensions-savings-reaches-record.

26. The UN-supported Principles for Responsible Investment (PRI) Initiative is an international network of investors working together to put the six Principles for Responsible Investment into practice. The Principles have over 1,500 signatories managing USD59 trillion of assets.

27. The Institutional Investors Group on Climate Change which provides investors with a collaborative platform to encourage public policies, investment practices, and corporate behaviour that address long-term risks and opportunities associated with climate change.

28. The Montreal Carbon Pledge is a commitment to measure and publicly disclose on an annual basis the carbon footprint of clients' investment portfolios. Montreal Carbon Pledge, http://montrealpledge.org/.

29. CFA Institute (2015a).

30 . Financial Times, 18 April 2016. "Dumping tobacco cost Norwegian oil fund $1.9bn", https://next.ft.com/content/4b24e8a4-0304-11e6-99cb-83242733f755.

that "benefits" to beneficiaries can include non-financial returns such as good health or support for ethical positions.

- The "universal owner" approach (Box 3) adopted by a small number of large investors proposes that because institutional investors own such a large share of global markets,[31] they are both vulnerable to the overall health of the economy and have a big influence over it; they therefore have a duty to take long-term factors such as climate change into account in their investment decisions and invest in such a way as to reduce ESG-related risks.[32] The financial argument in support of this view is that it will be difficult for institutional investors to meet their obligations to beneficiaries unless there is a smooth transition to a low-carbon economy.

Box 4. The Universal Owner Approach

The "Universal Owner" model gives institutional investors an important role in contributing to ESG goals, especially climate-relate goals.

According to this approach, universal owners hold a "slice" of the whole global economy and market through their portfolios. They can therefore improve their long-term financial performance by acting in such a way as to encourage healthy and stable economies and markets. This will ensure that they can pay benefits to their beneficiaries but also provides collateral benefits to the wider community.

This model gives more weight than traditional portfolio management to inter-generational concerns and the sustainability of the economy in the future as factors that will affect future risk adjusted returns.[1] It also brings in consideration of non-financial factors.

Recent research suggests that the potential long-term economic cost of climate risks in particular could be high, with a knock-on effect on market returns. Institutional portfolios are especially susceptible given that the bulk of pension fund returns is explained by beta (participating in market movements) rather than alpha (active investment choices).[2]

[1] In the interviews conducted with pension funds and asset managers, one pension fund manager said that it was important not to erode members' future quality of life through the way the fund generated returns today.

[2] Thomas, A. and I. Tonks (2000); Ibbotson, R. (2010).

By emphasising the public role of institutional investors in allocating capital in such a way as to encourage healthy economies and well-functioning markets (in order to benefit from good beta performance), the universal owner approach suggests that institutional investors have a responsibility to integrate ESG factors. It implies, for example, that institutional investors should take a more complete view of the real price of externalities: under traditional financial metrics, a company can flatter its earnings by externalising its environmental costs; from a universal owner perspective this simply passes on the costs to other companies in the portfolio, so overall portfolio earnings suffer. The investment policy of the UK Environment Agency Pension Fund is built upon this approach (Box 4).

31. The weighted average asset-to-GDP ratio for pension funds is over 80% in OECD countries, OECD (2015).

32. This approach was first mentioned in Monks, R. and N. Minow, "Corporate Governance", Blackwell, 1995.

Box 5. Environment Agency Pension Fund climate change investment beliefs

The EAPF (a UK Local Government Pension Scheme) has assets of over GBP 2.9 billion. It aims to ensure that its investment portfolio and processes are compatible with the 2°C goal.

"We believe that

- Climate change presents a **systemic risk** to the ecological, societal and financial stability of every economy and country on the planet, with the potential to impact our members, employers and all our holdings in the portfolio.
- Climate change is a **long term material financial risk** for the Fund, and therefore will impact our members, employers and all our holdings in the portfolio.
- Considering the impacts of climate change is both our **legal duty** and is entirely consistent with **securing the long term returns** of the Fund and is therefore acting in the best long term interests of our members.
- **Selective risk-based disinvestment** is appropriate but **engagement for change** is an essential component in order to move to a low carbon economy."

Source : EAPF "Policy to address the impacts of climate change", October 2015

What different interpretations mean for ESG integration

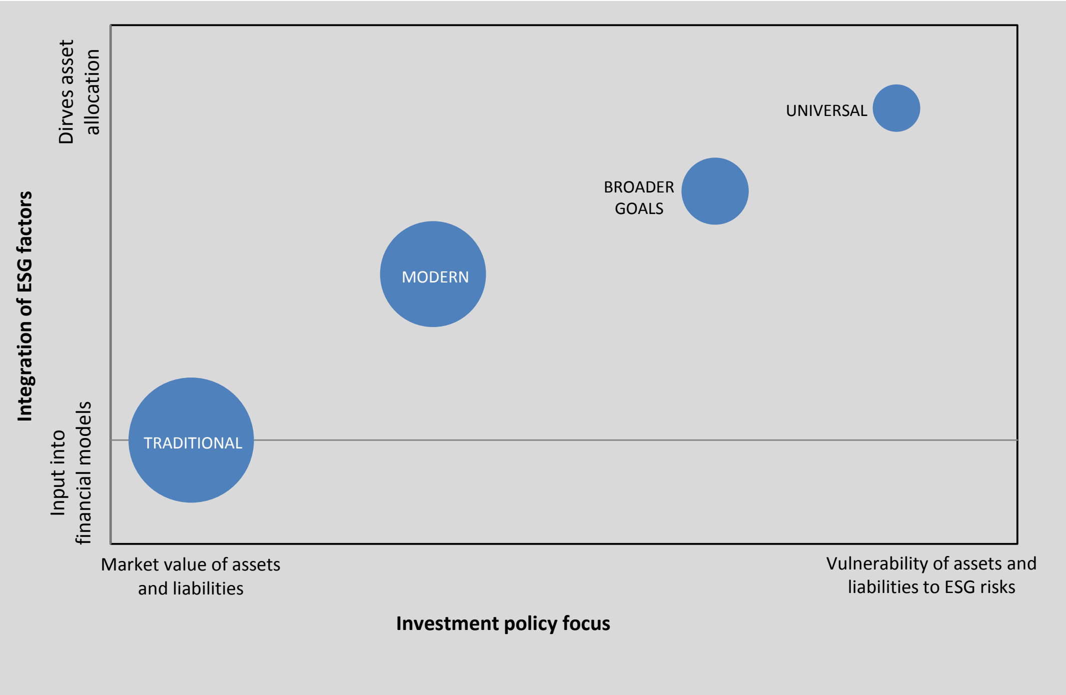
Whether or not institutional investors decide to integrate ESG factors into their investment governance will therefore depend on the extent to which they believe that these factors have a material impact on their ability to meet their liabilities now and in the future. Figure 2 summarises the range of different interpretations of investors' duties and what they imply for the integration of ESG factors, by classifying institutional investors into four types according to their investment policy focus (the x-axis) and how they integrate ESG factors into their investment portfolio decisions (y-axis):

1. "Traditional investors", who believe that ESG factors are not relevant to their ability to meet their liabilities – or may even harm financial performance – will not integrate ESG factors. This implies that they believe that all ESG risks and opportunities are already priced into any potential investment, in accordance with MPT;
2. "Modern investors", who believe that pricing inefficiencies exist such that ESG integration can enhance their analytical capabilities, will integrate ESG factors to the extent that they impact corporate financial valuations and so portfolio returns;
3. "Broader goals investors", who believe – like "modern investors" – that ESG factors are relevant to portfolio performance, but also feel that their duties to their beneficiaries include consideration of their long-term financial and non-financial well-being. They will accept some financial sacrifice in order to support ESG-related beliefs (such as excluding tobacco stocks);
4. "Universal investors", who believe that they have a financial responsibility to support global economic health and that ESG factors are drivers of future systemic risk, will fully integrate ESG factors into their investment governance. They will align their portfolios with ESG goals, although they do not consider these to be non-financial goals (as for "broader goals investors") because of the impact of ESG factors on both macro- economic performance and the financial health of the corporate sector. Universal investors often attach particular

importance to environmental factors and seek out investments that have a positive environmental impact.

The traditional interpretation remains influential – there are few institutional investors in the top right quadrant of Figure 1. Asset managers report that increasing numbers of their clients are moving from a "traditional" to a "modern" approach, driven by greater awareness of ESG investment strategies and peer pressure in particular.[33] However this evolution is not universal: a survey of more than 100 institutional investors by Hermes Investment Management found that nearly half of respondents believed that pension funds should focus exclusively on maximising financial benefits to beneficiaries while just over a third believed that there should be more emphasis on quality of life factors,[34] and in a recent poll by Professional Pensions in the UK, 53% of respondents did not see climate change as a financially material risk.[35]

Figure 2. Interpretation of investors' duties and integration of ESG factors



Several institutional investors reported that there is a behavioural element that is preventing more asset owners from integrating ESG factors in their governance, as ESG analysis involves asking different kinds of questions from traditional financial analysis. Institutional investors tend to be conservative and it is felt that investment consultants

33. The expectation that the private sector avoids and addresses adverse impacts and contributes to sustainable development has been recognised by international instruments such as the OECD Guidelines for Multinational Enterprises (2011) and the UN Guiding Principles for Business and Human Rights (2011). The OECD and UN have clarified that these expectations extend to institutional investors.

34. Hermes (2015)

35. Professional Pensions 24 August 2016, www.professionalpensions.com/professional-pensions/news/2468851/climate-change-is-overblown-nonsense-and-not-a-material-risk-says-industry.

continue to encourage a more cautious approach; training and other professional requirements do not compensate for this. This in turn reduces the incentive for asset managers to offer ESG investment products and solutions to their clients.

Universal investors who align their portfolios with climate goals argue that they would be failing in their duties if they did not do so, because the potential impact of climate change on portfolio risk and return and on the future wellbeing of beneficiaries is so severe. An objection to this argument is that this approach will also generate non-financial returns to beneficiaries and potentially collateral benefits to the wider community, such as clean air. Non-financial benefits and benefits for non-beneficiaries both run contrary to the traditional and modern interpretations of investors' obligations.

It is important to note that institutional investors who integrate ESG factors to a greater or lesser extent generally still prioritise beneficiaries' financial returns. A large UK DB scheme, which has an explicit social mission and a stated investment view that "good ESG is good business", nevertheless felt that it could not sacrifice financial returns in order to invest in a company that performed particularly well on social criteria. Another, similar scheme which has a "responsible investment" policy was also clear that a good ESG score would not outweigh a poor financial score when making investment decisions, as their fiduciary duty was "to pay pensions".

It is also possible to make a business case for the "broader goals" approach. For example, while the Norwegian oil fund decided to divest from tobacco stocks on ethical grounds despite the financial consequences, other institutional investors invoked the duty of care in reaching the same decision.[36] CalPERS, which divested from tobacco in 2001, did so at a time when tobacco companies were under attack in the press and in the courts, which could reasonably have been expected to hurt share price performance.[37] New Zealand's sovereign wealth fund reasoned that excluding tobacco stocks from its investable universe did not create undue risk relative to the broader market.[38] Dutch pension provider and asset manager APG illustrates how such an approach reconciles financial and non-financial benefits (Box 5).

Box 6. APG: reconciling different interpretations of investors' obligations

APG (Netherlands) manages over EUR 400 billion of pension assets. Its investment policy reconciles its duty to realise financial returns with elements of the universal owner approach.

"The way APG manages its clients' pension assets is about more than realizing financial gains. On behalf of our clients we implement the Responsible Investment Policy. Therefore we take account of environmental, social and governance (ESG) factors as an integral part of the investment process in order to:

1. contribute to risk-adjusted financial returns
2. to demonstrate social responsibility and
3. contribute to the integrity of financial markets."

Source : APG website, accessed on 6 May 2016

36. See footnote 30.
37. Sacramento Bee, 4 April 2016. "CalPERS rethinks ban on tobacco stocks", www.sacbee.com/news/business/article69836422.html?utm_source=dlvr.it&ut.
38. Financial Times, *ibid*.

Table 4 shows how the different investor types might approach ESG integration in their investment policy and portfolio construction, and what this might mean for alignment with prudential standards.

Summary and policy implications

Institutional investors interpret their responsibilities towards their members and beneficiaries in different ways and have differing views about the portfolio implications of ESG factors. While "traditional investors" believe that their obligations are purely financial and that ESG integration would not improve their capacity to meet these obligations, "universal investors" argue that their ongoing ability to pay financial benefits is inherently tied to ESG issues. Policymakers may wish to engage with different investors in different ways to ensure that their approach to ESG integration is consistent with prudential standards and reflects the investor's capacity for ESG integration.

There are behavioural barriers to the integration of ESG factors. Many stakeholders feel that ESG investing is to a large extent about "changing mental models rather than financial models" and "asking the right questions". Institutional investors, especially those with fiduciary status, and their advisors tend to be cautious. Creating greater transparency around what other institutional investors are doing in terms of ESG integration might accelerate ESG integration, as might building more evidence about the link between ESG analysis and risk-adjusted portfolio returns.

Regulation to increase ESG-related disclosure by institutional investors could help this process, although care would be needed to ensure that such reporting was not too burdensome for investors while producing useful information that could be validated by regulators.

Table 4. Investor types, prudential standards, ESG investment

Prudential Standard	Traditional investor	Modern investor	Broader goals investor	Universal investor
Investing prudently	No integration. No change to securities valuation models or portfolio construction. Limit deviation from market benchmarks. *Prudent if market already correctly prices ESG risks.*	Adapt securities valuation models to include ESG factors. Limit deviation from market benchmarks. *Prudent if ESG factors provide additional insight into corporate value and this is recognised by the market.*	Adapt securities valuation models to include ESG factors. Deviate from market benchmarks where they conflict with broader goals. *Prudent if ESG factors provide additional insight into corporate value and this is recognised by the market, and if tracking error to benchmarks kept within "reasonable" bounds.*	Adapt securities valuation and macro-economic models to include ESG factors. *Prudent if ESG factors are main drivers of portfolio risk-adjusted returns over a relevant time horizon.*
Acting in the best/sole interests of beneficiaries and Avoiding conflicts of interest	No integration. Focus on financial benefits. *Aligned with prudential standards if delivers appropriate risk-adjusted returns over investment horizons of different cohorts.*	Focus on financial benefits, assumption that ESG integration will enhance risk-adjusted returns. *Aligned with prudential standards if delivers appropriate risk-adjusted returns over investment horizons of different cohorts.*	Generate financial benefits, assumption that ESG integration will enhance risk-adjusted returns. Also seek non-financial benefits/broader goals such as no tobacco or no fossil fuels. *May conflict with best/sole interest if broader goals compromise financial benefits or do not reflect views of beneficiaries – however to date no challenge to policies of leading ESG investors.*	Generate financial benefits, assumption that ESG integration will enhance risk-adjusted returns. *Investment strategy will generate non-financial benefits for beneficiaries; and for non-beneficiaries. These should not conflict with best/sole interest standard, to the extent that they are integral to generating financial benefits, and that collateral benefits to non-beneficiaries do not compromise benefits to beneficiaries.*
Taking a long-term view	Assets should be managed in such a way as to meet liabilities. *Aligned with prudential standards if liabilities unaffected by ESG factors.*	Assets should be managed in such a way as to meet liabilities. *Aligned with prudential standards if liabilities unaffected by ESG factors.*	Meet liabilities but also consider potential financial and non-financial risks beyond the horizon of a typical investment strategy. *Aligned with prudential standards if financial liabilities are met.*	Meet liabilities but also consider potential financial and non-financial risks beyond the horizon of a typical investment strategy. *Aligned with prudential standards if financial liabilities are met.*
Diversifying the portfolio	Build a portfolio that reflects underlying market structure in order to diversify away idiosyncratic risk. *Aligned with prudential standards if ESG factors do not pose undiversifiable risks to the portfolio.*	Build a portfolio that reflects underlying market structure in order to diversify away idiosyncratic risk. *Aligned with prudential standards if ESG factors do not pose undiversifiable risks to the portfolio.*	Limit portfolio exposure to certain companies that are inconsistent with broader goals. *Limits ability to diversify the portfolio, but resulting exposure may be partially offset by other investment strategies.*	Portfolio construction recognises long term ESG goals, such as limiting global warming. Emphasis on ESG risks at the corporate and macro-economic levels rather than on market risk. *Approach considers that portfolio diversification is not adequate risk control.*

Section III: How ESG factors influence investment performance

ESG factors can influence investment returns through their impact on the performance of portfolio holdings and through the risks they pose to economic growth and financial stability. For portfolio holdings, they provide signals about the management strength and business strategy of investee companies that are not picked up by typical financial models based on profit and loss or balance sheet analysis. At the macro level, they highlight risks that are outside the analytical framework and possibly the time horizon of typical financial models.

There is growing consensus that ESG factors have a material impact on corporate financial performance. Initial research suggests that financial markets reward good ESG performance by corporates, while poor ESG scores are an indicator of increased idiosyncratic risk, because they imply that the company is less efficiently managed than its peers. This supports the "modern" interpretation of institutional investors' duties and implies that it would be in the interests of institutional investors to develop the capacity to integrate ESG factors into their bottom-up securities valuation models. During interviews, one large asset manager suggested that it was investing in a new team to integrate ESG factors into financial analysis in order to "enhance performance and not ignore some significant risks that may be there", and gave as an example the pressure of ever-tighter emissions standards on demand for catalytic converters and the potential for disruptive technology in this sector.

In addition, it is increasingly argued that integrating ESG factors – especially climate change factors – can help institutional investors avoid significant shocks to their portfolios related to physical and transition risks. This view offers support to both the broader goals investor and the universal investor interpretations of investors' duties, and implies that institutional investors must adjust their view of how ESG factors will impact markets in the short- and long-terms, and integrate ESG risks into their overall portfolio design. For example, the investment horizon of a typical institutional investor is likely to stretch for several decades, making them vulnerable to both abrupt changes in policy (transition risks) and long term changes in weather patterns (physical risks).

It should be noted that the lack of standardised definitions and models means that the empirical research cited below uses a variety of different data in assessing the impact of ESG factors on investment performance.

ESG factors and corporate financial performance

Many practitioners argue that good ESG performance is a sign of efficiency and that companies that perform well on ESG criteria will also perform well on operational and financial criteria, because they are attuned to changing market conditions, benefit from lower production costs and have motivated employees.

This view is increasingly supported by academic research. Cai and He (2014) find a positive correlation between corporate environmental responsibility and long-term stock performance. Moreover, their study indicates that outperformance starts after three years and persists – this would suggest that good environmental practices create value, so that incorporating environmental factors into investment decisions can help generate returns by identifying companies whose environmental strengths are not yet fully valued by the market. Analysis from HSBC suggests that companies with improving ESG scores outperform the broader equity market, especially in emerging markets.[39] MSCI data suggests that companies with more women on their boards generate better return on equity.[40] Morningstar found that the MSCI KLD 400 Social Index, which excludes "sin stocks" such as alcohol and gambling companies and screens for ESG criteria, outperformed the S&P500 by 0.5% annualised from its inception in 1990 to 2014, with slightly higher volatility due to the lower average market capitalisation of its constituents.[41] Krüger (2015) concludes from a study of firms listed on the Main Market of the London Stock Exchange following the introduction of mandatory GHG emissions reporting that greater transparency increases corporate value, thanks to increased stock liquidity and lower information asymmetries.

Attig et al (2013) find that there is a robust relationship between corporate social responsibility (CSR) and credit ratings, such that firms with good CSR scores obtain lower financing costs. This is despite the fact that CSR does not usually have an immediate positive impact on profitability and may indeed incur costs. They conclude that CSR improves a firm's creditworthiness in three ways: improving relations with stakeholders; signalling operational and financial efficiency; and reducing the risk of bad behaviour. Eccles et al. (2012) tracked the performance of 90 "High Sustainability" companies – those that had adopted a substantial number of strategic environmental and social policies – for 18 years and found that they outperformed the control group on both stock market and accounting performance (ratios such as Return on Equity, Return on Assets) after adjusting for differences in the risk profiles of the two groups.

Hoepner et al (2013) conducted a study that took into account the investment constraints of a relatively large and conservatively managed pension fund portfolio and found that incorporating corporate environmental responsibility criteria in portfolio construction had no detrimental effect on returns and helped to dampen downside volatility. However, this study does not take account of the costs of implementing an ESG investment strategy, arguing that data can be acquired cheaply and that specialised ESG mutual funds have similar expense ratios to non-specialised funds. Feedback from a number of interviewees suggests that costs may be relatively high, however, if institutional investors have to encourage behavioural change among their portfolio managers or recruit new teams to undertake ESG analysis.

Both the positive relationship between ESG factors and financial returns, and the possible offsetting of some of these returns by the additional costs of ESG investing, are supported by a meta-analysis conducted by Friede et al. (2015) of over 2000 empirical studies published since the 1970s. They found that in the majority of cases there was a positive relationship between ESG criteria and corporate financial performance, with very few instances of a negative relationship. The financial impact of ESG factors was less marked in studies of portfolios, which could be attributed to the costs of trading or other portfolio construction constraints; these might help to explain why some institutional investors are slow to integrate ESG factors.

Clark et al. (2015) conclude that good ESG performance lowers both the cost of equity and the cost of debt, with an emphasis on the impact of good corporate governance. Most of the institutional investors interviewed believed that governance factors were most important in ESG analysis, because weak governance was often a

39. Source: webcast, 20 April 2016.

40. Source: Financial Times, 9 May 2016.

41. MSCI KLD400 Social Index, http://news.morningstar.com/articlenet/article.aspx?id=679225.

signal that there would be environmental and/or social problems as well, such as in the cases of the BP Deepwater Horizon disaster and the VW emissions scandal. Their own back testing and anecdotal evidence supported this view, while their stakeholders more often expressed concern about governance factors than about environmental or social factors. Many institutional investors have an established policy of engagement with investee companies on governance issues (this is an option for equity investors rather than bond holders). In addition, governance issues are similar across different sectors and companies and so are easier for institutional investors to address than environmental and social factors. An example that was given was on executive pay structures – there are established norms for "good practice" in executive pay that are applicable to most types of business, whereas an environmental issue such as carbon intensity will have very different impact on the long-term valuation of a utility company compared to a professional services firm.

Not all academic research points to such positive relationships between ESG factors and long-term returns. A number of surveys – especially those published between 2000 and 2010 – find that the data is inconclusive.[42] Eccles and Serafeim (2013) suggest that there is a negative relationship between a firm's ESG performance and its financial performance because of the costs of taking action such as voluntarily reducing emissions. They argue that the market will punish such activity and will only reward companies that prioritise the most material ESG factors and come up with innovative approaches to address them. This would further increase the cost of implementing an ESG strategy, as detailed analysis would be needed to determine which companies would be the "ESG winners".

Some practitioners, too, do not find a strong link between ESG signals and share price performance. BlackRock, the world's biggest asset manager, does not find evidence of a climate change risk premium for equities, but acknowledges that this does not mean that there will not be one in the future.[43] A USD 60 billion asset manager with a largely quantitative investment process reported that while companies that scored well on ESG criteria tended to be more profitable and grow faster than their peers and that this was quickly rewarded by the market, there was not yet a reliable quantitative signal that the market punished weak ESG performers.

Climate change and risks to institutional portfolios

Recent research has considered the heightened risks to institutional portfolios associated with environmental factors. Mark Carney, Governor of the Bank of England, emphasised the risks to financial stability caused by the physical risks, liability risks and transition risks linked to climate change (outlined in Table 5) and highlighted the potential losses that would be associated with stranded assets. Asset stranding could lead to the valuations of companies in the natural resource and extraction sectors being permanently impaired; the business models of utility companies and other industries that rely on them could also be significantly altered.[44] A disorderly adjustment in asset prices could lead to corporate defaults and potentially trigger further financial instability.

42. See examples in Crifo and Sinclair-Desgangné (2013).

43. Blackrock Investment Institute, "The Price of Climate Change", October 2015

44. "Breaking the Tragedy of the Horizon", speech given by Mark Carney, 29 September 2015, available at www.bankofengland.co.uk .

Table 5. Risks to financial stability from climate change

Type of Risk	Description	Portfolio impact
Physical risks	Damage to property or trade from climate and weather-related events	Weakened balance sheet and lost earnings of portfolio holdings; uncertainty and loss of investor confidence leading to increased cost of funding new investments.
Liability risks	Compensation claims by victims of climate change	Big fines levied on certain companies or sectors. Potential direct risk to institutional investors who have financed such activity.
Transition risks	Changes in policy, technology and physical risks lead to the reassessment of the value of a large range of assets	Disruption of business models. Disorderly re-pricing of whole sectors

Source: Carney, *op cit* and OECD

CISL (2015) calculate that the long-term impact of climate change on the performance of a balanced portfolio in a "no mitigation" scenario (i.e. no special efforts are made to contain environmental challenges) is -30% in nominal terms, compared to +17% in a 2° scenario i.e. policies are implemented to restrict the increase in global temperature to 2°). Importantly, they warn that such risks are not just long-term concerns related to the physical effects of climate change. There is also a danger that financial actors could anticipate future climate-related risks and react by abruptly changing their portfolio strategy. This could lead to losses of up to 45% for equity portfolios and 23% for fixed income portfolios. Only around half of the equity losses could be hedged through the financial markets, so investors risk seeing the value of their portfolios reduced by over 20%. Mercer (2015) concludes that a 2°C scenario would create very challenging conditions for investors, in terms of asset allocation decisions and performance variations.

Efforts to build the effects of physical, liability and transitional risks into business models are growing. The California Department of Insurance requires insurers to report on their approach to such risks (Box 6). Standard and Poor's highlight the potential impact of climate change on insurers and asset managers through both portfolio and operational impacts (Figure 3), including:[45]

- Changing attitudes leading to increased regulatory or fiscal pressure on investors to finance the transition to a low carbon economy
- Reputational risk and increased litigation if institutional investors are held to be complicit in financing an ESG risk, or if clients believe that they were not sufficiently informed of the ESG profile of their portfolios
- Higher claims for insurers arising from extreme weather events.
- Sharp deterioration in overall macro and financial environment.

45 Climate Change-Related Legal and Regulatory Threats Should Spur Financial Service Providers to Action, 4 May 2016, www.globalcreditportal.com/ratingsdirect/renderArticle.do?articleId=1628260&SctArtId=386349&.

Box 7. California Department of Insurance Climate Risk Disclosure Survey Guidance, Reporting Year 2015

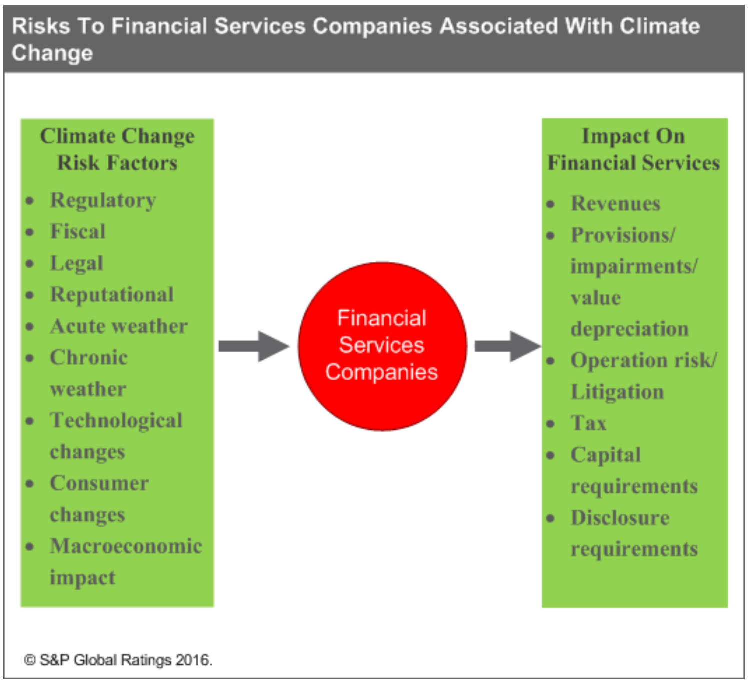
Question 5: Has the company considered the impact of climate change on its investment portfolio? Has it altered its investment strategy in response to these considerations? If so, please summarize steps you have taken.

Questions to consider include:

- Does the company consider regulatory, physical, litigation and competitiveness-related climate risks, among others, when assessing investments?
- Has the company considered the implications of climate change for all of its investment classes, e.g. equities, fixed income, infrastructure, real estate?
- Does the insurer use a shadow price for carbon when considering investments in heavy emitting industries in markets where carbon is either currently regulated or is likely to be regulated in the future?
- Does the insurer factor the physical risks of climate change (water scarcity, extreme events, weather variability) into security analysis or portfolio construction? If so, for what asset classes and issuers (corporate, sovereign, municipal)?
- How does climate change rank compared to other risk drivers, given the insurer's asset liability matching strategy and investment duration?
- Does the insurer have a system in place to manage correlated climate risks between its underwriting and investments?

Source: California Department of Insurance

Figure 3. Standard & Poor's assessment of climate change risks to financial services companies



Source: S&P Global Credit Portal

Looking at the potential impact of ESG factors on the portfolio as a whole, most models focus on the scale of environmental threats. These could create transition risks in particular that are quite unlike past risks in terms of value and timing. If so, institutional investors should also consider these risks to their financial performance. Furthermore, since the portfolio impact of a "good" climate outcome is so much better than the portfolio impact of a "bad" climate outcome, institutional investors arguably have a strong incentive to orient their portfolios to help bring about the preferred outcome, in order to be able to continue to provide benefits to their beneficiaries in the future (assuming that such a portfolio tilt did not disadvantage beneficiaries in the event that the "bad" outcome was realised).

There is a possibility that institutional investors will tend to consider both transition risks and physical risks as beyond their investment horizon, because of the financial sector's emphasis on short-term results. This is true even of long-term investors such as pension funds. The longer the investor's time horizon, the less likely it is that there will be a conflict between ESG integration and investment returns, providing additional support for existing efforts by regulators in several jurisdictions to encourage long-term investing.

Summary and policy implications

The evidence reviewed suggests that ESG factors may have a material financial impact and so should are relevant to institutional investors as they build their portfolios. In particular, ESG factors are a potential source of top-down risk; policymakers might wish to encourage efforts to develop new types of models that would enable institutional investors to include ESG risks in stress tests and own risk and solvency assessments.

From a bottom-up perspective, ESG factors appear to have at best a positive relationship with corporate financial performance and at worst a neutral relationship. If so, institutional investors should seek ways to integrate ESG factors into the valuation models used to select individual securities in order to fulfil their financial responsibilities towards their beneficiaries. To do this, investors would benefit from better data availability and consistency, and policymakers might consider encouraging the adoption of voluntary corporate reporting standards.

In both cases, integration is hampered by the lack of commonly-accepted analytical methods. Regulators could play a role in encouraging efforts by institutional investors to develop new techniques for understanding and quantifying the nature of ESG risks and especially climate-related risks, which differ in both magnitude and uncertainty from typical financial analysis. For example, they could help to bring in other experts, such as academics, to address this problem.

There is also considerable uncertainty about the policy paths that will be followed to achieve national and international climate goals, making it particularly difficult to model physical risks and transition risks. Greater clarity about policy could help investors form a considered view about the likelihood and consequences of different climate scenarios, and build these views into their investment governance.

Section IV: How institutional investors integrate ESG factors

An increasing number of ESG investment options are available to non-specialist investors but they face technical and operational difficulties in selecting, implementing and measuring the effect of ESG strategies.

There is no one single ESG approach to investment governance. Institutional investors employ a range of different practices, including integrating ESG factors in portfolio analysis, setting out a statement of ESG principles, attempts to automate ESG signals in trading and risk platforms, taking a liability-driven approach to ESG factors and aligning the portfolio with global climate goals.

The size and resources of the institutional investor tend to have a big influence on the approach taken (universal investors tend to have in-house investment experts), but the primary driver is concern about ESG risks. The EAPF requires its asset managers to integrate a climate risk assessment into all portfolio positions, to promote climate change resilience and to provide evidence of this. It will invest in carbon-intensive companies but has a policy of active engagement with them and it encourages investment in companies aligned with the 2°C target.

There is also some confusion between ESG analysis (considering ESG factors to help to determine the value of a security) and types of ethically motivated investing (considering ESG factors to see if a security is consistent with a set of values) such as "socially responsible investing" or "impact investing" (Box 7). For example, a primer from the Institute of International Finance considers the "integration of ESG factors" to be one approach to SRI,[46] while Sandberg et al. (2009) point out that the definition of SRI itself is ambiguous. Eccles and Viviers (2011) found that the names given to different ESG approaches and how "ethical" a signal these names sent were influenced by a number of different variables, such as underlying investment strategy, geography and date.

Box 8. SRI, Ethical and Impact Investing

Socially responsible investing, ethical and impact investing explicitly recognise a cause that the investor wishes to support through portfolio construction. Investors make investment decisions based primarily on the nature of the business that a company conducts and the manner in which it conducts it, rather than on the financial outcomes that the business generates.

Examples include refusing to invest in industries such as armaments manufacture, or investing to support specific goals such as social housing.

SRI, ethical and impact investing do not necessarily generate inferior financial returns, but it is likely that lower financial returns will be tolerated and that investors will have a relatively long time horizon.

46. IIF (2015)

This lack of clarity, and in particular any lingering suspicion that ESG integration is motivated by ethical or moral concerns rather than by financial concerns, has probably delayed the integration of ESG factors in investment governance. This difficulty is compounded by the speed at which new ESG investment strategies and practical tools to implement them are developing, making it harder for institutional investors to select the "right" strategy.

ESG investment strategies

There are several different investment strategies available to enable institutional investors to take account of ESG factors in their portfolio construction.

- Screening: exclusionary screening is the most widely used form of ESG investing. It involves blacklisting sectors or companies based on one or more ESG characteristics. In Belgium, for example, investors are prohibited from investing in any company that is connected with the production, sale or use of anti-personnel mines and cluster bombs. Exclusionary screening is cheap and easy to implement.
- General ESG integration: the systematic and explicit inclusion of ESG risks and opportunities in investment analysis.47 This can be a more expensive strategy, as investors must either hire their own analysts or buy in the necessary data.
- Best-in-class: best-in-class investing is a form of inclusionary screening. Investors do not exclude any sectors or industries from the investment universe, but only include in their portfolios the companies within each sector or industry that perform best on ESG criteria. A more targeted version of best-in-class investing is to exclude any companies that score below a pre-determined hurdle, regardless of what sector they are in.
- Thematic investment: this involves selecting an ESG-related theme (such as water supply) and building a specialised portfolio of related securities.
- Divestment: divestment is a negative version of thematic investment, whereby investors sell all of their holdings in a particular sector or industry. A number of institutional investors have sold out of coal stocks in the past few years, because of the high environmental risks faced by the coal industry. It could also be considered to be ex-post screening.
- Engagement: engagement, or active ownership, is a strategy whereby institutional investors attempt to use their ownership stake in a company to influence its strategy. It can be an alternative to divestment: rather than selling out of a company, investors retain their share ownership and attempt to persuade management to adopt better ESG policies. Investors may have their own corporate governance specialists to engage with company boards or use a proxy service. (This strategy is available to equity investors, not bond holders).

General ESG integration is increasingly common but by no means universally applied. Institutional investors cited a number of difficulties related to identifying and valuing ESG risks and opportunities that have slowed down the adoption of ESG integration; in particular data availability, valuation techniques and modelling constraints.

47. Definition based on PRI (2015).

However they felt that ESG integration is valuable because of the transparency it provides about the ESG characteristics of the portfolio, which then enabled investors to decide whether they wanted to take a more active stance.

Screening, divestment and thematic investment strategies involve "tilting" the portfolio towards desired ESG characteristics by overweighting or underweighting sectors or companies that perform well or badly respectively in those areas. Institutional investors may feel that this conflicts with their obligation to invest prudently, as it involves straying from established market benchmarks. Northern Trust describes the difficulty of "translating ESG policies and guidelines in multi-asset-classes investment portfolios without triggering additional risks, such as sector mis-weights, tracking error, volatility et cetera".[48] This is particularly problematic given that many institutional investors and asset managers continue to monitor their relative performance on a monthly basis.

An example is shown in Figure 4, which illustrates the sector breakdown of MSCI All Country World Index (a common benchmark for global equity funds) by market capitalisation and by direct and indirect carbon emissions. The utilities, energy and materials sectors account for less than 15% of the index by economic weight but for over 75% of emissions. Employing one of the strategies described above, an investor who wanted to reduce the carbon footprint of a portfolio benchmarked to the MSCI ACWI could

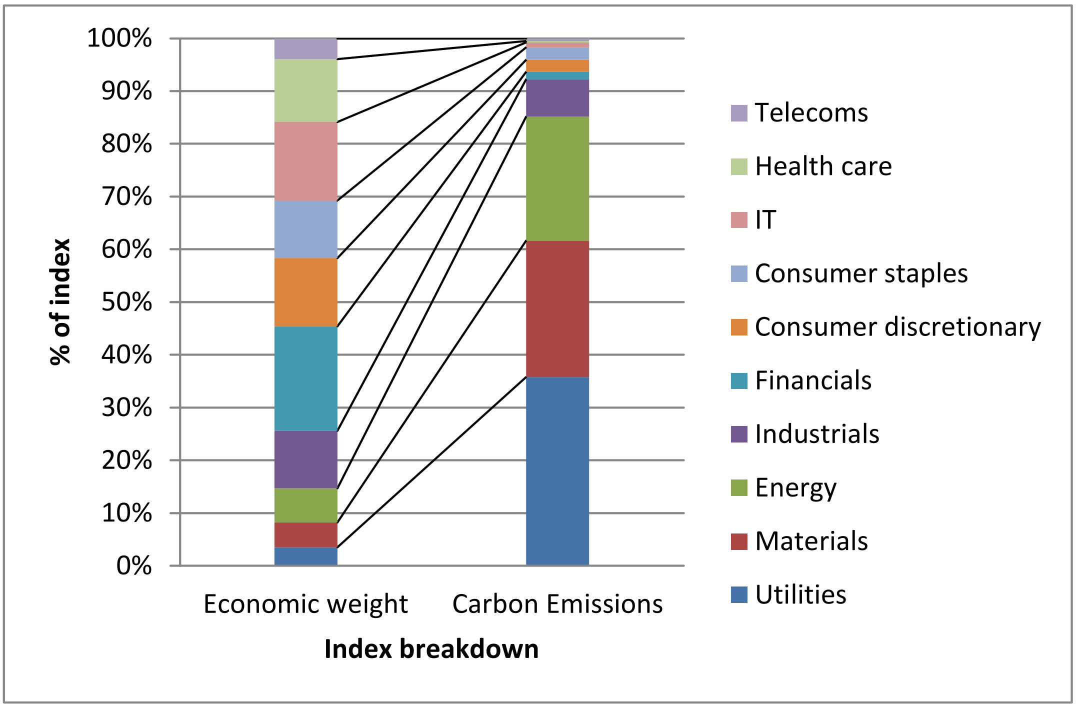
- Exclude: by excluding the three most polluting sectors, the investor would run a relatively large tracking error against the overall market, taking a risk of not capturing the full market beta. Most institutional investors are reluctant to accept double-digit tracking errors in traditional equity funds because of the risk of underperforming the benchmark. It is not clear that divestment – which could be considered a retroactive form of exclusion – is consistent with the latest ERISA rulings.[49]

- Invest in best-in-class companies: a best-in-class approach reduces the short-term risk of portfolio tracking error. One large French pension fund argued that their best-in-class approach eliminated around 40% of the equity universe (much of which would have been eliminated on financial grounds even without taking ESG factors into account), but resulted in a tracking error of only around 2%. However, best-in-class investors are still exposed to companies that have a poor ESG profile, which may compromise longer-term climate goals.

48. Northern Trust, Insights on ESG investing, 2015, available at www.northerntrust.com, accessed 7 May 2016.

49. Divestment could cause financial loss, for example if an investor holds bonds in a coal company that is meeting its debt service and principal payments, but whose bonds trade at well below carrying value. Liquidating the holding would lead to a loss compared to holding the bonds to maturity.

Figure 4. Market cap versus carbon emissions



Source: OECD calculations based on BNY Mellon Capital Management and MSCI – data from Q2 2015

There are compromises involved in other ESG strategies too. Vanguard, a major asset manager, believes that engagement will achieve ESG goals more effectively than divestment, as divestment will not create sufficient incentives for firms to change their behaviour. At worst, companies will be taken private resulting in the loss of transparency about their activities and of any chance to influence them.[50] For example, investors would lose the possibility to engage with coal companies about investing in carbon capture technologies.

A counter-argument is that some companies simply will not engage, or are in industries that do not have the technical or financial capacity to change. Harmes (2011) is sceptical that investor activism will create a sufficient financial incentive for investee companies to change their behaviour. He argues that because climate change is an externality rather than an information asymmetry, disclosure alone cannot correct it, while there is a danger that investors will sign up to industry-wide ESG initiatives as a low-cost way of avoiding reputational risk. He also points out that structural pressures on investors to deliver short-term performance as well as the rise of passive investing weaken the potential for institutional investors to influence corporate governance standards.

Recently, customised indices and "low carbon" investment products have been developed that aim to help investors achieve market returns while reducing exposure to specific ESG risks or to tilting portfolios towards one or more ESG factor that is expected to lead to outperformance. Examples include the S&P Long-Term Value Creation Global

50. Source: Financial Times, 9 May 2016, [Vanguard chief criticises fossil fuel divestment campaigns]

Index, EDHEC's smart beta indices and the MSCI's low-carbon version of its All-Country World Index. BNY Mellon launched a "Carbon Efficiency Strategy" in 2014. Andersson et al (2016) have constructed an equity index with half the carbon footprint of its benchmark but extremely low tracking error, designed to give passive investors a "free option on carbon" by enabling them to hedge the risk of an abrupt change in asset values at an uncertain future date, without sacrificing market gains up until that date. A similar methodology has been applied to the corporate bond market.[51] These products have yet to be tested across a full business cycle but they could provide a low cost way for investors to hedge transition risks. New investment vehicles that combine environmental and financial criteria are also available, such as green bonds, although the supply of these vehicles is limited for now.

ESG investing is most advanced for equity strategies, but is increasingly applied to other asset classes. Ratings agencies already include some ESG analysis in sovereign and corporate bond ratings. Physical assets such as real estate can be evaluated on environmental criteria. In the non-quoted sector, private equity investors might ask portfolio companies to implement ESG-related operational improvements and measure their impact; one such investor indicated that an important part of its pre-investment due diligence was to research potential controversies linked to portfolio companies' products and practices.

ESG analysis and financial modelling

ESG factors can have a material impact on corporate financial performance. Examples of such impacts are given in Table 6.

Table 6. Examples of ESG issues and their effect on company value

Environmental	Social	Governance
Issue: Climate change and carbon emissions Valuation risk: future regulation and taxation	Issue: Community relations Valuation risk: failure to anticipate social trends e.g. food company fails to innovate in line with concerns about obesity	Issue: Executive pay Valuation risk: inappropriate reward structure leads to poor long-term decisions
Issue: Air and water pollution Valuation risk: fines	Issue: Labour standards Valuation risk: Reputational damage	Issue: Disclosure Valuation risk: litigation risk if fail to disclose known ESG risks
Issue: Waste management Valuation risk: Cost of production	Issue: Health and Safety record Valuation risk: Major accident or interrupted production	Issue: tax strategy Valuation risk: reclaimed taxes, public opinion leads to boycott

Source: OECD and CFA (2015b)

ESG analysis therefore complements financial analysis and can be considered a component of fundamental investing, whereby investors try to model all the drivers of a company's financial performance.[52] However, it is not always straightforward to understand the effects of ESG risks and opportunities at the company level in such a way that these can be incorporated into typical financial models:

51. de Jong, M. and A. Nguyen (2016).

52. See van Duuren et al. (2015) for a discussion of fundamental investing and ESG investing.

- Data availability: investment analysis is limited by corporate disclosure, which is variable in quality and scope, although corporate ESG data is increasingly available from providers such as Thomson Reuters and Eiris. It is also limited by investors' understanding of that data and which metrics are relevant to a particular investment case – a fast food company will be more vulnerable to social risks such as requirements to improve employee compensation (which could crystallise in the short term) while an oil producer is more vulnerable to longer-term physical risks associated with environmental damage. There is considerable effort by the private sector and policy makers to reach a consensus on what degree and type of corporate disclosure is needed.
- Modelling: ESG factors cannot necessarily be integrated into traditional financial models, as they do not always have a short-term financial impact. Furthermore, most financial analysts' models extrapolate from historical data, which may be less relevant for forecasting future ESG-related outcomes. For example, measuring a company's past and current carbon footprint does not give as much information about its future valuation as understanding its strategy for reducing its carbon intensity. Similarly, it is hard to estimate the viability or impact of a breakthrough technological innovation based on historic patterns. Notably, a lot of ESG models focus on risks, there are fewer tools for assessing positive ESG performance.
- Valuation techniques: equity investors can adjust corporate valuations for ESG factors in a number of ways. Investors could vary the discount rate applied to future corporate cash flows – which raises the question of how steep a discount should be applied to various kinds of ESG risk. Alternatively, they could apply higher or lower multiples to valuation ratios such as Price/Earnings or Book Value – which might lead to double counting if ESG factors are already partially priced by the market.

Compounding this problem is a lack of standardised data and risk metrics. For example, carbon footprint can be measured as a multiple of revenues or of assets; it is very hard to measure Scope 3 carbon emissions which are probably the most important sources of carbon risk for non-resource intensive industries; disclosure is largely voluntary.[53] The 2i Investing Initiative finds seven flaws in corporate climate reporting frameworks: it usually covers large cap equities, so ignores non-listed companies and other asset classes such as real assets; less than half of listed companies in high impact sectors report emissions; carbon accounting standards permit reporting companies to use different methodologies that are hard to compare; data is of variable quality and timeliness; data users do not have a benchmark against which to compare the data they do receive; disclosure metrics measure net "bad" activity, so that "good" activity (e.g. reducing or mitigating emissions) is obscured; and progress is too slow.[54]

53. The Greenhouse Gas (GHG) Protocol accounting tool provides the following definitions of emissions: Scope 1 all direct GHG emissions; Scope 2 indirect GHG emissions from consumption of purchased electricity, heat or steam; Scope 3 other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T&D losses) not covered in Scope 2, outsourced activities, waste disposal, etc. For example, Unilever finds that over 65% of its carbon footprint comes from consumer use of its products.

54. 2i (2016)

As a result of these difficulties, ESG analysis usually takes the form of a qualitative input that is used alongside traditional quantitative models.[55] An example of the way ESG analysis is integrated into portfolio decisions is in the form of a "quality/ESG score" which is used alongside a "value/financial score" generated by financial models. The portfolio manager might use the quality score just for information, or might set a hurdle such as a minimum 75% quality score for a stock to be included in the portfolio.

A number of the institutional investors interviewed cautioned that ESG analysis could be less well respected by portfolio managers than financial analysis because it was not quantitative and that it was therefore harder to convince them to take it into account. This was true even when ESG analysts were part of the generalist portfolio management team.

The challenges of data availability, modelling and valuation techniques are even greater when it comes to understanding the heightened risks to institutional portfolios associated with climate change. The investment industry has very limited experience in predicting and pricing acute risks with uncertain timing, such as transition risks. An example of such a risk is the UK's unexpected decision to change its policy on clean energy subsidies, which permanently altered the operating outlook for firms in that sector. Furthermore, the source of risk and the time horizon is different for different portfolios. For a long-term equity portfolio, the transition risk associated with carbon intensity is stranded assets. For a short-term credit portfolio, it is more likely to be disclosure of carbon exposure.

Some investors have made progress in stress testing their portfolios for climate-related risks such as natural disasters, regulatory shocks or a permanent shift in technological capabilities; however these kinds of unpredictable risks are outside the broad macro-economic stresses used to build standard VaR models. Risk-factor investing, which sets a limit for exposure to various sources of risk such as currencies or interest rates, could accommodate ESG risks more easily, but there is no standard for estimating how different securities would react to different ESG risks. Newer models being developed to deal with the impact of environmental shocks draw on techniques developed outside the investment industry, so are less familiar and less accessible to many institutional investors. Regulators may be able to help co-ordinate discussions across and between industries to help develop new, standardised models.

Other practical and technical challenges in implementing an ESG strategy

Institutional investors need to build up the expertise to manage the integration of ESG factors in their investment strategy, or to monitor external asset managers who run such strategies on their behalf. Asset managers felt that many clients were not yet in a position to call them to account. NAPF (2015) says that "most pension funds do not have the internal resources available to monitor and engage with investee companies and additionally the voting rights lie with their investment managers".

In addition to the costs of building or buying in ESG expertise, institutional investors may face other implementation costs for items such as research, data acquisition, monitoring and control and reporting. The European Fund and Asset Management

55. It should be remembered that even quantitative financial models such as DCF forecasts may rely on qualitative elements such as analysts' forecasts of future demand.

Association estimated the average price of external data to be EUR100,000 – its affordability depends on the AUM of the investor and on eventual gains to portfolio.[56]

Institutional investors have competing priorities. The association representing German occupational pension funds, in its response to the European Commission consultation on long-term and sustainable investment, stated that ESG factors were not a priority compared to pressing issues such as the low interest rate environment.[57] Pension funds with a policy of de-risking are less likely to integrate ESG factors, as they increase their allocation to liability-driven investment strategies (typically low-risk bonds) and decrease their allocation to growth assets. Investors who decide to reduce costs by moving to a passive investment strategy are less likely to engage with investee companies or exercise voting rights.

Some institutional investors face objective investment constraints in trying to integrate ESG factors. For example, roughly 70% of Australian asset managers are signatories of the UN PRI, but the domestic equity index is very heavily weighted towards mining stocks, which makes it hard for them to implement a low-carbon strategy in local-currency assets. There is limited ESG data available on emerging markets securities. Investors may be reluctant to integrate ESG factors in the absence of more standardised models – an investor who is the first to identify a material ESG risk or opportunity and act upon it will underperform the market until other investors reach the same conclusion.

Summary and policy implications

An increasing number of ESG investment options are available to non-specialist investors but they face technical, operational and behavioural difficulties in selecting, implementing and measuring the effect of ESG strategies.

Policymakers could help to remove some of these obstacles by encouraging institutional investors to build greater technical capacity, for example by including ESG issues in the training programmes for senior officers. They could assist industry bodies in setting out guidelines for investors in selecting ESG products and in holding their asset managers to account. This would also help to establish the difference between ESG integration and ethically motivated investing. Similarly, they might consider supporting efforts to identify the most relevant metrics for assessing corporate ESG performance.

56 EFAMA response to EC consultation on long-term and sustainable investment, www.efama.org/Publications/Public/Responsible_Investment/EFAMA Reply EC Consultation long-term and sustainable investment.pdf.

57. Source: IPE magazine, 23 March 2016,"ESG 'not a priority', says German pension fund association", www.ipe.com/countries/germany/esg-not-a-priority-says-german-pension-fund-association/10012461.fullarticle.

Section V: Conclusion

Regulators have taken a number of steps to clarify that institutional investors may consider ESG factors in their investment decisions where this is consistent with their financial obligations. However, regulatory, practical and behavioural barriers to ESG investing remain. Policymakers may wish to address these barriers in order to encourage ESG integration in a manner that is consistent with the prudential standards that govern investor behaviour and other obligations of institutional investors.

Regulatory frameworks are not in themselves obstacles to ESG integration, however institutional investors may benefit from greater clarity about the role of ESG integration in prudent investment governance.

Institutional investors have differing approaches to ESG issues. Investors may be reluctant to integrate ESG factors in their investment governance because of practical barriers, such as the cost and complexity of implementing an ESG investment strategy, or behavioural barriers, such as concern that ESG factors are "non-financial". Policymakers in different jurisdictions have introduced a number of measures to tackle these barriers, for example, requiring institutional investors to provide greater transparency on their ESG investment policies and to increase their engagement with portfolio companies.

Policymakers might also wish to support proposals to develop standardised investment terminology and consistent corporate ESG reporting, which could make it easier for institutional investors to acquire ESG data and assess its financial impact.

There are remaining technical and operational problems in measuring the nature and potential impact of ESG factors on portfolio risks and returns, and the efficiency of different investment strategies in tackling ESG risks. For example, a best-in-class strategy will result in different sector exposures to a divestment strategy; a strategy that reduces carbon exposure based on historic corporate data may not lead to a low-carbon portfolio based on the estimated future carbon emissions of the same companies. Further analysis of the ESG investment models being used by the industry might therefore be beneficial to assess how they contribute to the prudential and behavioural standards required of institutional investors.

APPENDIX 1

Fiduciary duty

Overview of fiduciary duty

In common law jurisdictions, institutional investors may be bound by fiduciary duties towards their beneficiaries, for example in the case of institutional investments held in the form of trusts. PRI (2015a) finds that many asset owners consider fiduciary duty as an obstacle to ESG integration.

As discussed in the main body of this document, the legal concept of fiduciary duty does not apply to all institutional investors, but they all have very similar obligations. The debate over the interpretation of fiduciary duty is therefore relevant to the majority of institutional investors, as it addresses the core issue of how they understand their responsibilities to beneficiaries and what this means for the integration of ESG factors in investment governance.

Fiduciary standards and their application vary across different legal systems, cultures and contexts meaning that no single, global definition of the principle of fiduciary duty exists.[58] However, there are three aspects of fiduciary duty that are common across jurisdictions:

- Fiduciary principles impose a duty of care and a duty of loyalty on fiduciaries towards their beneficiaries.
- Fiduciary duty addresses the behaviour and processes used by fiduciaries, rather than the outcomes they achieve.
- Interpretations of fiduciary duty are flexible and adaptable.[59]

The broad duties of care and loyalty encompass different obligations. Fiduciaries must determine which of these obligations is most relevant in a given context, while the relative importance given to each of these obligations by the courts and practitioners has changed over time.[60]

- *The duty of care* requires fiduciaries to exercise skill and prudence when looking after the assets of beneficiaries.61 The debate about whether or not ESG investing

58. Johnson, K (2014).

59. "Fiduciary duty is a dynamic concept – one that has responded to changing contexts and world views but is firmly rooted in clear and enduring legal principles." (Waitzer, E. and D. Sarro, 2013).

60. Hawley, J et al. (2011); Clark, G (2011).

61. Just as there is no common definition of "fiduciary duty", the standard of care implied by the term "prudence" varies between jurisdictions. In Canada, the Pensions Benefits Standards

is compatible with fiduciary duty hinges to a large extent on the interpretations of the duty of care and especially prudent investment practice.

- *The duty of loyalty* requires fiduciaries to manage funds in the beneficiaries' interests, not their own, and with the sole purpose of providing them with benefits. It also requires fiduciaries to be impartial between the interests of multiple beneficiaries. It is this last requirement that is leading to an increased focus on the responsibility of fiduciaries to consider inter-generational equity and, by extension, the impact of ESG factors on not only the financial well-being of these future beneficiaries but also their broader quality of life.

Courts and investors have interpreted the combined duties of care and loyalty as requiring fiduciaries to consider only the financial interests of beneficiaries. However, interpretations of fiduciary duty and of prudent investing are not static. While the overriding objective of fiduciary duty – to protect beneficiaries – has not changed over time, the view of how fiduciaries can best carry out this duty has changed, as both investment theory and social and economic norms have evolved.

Arguably, this process will continue and the interpretation of fiduciary duty will change further. Courts and regulators have clarified that fiduciaries can look beyond financial criteria in their investment decisions. Examples of investment policies and practices that integrate ESG factors with an acceptable degree of financial risk (as measured by traditional portfolio management practices) are increasingly numerous.

Is the "narrow" interpretation of fiduciary duty losing influence?[62]

The primary responsibility of the fiduciary is to invest funds prudently in order to provide benefits to the beneficiaries of those funds. The common interpretation of this responsibility is that fiduciaries should focus on generating risk-adjusted portfolio returns in order to maximise the financial benefits that they can pay out. The implication of this "narrow" interpretation is that fiduciaries should not incorporate ESG factors into their investment decision-making, because to do so would either be in breach of their duty of care (taking non-financial factors into account might put financial returns at risk) or their duty of loyalty (placing their own ethical or moral beliefs above the financial interests of the beneficiaries).

The narrow interpretation is based on case law and regulation in common law jurisdictions. For example, the US Department of Labor has provided several opinions in the past clarifying that *"the Department has construed the requirements that a fiduciary act solely in the interest of, and for the exclusive purpose of providing benefits to participants and beneficiaries, as prohibiting a fiduciary from subordinating the interests of participants and beneficiaries in their retirement income to unrelated objectives. In other words, in deciding whether and to what extent to invest in a particular investment, or to make a particular fund available as a designated investment alternative, a fiduciary*

Act, 1985, refers to the level of care that "a person of ordinary prudence would exercise in dealing with the property of another person." In the UK, pension trustees should act "with such care and skill as is reasonable in the circumstances", while professional trustees are held to a higher standard than lay trustees. (Law Commission, 2014b).

62. The following discussion concerns common law jurisdictions. However the developments in the interpretation of fiduciary duty discussed below are of relevance to all OECD members, as they illustrate trends across global financial markets.

must ordinarily consider only factors relating to the interests of plan participants and beneficiaries in their retirement income."[63]

Table 1 gives an overview of frequently cited case law relevant to fiduciary duty, which provides contradictory views about how the consideration of non-financial factors complies with fiduciary duty. In all of these cases, it is assumed that integrating ESG factors into investment analysis involves a trade-off with financial returns, an issue that is increasingly challenged by investment professionals. Nonetheless, as Table 1 indicates, case law can be interpreted in such a way as to allow fiduciaries leeway in terms of foregoing some financial return in exchange for non-financial benefits.

Table 7. Frequently-cited case law

Country	Case	Date	Interpretation
England	Cowan v Scargill	1985	"Best interests" should normally be interpreted as "best financial interests".
US	Associated Students v Oregon Investment Council	1986	Moral and social considerations do not constitute a legal basis for divestment. Divestment is a violation of prudence.
Scotland	Martin v Edinburgh (City) District Council	1989	Trustees may consider non-financial factors but must follow due process and take proper advice. The judge commented, "I cannot conceive that trustees have an unqualified duty to invest in the most profitable investment available."
US	Board of Trustees of Employee Retirement System of the City of Baltimore v City of Baltimore	1989	Some divestment is acceptable within the bounds of prudence. Trustees have a duty to secure a "just" or "reasonable" risk-adjusted return rather than the maximum return. In this case, divestment was expected to cost around 10 basis points per annum. Considering the social consequences of investment decisions does not necessarily violate the duty of loyalty.
England	Harries (Bishop of Oxford) v Church Commissioners for England	1992	Trustees have a duty to maximise financial returns, but ethical factors could be a tie-breaker. Note however that the Commissioners already followed an ethical investment policy which excluded 13% of the UK stock market. The Bishop of Oxford's petition to exclude a further 25% of the market was rejected on the grounds of prudence but the court did not endeavour to establish what level of exclusion – between 13% and 37% - was reasonable.

Source: http://swarb.co.uk, www.leagle.com, http://law.justia.com, www.lawandreligionuk.com, all accessed on 5 May 2016, Richardson (2007).

In 2005, reports by the law firm Freshfields and investment consultants Mercer concluded that addressing ESG risk and climate risk respectively were consistent with fiduciary duty.[64] The Freshfields report set out three circumstances in which integrating ESG issues into investment decision-making was permissible under ERISA: ESG factors could be used as tie-breakers if the financial characteristics of alternative investment choices were equivalent; they could, and indeed should, be considered as an integral part of the investment decision when they were relevant to the financial performance of an investment; and they could be taken into account when there was a consensus amongst the beneficiaries about doing so. [65]

63. Department of Labour Advisory Opinion No. 98-04A, ERISA Sec. 404(c), May 1998.
64. UNEP FI (2005); Mercer (2005).
65. It should be noted that Sandberg (2011) is sceptical that fiduciaries could realistically find themselves in any of these situations – it is unlikely that financial models of two different companies would generate identical investment forecasts; data on the financial impact of ESG factors is not definitive; and it is very difficult to get unanimity on such issues.

The Law Commission provided a similar opinion concerning the duties of fiduciaries in the UK in 2014: *"The primary concern of trustees must be to generate risk-adjusted returns. In doing so, they should take into account factors which are financially material to the performance of an investment. These may include environmental, social and governance factors…However, the law is flexible enough to accommodate other concerns. Trustees may take account of non-financial factors if they have a good reason to think that the scheme members share a particular view, and their decision does not risk significant financial detriment to the fund."*[66]

Recent regulation has also provided clearer direction to fiduciaries that ESG factors can be integrated into investment decision-making. The Department of Labor has clarified that ESG factors are legitimate components of investment analysis where they directly impact the economic value of an investment and that they can be used as non-financial tiebreakers between two otherwise identical choices.[67] Manitoba's Pension Benefits Amendment Act, 2005, enables trustees to consider non-financial criteria as long as they exercise the judgement and care of a prudent person and in Ontario, "ethical" investing is permitted if such policies are clearly disclosed and communicated.[68]

These developments suggest that the narrow interpretation of fiduciary duty, which excludes non-financial factors from both portfolio management and from the assessment of beneficiaries' interests, is out of step with legal opinion and regulation, which no longer aim to exclude the possibility of integrating ESG factors into investment governance. Shifts in the way that various aspects of fiduciary duty are interpreted are not new: Box 1 describes how legal constraints on investment have evolved. More recently, the introduction of stewardship codes in many jurisdictions points to a changing view on how investors should carry out due diligence – part of the fiduciary's duty of care.

Despite this potential for a broader interpretation, it is argued that the prevailing view of fiduciary duty lags behind market practice and social and economic developments. Johnson and de Graaf (2009) believe that the interpretation of fiduciary duty in Europe, Australia and the US has got stuck in the practices of the 1960s and 1970s, when much important work to establish pension systems took place. Certainly, as Table 1 shows, much of the relevant case law dates from nearly thirty years ago.

New interpretations of fiduciary duty, towards a bigger role for ESG

While the narrow interpretation appears to be giving way to a broader view that the consideration of ESG factors does not conflict with fiduciary duty, stronger challenges to traditional views of the duties of care and loyalty are emerging. These propose a much bigger role for ESG factors in the evaluation of both financial returns to the portfolio and benefits to be paid to beneficiaries. These challenges can be summarised as follows:

- *The duty of care*: reinterpreting prudent investment standards in the light of recent critiques of Modern Portfolio Theory and evidence of the financial impact of ESG factors.
- *The duty of loyalty*: expanding the definition of "best interests" to include non-financial benefits for beneficiaries and paying greater attention to the duties owed to future beneficiaries and non-beneficiaries.

66. Law Commission (2014a).
67. ERISA Interpretive Bulletin 2015-01, effective 26 October 2015.
68. Hoepner et al (2013).

Box 9. Prudent or reckless? Evolving views of good investment practice

Legal opinion on what constitutes good investment practice has changed over time. The interpretation of the duty of care evolved from a focus on capital preservation in the nineteenth century to a requirement to maximise risk-adjusted portfolio returns in the twentieth century.

In the eighteenth century, UK and US courts took a highly conservative approach to investing. In reaction to the significant losses suffered by investment trusts as a result of the South Sea Bubble, trustees were restricted to a short list of low risk investments, such as gilts.

The US introduced the "prudent man" test following the *Harvard v Amory* case in 1830, in which Harvard College sued the trustees of a fund that had lost money. The court ruled that the trustee was not liable for the losses, as he had discharged his duties in behaving like a man of "prudence, discretion and intelligence". While this ruling gave trustees greater freedom in their choice of investments, it began the practice of encouraging fiduciaries to adopt the same investment habits as their peers, which some have argued has led to damaging, herd-like behaviour.

The UK gradually broadened its list of permissible investments, although this prescriptive approach did not disappear until the *Trustee Act* (2000).

Throughout the nineteenth and early twentieth centuries, a prudent investment strategy was held to be one in which each individual investment had been considered on its own merits. The introduction of Modern Portfolio Theory in the 1950s led to a reinterpretation of prudence in line with the new understanding of portfolio-level risks. As investing became more complex and higher standards of professionalism were demanded of fiduciaries, restrictions on the delegation of investment decisions were relaxed. This encouraged a greater use of investment intermediaries, which Waitzer and Sarro (2013) argue has weakened the fiduciary relationship between institutional investors and their beneficiaries.

In the twenty-first century, the dominance of Modern Portfolio Theory is increasingly being challenged. The vulnerability of institutional portfolios to market-wide shocks during the financial crisis called into question the management of risk under MPT. Furthermore, markets are being criticised for a short-term focus that means that they are failing to fulfil their role as efficient allocators of capital. Going forward, interpretations of prudence are likely to demand that fiduciaries take a more long-term investment perspective and look at other sources of risk in addition to market risk.

Source: Law Commission (2014a); Richardson, B (2007); Waitzer, E and D. Sarro (2013); Woods, C (2011)

Lydenberg (2013) argues that the widespread adoption of MPT has not simply encouraged an over-reliance on and distortion of the duty of care, but that it has also diminished the duty of loyalty. In his view, it has led to an over-emphasis on "rationality" – financial self-interest – at the expense of "reason" – that is, taking a more comprehensive view of the interests of beneficiaries in addition to considering the impact of investment choices on the broader community.

Some commentators expand the interpretation of the duty of loyalty further, arguing that institutional investors have a moral or social imperative to consider ESG factors as they increasingly take over some of the role of the state in ensuring financial wellbeing for retirees. Waitzer and Sarrow (2013) suggest a parallel development in the interpretation of fiduciary duty that is being encouraged by the Canadian courts. This emphasises the social purpose of fiduciary duty, and the corollary requirements that fiduciaries look beyond the immediate financial market concerns towards the likely future needs and expectations of beneficiaries, and that they act collaboratively to encourage public confidence in the fiduciary system.

Fiduciary duty as a barrier to the integration of ESG factors

The narrow interpretation of fiduciary duty, which considers ESG factors to be non-financial and therefore in conflict with the duties of care and loyalty, remains influential. Woods (2011) attributes this partly to behavioural biases among trustees, who have a tendency towards inertia in the face of lingering uncertainty about fiduciary duty and doubts about the materiality or measurability of ESG factors. Sievänen (2013) cites practical difficulties in defining and implementing responsible investment strategies.

The more recent, broader interpretation of fiduciary duty does not present a barrier to the integration of ESG factors in investment governance. Recent changes in the regulatory environment and in investor practice have clarified that using ESG analysis to support financial decisions is consistent with the duty of care. The Freshfields report posits that investors have a positive duty to consider ESG factors when they are financially relevant, while many leading institutional investors already implement policies such as exclusion without breaching commonly accepted views of prudent investment practices.[69]

There is less consensus on the role of ESG factors when they are not financially material. Using non-financial factors as a tiebreaker when considering an investment is acceptable under current interpretations of fiduciary duty, but investing primarily on ethical grounds or to generate non-financial benefits is not. However, new theories challenge this view by emphasising institutional investors' role in and vulnerability to global economic events, so that the duty of loyalty means that they should take a longer-term view of investment outcomes and give more weight to collateral benefits. In turn, this makes it more likely that ESG factors will be financially material and so should also be considered under the duty of care.

While the principle of fiduciary duty itself should not present a barrier to the integration of ESG factors in investment governance by institutional investors, lack of clarity may do. Fiduciary duty is an evolving concept so institutional investors may be unclear as to what is expected of them. As discussed above, there is debate about the best way to implement an ESG investment strategy and how to measure the financial impact of ESG factors. Looking at the corporate world, Barker (2015) argues that the potential impact of climate change on corporate value is so important that corporate directors cannot discharge their duty of care by taking a passive approach to the subject. In particular, they cannot justify a passive stance on the basis of "uncertainty paralysis" – that is, difficulty in quantifying the expected risks associated with climate change – or on the basis of an otherwise informed cost/benefit analysis that does not use very sophisticated and forward-looking modelling techniques. This argument could inform thinking about the duties of investment fiduciaries.

Summary

Fiduciaries must invest their beneficiaries' funds prudently and in their best interests. Whether or not institutional investors decide to integrate ESG factors into their investment governance will therefore depend on the extent to which they believe that these factors have a material impact on portfolio performance (consistent with their duty of care) and on the wellbeing of their beneficiaries (consistent with their duty of loyalty).

69. UNEP FI (2005), *ibid*

Glossary

Beneficiary: the ultimate owner of the assets being managed, such as members of a pension fund. In the case of a pension fund, beneficiaries include those who have a claim on the assets today and those who will have a claim in the future.

Collateral benefits: any benefits arising from the investment other than the investment return generated for and paid to the beneficiary. For example, investment in an infrastructure project could generate jobs that benefit the local community.

Corporate social responsibility (CSR): voluntarily integrating social, environmental, ethical and human rights concerns into business strategy in order to enhance corporate value for a broad range of stakeholders (shareholders, customers, suppliers, employees, local communities…)

ESG factors: indicators used to evaluate a potential investment based on sustainable, ethical and corporate governance criteria.

ESG investing: taking ESG factors into account in determining the value of a security.

Fiduciary: Someone who is responsible for managing the assets of another person and is placed in a position of trust by that person.

Fiduciary duty: In jurisdictions where there is an explicit concept of fiduciary duty, this refers to the requirement that fiduciaries act in the best interests of the beneficiaries of the assets.

Financial factors: Indicators used to evaluate a potential investment based on measures of its expected performance on Profit & Loss and Balance Sheet criteria

Fundamental analysis – deep bottom-up analysis of corporate prospects cf quant analysis. Note “traditional fundamental analysis” for CFA is fundamental analysis using financial factors

Investment governance. The set of policies that sets out the investment beliefs, assumptions and objectives of the institutional investor, and the way in which the organisation is structured in order to implement these policies when investments are made.

Investment strategy. How investment governance is executed in the portfolio (asset allocation, instrument selection etc.)

Non-financial factor: indicators that may help to determine the value of a potential investment that are not reported in financial accounts such as the Profit & Loss statement or the balance sheet.

Value at Risk (VaR) model: VaR is a measure of portfolio risk. It typically expresses the maximum expected loss a portfolio might suffer over a specified time period, at a given level of statistical confidence.

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