

**THE ENVIRONMENT, INTERGENERATIONAL EQUITY &
LONG-TERM INVESTMENT**

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ABSTRACT: This thesis brings together two responses to the question ‘how can the law extend the timeframe for environmentally relevant decision-making?’ The first response is drawn from the context of institutional investment, and addresses the timeframe and breadth of environmental considerations in pension fund investment decision-making. The second response is related to the context of public environmental decision-making by legislators, the judiciary, and administrators. Three themes underlie and bind the thesis: the challenges to decision-making posed by the particular temporal and spatial characteristics of environmental problems, the existence and effects of short-termism in a variety of contexts, and the legal notion of the trust as a means for analysing and addressing problems of a long-term or intergenerational nature. These themes are borne out in each of the four substantive chapters. Chapter III sets out to demonstrate the theoretical potential of pension funds to drive the reduction of firms’ environmental impact, and, focusing particularly on the notion of fiduciary duty, explores the barriers that stand in their way. Chapter IV provides a practical application of the theoretical recommendations outlined in its predecessor. It provides a framework outlining how pension funds might implement a longer term, more sustainable approach to investing.

The second half of the thesis, operating in the context of public environmental decision-making, is centred upon a particularly poignant legal notion with respect to the environment and time: the concept of intergenerational equity. Just as the first half of the thesis deals with the timeframes relevant to investment decision-making by pension funds within the bounds of fiduciary duty, largely a private law affair with public implications, the second half of the thesis is concerned with the principle of intergenerational equity as a means for extending the decision-making timeframe of legislative, judicial and administrative decision-makers. As previous analyses of the concept of intergenerational equity provide little insight into its practical implications when applied to particular factual situation, Chapter V sets out the structure of the principle of intergenerational equity as revealed by case law. Chapter VI brings together the issues from the first three papers by conceptualising intergenerational equity in resource management as an issue of long-term investment.

Long-term environmental decision-making faces many obstacles. Individual behavioural biases, short-term financial incentive structures, the myopic pressures of the electoral cycle and the tendency of the common law to reinforce the (often short-termist) *status quo* all present significant barriers to the capacity of both private and public decision-makers to act in ways that favour the longer term interests of the environment. Nonetheless, this thesis argues that there is reason for hope: drawing upon the three themes that underlie all of the substantive Chapters, it articulates potential legislative changes and recommends the adoption of particular governance structures to overcome barriers to long-term environmental decision-making.

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TABLE OF CONTENTS

I. INTRODUCTION	7
CHAPTER CONTENTS	15
<i>Chapter III</i>	15
<i>Chapter IV</i>	19
<i>Chapter V</i>	22
<i>Chapter VI</i>	28
METHODOLOGY	30
LIMITS OF INQUIRY	33
II. LITERATURE REVIEW	35
TEMPORAL AND SPATIAL CHARACTERISTICS OF ENVIRONMENTAL PROBLEMS	35
CLIMATE CHANGE OVER TIME AND THROUGHOUT SPACE	37
<i>Early century (2011 to 2030: the prime of life for a twenty year-old today)</i>	39
<i>Mid-century (2046 to 2065: the prime of life for a twenty year-old's children)</i>	40
<i>Late century (2080 to 2099: the prime of life for a twenty year-old's grandchildren)</i> ...	42
CLIMATE CHANGE THROUGHOUT SPACE	43
SHORT-TERMISM	47
THE TRUST	54
FINAL REMARKS	59
III. FUNDING CLIMATE CHANGE: HOW PENSION FUND FIDUCIARY DUTY MASKS TRUSTEE INERTIA AND SHORT-TERMISM	63
INTRODUCTION	63
THE POTENTIAL FOR PENSION FUNDS TO ADDRESS CLIMATE CHANGE	68
<i>Growing Power, Growing Responsibility?</i>	70
<i>Climate Change: Financial risks and opportunities</i>	73
FIDUCIARY DUTY AS A PERCEIVED BARRIER TO CHANGE	77
<i>Fiduciary Duty in the Context of Pension Funds</i>	80
<i>Pension Fund Fiduciary Duty and Non-Financial Considerations</i>	87
<i>Fiduciary Duty's Paradox: Incrementally flexible</i>	97
INGRAINED INERTIA, SHORT-TERMISM AND COLLECTIVE INACTION	111
CONCLUSION	118
IV. PUTTING SUSTAINABLE INVESTING INTO PRACTICE: A GOVERNANCE FRAMEWORK FOR PENSION FUNDS	121
INTRODUCTION	121
LITERATURE REVIEW OF SRI FIELD: SRI, RI AND SUSTAINABLE INVESTING	124
<i>SRI: A radically confused concept?</i>	125
<i>UN PRI: Standardising understandings of RI?</i>	128
<i>Sustainability: Emphasising the long-term</i>	129
UK AND US PENSION FUND GOVERNANCE	131
<i>Mission Clarity</i>	133
<i>Investment Beliefs</i>	136
SUSTAINABLE INVESTING FRAMEWORK	139
<i>Investment Strategies For Pension Fund Sustainable Investing</i>	139
<i>Pension Fund Governance for Sustainable Investing</i>	141
LEGAL CONTEXT: BARRIERS TO AND ENABLERS OF SUSTAINABLE INVESTING	149
<i>Fiduciary Duty and Sustainable Investing: the need to document prudence and loyalty</i>	150
<i>Potential Regulatory Enablers of Sustainable Investing</i>	153
CONCLUSION	155

V. NASCENT JURISPRUDENCE ON INTERGENERATIONAL EQUITY	158
INTRODUCTION	158
WHAT IS INTERGENERATIONAL EQUITY?	166
<i>International Legal Sources of Intergenerational Equity</i>	171
<i>Domestic Legislation Referring to Intergenerational Equity</i>	175
CASE LAW ON INTERGENERATIONAL EQUITY	178
<i>Gray v Minister for Planning</i>	179
<i>Taralga Landscape Guardians Inc v Minister for Planning</i>	181
<i>Walker v Minister for Planning</i>	183
IMPLICATIONS	185
<i>Intergenerational equity as a judge-made principle</i>	186
<i>Judges, Democracy and the Environment</i>	189
<i>Cumulative Impact: a longer timeframe?</i>	193
<i>Intergenerational versus Intra-generational Equity</i>	196
<i>Administrative Law as Environmental Governance</i>	200
CONCLUSION	204
VI. INVESTING IN THE FUTURE: THE STORY OF A RIVER	207
INTRODUCTION	207
INTERGENERATIONAL EQUITY THROUGH LONG-TERM INVESTMENT?	210
<i>Conceptualizing the ‘long-term’</i>	213
<i>Barriers to Long-term Investment</i>	214
THE PLANETARY TRUST: A FLAWED INSTRUMENT OF INTERGENERATIONAL EQUITY	
.....	220
<i>The Planetary Trust Concept</i>	221
<i>Critique of the Planetary Trust Concept</i>	224
<i>Comparison with defined benefit pension schemes</i>	226
TESTING THE PLANETARY TRUST: ‘TRUSTEES’ OF AUSTRALIA’S WATER	229
<i>The Murray Darling Basin Authority: Analogous to the Planetary Trust?</i>	231
<i>Triple Bottom Fantasy – Political reaction to the Guide</i>	234
IMPLICATIONS	241
<i>Independent thinkers</i>	241
<i>Avoiding Time Inconsistency in Regulatory Design</i>	243
<i>Choosing the Right Institutional Structure for Intergenerational Equity</i>	244
CONCLUSION	246
VII. CONCLUSION	250
TEMPORAL AND SPATIAL CHALLENGES LOOM LARGE	251
SHORT-TERMISM CASTS A LONG SHADOW	253
A MATTER OF TRUST	255
IMPLICATIONS AND SOLUTIONS	257
<i>Legislative Changes</i>	257
<i>Legal and Institutional Reflections</i>	259
<i>Governance Structures</i>	261
<i>Implications for Theory</i>	263
FURTHER RESEARCH	266
<i>Drafting Legislative Solutions</i>	266
<i>Deepening our Understanding of Fiduciary Duty</i>	268
FINAL REMARKS	269
VIII. BIBLIOGRAPHY	270
BOOKS AND JOURNAL ARTICLES	270
CASE LAW: AUSTRALIA	284
CASE LAW: UNITED KINGDOM	284
CASE LAW: UNITED STATES	285

CASE LAW: INTERNATIONAL & OTHER.....	285
LEGISLATION: AUSTRALIA.....	285
LEGISLATION: UNITED KINGDOM.....	286
LEGISLATION: UNITED STATES	286
INTERNATIONAL AGREEMENTS	287

THE ENVIRONMENT, INTERGENERATIONAL EQUITY & LONG-TERM INVESTMENT

I. INTRODUCTION

Over the last century, environmental law emerged, ramshackle but rather ingenious, from legal areas previously devoted to vastly different purposes: nuisance law, property law and equity, to name but a few.¹ Joined, in the 1970s, by environmental legislative initiatives in most common law jurisdictions, it helped to improve the quality of air, water and land. For many, the accomplishments of early environmental law were nothing short of revolutionary.² Then onto this patchwork backdrop of legal rules and norms, the problem of climate change appeared. The environmental challenge presented by climate change is different to those of previous eras. First, climate change is global: its solution relies on global agreement and local action in order to avert differentiated, localised impacts. It may well require legal foundations that stretch beyond the limits of early environmental law. Second, climate change is urgent: mitigation today is necessary in order to avoid catastrophic consequences in the future. It therefore needs decision-makers to expand and extend their usual frames of reference.

The temporal character of climate change makes it a particularly difficult problem to address.³ Notwithstanding the difficulties in predicting, with precision, the

¹ The areas of law mentioned here belong to the common law; this thesis focuses on the common law jurisdictions of the UK, the US, and Australia.

² See RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* xi-xii (2004).

³ It should be stressed from the outset that the temporal characteristics of climate change are not dissimilar (though on a much grander scale) to those found in many complex environmental problems. As such, the themes addressed in this thesis go beyond the context of climate change and help to elucidate the challenges experienced across the landscape of environmental interests.

effects of climate change at any one point in space and time, the bulk of scientific evidence suggests that impacts of climate change will increase in severity of the next century.⁴ It requires coordinated solutions urgently, but the cost of these solutions must be borne now in order to safeguard the well-being of future generations. The sort of response needed is a tough sell, both in politics and in the private sector. Short-term perspectives are ingrained in our psyches and in our institutions: to overcome them we must contend with behavioural biases, the pressures of the electoral cycle, the short-term incentive structures in place in finance, and the tendency of the common law legal system to reinforce the (often short-termist) status quo. Nonetheless, it is possible to create structures (using the law or governance frameworks) that encourage or require longer term timeframes for environmental decision-making.

This thesis brings together two responses to the question ‘how can the law extend the timeframe for environmentally relevant decision-making?’ The first response is drawn from the context of institutional investment, and addresses the timeframe and breadth of environmental considerations in pension fund investment decision-making. Pension funds are the most financially important of institutional investors, the large organisations that invest on behalf of large groups of individuals.⁵ Their collective financial holdings are immense. As at December 2010, pension funds in Australia, the UK and the US held assets of 103 per cent of GDP, 101 per cent of GDP and 104 per cent of GDP respectively.⁶ As significant owners of domestic equities and bonds, their relationship to the environmental impacts of companies

⁴ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *CLIMATE CHANGE 2007: WORKING GROUP I: THE PHYSICAL SCIENCE BASIS* (2007); NICHOLAS STERN, *THE ECONOMICS OF CLIMATE CHANGE: THE STERN REVIEW* (2006).

⁵ *The Economist*, *Asset Backed Insecurity*, 17 January 2008, http://www.economist.com/node/10533428?story_id=10533428.

⁶ TOWERS WATSON, *GLOBAL PENSION ASSET STUDY 7* (2011).

across these economies should not be overlooked. Although pension funds are long-term investors in the sense that they often must prepare to provide retirement income for future retirees at least thirty years into the future, in practice the day-to-day timeframes for investment decision-making tend to be short. Pension funds usually monitor companies' performance over quarterly periods; incentives for asset managers are generally structured around short-term results. As a consequence, the investment decision-making with respect to the enormous wealth of pension fund assets often fails to capture long-term considerations. Those businesses that spend more resources on ensuring a better environmental outcome may be less profitable in the short-term, even if their improved environmental impact is financially rewarding in the long run. This combination of factors means that institutional investors direct huge amounts of capital into corporations whose performance is stronger in the short-term, but whose long-term activities may be worse for the environment. Furthermore, if and when legislation is enacted to internalise environmental externalities (for example, as taxes are placed on greenhouse gas emissions), this long-term failure to improve environmental practices may translate into simultaneous financial weakening.

The second response is related to the context of public environmental decision-making by legislators, the judiciary, and administrators. In the modern democracies that form the setting for this thesis, the United Kingdom (UK), the United States (US) and Australia, political decisions are beset by a preoccupation with the short-term. Political incentives are generally structured around short-term results.⁷ Those issues that demand a longer term perspective are often neglected where their

⁷ PETER S. HELLER, INTERNATIONAL MONETARY FUND, WHO WILL PAY?: COPING WITH AGING SOCIETIES, CLIMATE CHANGE, AND OTHER LONG-TERM FISCAL CHALLENGES (2003).

demands are in conflict with the requirements of shorter term issues.⁸ Decisions affecting the environment often fall squarely within this category. In the context of climate change, for example, while the UK has made considerable policy changes in order to reduce greenhouse gas emissions⁹ (though the practical feasibility of this ambitious policy is yet to be proven), the US and Australia have thus far struggled to implement comprehensive policy responses to the problem of climate change.¹⁰ In both of these countries, the politically expedient focus on short-term outcomes (such as the desire to prevent increased energy costs, the reluctance to hamper conventional modes of transport, the maintenance of favour with oil producers and energy-intensive industries) has sapped the political will to introduce climate change reduction measures that require any form of current economic sacrifice.¹¹

Short-term thinking with respect to institutional investment and policy-making is deeply ingrained,¹² and has an often deleterious effect on environmental outcomes. It is not, however, intractable. This thesis suggests that there are several ways in which laws may help to extend the timeframe for environmentally relevant decision-making. The first half of the thesis, which deals with timeframes for decision-making within pension funds, examines the law of trusts (and in particular the concept of fiduciary duty – a duty owed by trustees to take a high level of care in managing the assets of their beneficiaries) as a means of extending the timeframe for investment

⁸ *Id.*

⁹ See, e.g., *Climate Change Act* (2008) (UK).

¹⁰ The support for carbon taxation or trading legislation in these countries has been limited at a federal level: see, e.g., Anon., *A Change in the Climate: Make us greener, oh lord. But not yet*, *ECONOMIST*, 29 April 2010 (on Australia); Anon., *Let it Be: The Democrats abandon their efforts to limit emissions through legislation*, *ECONOMIST*, 29 July 2010 (on the US).

¹¹ *Id.*

¹² See generally Gordon L. Clark & Eric R. W. Knight, *Temptation and the Virtues of Long-term Commitment: The Governance of sovereign wealth fund investment* 1 *Asian J. Int. Law* 321 (2011); see also GEORGE A. AKERLOF & ROBERT J. SHILLER, *ANIMAL SPIRITS: HOW HUMAN PSYCHOLOGY DRIVES THE ECONOMY, AND WHY IT MATTERS FOR GLOBAL CAPITALISM*, 51-56 (2009); Daniel Kahneman and Amos Tversky, *Prospect Theory: An Analysis of decision under risk* 47 *ECONOMETRICA* 263, 284–289 (1979); William Samuelson and Richard Zeckhauser, *Status Quo Bias in Decision Making*, 1 *J. RISK AND UNCERTAINTY* 7, 47–48 (1988).

decision-making. Its starting point is the idea that where asset performance is considered over a longer timeframe, those companies that address longer term environmental concerns may appear more favourable to those who manage institutional investment funds.

Chapter III demonstrates that, traditionally, lawyers, investors and courts alike have interpreted their fiduciary duty as requiring trustees and asset managers of investment funds to focus solely on the generation of profit over an increasingly short period of time. This is wrong. Instead, trustees and asset managers should consider increasing the timeframes over which they assess their investment options, taking into account the social and environmental factors that may affect financial performance over the longer term. Parallel shifts in attitude about what constitutes a worthy consideration when assessing investment opportunities have occurred before; all the evidence suggests that, given the appropriate conditions, they will occur again. A number of judicial decisions are presented demonstrating how such a change might occur. While Chapter III is infused with the theory behind fiduciary duty, investment decision-making and inertia within common law legal systems, Chapter IV provides a practical application of the theoretical recommendations outlined in its predecessor. It provides a framework outlining how pension funds might implement a longer term, more sustainable approach to investing. It acknowledges the legal uncertainties that persist within the field of fiduciary law with respect to environmental and social concerns, and suggests a structural means (anchored in a particularly explicit approach to governance) for overcoming them.

The second half of the thesis, operating in the context of public environmental decision-making, is centred upon a particularly poignant legal notion with respect to the environment and time: the concept of intergenerational equity. Just as the first half

of the thesis deals with the timeframes relevant to investment decision-making by pension funds within the bounds of fiduciary duty, largely a private law affair with public implications, the second half of the thesis is concerned with the principle of intergenerational equity as a means for extending the decision-making timeframe of legislative, judicial and administrative decision-makers. The notion of intergenerational equity is a concept (though some would say ‘principle’¹³) that exists in international law. Its international law incarnation is most often cited as being Principle 3 of the *Rio Declaration on Environment and Development (Rio Declaration)* (1992), which states that:

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

As the vagueness of these words suggest, the concept remains, for the most part, broad, general and difficult to enforce effectively. Indeed academic interest in the principle has been mainly normative in nature. Although propagated by international environmental lawyers, its treatment thus far, for the most part, has been unmistakably philosophical.¹⁴ For this thesis, however, the concept of intergenerational equity has a very tangible potential. As a notion that consciously seeks to balance current interests with future interests (or more accurately, the interests of the current generation with those of future generations), it is a particularly useful proposition when searching for ways to extend the timeframe for environmentally relevant decision-making.

¹³ See BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *infra* note 36.

¹⁴ See, e.g., Peter Laslett & James S. Fishkin, *Introduction: Processional justice*, in JUSTICE BETWEEN AGE GROUPS AND GENERATIONS 1, 1 (Peter Laslett & James S. Fishkin eds., 1992); JOHN RAWLS, A THEORY OF JUSTICE 128 (1st ed. 1971); see generally JANNA THOMPSON, INTERGENERATIONAL JUSTICE (2009); cf. WORLD COMM’N ON ENV. & DEV., *infra* note 375.

As previous analyses of the concept of intergenerational equity provide little insight into its practical implications when applied to particular factual situation, it was necessary to search for instances of the application of the principle within case law. The search led to Australia, where legislation (heavily influenced by the *Rio Declaration*) throughout the various Australian states and territories had in fact implemented a ‘principle of intergenerational equity’, stated as follows:

the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.¹⁵

Like Principle 3 of the *Rio Declaration*, the Australian principle is general; its interpretation – its practical effect – has been left to the judiciary. Chapter V provides an analysis of what the legal concept of intergenerational equity might require of decision-makers *in practice* by examining three cases in which judges apply the principle to particular factual situations. It concludes by arguing that the principle of intergenerational equity has the potential to extend the time frame over which administrative decision-makers are required to consider environmental impacts, by requiring the consideration of the cumulative environmental impact of multiple events. It also underlines the potential for the judiciary to use this principle to help overcome the short-term temptations faced by legislators. Notwithstanding the potential for the principle of intergenerational equity to provide a means for judges to weigh the interests of future generations against those of the current generation, the principle has a number of limitations, largely centred around its origins in administrative law; these limitations are acknowledged. In essence, Chapter V sets out the structure of the principle of intergenerational equity as revealed by case law.

¹⁵ *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.5.2 (Australia).

Having established in the previous chapters the environmentally detrimental effects of short timeframes in decision-making in both private (investment) and public (administrative) decision-making, as well as setting out two potential legal routes for extending timeframes for decision-making, Chapter VI draws together the threads of argument established in three previous chapters. It does so by conceptualising environmental management as an issue of long-term investment. As such, it draws upon both the legal concepts of fiduciary duty and intergenerational equity to imagine a regime of long-term environmental management. It has particular regard to Edith Brown Weiss' 'Planetary Trust,'¹⁶ a concept that provides an institutional means for giving effect to intergenerational equity. It then tests this conceptual structure in the context of the management Murray Darling Basin. While it finds that the Planetary Trust concept is ill-equipped to deal with intertemporal conflict (in encouraging the maximization of both current and future interests it fails provide an adequate mechanism for adjudicating between the two), this Chapter highlights once again the importance of judges as independent temporal arbitrators.

Chapter VI may seem pessimistic, but it is not intended as an indictment of the concepts raised throughout the thesis. It highlights particular conceptual flaws within the notion of Planetary Trust, but more importantly, it acknowledges that these flaws are amplified in the practical context of the Murray Darling Basin. Far from condemning the legal concepts of fiduciary duty and intergenerational equity as avenues for achieving longer-time frames for environmentally-relevant decision-making, it reemphasises the need for such legal approaches. The story of the Murray Darling Basin highlights the near impossibility for a trustee-like body to make decisions that require current sacrifice for future gain without adequate independence.

¹⁶ See generally Brown Weiss, *The Planetary Trust*, *infra* note 37.

As a result, it strengthens the case for judges as guardians of the future. Justice Weeramantry's words in the famous *Nuclear Tests Case* are particularly relevant here: 'this Court must regard itself as a trustee of the interests of an infant unable to speak for itself'.¹⁷

CHAPTER CONTENTS

Chapter III

Chapter III was conceived in early 2009, when the world was reeling from the early effects of the global financial crisis and the UN's Copenhagen Climate Change Conference (seen as the key to defining a post-Kyoto global accord on climate change) loomed large on the horizon. Since then, the gravity and uncertainty surrounding the financial crisis has become less acute, but many of its ramifications continue to be felt around the world (witness for example, continuing raised levels of unemployment in the UK¹⁸ and the US);¹⁹ the threat posed by climate change has, if anything, become more urgent. These crises are, to an extent, linked by their genesis in short-termism: in both cases, governments and industry have fostered short-term financial gain without sufficient regard to longer term social costs of the externalities at play.²⁰

¹⁷ Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests Case (N.Z. v Fr.) (1995) I.C.J. 288 (Sept. 22).

¹⁸ Anon., *UK unemployment total hits 17-year high*, BBC NEWS, 16 March 2011, <http://www.bbc.co.uk/news/business-12757675>.

¹⁹ Anon., *US unemployment to remain high for years, says Bernanke*, BBC NEWS, 9 February 2011, <http://www.bbc.co.uk/news/business-12408533>.

²⁰ *But cf.* Nicholas Stern & Joseph Stiglitz, *Obama's Chance to Lead the Green Recovery*, FINANCIAL TIMES, March 2, 2009, Opinion (arguing that the financial crisis and climate change may have common solutions), <http://www.ft.com/cms/s/0/7c51644a-075b-11de-9294-000077b07658.html>.

UK and US pension funds, with their huge share and bond holdings, have profound potential to influence companies in almost all industries.²¹ Pension funds are in some senses natural long-term investors; in providing retirement funding for successive generations of retirees, they are to an extent distributors of intergenerational wealth. However, in practice they often appear to take a short-term approach to investment strategy and fund governance. This chapter finds that these financial behemoths are failing to fulfil their potential to invest in a better future. The chapter argues that the causes for this behaviour are both behavioural and structural. The evidence suggests that trustees have behavioural biases that contribute to a myopic style of fund management, with a concentration on quarterly financial performance. Moreover, the trust law concept of fiduciary duty has been interpreted by judges, lawyers and trustees in such a way as to encourage investing in line with the *status quo*, preventing pension funds from investing in a more sustainable manner.

Reflecting on the context of climate change and the global financial crisis, this chapter sets out to demonstrate the theoretical potential of pension funds to drive the reduction of firms' environmental impact, and to expose the practical barriers that stand in their way. It examines first why fiduciary duty is perceived as a barrier to change in investment practices, outlining recent legal developments in the area. It argues that requirements of fiduciary duty have been interpreted too narrowly, and in theory should not be perceived as a legal barrier to pension funds' consideration of the risks and opportunities associated with climate change: fiduciary duty has been flexible enough to evolve with social expectations in the past (and should be able to adapt to the increasing importance of climate change now). However, in practice, courts, commentators and trustees themselves have had the tendency to interpret

²¹ See generally CLARK, *infra* note 186.

fiduciary duty's requirement of prudence as 'what the majority of investors do.' The prudent course of action in this light becomes to maintain the status quo, limiting the potential for innovative strategic thinking with respect to the investment implications of climate change. The uncertainty surrounding the content of fiduciary duty places a practical barrier to investment innovation in this area. Legislative clarification is needed if pension funds are to change their approach toward climate change. Moreover, the focus on fiduciary duty as a barrier to investment innovation in this area masks the behavioural biases toward inertia and short-termism in trustees, which are more insidious and at least as important. These biases, combined with the uncertainty surrounding fiduciary duty, result in a collective action problem: pension funds are unlikely to break with convention unless a significant number of them change their approach simultaneously. Under these conditions, any institutional acceptance of innovation toward a longer term, more sustainable investment strategy that accounts for climate change will take strong leadership from pension funds themselves.

The typically narrow focus of pension fund investment strategy is frequently attributed to trustees' fiduciary duty. For many years, trustees have interpreted this duty as preventing the consideration of 'nonfinancial' issues in investment decision-making. Climate change, whose potential economic effects have only recently become a subject of serious and studied discussion,²² is often perceived as one of these. It is worth noting that 'climate change' is of course not a single event with a unitary impact, but rather a phenomenon that entails a catalogue of risks and opportunities, many of which are likely to have a financial impact. All too often, trustees and their asset managers have been unwilling or unable to deconstruct the concept of climate

²² See generally Stern, *supra* note 4.

change to find its consequences, instead classifying climate change as a non-financial environmental consideration. This chapter argues that the interpretation of fiduciary duty that sanctions this type of approach is based on outdated case law, and is too narrow. Moreover, to the extent that climate change presents real financial risks which are likely to be exacerbated as relevant legislative reforms (such as a carbon tax) are introduced, pension funds' consideration of the risks and opportunities associated with climate change in devising their investment strategy should not, in theory, conflict with even a narrow interpretation of fiduciary duty.

The implications to be drawn from this chapter are threefold. First, the uncertainty surrounding pension fund fiduciary duty and environmental considerations, in particular those related to climate change, should be clarified through legislation. Without this clarification, pension fund trustees will have all the impetus they need to shy away from changes they are already reluctant to make. Second, pension funds must re-examine their approach to investment, as they once did at the advent of modern portfolio theory – any move toward a more sustainable investment approach will require funds to act on their own behalf. An adoption of best-practice governance measures will help pension funds to surmount the behavioural barriers to innovation. Finally, a broader point: this chapter allows a brief, and rather dismal, glimpse at how UK and US courts have interacted with the institutional investment industry in the past – in short, they appear to have reinforced the industry's existing behavioural problems and mutual uncertainties about the application of fiduciary duty in an investment context. In this light, the spectre of fiduciary duty becomes a means to ensure that existing financial norms, of the sort that fuelled the present financial crisis, remain untouched. It should be underlined that

latter chapters, particularly Chapters V and VI, investigate the more positive contributions to be made by courts.

Chapter IV

Chapter IV provides a practical application of some of the theoretical concepts outlined in Chapter III. In particular, it sets out a structural framework through which the environmental potential of pension funds might be realised. It begins by pointing out that the recent global financial crisis has given UK and US pension funds cause to consider the suitability of their investment strategy and the adequacy of their governance techniques. While the crisis can provide no certain solutions as to how pension funds should invest, it does reveal shortcomings in some current approaches to investment. Most notably, it underlines the danger of becoming beholden to herd culture in which prudence is judged by reference to convention (that is, what other investors do) (an idea introduced in Chapter III). The crisis also reveals that a constant focus on short-term performance may distract attention from large, latent longer term risks and hazards, to pension funds' detriment.²³

In the fallout of the crisis, many pension funds have focused any strategic efforts, understandably, on the question of how to meet their obligations to beneficiaries under conditions of dwindling funds.²⁴ Some, however, have used the time to consider a more fundamental shift in the way they meet their obligations to beneficiaries.²⁵ For those pension funds that have chosen to rethink their investment

²³ Ed Waitzer, *Defeating Short-Termism: Why Pension Funds Must Lead*, 2 ROTMAN INT. J. PENSION MGMT 4 (2009).

²⁴ See, e.g., Isabelle Clary, *Fixing a Broken System*, 37 PENSIONS & INVESTMENTS, 11-12 (2009); M.W. Walsh, *Public Pension Funds are Adding Risk to Raise Returns*, N.Y. TIMES, 9 March 2010.

²⁵ See generally, Mark Anson, *What do we do Now?*, 36 PENSIONS & INVESTMENTS 12, 12 (2008); Christine Senior, *Green is Good*, PROFESSIONAL PENSIONS, 15 (2009); but contrast Barry B. Burr, *High-Yield Timing Poor, but Funds Stick with It*, 37 PENSIONS & INVESTMENTS 40, 40-41 (2009).

strategies, one approach has been to consider including an aspect of ‘sustainability’ in their investment strategy, whether it be in the form of longer term investment focus,²⁶ a move toward the integration of environmental, social and governance criteria within mainstream funds, the creation of specialised funds with green themes such as clean water or renewable energy,²⁷ or some combination of these. This diversity of approaches underlines the flexibility of sustainability as a concept.

The growing consciousness within the business and investment worlds of the idea of sustainability²⁸ occurs in the context of the historical backdrop of investment practices related to the notion of socially responsible investment (SRI). Many changes have occurred across the broad field of SRI over the past thirty years.²⁹ The field has grown beyond the negative-screening approach of many early ethical funds to encompass a broader range of investment strategies.³⁰ Most important, perhaps, is a movement (championed by the United Nations Principles for Responsible Investment (UN PRI)) toward integration of environmental, social and governance (ESG) issues into mainstream investment analysis and decision-making. In contradistinction to an ethically-oriented investment approach, UN PRI defines responsible investment (RI) as ‘the integration of ESG criteria into mainstream investment decision-making and ownership practices’³¹, and underlines the business-case justifications for its

²⁶ Duncan Exley, *Comment: Westminster - View the bigger picture*, PENSIONS MANAGEMENT (2009).

²⁷ *Senior*, *supra* note 25.

²⁸ McKinsey & Co, *How Companies Manage Sustainability: McKinsey Global Survey Results*, MCKINSEY QUARTERLY (March 2010).

²⁹ See generally Benjamin R. Richardson, *Keeping Ethical Investment Ethical: Regulatory Issues for Investing for Sustainability*, 87 J. BUS. ETHICS, 555 (2009).

³⁰ See Jim Hawley, Political Voice, *Fiduciary Activism, and the Institutional Ownership of US Corporations: The Role of Public and Noncorporate Pension Funds*, On Inequality: Papers from the 56th Annual Meeting, 38 SOCIOLOGICAL PERSPECTIVES 415 (1995); Russell Sparkes & Christopher J. Cowton, *The Maturing of Socially Responsible Investment: A Review of the Developing Link with Corporate Social Responsibility*, 52 J. BUS. ETHICS 45, 45-57 (2004).

³¹ Available at: <http://www.unpri.org/>.

adoption.³² This chapter argues that the incorporation of sustainability into investment strategies may be seen to be strengthening and adding to the RI movement through its focus on intergenerational equity and the long-term.

The framework that this chapter presents is intended to serve as a template for UK and US pension funds who wish to invest more sustainably, but who are unsure of the practical requirements of such a change. The framework focuses on the adjustments that should be made to the fund's strategy and governance in order to achieve a broader (ESG-inclusive) and longer term approach to investing. Acknowledging that the needs of every pension fund are different, the framework is structured as a spectrum, allowing for more or less extensive change to investment strategy and governance. The chapter begins with a brief review of SRI and more recent RI literature, in the context of growing public awareness of the concept of sustainability. It then examines the literature on pension fund governance, arguing the need for more detailed practical guidance for funds moving toward sustainable investing. A framework is presented as a practical means for UK and US pension funds to go about implementing a sustainable investing approach (ESG-inclusive, and long-term focused) through the adaptation of its investment strategy and governance practices (particularly through the formulation and articulation of a clear investment mission and strong investment beliefs). Finally, the chapter outlines the UK and US legal background, first examining how fiduciary duty might affect pension funds who adopt the framework presented, and then looking briefly at potential regulatory enablers of sustainable investing.

Chapter IV acknowledges the extensive terminological debate that exists in the area. It is to be hoped that widespread, successful implementation of sustainable

³² See generally Richardson, *supra* note 29.

investing or RI would put an end to the need for such debate. That is to say, if over time ESG-inclusive, intergenerationally equitable investing can be shown to be effective and desirable, at some point its goals will become internalised into pension fund investment beliefs systems. At this point, terminology would change: the terms sustainable investing and RI could drop from the lexicon, and the actions they describe would become merely ‘investment’. Behavioural norms have been shown to have a deep influence on the development of legal understandings.³³ Thus, in this situation of changing norms with respect to investment a parallel development might be expected of law. If sustainable investing were to become increasingly conventional, it is arguable that trust law would treat it increasingly as a prudent manner of investing (see Chapter III), obviating the need for inquiry into whether sustainable investing (as opposed to mainstream investment) met with fiduciary standards.

Chapter V

Chapter V examines the timeframe for decision-making in the public sphere, and argues that the principle of intergenerational equity could provide a means for judges to require administrative decision makers to take a longer term perspective with respect to environmental considerations. It begins by observing that over the last forty years, environmental law (both internationally and in domestic jurisdictions across the world) has increasingly been required to address the special issues created by geographically and temporally disparate damage and causes.³⁴ While environmental

³³ See, e.g., ERIC A. POSNER, *LAW AND SOCIAL NORMS* (2000).

³⁴ On the trans-boundary nature of environmental damage see PATRICIA BIRNIE, ALAN BOYLE & CATHERINE REDGWELL, *INTERNATIONAL ENVIRONMENTAL LAW* (3rd ed. 2009). Witness the uneven effects of climate change across the globe: see Nicholas Stern, *What is the Economics of Climate Change?*, 7 *WORLD ECON.* 1, 2 (2006).

law has become more adept at addressing spatially disparate environmental damage, a better capacity to deal with the *temporally* disparate nature of the causes and effects of environmental damage is long overdue.³⁵ The chapter argues that the principle³⁶ of intergenerational equity, which provides a particular focus on temporal relations, has great potential as means of resolving environmental problems in which current interests conflict with the reasonably identifiable interests of future generations.³⁷ In order to test the potential of the principle of intergenerational equity, this chapter provides an analysis of the hitherto underexamined case law. In doing so, it provides a new focus on the practical implications of the principle of intergenerational equity when enforced by courts.

At its most basic level, a principle of intergenerational equity is a principle that promotes equitable relationships between generations. It is based on the notion that justice between generations requires equity between generations.³⁸ As with any application of equity, what constitutes an equitable relationship in an intergenerational context is essentially a normative question. That is to say, a principle of intergenerational equity should address such issues as whether all people have equal moral status (or, practically speaking, whether and to what extent future generations'

³⁵ The Precautionary Principle is concerned with the temporal in that it seeks to prevent irreversible harm: see Cass Sunstein, *Two Conceptions of Irreversible Environmental Harm*, 4 (John M. Olin Law & Econ. Working Paper No. 407 (2d series); Chicago Public Law & Legal Theory Working Paper No. 218; Reg-Markets Center AEI Center for Regulatory & Market Studies Working Paper 08-16; 2008). Yet the precautionary principle is primarily intended to prevent potentially dangerous projects; it does not seek specifically to balance the interests of current and future people.

³⁶ As this paper draws on upon case law which cites the 'principle' of intergenerational equity, the term 'principle' is used here. The use of the word 'principle' is not uncontroversial: see Section II.

³⁷ Edith Brown Weiss first brought wider attention to the notion of intergenerational equity: see *generally* IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, & INTERGENERATIONAL EQUITY (1989) [hereinafter BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS]; *The Planetary Trust: Conservation & intergenerational equity*, 11 ECOLOGY L. Q. 495 (1984) [hereinafter Brown Weiss, *The Planetary Trust*]. Since Brown Weiss's original work, there has been substantial academic attention to the principle, but little case law has put the principle to a practical test until recently.

³⁸ There are many different conceptions of what justice between generations requires. For a concise summary of the concept of intergenerational justice, including competing and complementary theories, see AXEL GOSSERIES & LUKAS H. MEYER, *Introduction: Intergenerational justice and its challenges*, in INTERGENERATIONAL JUSTICE 1, 1-21 (2009).

interests should be discounted), and what distributive principles should apply between generations.³⁹ The chapter goes on to explicate, in some detail, the definition of intergenerational equity. It stresses that what a principle of intergenerational equity would require in any one case is likely to vary; this is why an examination on real case law on the principle is so useful.

Scholarship on intergenerational equity over the years has been largely normative in character – it seeks to explain why a principle of intergenerational equity is desirable.⁴⁰ Much less work has been done to understand the practical implications of judges’ application of the principle to factual situations.⁴¹ This Chapter seeks to fill that gap. A review of relevant literature and case law internationally shows that very few cases have addressed the concept of intergenerational equity. Only in Australia does a nascent jurisprudence on the principle of intergenerational equity appear to have formed.⁴²

³⁹ See Simon Caney, *Climate Change and the Future: Discounting for time, wealth and risk*, 40 J. SOC. PHIL. 163, 165 (2009).

⁴⁰ See generally BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37; Lynda Collins, *Revisiting the Doctrine of Intergenerational Equity in Global Environmental Governance*, 30 DALHOUSIE L.J. 79, 103 (2007). Indeed, the majority of this work has occurred outside the field of law, particularly in philosophy and economics: see generally DISCOUNTING AND INTERGENERATIONAL EQUITY 111, 115 (Paul R. Portney & John Peter Weyant eds., 1999); JUSTICE BETWEEN AGE GROUPS AND GENERATIONS, *supra* note 14; RAWLS, *supra* note 14; JOHN RAWLS, POLITICAL LIBERALISM (2005); THOMPSON, *supra* note 14.

⁴¹ But see Jacqueline Peel, *Climate Change Law: The emergence of a new legal discipline* 32 Melb. U. L. Rev. 922, 962-975 (2008) (discussing principles of sustainable development more generally with some reference to intergenerational equity). Much has been made of the Philippine case, *Oposa v Factoran*, 224 SCRA 792 (1993) (Phil.), as an example of an application of the principle of intergenerational equity: see, e.g., Ben Boer, *The Rise of Environmental Law in the Asian Region*, 32 U. RICH. L. REV. 1503, 1534-37 (1999); Hari M. Osofsky, *Environmental Human Rights Under the Alien Tort Statute: Redress for indigenous victims of multinational corporations*, 20 SUFFOLK TRANSNAT’L L. REV. 335, 376 (1997); Shyami Puvimanasinhe, *Towards a Jurisprudence of Sustainable Development in South Africa: Litigation in the public interest*, 10 SUSTAINABLE DEV. L. & POL’Y 41, 43 (2009). However, its true reach is likely to be limited: compare Dante B. Gatmaytan, *The Illusion of Intergenerational Equity: Oposa v Factoran as Pyrrhic Victory*, 15 GEO. INT’L ENVTL. L. REV. 457, 458-460 (2003), with Socorro Z. Manguiat & Vicente Paolo B. Yu III, *Maximizing the Value of Oposa v Factoran*, 15 GEO. INT’L ENVTL. L. REV. 487, 488-496 (2003).

⁴² Several cases from outside of Australia have made reference to a principle of intergenerational equity, but discussion of the nature and implications of the principle is limited: see, e.g., Jona Razzaque, *Human Rights and the Environment: the national experience in South Asia and Africa*, (Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment, Background Paper No. 4, 14 -16 January 2002) (mentioning two Bangladeshi cases in which the principle of intergenerational

This chapter therefore presents an analysis of the existing jurisprudence on intergenerational equity. The principle is striking in its ambition. As the examination of its definition indicates, it has received attention on the world stage, most notably as a concept informing a number of international conventions, including, most obviously, the Rio Declaration. It is somewhat surprising, then, that it has thus far had limited application in practice. Nonetheless, the ramifications of its application, however infrequent, must not be underestimated. The most significant case law in the field internationally has been generated in Australia; three decisions from the New South Wales Land and Environment Court are examined here: *Gray v Minister for Planning*,⁴³ *Taralga Landscape Guardians Inc v Minister for Planning*,⁴⁴ and *Walker v Minister for Planning*.⁴⁵ The use of Australian cases to elucidate the nature and requirements of the principle should not be construed as limiting the arguments and implications of this work to the Australian context. On the contrary, the issues raised in this paper are relevant to all common law jurisdictions and go to the heart of humanity's prospects for addressing long-term environmental problems.

The Australian case law on intergenerational equity raises several salient issues. First, Australia's legislative provision with respect to intergenerational equity leaves much of the responsibility for determining the content or practical consequences of the principle to judges. Given the difficulty inherent in legislating for long-term goals,⁴⁶ these cases highlight the potential for the judiciary, as an

equity has been mentioned, but not discussed: W.P. no. 300 (1995) and W.P. no. 278 (1996)). In the Indian case of *Jagannath v Union of India* (1999) 2 S.C.C. 87, the court found that the process of environmental impact assessment should refer to intergenerational equity, but did not expand upon what that would entail.

⁴³ [2006] NSWLEC 720.

⁴⁴ [2007] NSWLEC 59.

⁴⁵ [2007] NSWLEC 741.

⁴⁶ See Paul Krugman, *Eat the Future*, N. Y. TIMES, February 13, 2011, Opinion (describing the intergenerational tension in legislation in the US this way: 'the public opposes cuts in programs it likes – and it likes almost everything. What's a politician to do? The answer, once you think about it,

independent and tenured branch of government, to develop systematic protection for the interests of future generations. Second, the Australian example suggests that legislative temptation might be overcome by judicial foresight and prudence in this area. If this is true, its implications for democracy should be assessed. Third, the case law indicates that the principle of intergenerational equity requires decision-makers to consider cumulative environmental impact, hinting at a radical change in the way that environmental harm is assessed: it represents a clear departure from earlier interpretations of environmental harm, which were largely concerned with point source pollution (pollution originating in an identifiable and discrete time and place). It also underscores a judicial willingness to recognise the long time horizon of many environmental problems. Fourth, cases on the principle of intergenerational equity may require judges to prioritise the interests of future generations over those of current generations to some extent. As such, an examination of the early case law on intergenerational equity must bring us to question whether intergenerational equity and intra-generational equity are mutually reinforcing, as is often claimed.⁴⁷ These points are significant. Finally, a set of implications can be drawn from the fact that all of these cases are all based in administrative law. While the use of administrative law as a form of environmental redress has advantages in the context of the principle of intergenerational equity (in particular, it provides a preventative rather than reactive remedy), it also has several limitations. In particular, the broader applicability of decisions made under the New South Wales Land and Environment Court's special merits review jurisdiction is somewhat uncertain. Moreover, there appears to be a

is obvious: sacrifice the future. Focus the cuts on programs whose benefits aren't immediate; basically, eat America's seed corn. There will be a huge price to pay, eventually – but for now, you can keep the base happy').

⁴⁷ See, e.g., Brown Weiss, In Fairness to Future Generations, *supra* note 37 (suggesting that the pursuit of intergenerational equity need not overwhelm the cause of intra-generational equity).

trend to consider the principle of intergenerational equity as integral to environmental impact assessments; this risks limiting its scope.

Chapter V concludes by noting that the interests of future generations are often at odds with those of the present, particularly in the context of the environment. Legislators, as elected representatives of current generations, have little incentive to make laws that protect the environmental well-being of future generations if those laws in any substantial way restrict the way of life of their living constituency.⁴⁸ Even where legislators do enact measures that risk current unpopularity for a future gain, their work may be repealed by a more populist successor; parliaments cannot bind their successors. On a more local scale, administrative decision-makers are often tempted by similarly short-term incentives.

For these reasons, the principle of intergenerational equity is a hopeful addition to environmental law. Though thus far little-used, the principle aims to balance the interests of current and future generations in decision-making, in particular with respect to the environment. This Chapter seeks to elucidate the practical implications of the principle by examining its appearance in Australian case law, where the jurisprudence on the principle is most developed. The practical impact of the principle of intergenerational equity is potentially far-reaching, and as such judges have been given a wide discretion with respect to the environmental interests of future generations. Given the failure of legislators to protect the environmental interests of future generations where they conflict with the current interests (usually economic) of current constituencies, the tempering potential for the principle of intergenerational equity is profound. Moreover, the tenured and independently

⁴⁸ The leader of Australia's opposition said recently that a carbon tax to combat climate change 'must utterly transform the way we live and how we work' – using this as an argument *against* introducing such a tax. He understands only too well that it is difficult to garner popular support for measures whose benefits are felt largely in the future: *see* Sid Mayer, *PM's Carbon Tax Will Change Daily Life, Warns Tony Abbott*, THE AUSTRALIAN, March 8, 2011.

appointed judiciary is structurally less beholden to short-term considerations than those in the legislature.

Chapter VI

Chapter VI brings together the issues from the first three papers by conceptualising intergenerational equity in resource management as an issue of long-term investment. Long-term investment is generally described within the context of financial markets; this Chapter associates the strategies for and barriers to long-term investing in the financial world with long-term natural resource management. In doing so, it draws extensively upon Brown Weiss's seminal treatise on the virtues of an intergenerational perspective for the environment and considers her proposed 'planetary trust' – an institutional solution to the problem of governing long-term commitment.⁴⁹ Central to the argument presented in this Chapter is the suggestion that Brown Weiss' solution looks very much like the governing structure of a defined benefit pension plan – an institution that carries obligations to different generations, with time-horizons as long as 80-100 years. The problem, though, is that these types of institutions have struggled to be effective long-term investors. Crucially, the trustees of these institutions often fail to balance the competing interests of current and future beneficiaries, typically focussing on short-term rather than long-term outcomes. Where they succeed, they remain vulnerable to intervention by the state on behalf of current generations (who are, of course, political constituents). The planetary trust notion, while conceptually useful in the context of resource management, is flawed in theory, just as its resemblant institutions are in practice. The theoretical insights gained through a critique of the planetary trust concept are

⁴⁹ See BROWN WEISS, *supra* note 37.

then tested within the practical context of water management in Australia's Murray Darling Basin. This Chapter characterises the Murray Darling Basin Authority (the Authority) as an institution that adopts some of the planetary trust's essential features as an independent (trustee-like) institution charged with managing Australia's most significant freshwater resources over the long-term; likewise, it faces many of the challenges that we predict in our critique of the planetary trust.

The management of water over the long-term involves the interests of current and future generations. Rainfall patterns differ from year to year, leading to highly variant ecological pressures over the short-term. Over the longer-term, population growth and development are expected to put an increasing strain on water resources globally. If current rates of growth continue, global annual water use is expected to increase to 6.9 trillion cubic metres (2 trillion more than in 2010).⁵⁰ This is 40% more than current water sources can provide.⁵¹ Climate change presents additional uncertainties to the availability of water across space and time over the next century.⁵² In these circumstances, the gradual depletion and degradation of river systems could lead to significantly compromised access to water resources for future generations in some regions. The management of water for the future becomes, increasingly, an immediate concern.

The Chapter begins by conceptualizing long-term investment as a means to strive for intergenerational equity. In order to do so, it is necessary to return briefly to the notions of intergenerational justice and equity, which were discussed in Chapter V, before detailing the concept of long-term investment and the barriers obstructing its realisation: adherence to long-term aims, whether in investment or in management

⁵⁰ Natasha Gilbert, *How to avert a global water crisis*. Nature (News), Published online: 4 October 2010, doi:10.1038/news.2010.490.

⁵¹ *Id* (as of 4 October 2010).

⁵² INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4.

of resources, often proves difficult to achieve. The next section begins by describing Brown Weiss's notion of Planetary Trust as a rare attempt to produce an instrumental means for facilitating justice between members of different generations. The Planetary Trust concept is flawed, however; this section continues with a critique of both the theoretical underpinnings and the practical implications of the Planetary Trust concept. In particular, it notes the similarities between the Planetary Trust and the defined benefit pension fund – an institution whose limitations are now clear. The Chapter then relates the Planetary Trust concept to the practice of water management in Australia's Murray Darling Basin, arguing that the Murray Darling Basin Authority has a role with respect to the long-term management of water that can be categorized as analogous, in its essential features, to that of the Planetary Trust. The section outlines the role and structure of the Authority, its recent findings with respect to the long-term environmental requirements of water use in the Basin, and finally the political reaction to these findings. In short it is argued that the stated reasons for the government and other stakeholders' negative reception of the Authority's findings, couched in fantastical demands for a 'triple bottom line' approach, in fact demonstrate the most fundamental theoretical flaw of the Planetary Trust: the impossibility, in a political context, of protecting long-term interests from the meddling hands of the present.

METHODOLOGY

Much of the research required by Chapters III and V of this thesis was conducted using case law analysis.⁵³ The perspective underlying the research sympathises with the legal realist perspective that ‘law making and adjudication [should be approached] strategically with an eye toward difficulties in implementation.’⁵⁴ This position is not necessarily inconsistent with legal positivism (which sees the law as that which has been posited, decided or allowed,⁵⁵ or as Leslie Green puts it ‘in a more modern idiom, positivism is the view that law is a social construction’),⁵⁶ to the extent that both perspectives see the law as a matter of social fact. In contrast to natural law theory (which sees law as deriving its authority from a higher power, such as God) the legal realist perspective generally holds that ‘what is law’ is demonstrated by the practice of judges and courts. As such, this thesis has looked at the letter of the law, but has drawn conclusions more strongly from the outcomes of cases. For example, Chapter III notes that fiduciary duty requires trustees to act in the best interests of beneficiaries. However, the Chapter concludes that in practice, courts, lawyers and commentators treat fiduciary duty as requiring trustees to do as other trustees do, thereby ingraining an already-present tendency toward herding.

Chapter V finds little help from the wording of the law in determining the meaning of ‘the principle of intergenerational equity’ – instead it is necessary to look at how judges have interpreted the law. The findings in Chapter V are further complicated by the administrative (merits) review nature of the cases presented – in

⁵³ MIKE MCCONVILLE & HONG CHUI WING, *RESEARCH METHODS FOR LAW* (2007); *but compare generally* ROBERTO UNGER, *WHAT SHOULD LEGAL ANALYSIS BECOME?* (1996).

⁵⁴ Austin Sarat, *Vitality Amidst Fragmentation: On the Emergence of Postrealist Law and Society Scholarship*, in *THE BLACKWELL COMPANION TO LAW AND SOCIETY* (Austin Sarat ed., 2004), <http://www.blackwellreference.com/subscriber/tocnode?id=g9780631228967_chunk_g97806312289673>

⁵⁵ Legal positivism was expounded early on by Jeremy Bentham, then John Austin, and later, with some modifications, by H.L.A. Hart: *see* Leslie Green, *Legal Positivism*, in *THE STANFORD ENCYCLOPEDIA OF PHILOSOPHY* (Edward N. Zalta ed., Fall 2009) URL = <<http://plato.stanford.edu/archives/fall2009/entries/legal-positivism/>>.

⁵⁶ Leslie, *supra* note 55.

merits review cases, judges put themselves in the shoes of the original decision-maker. Arguably, judges conducting merits review are acting outside their judicial capacity,⁵⁷ and many have argued that decisions made in merits review cases cannot be applied as precedents in future cases. This is not necessarily true,⁵⁸ but nonetheless adds an interesting dimension to the view that law is demonstrated by practical outcomes. In the case of the principle of intergenerational equity, the law appears as a patchwork of implications whose precedential value is, if still relevant, far from obvious.

While this thesis is based most firmly in legal methodology, it has been necessary to move beyond the law as a point of analysis, particularly with respect to the more practical studies presented in Chapters IV and VI. The environment is a complex issue. The language of the law⁵⁹ is not yet fully equipped to deal with the environment's dynamism, particularly its spatial and temporal dimensions, which appear to be unintuitive to orthodox legal problem-solving. It is for this reason that it was necessary to draw upon other disciplines in the search for answers. In particular, the literature review sets out the temporal problems posed by climate change; while this thesis makes no claim at conducting any scientific inquiry, it is nonetheless necessary to draw on the scientific literature that is so essential to this field. Likewise, the study of timeframes can be greatly clarified by literature appearing outside of legal academia. In particular, psychology and philosophy have provided relevant background reading here. Once again, the thesis makes no claim to have conducted

⁵⁷ But see Elizabeth Fisher, *Administrative Law, Pluralism and the Legal Construction of Merits Review in Australian Environmental Courts and Tribunals*, in LINDA PEARSON, CARLOW HARLOW & MICHAEL TAGGART (EDS), *ADMINISTRATIVE LAW IN A CHANGING STATE: ESSAYS IN HONOUR OF MARK ARONSON* (2008).

⁵⁸ *Id.*

⁵⁹ See Gordon L. Clark, *The Legitimacy of Judicial Decision Making in the Context of Richmond v Croson*, in DAVID DELANEY, RICHARD T. FORD & NICHOLAS BLOMLEY, *THE LEGAL GEOGRAPHIES READER: LAW, POWER & SPACE* (2001).

any primary research in these fields. Rather, it finds them essential to help in the analysis of the primarily legal problems explored.

Much has been said about the opportunities, and the pitfalls, present in interdisciplinary research. This thesis has had to confront the difficulties of interdisciplinary research, keeping in mind Posner's⁶⁰ views on the topic:

interdisciplinary scholarship looms very large, and if it continues to grow as fast as it has in the last thirty years ... it will come eventually to dominate academic law... [I]ts future, which is threatened by problems of quality arising from the peculiar and inadequate institutional structure of interdisciplinary legal scholarship, depends on the ability of the practitioners of this scholarship to influence practice, rather than merely to circulate their ideas within the sealed network of a purely academic discourse.

It is essential that in reaching beyond law to offer legal solutions to the problems posed by climate change, this thesis also reach beyond the *language of the law*, creating proposals about the environment which are comprehensible inside, and outside, of law. Only in this sense can the work done here be truly interdisciplinary, and truly effective.

LIMITS OF INQUIRY

Several things should be said about the limitations to this thesis. The concepts and cases considered occur within three countries: Australia, the UK and the US. There are several reasons for this. The first is purely personal: the author is a citizen of the US and Australia, attended law school in Australia, and has written this DPhil in the UK; law in these jurisdictions is therefore of particular personal relevance. The second is practical: having learnt to research legal concepts within the common law system, a focus on the chosen jurisdictions is a natural way to be able to enter quickly

⁶⁰ Richard A. Posner, *Legal Scholarship Today*, 115 HARVARD L. R. 1314, 1317 (2002).

into researching the issues that matter, rather than focusing on the basics of a legal system. The third is contextual: the trust institutions studied here are creatures of the common law – conceived in trust law and shaped by the concerns of an educated and economically liberal work force, the discussion of pension funds, the Planetary Trust and the environment is well-suited to a common law context. Finally, the concept of intergenerational equity, the subject of the penultimate Chapter of this thesis, has found most traction in Australian law.

The central legal concepts selected – fiduciary duty and intergenerational equity – represent only two of what are undoubtedly many ways of responding to the question of how the law can help to extend the timeframe for environmentally-relevant decision-making. Nonetheless, these concepts are extremely important and to consider them in any less detail would have been to discount their value. As it was, there was no room for the consideration of other potential responses to the research questions.

II. LITERATURE REVIEW

While each Chapter in this thesis forms a cohesive work in its own right (including a targeted literature review), it is worth setting out the broader themes that underlie and bind the various Chapters. The themes treated are as follows: the challenges to decision-making posed by the particular temporal and spatial characteristics of environmental problems, the existence and effects of short-termism in a variety of contexts, and the legal notion of the trust as a means for analysing and addressing problems of a long-term or intergenerational nature.

TEMPORAL AND SPATIAL CHARACTERISTICS OF ENVIRONMENTAL PROBLEMS

The temporal and spatial particularities of environmental problems present a challenge to decision-makers within governments, courts and financial systems. The harm that results from environmental problems can be long-lasting or irreversible,⁶¹ or can remain undiscovered for many years, even after the practices causing it have ceased.⁶² In other words, some environmental harm is not only spatially but also temporally disconnected from its causes.⁶³ Climate change presents a clear example: the harm likely to be caused by climate change in the future will be far removed in time from its causes (which include greenhouse gas emissions dating from the time of

⁶¹ Climate change and the extinction of a species provide examples of such harm: *see* Cass Sunstein, *supra* note 35, at 1-5, 18-19.

⁶² *See* Peter S. Menell, *The Limitations of Legal Institutions for Addressing Environmental Risks* 5 J. ECON. PERSPECTIVES 93, 95 (1991).

⁶³ *See generally* BIRNIE ET AL., *supra* note 34; *see* Stern, *supra* note 34, at 2.

the Industrial Revolution).⁶⁴ The impact of climate change is expected to change over the next century, meaning that different generations will bear different climate change-related environmental and social burdens. Table II-1 (on page 61) shows selected climate change impacts over time and throughout space. For those whose timeframe for decision-making is short, the temporally and spatially problematic nature of environmental problems makes environmental considerations particularly hard to absorb.

In order to consider how climate change impact will change over time and space, it is necessary to delve briefly into the science of climate change. The most complete and accurate source for information on the science and impacts of climate change is the series of reports released by the Intergovernmental Panel on Climate Change ('the IPCC'), a scientific body set up by the United Nations Environment Program and the World Meteorological Organization. The IPCC reports provide a meta-analysis of existing scientific findings on climate change, and represent the consensus of scientific knowledge on the subject.⁶⁵ The IPCC has faced fierce criticism in the media, including for a small number of inaccuracies found in its most recent report.⁶⁶ However, the central findings of the report have not been

⁶⁴ Before the Industrial Revolution, CO₂ concentrations in the atmosphere had been at a constant 280 ppm for the past 500,000 years. CO₂ concentrations rose steeply following the Industrial Revolution to approximately 380 ppm in 2005: *see* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4, at 511.

⁶⁵ The IPCC describes its role as follows: The IPCC is a scientific body. It reviews and assesses the most recent scientific, technical and socio-economic information produced worldwide relevant to the understanding of climate change. It does not conduct any research nor does it monitor climate related data or parameters. Thousands of scientists from all over the world contribute to the work of the IPCC on a voluntary basis. Review is an essential part of the IPCC process, to ensure an objective and complete assessment of current information. Differing viewpoints existing within the scientific community are reflected in the IPCC reports: *see* IPCC website: <http://www.ipcc.ch/organization/organization.htm>, accessed 14 July 2010.

⁶⁶ *See* Centre for Climate Change Economics and Policy, Press Release: 'Statement from Nicholas Stern on Criticism of the IPCC', 31 January 2010.

challenged.⁶⁷ The first independent review of the IPCC assessment report was completed by the Netherlands Environmental Assessment Agency in July 2010.⁶⁸

This report stated that:

Our findings do not contradict the main conclusions of the IPCC on impacts, adaptation and vulnerability related to climate change. There is ample observational evidence of natural systems being influenced by climate change on regional levels. The negative impacts under unmitigated climate change in the future pose substantial risks to most parts of the world, with risks increasing at higher global average temperatures.⁶⁹

The IPCC's project is overwhelmingly large, and the nature of its subject matter is such that it must deal in probabilities rather than absolutes. Bearing in mind these conditions, the IPCC's Reports remain the most reliable source of information on the vast body of climate change research.

CLIMATE CHANGE OVER TIME AND THROUGHOUT SPACE

The IPCC's (2007) Fourth Assessment Report ('the Report') comprises three volumes: the *Physical Science Basis* (Working Group I); *Impacts, Adaptation and Vulnerability* (Working Group II); and *Mitigation of Climate Change* (Working Group III). According to the *Physical Science Basis*, the effects of climate change are likely to become increasingly severe as the next century progresses. The IPCC Report focuses on three time periods: early century (2011 to 2030), mid-century (2046 to 2065) and late century (2080-2099). For a person in her twenties today, these periods

⁶⁷ See *id*; see also Netherlands Environmental Assessment Agency, *Assessing an IPCC assessment: An analysis of statements on projected regional impacts in the 2007 report* 10 (2010).

⁶⁸ See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4. On completeness and accuracy of the report, see generally Netherlands Environmental Assessment Agency, *supra* note 67. See also Juliette Jowit, *Review of Questioned IPCC Report Says Conclusions "Well-Founded"*, THE GUARDIAN, 5 July 2010, Environment.

⁶⁹ Netherlands Environmental Assessment Agency, *supra* note 67, at 10.

represent respectively the prime of her life, the prime of her children's lives, and the prime of her grandchildren's lives. As the century progresses, climate change impact is likely to depend increasingly on the context in which we live, including global emission levels and the extent to which clean technology is introduced.⁷⁰

The IPCC sets out a number of emissions scenarios to enable scientists to make comparisons between climate change predictions.⁷¹ Each scenario describes a different global society, with different levels of greenhouse gas emissions, varying technological expertise and different demographic characteristics. Three of these scenarios are included here to show how climate change impact is predicted to intensify over time. Scenario B1 represents a world in which the population peaks at mid-century, and whose economic structures evolve rapidly from resource-intensiveness toward a service and information economy with the development of clean and resource-efficient technologies.⁷² Scenario A1B describes a world in which there is 'very rapid economic growth', a global population that peaks mid-century and then declines, and 'the rapid introduction of new and more efficient technologies.'⁷³ In this scenario, there is a balance of fossil fuel and non-fossil fuel energy sources.⁷⁴ Scenario A2 describes a world where economic development is primarily regionally-focused, and per capita economic growth and technological development are 'more fragmented and slower' than the other scenarios described.⁷⁵

⁷⁰ See INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4, at 749.

⁷¹ These emissions scenarios first appeared in INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SPECIAL REPORT ON EMISSIONS SCENARIOS (1996).

⁷² *Id.*

⁷³ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4, at 18.

⁷⁴ *Id.*

⁷⁵ *Id.*

Regardless of which scenario is used, the report finds that climate change is predicted to have very different impacts over time, chiefly because the temperature change is expected to increase over time. More extreme average temperature increases are expected to have greater environmental and social impacts. The temporal characteristics of climate change can be seen in the differing impacts that will be felt by a twenty year-old today, her child, and her grandchild. These are set out below (see also Figure II-1, on page 43). The ranges of impacts provided reflect the uncertainty as to how much warming will occur during each of the periods.

Early century (2011 to 2030: the prime of life for a twenty year-old today)

The climate models presented in the *Physical Science Basis* of the Report show that the mean global warming for the early century period is likely to be between .64°C and .69°C compared to the mean global surface air temperature from 1980 to 1999.⁷⁶ During this relatively short-term period, the global warming rate is unlikely to vary depending upon which emissions scenario is followed. This is because during the early century period, 50% of predicted warming is from what the IPCC Report describes as ‘committed climate change’.⁷⁷ ‘Committed’ warming is warming that derives from greenhouse gases already present in the atmosphere, and as such would occur even if atmospheric greenhouse gas concentrations were held fixed at year 2000 values.⁷⁸

⁷⁶ *Id.*, at 749.

⁷⁷ *Id.*

⁷⁸ *Id.*

While the global average temperature increase over this period is expected to be small in comparison with the mid-century and late century periods, climate change is nonetheless expected to have some tangible impacts on health, water, food and ecosystems during the early century period (see Table II-1, on page 61). For example, the load of diarrhoeal diseases in poor regions is expected to increase by two to five per cent by 2020.⁷⁹ The range of Lyme disease is expected to expand 200km north in Canada by the 2020s.⁸⁰ The total population at risk of water stress in Africa is expected to increase by 75 to 250 million during the early century period.⁸¹ Climate change is expected to increase the risk of hunger in developing countries during this period. Finally, 58 to 81 per cent of the coral on the Great Barrier Reef is expected to be bleached annually during this period. Overall, however, while some effects of climate change are likely to be noticeable by 2030, these are minor compared to the effects that will be felt by the next two generations.

Mid-century (2046 to 2065: the prime of life for a twenty year-old's children)

The predicted warming during the mid-century period is more dependent on the emissions scenario selected, as during this period only 30% of the warming derives from 'committed' climate change.⁸² The predictions of mean warming for the mid-century period based on the various climate models are: +1.3°C under Scenario B1,

⁷⁹ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: WORKING GROUP II: IMPACTS, ADAPTATION AND VULNERABILITY (2007) Table 8.2.

⁸⁰ N.H. Ogden *et al.*, *Climate change and the potential for range expansion of the Lyme disease vector Ixodes scapularis in Canada*, 36 INTERNATIONAL J. PARASITOLOGY 63 (2006).

⁸¹ N.W. Arnell, *Climate change and global water resources: SRES emissions and socio-economic scenarios*, 14 GLOBAL ENVIRONMENTAL CHANGE 31, 42-46 (2004).

⁸² Warming during the mid-century period is more dependent on emissions scenario because only 30% of the warming at that point is 'committed': INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE, *supra* note 4, at 749.

+1.8°C under Scenario A1B, and +1.7°C under Scenario A2.⁸³ At these warming ranges, climate change's impact on health, water, food and ecosystems is expected to be more serious.

For a start, the total population of people in developing countries at a risk of water stress is expected to increase to 350-600 million.⁸⁴ There is expected to be a decrease of runoff in south-eastern Europe of 20-30 per cent.⁸⁵ By 2050, flow in Australia's largest river basin, the Murray-Darling River Basin is expected to fall by 10-25%⁸⁶. While the overall number of people at risk of hunger in developing countries is expected to decrease from the early century period, climate change is expected, all things being equal, to increase hunger risk.⁸⁷ If an average temperature rise of one per cent occurs, then 97 per cent of the coral on the Great Barrier Reef is expected to be bleached annually.⁸⁸ More generally, a temperature increase of one degree centigrade above 1990 global mean temperature is expected to commit to extinction between 9 and 31% (mean 18%) of species globally.⁸⁹

⁸³ *Id.*

⁸⁴ See Arnell, *supra* note 81, at 42-46.

⁸⁵ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at 550 (Table 12.2). Table compiled from information from J. Alcamo *et al.*, *Future long-term changes in global water resources driven by socio-economic and climate changes*, 52 *HYDROLOGICAL SCIENCES* 247 (2007); F. D. SANTOS, F.D., K. FORBES, & R. MOITA, EDS., *CLIMATE CHANGE IN PORTUGAL: SCENARIOS, IMPACTS AND ADAPTION MEASURES* (2002); B. Lehner *et al.*, *Estimating the impact of global change on flood and drought risks in Europe: a continental, integrated analysis*, 75 *CLIMATIC CHANGE* 273 (2006); Arnell, *supra* note 81, at 42-46.

⁸⁶ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at s. 11.4.1.1 (Table 11.5).

⁸⁷ M.L. Parry *et al.*, 'Effects of Climate Change on Global Food Production under SRES Emissions and Socio-economic Scenarios', 14 *GLOBAL ENVIRONMENTAL CHANGE* 53 (2004). INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at 299 (Table 5.6). Climate change's impact on food is particularly hard to predict because forecasting is so dependent on socio-economic context. The potential positive impact of excess carbon dioxide on crop growth presents another uncertainty.

⁸⁸ R.N. Jones, *Managing Climate Change Risks*, in *THE BENEFITS OF CLIMATE POLICIES: ANALYTICAL AND FRAMEWORK ISSUES*, 251 (J. Corfee Morlot and S. Agrawala, eds., 2004).

⁸⁹ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at Table 4.1 (in 4.4.11 'Global synthesis including impacts on biodiversity').

Late century (2080 to 2099: the prime of life for a twenty year-old's grandchildren)

By the late century period, predictions are subject to higher ranges of uncertainty,⁹⁰ but they show more intense climate change impacts. The predictions of mean warming for the late century period based on the various climate models (and associated uncertainty ranges)⁹¹ are: +1.8°C (1.1°C to 2.9°C) under Scenario B1, +2.8°C (1.7°C to 4.4°C) under Scenario A1B and by +3.4°C (2.0°C to 5.4°C) under Scenario A2.⁹² The climate models indicate that global mean precipitation increases with global warming, but that there are ‘substantial spatial and seasonal variations’ between the various models.⁹³ The projected impacts of climate change at these temperature change ranges include severe impacts to health, water, food and ecosystems.

In Africa, the transmissions rate of malaria is expected to increase in some regions and decrease in others as climate conditions change.⁹⁴ Water cycle patterns are likely to change in different regions of the globe, including an increase in annual runoff in northern Europe of up to 30 per cent and decrease of in southern Europe of up to 36 per cent.⁹⁵ As in the mid-century period, climate change is expected to aggravate problems of hunger in developing countries (although improvements in agricultural production may reduce the hunger burden overall).⁹⁶ The more extreme

⁹⁰ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4, at 749.

⁹¹ These uncertainty ranges include only uncertainty about anthropogenic climate change: *see id.* at 768.

⁹² *Id.* at 768.

⁹³ *Id.* at 768, 785.

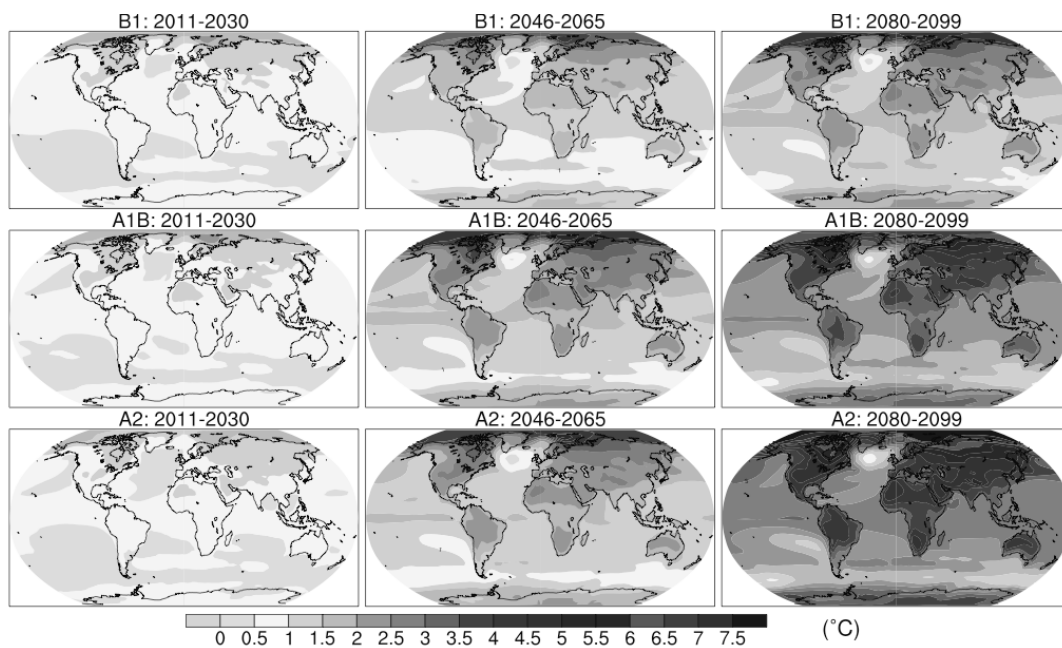
⁹⁴ C.J Thomas *et al.*, *Mixed picture for changes in stable malaria distribution with future climate in Africa*, 20 TRENDS PARASITOLOGICAL 216 (2004), cited INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at 409.

⁹⁵ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at 550 (Table 12.2).

⁹⁶ Parry *et al.*, *supra* note 87.

global average temperature changes expected by the late century period are expected to create risks of large impacts on ecosystems. For example, at 2.1-2.8°C above 1990 global mean temperature, between 21% and 52% (mean 35%) of species globally will be committed to extinction; at 3.7°C above 1990 global mean temperature, between 4% and 38% of birds in Europe will be committed to extinction.⁹⁷

Figure II-1: Predicted global warming at early century, mid-century and late century under three different emissions scenarios: INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4, at 766.



CLIMATE CHANGE THROUGHOUT SPACE

The IPCC Report also indicates that climate change impact is likely to vary across space. This is represented graphically in Figure II-1. While it is useful for the purposes of this literature to group predicted temporal changes into generational segments, the spatial impacts of climate change do not lend themselves neatly to such a

⁹⁷ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, Table 4.1 (in 4.4.11 Global synthesis including impacts on biodiversity).

classification. Nonetheless, it is possible to make a number of generalisations about the predicted variations in climate change over space. In essence, the IPCC Report indicates that climate change will be more pronounced in some regions more than others. Changes in temperature and rainfall patterns are expected to affect abundance and distribution of disease, the ability to produce food, and the availability of water, all of which will have significant impacts on health and economic productivity. All of these effects will be unevenly distributed through space. It is important to stress that the burden of climate change is expected to fall disproportionately on the world's poor. This is due in part to geography, but also to the social factors that reduce a region's ability to mitigate and adapt to climate change: economic weakness, pronounced reliance on climate exposed sectors such as agriculture, and sometimes political instability. As the Stern Review⁹⁸ notes:

The poorest will be hit earliest and most severely. In many developing countries, even small amounts of warming will lead to declines in agricultural production because crops are already close to critical temperature thresholds. The human consequences will be most serious and widespread in Sub-Saharan Africa, where millions more will die from malnutrition, diarrhoea, malaria and dengue fever, unless effective control measures are in place. There will be acute risks all over the world ... Developed countries may experience some initial benefits from warming, such as longer growing seasons for crops, less winter mortality, and reduced heating demands. These are likely to be short-lived and counteracted at higher temperatures by sharp increases in damaging extreme events such as hurricanes, floods, and heatwaves.

The clearest geographical disparities are those related to the physical characteristics of particular places. For instance, climate change-related flooding due to sea level rises will necessarily have a greater impact on low-lying and coastal communities. In 2006, more than 200 million people lived in coastal floodplains

⁹⁸ STERN, *supra* note 4, at 84.

around the world.⁹⁹ This includes many of the world's great cities (such as Hong Kong, London, New York, Tokyo and Shanghai), as well as entire regions: one quarter of the population of Bangladesh is vulnerable to coastal flooding, for example.¹⁰⁰ The greatest overall impact of flooding will most likely be felt in the East and South Asian regions, where low-lying coastlines are particularly densely populated.¹⁰¹

Average temperatures and water availability are also expected to change unevenly throughout the world. Warming over the past 30 years has been most pronounced in higher northern latitudes.¹⁰² Rainfall is expected to increase significantly in some regions, while declining in others, increasing the likelihood of flood and drought in particular regions.¹⁰³ In particular, moist tropics and high latitudes are expected to experience increased water availability, whereas mid-latitudes and semi-arid low latitudes are expected to experience decreased water availability. In addition, changes in run-off patterns are expected to alter regional water availability. For example, predicted temperature increases in mountainous areas are likely to accelerate melting in mountain snow pack and glaciers, reducing long-term water availability and disturbing seasonal water flows in these areas.

Physical changes in climate are likely to have far-reaching consequences for health. First, the health impacts of climate change are likely to vary across regions. Increases in malnutrition are likely in some regions: while some crop productivity is projected to increase in higher latitudes with moderate temperature changes, it is

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4.

¹⁰³ *Id.*

likely to decrease at lower latitudes at even small temperature changes.¹⁰⁴ Second, the number of deaths, diseases and injury caused by increasingly frequent extreme weather events is expected to go up.¹⁰⁵ Third, increased temperatures in temperate areas are expected to reduce deaths from exposure in these regions, but this positive impact is likely to be outweighed by the detrimental health effects increased temperatures are likely to have in some developing countries. Fourth, it has been predicted that regional changes in climate will alter patterns of infectious disease. For example, the incidence of malaria is predicted to increase in Sub-Saharan Africa, although it may decrease in parts of West Africa.¹⁰⁶

The excerpts of the Report included here form only a tiny part of the overall findings presented in the latest IPCC Report. As a whole, they demonstrate that climate change impact on health, water, food and ecosystems is likely to vary over time and space. While the examples outlined here provide only a partial picture of climate change impact, and are subject to a degree of uncertainty, they indicate that the late century period is likely to bear the greatest burden. Moreover, predictors of impact become more uncertain as we look further into the future. The range of risks of climate change impacts increases toward the late century period. Nonetheless, it is clear that the impacts are likely to be stronger as time goes on, meaning that it is not those living today but rather their grandchildren who are most likely to bear the environmental (and thus social) costs of climate change. The scientific evidence paints the problem clearly: it is likely that negative impacts will be more severe in two generation's time than today, but it is the actions of today's generation (in placing or

¹⁰⁴ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SYNTHESIS REPORT: CONTRIBUTION OF WORKING GROUPS I, II AND III TO THE FOURTH ASSESSMENT REPORT (2007).

¹⁰⁵ *Id.*

¹⁰⁶ STERN, *supra* note 4.

failing to place limitations on greenhouse gas emissions) that will determine just how severe climate change impacts are for future generations.

SHORT-TERMISM

Temporal issues resonate throughout the social sciences. Time is, of course, something so fundamental to our existence that it has long preoccupied physicists and philosophers.¹⁰⁷ Preceding most inquiry into the matter is the question of *what* time is – a matter that remains (somewhat unnervingly) unsettled. Is it, as Newton argued, a flow independent of any physical object in the universe?¹⁰⁸ Or is it instead, as Aristotle and Leibniz have suggested, the measure of motion or the progression of thoughts?¹⁰⁹ A further distinction can be drawn between ‘tensed’ and ‘tenseless’ time. The proponents of the tenseless theory of time hold that time is a static entity, much like space. According to this theory, supported by the work of Einstein and others, time is a fourth dimension in which the past, present and future all exist and are equally real. Kurt Vonnegut described tenseless time evocatively in his novel *Slaughterhouse Five*:

Billy Pilgrim says that the Universe does not look like a lot of bright little dots to the creatures from Tralfamadore. The creatures can see where each star has been and where it is going, so that the heavens are filled with rarefied, luminous spaghetti. And Tralfamadorians don’t see human beings as two-legged creatures, either. They see them as great millipedes – ‘with babies’ legs at one end and old people’s legs at the other,’ says Billy Pilgrim.¹¹⁰

¹⁰⁷ PENELOPE J. CORFIELD, *TIME AND THE SHAPE OF HISTORY* (2007).

¹⁰⁸ *See generally*, CRAIG CALLENDAR & RALPH EDNEY, *INTRODUCING TIME* (2001).

¹⁰⁹ *Id.*

¹¹⁰ KURT VONNEGUT, *SLAUGHTERHOUSE FIVE* 63 (Vintage, 2000) (1969).

By contrast, proponents of the tensed theory of time argue that time is a dynamic entity that flows and changes. It is this view that accords most widely with an intuitive understanding of time: in this perception, associated with C.D. Broad and A.N. Prior, the present *flows*, turning the unreal future into the real past.¹¹¹ The philosophical¹¹² and scientific¹¹³ literature on these notions is thick, intertwined, and largely beyond the scope of this thesis. It is, however, not completely without relevance to the notions explored in this thesis and within the social sciences more generally.

As we move from the esoteric to the functional, the question of what timeframe is appropriate for a particular process reveals itself to be a question at the heart of many aspects of social science. Perceptions of time and chosen timeframes have a profound influence on the way that social processes play out and on the way we, as social scientists, convey them. Perhaps this assertion is clearest in the field of history. For Penelope Cornfield, time frames play an essential role in determining ‘the shape of history.’¹¹⁴ In her view, the dimensions of history (as described by historians) are shaped by three things: ‘deep continuity’, ‘gradual (evolutionary) change’, and ‘revolutionary’ change.¹¹⁵ Too often, in Corfield’s view, historians are attracted to the short-term frames that make analysis easier, but less nuanced. Corfield’s concerns appear to hold true, to a greater or lesser extent, across the social sciences. For this thesis, time frames in law and finance are the most relevant.

Law, particularly within the common law world addressed by this thesis, owes much of its essential structure to temporality. This can be seen most explicitly in the

¹¹¹ *Id.*

¹¹² See generally *id.*, discussing the works of C.D. Broad, J.M.E. McTaggart and Bertrand Russell.

¹¹³ See generally *id.*, discussing the work of Albert Einstein and Kurt Godel.

¹¹⁴ See CORFIELD, *supra* note 107, at xiii.

¹¹⁵ *Id.* at 18.

foundational doctrine of precedent. The doctrine of precedent gives effect to the notion of *stare decisis* ('let the decision stand'), meaning that a decision in one legal case should be considered good law, and should be acknowledged in future cases as an accurate statement of law. In this way, historical judgments come to have a strong influence on judgments now and in the future. The doctrine of precedent is designed to provide predictability and stability; thus the American Judge, Louis Brandeis, noted that '*stare decisis* is usually the wise policy, because in most matters it is more important that the applicable rule of law be settled than that it be settled right.'¹¹⁶ As Brandeis' words tend to suggest, time in law becomes unidirectional and hierarchical in the sense that the past helps to define the future.¹¹⁷

Two other aspects of the legal system in common law jurisdictions reinforce the unidirectional nature of legal time. The first is the principle of non-retroactivity, generally associated with criminal law: a person cannot be prosecuted for actions that were legal when they occurred, even if the law has since changed.¹¹⁸ The second is the fact that one has, in most cases, only a limited timeframe in which to pursue legal action over a particular incident.¹¹⁹ There are several justifications for the statute of limitations (as the limited time frame is known).¹²⁰ First, over time, evidence weakens: memories fade and physical evidence deteriorates, making lawsuits more difficult to pursue. Second, there is a sense, from a policy perspective, that society is served better by allowing people to get on with their lives without fear of suit over

¹¹⁶ *Burnet v Coronado Oil & Gas Co.*, 285 U.S. 393, 52 S. Ct. 443, 76 L. Ed. 815 [1932].

¹¹⁷ It also suggests, incidentally, that the law may lag behind changing social norms. This appears to be the case with respect to interpretations of pension fund trustee fiduciary duty in some cases, a theme taken up in Chapter III.

¹¹⁸ See James Popple, *The Right to Protection from Retroactive Criminal Law*, 13 CRIM. L. J. p 251, 251 (1991).

¹¹⁹ On occasion this has presented a hurdle to those complaining of harm from environmental damage: see Michael D. Green, *When Toxic Worlds Collide: Regulatory and common law prescriptions for risk communication*, 13 HARV. ENVTL. L. REV. 209, 229-242 (1989).

¹²⁰ On these, and their relative merits, see Patrick J. Kelly, *The Discovery Rule for Personal Injury Statutes of Limitations: Reflections on the British experience* 24 WAYNE L. REV. 1641, 1644 (1978).

incidents that occurred many years ago. Finally, in a similar vein, it is thought that legal resources are better spent addressing recent, serious crimes than pursuing lesser offences from the distant past.¹²¹ Like the doctrine of precedent, the principle of non-retroactivity and the concept of statute of limitations lend force to the common law's unidirectional perspective on time in which past rules, decisions and interpretations are generally given great weight. This occurs to such an extent that the mores of the common law may often be regarded as conservative compared to social norms.¹²²

In some ways, therefore, the law calls upon short-term time frames to make sense of some situations – such as the question of when legal action can be pursued in relation to a past incident – and longer term time frames to make sense of others. For both the doctrine of precedent and the principle of non-retroactivity, very long time frames may be relevant. To this backdrop it is worth adding one final observation about the law and time: judges are perhaps uniquely positioned amongst those who govern to take a long-term view of a social problem. Chapter V argues that judges' independence¹²³ from the electoral cycle gives them some freedom to make decisions intended to provide the best outcome over the long-term, even where that decision flies in the face of short-term popular demand. In this regard judges are able to safeguard the longer term interests of society in a way that most legislators will not or cannot.

Time frames influence the workings of the financial system in a different way. Financial processes rely predominantly on short-term time frames. Criticism of the

¹²¹ Of course, there are some very serious crimes – for example, murder – to which the statute of limitations does not apply.

¹²² On the conservatism of the common law, see generally: OLIVER WENDELL HOLMES, *THE COMMON LAW* (Tim Griffin ed., Transaction Publishers 2005) (1881). It should be noted that in new areas of the law, where little precedent exists, judges are much more able to adopt a newer mode of thinking in reaching a decision. Indeed, their independence from electoral scrutiny may allow them to be more forward thinking than their legislative brethren. This idea is explored at length in Chapter V.

¹²³ Here we exclude those judges who are elected, as is the case for some American judges.

short-termism of the financial world, so ubiquitous following the most recent financial crisis, will be dealt with at length in Chapters III and IV. At this stage it suffices to rehearse some of the features of time and temporality within the context of the financial system.¹²⁴ Financial transactions have, over the years, become exponentially faster. Whereas in agrarian economies, trading was often a lengthy process involving the physical transport of goods over long distances, the advent of technology (from transport to computerised trading systems) has compressed both the space and the time required for a financial transaction to occur.¹²⁵ Stock exchanges provide an almost instantaneous means for assessing the value of listed companies. A result is that investors may, and often do, make short-term demands on investee companies without adequate consideration for the longer term consequences of these demands.¹²⁶

Of course, different investors have different investment time horizons. Pension funds, for example, must manage their investments with a view to providing returns to retirees tomorrow as well as in thirty years time. Thus the longer term performance of assets remains highly relevant, though not nearly so easy to measure or predict. The discussion of the distinction between short-term and long-term considerations in investment is a topic at the heart of John Maynard Keynes' *General Theory of Employment, Interest and Money*. As part of this work, Keynes discusses the subjective nature of physical, fixed asset investments, arguing that *expectations* are central to the way that investments are determined. Short-term expectations include predictions with respect to the cost of wages, the cost of output, and the price of

¹²⁴ As an aside, it is fair to consider whether a parallel criticism might be made of those who regulate and report upon the financial system: how quickly commentators and legislators alike appear to forget the themes that recur persistently within finance: booms and bubbles; reaction and deregulation.

¹²⁵ See, e.g., DAVID HARVEY, *THE CONDITION OF POSTMODERNITY* 291 (1995).

¹²⁶ See, e.g., Kevin J. Lavery, *Economic 'Short-Termism': The Debate, the Unresolved Issues, and the Implications for Management Practice and Research*, 21 *ACADEMY OF MANAGEMENT REVIEW* 825, 826 (1996).

output of a particular investment.¹²⁷ Keynes sees short-term expectations as feeding into an iterative process of evaluation: expectations of short-term performance are constantly and gradually revised in the light of actual results. Past performance then affects current expectations, and influences future expectations.¹²⁸ As Michelle Baddeley notes, ‘this intermingling of past, present and future creates inertia and explains the convention of assuming stability in short-term expectations’.¹²⁹

Keynes sees long-term expectations as full of uncertainty. While long-term expectations of performance find some basis in the current state of affairs, including the existing capital base of a particular investment, they are also influenced by forecasts of future events, future consumer demand, and future regulatory changes. These latter factors are largely unpredictable with any real accuracy. As a result, investment decision-makers are required to rely on a ‘practical theory of the future’ in order to defeat the uncertainty of long-term expectations.¹³⁰ Keynes observes that under conditions of imperfect information, people rely on a number of rules of thumb in order to help them make predictions about the future. In particular, Keynes argues that in general:

- a) people assume (usually incorrectly, given past evidence) that present performance is the best indicator of future performance
- b) people assume that the present state of opinion presents a correct assessment of future prospects¹³¹
- c) people conform to the behaviour of the majority.

¹²⁷ MICHELLE BADDELEY, INVESTMENT: THEORIES AND ANALYSIS 30-45 (2003).

¹²⁸ *Id.*

¹²⁹ *Id.* at 36.

¹³⁰ *Id.*

¹³¹ Hence, as Baddeley notes, ‘conventional valuations are important determinants of investment decisions’: *id.* at 37.

As Garner¹³² notes, these observations are fundamentally psychological and are in some respects very like the ‘heuristics’ described by Daniel Kahneman.¹³³ While Keynes wrote all of this chiefly with reference to physical, fixed asset investments, it is also applicable to investment in financial markets. In financial markets, people are drawn to shorter term investments by the belief that in doing so they may avoid the conditions of uncertainty posed by the future. Keynes argues that much investment in financial markets is dominated by speculation rather than by ‘the genuine expectations of the financial entrepreneur.’¹³⁴ The uncertainties inherent in the future create an environment in which ‘animal spirits’ hold sway over decision-making.

The concept of intertemporal choice, referring to decisions ‘in which the timing of costs and benefits are spread out over time,’¹³⁵ has been studied widely across a range of fields, from psychology and economics to law and public policy. John Stuart Mill, David Hume and Jeremy Bentham all observed a tendency for people to undervalue the future, and felt that it merited societal intervention.¹³⁶ By the 1980s, short-termism was seen as a significant problem in corporate America. In 1986, a Wall Street Journal survey of CEOs of major companies found that 82 of 100 blamed ‘the stock market’s attention to quarterly earnings’ for a decline in long-term business investment and ‘the loss of America’s competitive edge.’¹³⁷ While

¹³² C.A. Garner, ‘Uncertainty’ in Keynes’ General theory: a comment, 15 *History of Political Economy* 83, 83-86 (1983).

¹³³ Daniel Kahneman, *A perspective on judgment and choice: Mapping bounded rationality*, 58 *AMERICAN PSYCHOLOGIST* 697 (2003).

¹³⁴ JOHN MAYNARD KEYNES, *THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY* 151 (1936).

¹³⁵ George Loewenstein & Richard H. Thaler, *Anomalies*, 3 *JOURNAL OF ECONOMIC PERSPECTIVES* 181, 181 (1989).

¹³⁶ See generally Kevin J. Laverty, *Economic ‘Short-Termism’: The Debate, the Unresolved Issues, and the Implications for Management Practice and Research*, 21 *Academy Mgm’t Rev* 825 (1996).

¹³⁷ *Id.* at 831.

Laverty's¹³⁸ review of literature on short-termism suggests that evidence of short-termism dulling America's competitiveness is inconclusive, striking the right balance between short and long-term investment remains central to the performance of firms and economies.

This thesis conscientiously prioritises the long-term and the future; it seeks to identify where longer time frames may be introduced into decision-making, whether legal, financial or environmental (or, as usually is the case, some combination of all three). In doing so, it sketches the temporal nature of a range of problems and examines the various motivations and incentives playing upon the actors charged with addressing them. To take a short-term view of an issue is intuitive; it seems a fairly sure bet. What may happen in the longer term is much less certain – as a result, a structured and deliberate way of thinking about long-term problems becomes all the more important.

THE TRUST

This thesis calls upon many areas of law and legal theory. Of these, however, the most essential is the legal notion of the trust. The trust is a particularly valuable concept for analysing, and also for addressing, problems of a long-term or intergenerational nature for two principle reasons. First, the trust has been, from its earliest days, a legal instrument designed for managing the transfer of wealth between generations.¹³⁹ In the middle ages, it provided an equitable remedy enforced by the

¹³⁸ See generally *id.*

¹³⁹ See generally John H. Langbein, *The Contractarian Basis of the Law of Trusts*, 105 YALE L.J. 625 (1995); F. W. MAITLAND, *EQUITY: A COURSE OF LECTURES* (2d ed. 1936).

Courts of Chancery in defiance of unjust legal rules and norms of the time.¹⁴⁰ For example, in feudal England, when a vassal died leaving minor heirs, the vassal's lands reverted to the crown. Upon reaching majority, the heir could reclaim the lands, but only after paying an (often exorbitant) sum of money to the crown.¹⁴¹ However, the Chancery Courts' recognition of the trust (at that time called a 'use', a corruption of the Latin *ad opus*) allowed the owner to pass legal ownership of the land to number of trustees so that if the owner died, the land would not revert to the crown but would rather continue to be held on behalf of the owner's heirs until they came of age.¹⁴² While the form of the wealth transferred between generations has changed over time (as Langbein argues, we now usually transfer the means for education to our heirs, rather than land)¹⁴³, the trust remains an important *modus operandi*.

The essence of modern trust law has changed surprisingly little over the years. Family trusts continue to provide a means for intergenerational wealth management in a manner not dissimilar to their medieval cousins. The birth of institutional investment, however, has seen the trust institution reach new dimensions in size, membership, and complexity. The pension fund, the principle persona of much of this thesis, is a trust incarnation on a grand scale. Pension funds maintain a rolling pool of beneficiaries of many ages, some of whom will acquire their retirement benefits within a year, and others who will not retire for some thirty years. As such, pension fund trustees are responsible for a horizon of pension fund liabilities stretching thirty years or more; bridging, in fact, generations. In this sense, pension funds are intergenerational investors, at least on the face of their obligations to beneficiaries.

¹⁴⁰ See Maitland, *supra* note 139.

¹⁴¹ See Sue Sheridan Walker, *Free consent and marriage of feudal wards in medieval England*, 8 J. MEDIEVAL HISTORY 123 (1982).

¹⁴² See Maitland, *supra* note 139.

¹⁴³ John H. Langbein, *The Inheritance Revolution*, PUBLIC INTEREST 15, 22 (Winter 1991).

Whether trustees manage their investments in accordance with the long-term nature of their obligations is another story (discussed at length in this thesis).

Second, the trust retains some of equity's historical flexibility to adapt legal solutions to meet new social circumstances. The trust traditionally formed part of the body of law known as equity – the law that was enforced by the Chancery Courts 'on the grounds of conscience,' when the application of strict legal rules would lead to injustice.¹⁴⁴ When the *Judicature Acts* (1873) dismantled the formal distinction between common law and equity, the institution of the trust retained its character as an equitable institution in two senses of the word. First, it formed part of the body of law traditionally known as equity. Second, the trust continued to be used as a means for circumventing injustice. This second sense derives from the conscience-based character of the law of equity more generally. As Halliwell notes, '[e]quity is a source of law which has always retained the fundamental characteristics of infusing elements of "fairness" or "justice" into the legal system as a whole by the very process of mitigation of strict legal rules.'¹⁴⁵ In fact, this picture of equity long predates medieval England. Aristotle defined it as 'a correction of law where it is defective owing to its universality.'¹⁴⁶

This thesis' view of equity, in which equity continues to provide a flexible means for redressing injustice, is not universally accepted. Some have argued that equity's appeal to conscience has diminished over the years, and that today it differs only in name from other branches of the common law. By the 19th Century, a common perspective among judges and commentators was that the flexibility of equity had been extinguished: 'it has long been recognised that equity's naked power

¹⁴⁴ Margaret Halliwell, *EQUITY & GOOD CONSCIENCE IN A CONTEMPORARY CONTEXT* (1997).

¹⁴⁵ *Id.* at 4.

¹⁴⁶ Stuart E. Prall, *The Development of Equity in Tudor England*, 8 *AM. J. LEGAL HIST.* 1, 2 (1964).

of improvisation is spent.¹⁴⁷ This appears to stem from a (legal positivist) fear that to acknowledge equity's propensity to provide relief from injustice in hard cases is to admit unfettered judicial discretion. Thus Halliwell argues that '[a]dherence to legal positivism presupposes that the importation of conscience in legal discourse would lead to the collapse of "law" as a system.'¹⁴⁸ This fear, while understandable, is exaggerated. The somewhat subversive character of equity is constrained by its existence *within* a framework of primary legal rules.¹⁴⁹

Arguably, denial is the inappropriate response to this fear. Rather than refusing to admit that equity can provide a flexible approach to remedying injustice, it is better to demand that judges acknowledge where they have used discretion in providing an equitable remedy. As Ian Duncanson argues, '[i]f a satisfactory solution to the problem confronting the judge requires the exercise of a discretion, it is better that he should articulate it.'¹⁵⁰ Moreover, while equity allows for judicial discretion in certain cases, it would be wrong to describe this as *unbridled* discretion: the rhetoric of the law provides 'a framework of reference with which decisions can be made'.¹⁵¹ The terms of this framework are open to debate. According to Halliwell, the framework

should [limit] judicial discretion and yet [allow] the principle of conscience, understood in terms of society's current conception of justice and fairness, to operate as a vital principle in legal analysis. The real difficulty does not lie in the disguise of individual judicial preferences. Rather, it lies in judicial awareness that it is politically suspect to acknowledge that a system of law based upon conscience is still operating to subvert both precedent and statute and that such a system thereby *creates* law. Some judges will absolutely refuse to contemplate such a method of development of the law with the result that the litigant is dealt hard justice.¹⁵²

¹⁴⁷ MEAGHER, GUMMOW & LEHANE, *EQUITY, DOCTRINES & REMEDIES*, 68-9 (2d ed. 1984).

¹⁴⁸ Halliwell, *supra* note 144, at 5.

¹⁴⁹ *See generally*, H.L.A. HART, *THE CONCEPT OF LAW* (1994).

¹⁵⁰ Ian Duncanson, *Equity and Obligations*, 39 *MODERN L. REV.* 268, 272 (1976).

¹⁵¹ Halliwell, *supra* note 144, at 8.

¹⁵² *Id.* at 9.

Along these lines, a more constructive critique of the flexible or conscience-based character equity derives from feminist legal theory. Susan Scott-Hunt and Hilary Lim, for example, argue that equity's conscience-based character forms part of 'an old and powerful mythology' that is not always replicated in reality, at least where women's interests are at stake.¹⁵³ This feminist perspective acknowledges, correctly, that flexibility has no predetermined favourites: as Timothy Stretton notes, 'the flexibility offered by rival jurisdictions to the common law could be used to thwart women's entitlements as well as to protect or extend them.'¹⁵⁴ Nonetheless, feminist scholars generally acknowledge that, over the years, the flexibility of equity has allowed women at least some redress in the face of the immutable common law (for example, it allowed married women the right, denied by the common law, to pursue an action before a court).¹⁵⁵

The extent to which judges and commentators acknowledge the flexibility or conscience-based character of equity appears to have fluctuated over time. The character of equity appears to undergo a recursive process – when discretion is used too liberally, judges and commentators appear to react against it, denying equity's flexibility. However, when a refusal to react flexibly to new social situations results in continued injustice, the flexibility of equity is once again appreciated. Pound notes that 'when we have come to a *system* of judicial discretion, we are back very near to our starting point.'¹⁵⁶

¹⁵³ Susuan Scott-Hunter & Hilary Lim, *Foreword*, in FEMINIST PERSPECTIVES ON EQUITY & TRUSTS i, xxxv (Susan Scott-Hunt & Hilary Lim eds., 2001).

¹⁵⁴ TIM STRETTON, WOMEN WAGING LAW IN ELIZABETHAN ENGLAND 32 (1998).

¹⁵⁵ See generally Maggie Conway, *Equity's Darling?*, in FEMINIST PERSPECTIVES ON EQUITY & TRUSTS 27 (Susan Scott-Hunt & Harry Lim eds., 2001); Claire de Than, *Equitable Remedies: Cypher wives, weak women and 'equity's special tenderness'* in FEMINIST PERSPECTIVES ON EQUITY & TRUSTS 197 (S. Scott-Hunt & H. Lim eds., 2001).

¹⁵⁶ Roscoe Pound, *The Decadence of Equity* 5 Colum. L. Rev 20, 23 (1905).

Having outlined trust law's potential as a means for intergenerational wealth transfer, and its adaptable nature, two trust-based institutions should be mentioned before proceeding. The first is the pension fund. Pension funds are trust funds that pool and manage the assets on behalf of individuals, usually until these individuals retire. Trustees of a pension fund are bound by fiduciary duty to act in the best interests of the fund's members (beneficiaries). Pension funds play a role in all of the Chapters of this thesis, but are especially central to Chapters III and IV. The second is the Planetary Trust. The Planetary Trust is a concept devised by Edith Brown Weiss, an international environmental lawyer. According to Brown Weiss, under the law of constructive trust, the current generation can be seen as guardians who hold the planet on trust for future generations. The Planetary Trust concept creates a powerful environmental metaphor, but Brown Weiss intends for it to go further: in her view, the Planetary Trust could, with appropriate legislative support, function as a working institution.¹⁵⁷ While this thesis is sceptical of the workability of the Planetary Trust, it nonetheless provides a powerful analytical tool in Chapters V and VI.

FINAL REMARKS

This thesis begins within the context of climate change, a gloomy setting for a narrative that acknowledges the short-term timeframe employed by many decision-makers. For, as this literature review has demonstrated, while climate change is a temporally complex problem, it is above all an urgent problem with serious intergenerational effects. Despite its rather grim setting, this thesis is largely optimistic about our ability to design institutions that will help to safeguard humanity's future prospects. It looks for institutional arrangements that allow

¹⁵⁷ See generally, BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 36.

decision-makers to extend the timeframes over which they operate, examining, for example, the opportunities created by insulation from the electoral cycle.¹⁵⁸ It examines ways that legislative reform could provide certainty to those financial decision-makers wishing to move away from conventions that are suboptimal over the long-term.¹⁵⁹ Finally, it considers how institutional governance structures might be applied or modified in pension funds in order to enhance, within the bounds of their mandates, their ability to invest in a more sustainable manner.¹⁶⁰ It concludes that reasons for hope may be found in the capacity for humans to manage the biases, the short-term pressures, and the predilection for the status quo that, unaddressed, would present a nightmarish collective destiny.

¹⁵⁸ This occurs in Chapter V, with respect to judges, and in Chapter VI, with respect to the Murray Darling Basin Authority.

¹⁵⁹ This discussion can be found particularly in Chapter III.

¹⁶⁰ This is set out in Chapter IV.

Table II-1: Selected climate change impacts over time: various sources (see footnotes).

Selected climate change impacts over time				
	Conditions	Early century (2011-2030)	Mid-century (2046-2065)	Late century (2080-2099)
Risk				
Health: Malaria transmission rate in Africa ¹⁶¹	Medium-high emissions and precipitation changes	Decreased malaria transmission rate in 2020s in South East Africa.	Localised increases in malaria transmission rates in highland and upland areas; decrease in transmission rates around Sahel and south central Africa.	Localised increases in malaria transmission rates in highland and upland areas; decrease in transmission rates around Sahel and south central Africa.
Lyme disease risk range in Canada ¹⁶²	Emissions scenario A2	Northward expansion of risk of Lyme disease by approximately 200km by 2020s	*	Northward expansion of risk of Lyme disease by approximately 1000km by 2080s
Water: Total population at risk of increased water stress in Africa ¹⁶³	All emissions scenarios	75-250 million	350-600 million	*
Water availability in Europe ¹⁶⁴	Various scenarios	Increase in annual runoff in northern Europe of up to 15% by the 2020s, and a decrease in southern Europe of up to 23%	Decrease in annual runoff in south-eastern Europe of 20-30%	Increase in annual runoff in northern Europe of up to 30% and decrease of in southern Europe of up to 36%
Food: People at risk of hunger in developing countries ¹⁶⁵	Emissions scenario A1 – choice of scenario has a large influence on climate change impact (for other scenarios see source)	By 2020, increase from 663 to 687 million people at risk of hunger in developing countries (including positive impact on crop productivity from increased CO ₂); 726 million people if positive impact of CO ₂ is not included.	By 2050, increase from 208 to 210 million people at risk of hunger in developing countries (including positive impact on crop productivity from increased CO ₂); 308 million people if positive impact of CO ₂ is not included.	By 2080, increase from 108 to 136 million people at risk of hunger in developing countries (including positive impact on crop productivity from increased CO ₂); 370 million people if positive impact of CO ₂ is not included.

¹⁶¹ C.J. Thomas *et al.*, *supra* note 94.

¹⁶² N.H. Ogden *et al.*, *supra* note 80.

¹⁶³ N.W. Arnell, *supra* note 81.

¹⁶⁴ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at 550 (Table 12.2).

¹⁶⁵ M.L. Parry *et al.*, *supra* note 87.

Ecosystems: Annual Bleaching of Great Barrier Reef ¹⁶⁶	Various scenarios	58 to 81% of Great Barrier Reef bleached every year	97% of Great Barrier Reef bleached every year	'Catastrophic mortality' of coral reef every year
Species extinction		*	At 1°C above 1990 global mean temperature, between 9 and 31% (mean 18%) of species globally will be committed to extinction ¹⁶⁷ ; at 1.6-1.8°C above 1990 global mean temperature, between 15% and 37% (mean 24%) of species globally will be committed to extinction ¹⁶⁸	At 2.1-2.8°C above 1990 global mean temperature, between 21% and 52% (mean 35%) of species globally will be committed to extinction ¹⁶⁹ ; at 3.7°C above 1990 global mean temperature, between 4% and 38% of birds in Europe will be committed to extinction ¹⁷⁰
* No information available in source.				

¹⁶⁶ R.N. Jones, *supra* note 88.

¹⁶⁷ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 79, at Table 4.1.

¹⁶⁸ *Id.*

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

III. FUNDING CLIMATE CHANGE: HOW PENSION FUND FIDUCIARY DUTY MASKS TRUSTEE INERTIA AND SHORT-TERMISM

INTRODUCTION

On January 27, 2010, the U.S. Securities and Exchange Commission (SEC) voted to provide guidance on when public companies should disclose the impact of climate change-related business or legal developments. While the SEC's guidance does not constitute a legal change, it underlines more powerfully than ever that climate change poses risks that investors cannot ignore. Institutional investors, with their broad exposure to systemic risk, should be particularly alert to the implications of this new development. Pension funds control, on average, assets equivalent to 71.6 percent of the GDP of their respective countries throughout the Western world.¹⁷¹ In 2006, U.S. pension funds held shares representing approximately one-quarter of U.S. equity markets;¹⁷² U.K. pension funds held shares representing approximately 13 percent of U.K. equity markets.¹⁷³ As large shareholders, they have profound potential to influence companies in almost all industries.¹⁷⁴ The advent of two global crises, the global financial crisis and climate change, demands an examination of the investment decisions of pension funds in the face of increasingly complex risk. Are these financial behemoths fulfilling their potential to invest in a better future? Or are they

¹⁷¹ Org. for Econ. Co-operation & Development, *Pension Fund Assets Climb Back to pre-Crisis Levels, but Full Recovery Still Uncertain*, 8 PENSION MARKETS IN FOCUS 7 (2011); see also Keith Johnson & Frank Jan de Graaf, *Network for Sustainable Financial Markets, Consultation Paper No. 2: Modernizing Pension Fund Legal Standards for the 21st Century* 3-4 (2009).

¹⁷² See Conference Board, *News Release: US Institutional Investors Boost Ownership of US Corporations to New Highs* 1 (September 2, 2008): 'public pension funds have increased their share of equity markets from 2.9 percent in 1980 to 10 percent 2006. . . . Private pensions funds' share declined from 15.1 percent in 1980 to 13.6 percent in 2006.'

¹⁷³ UK Office of National Statistics, *Share Ownership* (27 January 2010), <http://www.statistics.gov.uk/cci/nugget.asp?id=107>.

¹⁷⁴ See generally, TESSA HEBB, *NO SMALL CHANGE: PENSION FUNDS AND CORPORATE ENGAGEMENT* (2008) (particularly with respect to engagement of investee companies).

acting myopically, concentrating on quarterly financial performance while funding business in ways that have contributed to and continue to fuel these crises?

Climate change and the economic legacy of the global financial crisis present significant challenges to governments around the world.¹⁷⁵ These crises are, to an extent, linked by their genesis in short-termism: in both cases, governments and industry have fostered short-term financial gain without sufficient regard to longer term social costs of the externalities at play.¹⁷⁶ The *Stern Review* highlights the central importance of environmental sustainability to continued economic growth:

The evidence shows that ignoring climate change will eventually damage economic growth. Our actions over the coming few decades could create risks of major disruption to economic and social activity, later in this century and in the next, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th Century. And it will be difficult or impossible to reverse these changes. Tackling climate change is the pro-growth strategy for the longer term, and it can be done in a way that does not cap the aspirations for growth of rich or poor countries. The earlier effective action is taken, the less costly it will be.¹⁷⁷

As for the financial crisis, pension funds were hit hard. The total assets of all pension funds in the member countries of the Organisation for Economic Co-operation and Development (OECD) declined by US \$3.3 trillion (that is, nearly 20 percent) from December 2007 to October 2008.¹⁷⁸ If private pension assets are included that figure rises to US \$5 trillion.¹⁷⁹

From a broad ethical point of view, it is arguable that pension funds should have a wider ambit of responsibility for promoting a sustainable future, given their financial power and their incursion into service provision once the purview of the

¹⁷⁵ See, e.g., World Economic Forum, WORLD ECONOMIC FORUM ANNUAL MEETING: THE POWER OF COLLABORATIVE INNOVATION 2008, 3–17 (2008).

¹⁷⁶ Cf. Stern & Stiglitz, *supra* note 20.

¹⁷⁷ STERN, *supra* note 4 at ii.

¹⁷⁸ Org. for Econ. Co-operation & Development, *supra* note 171 at 3.

¹⁷⁹ *Id.*

state.¹⁸⁰ Fiduciaries' personal ethical considerations should not form a basis for individual investment decisions: the ethical viewpoints of individual trustees and asset managers are too subjective and idiosyncratic to form a proper basis for ad hoc investment decision-making. On a wider scale, however, ethics can contribute to our ontological understanding of the role of pension funds.¹⁸¹ Benjamin Richardson argues that, given their financial significance, institutional investors have an obligation to use their power sustainably by investing in firms whose activities are sustainable.¹⁸² As Stern and others have argued, without environmental sustainability, the financial system ultimately cannot survive.¹⁸³

The primary mandate of pension funds is the creation of financial returns for beneficiaries, but the extent to which this goal is achieved sustainably is a matter for trustees to decide. Pension funds have thus far shown some interest in advocating a change from the short-term focus of the financial system that has fuelled the global financial crisis.¹⁸⁴ However, the recent indication of interest is a far cry from action. The financial crisis has revealed that many pension funds are struggling to fulfil their primary mandate of successful financial management on behalf of beneficiaries, let alone to introduce the new and complex implications of sustainability into their management approach.¹⁸⁵ However, by moving toward a longer term investment

¹⁸⁰ See CLARK, *supra* note 186 at 16–42 (on pension funds and the retreat of the state); see Benjamin Richardson, *Putting Ethics into Environmental Law: Fiduciary Duties for Ethical Investment*, 46 OSGOODE HALL L.J. 243, 247–248 (2008) (on the ethical obligations of institutional investors).

¹⁸¹ This is true particularly in a practical sense. As Hebb notes, '[p]ension funds are not the new moral conscience of the twenty-first century, but they are significant owner's of today's corporations', *supra* note 174, at 1.

¹⁸² See generally Richardson, *supra* note 180.

¹⁸³ See Stern, *supra* note 4. See also Kenneth Arrow *et al.*, *Economic Growth, Carrying Capacity, and the Environment*, 15 ECOLOGICAL ECON. 91, 92–93 (1995).

¹⁸⁴ For example, the Marathon Club, a group of institutional investors who promote long-term investment, has released a report highlighting lessons for institutional investors from the credit crunch. See generally MARATHON CLUB, *BEHAVIOURAL ASPECTS OF INVESTMENT MANAGEMENT: LESSONS FROM THE CREDIT CRUNCH* (2008).

¹⁸⁵ See, e.g., *The Effects of Recent Turmoil in Fin. Markets on Ret. Sec.: Hearing Before the H. Comm. on Educ. and Labor*, October 7, 2008 (statement of Peter R. Orszag, director, Congressional

paradigm and considering the risks and opportunities presented by climate change when designing their investment strategies, pension funds have the potential to fulfil their mandate to beneficiaries in a more sustainable manner.

Reflecting on the context of climate change and the global financial crisis, this Chapter sets out to demonstrate the theoretical potential of pension funds to contribute to a more environmentally sustainable economy within the context of climate change, and to expose the practical barriers that stand in their way. It focuses on UK and US pension funds, because they are similar enough to make comparison straightforward.¹⁸⁶ It examines first why fiduciary duty is perceived as a barrier to change in investment practices, outlining recent legal developments in the area. It argues that requirements of fiduciary duty have been interpreted too narrowly, and *in theory* should not be perceived as a legal barrier to pension funds' consideration of the risks and opportunities associated with climate change: fiduciary duty has been flexible enough to evolve with social expectations in the past (and should be able to adapt to the increasing importance of climate change now). However, *in practice*, courts, commentators and trustees themselves have had the tendency to interpret fiduciary duty's requirement of prudence as *what the majority of investors do*. The prudent course of action in this light becomes to maintain the status quo, limiting the potential for innovation in investment strategy toward the inclusion of environmental considerations that are not (or not yet) explicitly financial. The uncertainty surrounding the content of fiduciary duty places a practical barrier to investment innovation in this area. Legislative clarification is needed if pension funds are to change their approach toward climate change. Moreover, the focus on fiduciary duty

Budget Office), http://www.cbo.gov/ftpdocs/98xx/doc9864/10-07-RetirementSecurity_Testimony.pdf.

¹⁸⁶ See generally GORDON L. CLARK, PENSION FUND CAPITALISM (2000). English and American pension funds have many similarities in terms of governance, funding, and regulation.

as a barrier to investment innovation in this area masks the behavioural biases toward inertia and short-termism in trustees, which are more insidious and at least as important. These biases, combined with the uncertainty surrounding fiduciary duty, result in a collective action problem: pension funds are unlikely to break with convention unless a significant number of them change their approach simultaneously. Under these conditions, any institutional acceptance of innovation toward a longer term, more sustainable investment strategy that accounts for the risks and opportunities associated with climate change will take strong leadership from pension funds themselves.

It is worth noting from the outset that the arguments made here require us to put aside the dichotomy often created between the ‘financial’ and the ‘social.’ In examining the overwhelming influence of the status quo on judicial interpretation of ‘prudence,’ this Chapter attempts to avoid this dichotomy. Instead, the focus here is on the ability of investors and the judiciary to adapt to new social realities; in this case the new social reality is that of environmental issues having an increasingly complex financial impact. At the heart of the argument presented here, therefore, social development requires a revision of what is seen as financial – in other words, the social and the financial are intertwined – and they must be.

This Chapter touches upon a range of issues whose detailed examination is beyond its scope. In particular, it is not the work of this Chapter to undertake an empirical analysis of the financial impact of consideration of the risks and opportunities associated with climate change. This is occurring elsewhere, and comes in addition to the many studies on the financial performance of socially responsible investment (SRI) funds conducted in the past.¹⁸⁷ Furthermore, it does not look in

¹⁸⁷ On the financial impact of climate change, *see, e.g.*, SONIA LABATT & RODNEY R. WHITE, CARBON

detail at the role of asset managers in managing pension fund investments; instead it explores the work of trustees in creating investment strategies and in monitoring delegated functions. Finally, this Chapter does not look in detail at the ethical arguments for and against pension funds' consideration of the risks and opportunities associated with climate change.¹⁸⁸ Instead, the focus here remains upon, first, the extent to which, in theory, fiduciary duty presents a barrier to the potential for pension funds to contribute to a more sustainable financial system and in particular to have explicit regard to the risks and opportunities associated with climate change in their investment strategies, and, second, on the behavioural barriers that exist in practice.

THE POTENTIAL FOR PENSION FUNDS TO ADDRESS CLIMATE CHANGE

Since the early 1980s, the financial power of pension funds has become ubiquitous across the Western world.¹⁸⁹ In 2010, pension funds in the United Kingdom, the United States, Australia, and Canada controlled assets equivalent to 87, 73, 91, and 70 percent of GDP respectively.¹⁹⁰ The increase in financial importance of pension funds has coincided with a retreat of the state as the primary provider of public

FINANCE: THE FINANCIAL IMPLICATIONS OF CLIMATE CHANGE (2007); *cf.* Rob Bauer *et al.*, *Socially Responsible Investing: The Eco-Efficiency Premium Puzzle*, 61 FIN. ANALYSTS J. 51 (2005). For meta-analyses of SRI and financial performance see, *e.g.*, Marc Orlitzky *et al.*, *Corporate Social and Financial Performance: A meta-analysis*, 24 ORG. STUDIES 403 (2003); *see also* BENJAMIN RICHARDSON, *SOCIALLY RESPONSIBLE INVESTMENT LAW* 173–176 (2008) (for a brief review of various studies conducted). Despite the volume of analysis on performance of SRI funds compared to the market as a whole, there is no consensus about the financial outcome of SRI. This lack of consensus is due partly to variations in research methodology, as well as the varying meanings given to SRI funds. Further confusion is added by scholars offering different ways to *measure* performance: if part of the purpose of SRI funds is to create positive social externalities, then financial performance becomes one of several performance measures, rather than the only one: *see* Abigail McWilliams & Donald Siegel, *Event Studies in Management Research: Theoretical and Empirical Issues* 40 ACADEMY MGMT J. 626 (1999).

¹⁸⁸ For a brief analysis of ethical arguments for sustainable investment, see Richardson, *supra* note 180 at 259-266.

¹⁸⁹ *See* CLARK, *supra* note 186 at 17.

¹⁹⁰ Org. for Econ. Co-operation & Development, *supra* note 171 at 7.

infrastructure and governance at the end of the 20th Century.¹⁹¹ Gordon Clark argues that the influence of pension funds has expanded to enter the governance gap created as the state has retired from its zenith of service provision in the 1930s.¹⁹² As the state has reduced its role in providing both physical and legal infrastructure, a space has grown for corporate and financial self-regulation. Pension funds increasingly provide the essential service of an income stream for retirees – a service that in the recent past was the purview of the state, and in the more distant past the duty of the family. Beneficiaries of pension funds therefore place a great deal of trust in the funds to create and maintain adequate wealth for their post-work years. It is little wonder that pension funds and beneficiaries are wary of any incursion into this function. Nevertheless, as the financial strength of pension funds grows, it is worth considering whether the primary wealth creation mandate of pension funds can fit within a broader agenda of fostering sustainable investment. In outsourcing part of their service provision, governments appear to have lost sight of the whole: a pension system that produces financial benefits for society with the one hand and erodes its ecological foundations with the other cannot be a permanent solution.

Before proceeding further, it should be emphasised that pension funds do not form a homogenous group. There are a variety of attributes that may alter a pension fund's ability to affect environmental outcomes. First, larger pension funds are undoubtedly in a stronger position to effect industry change. Larger funds have not only a larger degree of corporate control and more resources but also stronger standards of internal competence and investor sophistication. Second, in defined benefit funds, trustees have more control over how funds are invested, whereas in

¹⁹¹ See CLARK, *supra* note 186 at 16-42; James Hawley & Andrew Williams, *Shifting Ground: Emerging Global Corporate-Governance Standards and the Rise of Fiduciary Capitalism*, 37 ENVIRONMENTAL AND PLANNING A 1995, 1998 (2005).

¹⁹² See CLARK, *supra* note 186 at 16-42.

defined contribution schemes, beneficiaries have a degree of autonomy to direct their own fund investment. The extent to which beneficiaries avail themselves of this ability is, however, limited, with most beneficiaries failing to opt out of default funds (this is discussed in greater detail in below). Third, traditionally, higher equity holdings allow funds a greater opportunity for dialogue with firms. While it appears that pension funds' proportion of bond holdings is currently increasing in relation to equity holdings,¹⁹³ many of the new bond assets are corporate bonds, making any such shift's effect on pension fund behaviour less consequential (depending, of course on the nature and class of bond). Finally, investment practices of public and private pension funds may diverge greatly, and care is taken to distinguish between public and private funds where appropriate throughout this Chapter. The legal regimes governing public and private pension funds in the U.S. and the U.K. are very similar (at least with respect to fiduciary duty); however, for clarity's sake, both sets of regimes are described where relevant. Readers should bear in mind the diversity in pension fund types while considering the arguments that follow. While different types of pension funds will have varying abilities to effect change, there are enough pension funds with the attributes necessary to make a profound difference in this area.

Growing Power, Growing Responsibility?

The financial power of pension funds has grown steadily over the last fifty years. Given their increasing power to affect social welfare both positively and negatively, does it follow that pension funds have developed a conjunct responsibility? The natural environment is, after all, the underlying resource base of the economy.¹⁹⁴

¹⁹³ See, e.g., David Litterick, *Market Falls Add £40bn to UK Pensions Deficit*, DAILY TELEGRAPH (MARCH 25, 2008). See also, Org. for Econ. Co-operation & Development, *supra* note 171 at 2, 5.

¹⁹⁴ See Stern, *supra* note 4; Arrow *et al.*, *supra* note 183.

Drawing on the notion that pension funds have assumed governance¹⁹⁵ responsibilities by virtue of their financial clout, Benjamin Richardson argues that

where financial institutions manage the assets of millions of people and have the capacity to exert huge economic influence, they must be governed by environmental standards that protect natural systems for the long-term. They should be regarded as institutions with special public responsibilities based on ecological ethics.¹⁹⁶

Richardson's argument here is ethical rather than legal. He notes, correctly, that such ethical obligations are generally unenforceable under existing legal structures.¹⁹⁷

While there is room to argue that pension funds are developing an ethical responsibility to use their burgeoning investment powers in an environmentally sustainable manner, legislative changes would be necessary to make any such ethical responsibility legally enforceable. While the concept is not explored in detail here, it is worth noting that such change is not without precedent: in some jurisdictions, company responsibilities under corporate law have widened in recent years to include some duties to a wider stakeholder group than merely shareholders.¹⁹⁸ In the U.K., for example, the Companies Act 2006 requires directors to have regard to 'the impact of the company's operations on the community and the environment'¹⁹⁹ and 'the likely consequences of any decision in the long-term'²⁰⁰ when promoting the success of the company.

¹⁹⁵ The term *governance* is here used in the broad sense, as described in JAN KOOIMAN, *GOVERNING AS GOVERNANCE* 4–8 (2003).

¹⁹⁶ See Richardson, *supra* note 180 at 247.

¹⁹⁷ *Id.* (where Richardson argues that neither appeals to conscience nor market forces alone will be sufficient to bring about a more ethical approach to investment; instead, certain regulatory reforms are required).

¹⁹⁸ See Claire Woods & Roger Urwin, *Putting Sustainable Investing into Practice: A Governance Framework for Pension Funds*, 92 J. BUS. ETHICS 1, 1–2 (2010) (who note a parallel development in some sectors of the pension fund investment industry following the financial crisis).

¹⁹⁹ *Companies Act* (2006) (UK) s. 172(d).

²⁰⁰ *Companies Act* (2006) (UK) s. 172(d).

In *The Rise of Fiduciary Capitalism*, James Hawley and Andrew Williams argue that pension funds are well positioned to encourage companies to produce economy-wide social benefits alongside financial benefits.²⁰¹ They argue that as pension funds become universal owners (that is, as they invest across all sectors of the economy), they can derive benefit from social improvements across the economy.²⁰² Furthermore, they become more vulnerable to systematic financial risks (risks to which the entire economy is exposed). Universal owners have two broad sets of reasons for promoting social welfare as well as focusing on the growth of assets through investment: first, social improvements in all sectors of the economy will be beneficial to the wide range of firms in which they invest.²⁰³ Second, pension funds that are universal owners should have regard to the impact of their investment on factors other than financial value of assets, because negative externalities created by one of their investments in one industry may have an impact on the assets they hold in other industries.²⁰⁴

These arguments raise important questions for social policy: should pension funds assume governance roles? Do pension funds owe a duty to stakeholders outside the beneficiary group? In short, is there a wider social role for pension funds? To treat these questions with the completeness they require is beyond the scope of this Chapter. The position that this Chapter takes is that pension funds generally, with the exception of some large and highly professionally run public pension funds, such as the California Public Employees' Retirement System (CalPERS), are not ready to assume a broad governance role. Gordon Clark *et al.*'s 2007 study comparing trustee competence with that of Oxford undergraduates showed that although education on

²⁰¹ JAMES P. HAWLEY & ANDREW T. WILLIAMS, *THE RISE OF FIDUCIARY CAPITALISM* (2000).

²⁰² *Id.*

²⁰³ *Id.* at xv–xxvii, 3–7.

²⁰⁴ *Id.* at 3–7.

financial matters appears to improve trustee competence,²⁰⁵ on average trustees were less adept than undergraduates at integrating extra-financial factors in their investment decision-making process.²⁰⁶ Furthermore, a wider agenda of sustainability may be ethically preferable, but, as Richardson notes, no such agenda is currently enforceable against pension funds. Any agenda introduced through legislation would have to be careful not to distract trustees from their primary mandate, which is the creation of retirement benefits for beneficiaries. Broader governance role aside, however, this Chapter takes the position that the fulfilment of this primary mandate and the promotion of a more sustainable approach to investment are not necessarily mutually exclusive. Indeed, the fulfilment of the primary mandate is likely to suffer if trustees ignore the long-term consequences of financing environmental degradation.

Climate Change: Financial risks and opportunities

With the increasing financial prominence of pension funds in Western countries comes an increasing potential to encourage the reduction in greenhouse gas emissions across economies. Pension funds could promote reductions in greenhouse gas emissions in two ways while carrying out their investment mandates. First, they could consider carbon footprint as a *risk* that will increase as regulators and markets react to the increasing economic, social, and environmental impact of climate change. Pension funds would then respond to this risk by introducing or requiring their asset managers to introduce carbon footprint as an additional metric for assessing each of the assets in their portfolio, and adjusting their investment decisions accordingly. Moreover, pension funds could engage actively with the firms in which they invest on the issue

²⁰⁵ Gordon L. Clark *et al.*, *The Consistency of UK Pension Fund Trustee Decision-Making*, 6 J. OF PENSION ECON. & FIN. 67, 75 (2007).

²⁰⁶ *Id.* at 82.

of greenhouse gas emissions. A second approach would be to make specialized investments in firms that are likely to have a particularly positive climate change impact (for instance, renewable energy firms), taking a venture capital approach. This more targeted approach would treat climate change as an *opportunity* to preempt market forces as the demand for greener energy increases. The value of the opportunity may be augmented by government funding²⁰⁷ and early mover advantage.²⁰⁸

More importantly, pension funds' explicit consideration of the risks and opportunities associated with climate change could have a broad, lasting influence on the priorities of businesses across economies. If pension funds were to give explicit recognition to the complex combinations of risks associated with climate change, they would send a strong signal to businesses about the value that they, as significant shareholders, place on climate change risk and opportunity. The business response to pension fund treatment of climate change could lead to increased attention to climate change risks and opportunities at an individual business level. In carrying out their investment mandates with a conscious regard to the context of climate change, pension funds would make an informal, but potentially highly significant, contribution to climate governance. In short, pension fund investment could help to advance a more carbon-conscious business paradigm.

Why is it, then, that pension funds do not appear to have a strong interest in moving toward a systematic assessment of the risks and opportunities of climate

²⁰⁷ The US Department of Energy had an enacted budget of \$26.4 billion for the financial year 2010. It has requested a budget of \$28.4 billion for 2011. This is in addition to an allocation of \$38.7 billion under the Recovery Act dedicated to clean energy projects: see US Department of Energy, *Budget of the United States Government, Fiscal Year 2011*, 69-72 (2009). Similarly, the UK has committed around £60 billion to renewable energy and the low-carbon sector from 2009 to 2011: see HM Treasury, *Budget 2009: Building Britain's Future*, 133-335 (2009).

²⁰⁸ See WATSON WYATT, *MACRO FACTORS: THE UPDATE 6* (2005).

change? While some investment consultancies have argued that carbon footprint must be treated as a risk under the circumstances of climate change,²⁰⁹ very few pension funds have shown signs of treating the issue in a proactive manner at the investment strategy level.²¹⁰ For most funds, climate change goes unremarked, integrated on a haphazard basis into company valuations according to the idiosyncratic reporting techniques of businesses. Though the risk of global warming has been widely acknowledged since the 1980s,²¹¹ it was until recently²¹² largely restricted to the domain of the scientific community. This may explain not only why many pension funds give little or no systematic regard to climate change into their investment strategies, but also why little has been written about how pension funds view their own capacity to make a difference with respect to climate change.²¹³ Still, an analogy can be drawn between pension funds' consideration of the risks and opportunities

²⁰⁹ See generally, MERCER INVESTMENT CONSULTING FOR THE CARBON TRUST & THE INSTITUTIONAL INVESTOR GROUP ON CLIMATE CHANGE, *A CLIMATE FOR CHANGE: A TRUSTEE'S GUIDE TO UNDERSTANDING AND ADDRESSING CLIMATE RISK* (2005).

²¹⁰ See Benjamin Richardson, *Climate Finance and its Governance: Moving to a low carbon economy through socially responsible financing?*, 58 INT. & COMP. L. Q. 597, 600 (2009) ('Although the financial sector is publishing numerous studies that warn of the impact of global warming on its self-interest, so far tangible changes in investment practices are hard to discern' [citations omitted]), at 617 (citing instances where investors *have* responded to climate change risk). Cf also INSTITUTIONAL INVESTOR GROUP ON CLIMATE CHANGE, *INVESTOR STATEMENT ON CLIMATE CHANGE REPORT 2008*, 8 (2008): the Institutional Investor Group on Climate Change [hereinafter IIGCC] has 22 signatories (representing around £2 trillion in assets) to its statement committing to a proactive response to climate change. The Norwegian Government Pension Fund-Global, though strictly speaking a sovereign wealth fund, has an ethical mandate: see Gordon L. Clark & Ashby Monk, *Resource wealth and the ethics of global investment: the legitimacy and governance of Norway's sovereign wealth fund*, Working Paper, University of Oxford (2009) at 3-4.

²¹¹ The Intergovernmental Panel on Climate Change was established in 1988: see LABATT & WHITE, *supra* note 187, at 5.

²¹² The STERN REVIEW (see *supra* note 4) shed a new, interdisciplinary light on the problem of climate change by assessing its economic effects.

²¹³ The concept of climate change was highly contested in the business community until recently. While the view that governments and business must address the problem of climate change is now accepted by the vast majority of governments and most businesses (for a contrarian view, see generally, BJORN LOMBORG, *COOL IT: THE SKEPTICAL ENVIRONMENTALIST'S GUIDE TO GLOBAL WARMING* (2007)), it is not surprising that aftershocks of the initial controversy continue to retard and confuse trustee decision-making on the topic. It is arguable, however, that any remaining controversy surrounding climate change is less contentious an issue for trustee decision-making than the breakdown of established financial wisdom following the financial crisis: see, e.g., *What Went Wrong with Economics*, ECONOMIST, July 18, 2009, at 11; Adair Turner, *How to Tame Global Finance*, Features, PROSPECT MAGAZINE, August 27, 2009.

associated with climate change and their consideration of other traditionally ‘non-financial factors,’ including environmental factors, which is reasonably well researched.²¹⁴ The reason frequently put forward by pension fund trustees, asset managers, investment advisors and commentators for the reticence of pension funds toward the consideration of ‘non-financial factors’ is the purported legal barrier created by fiduciary duty.²¹⁵

This Chapter proceeds on the basis that given past legal decisions, legislation and commentary with respect to fiduciary duty and non-financial considerations, trustees are likely to perceive fiduciary duty as posing the foremost legal impediment to their consideration of the risks and opportunities associated with climate change. The following section explores why fiduciary duty is often perceived as a barrier to fiduciaries’ consideration of so-called ‘non-financial’ factors in investment decisions. It argues that the impediment fiduciary duty presents to consideration of non-financial factors has been overstated in the past: in reality, fiduciary duty presents little theoretical barrier to fiduciaries’ consideration of the risks and opportunities associated with climate change.

²¹⁴ See, e.g., UNITED NATIONS ENVIRONMENT PROGRAMME FINANCE INITIATIVE, FIDUCIARY RESPONSIBILITY: LEGAL AND PRACTICAL ASPECTS OF INTEGRATING ENVIRONMENTAL, SOCIAL AND GOVERNANCE ISSUES INTO INSTITUTIONAL INVESTMENT 32-46, 75 (2009) [hereinafter UNEP FI, FIDUCIARY RESPONSIBILITY]; see generally, UNITED NATIONS ENVIRONMENT PROGRAMME FINANCE INITIATIVE, A LEGAL FRAMEWORK FOR THE INTEGRATION OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE ISSUES INTO INSTITUTIONAL INVESTMENT (2005) [hereinafter UNEP FI, LEGAL FRAMEWORK]; PAUL PALMER ET AL., SOCIALLY RESPONSIBLE INVESTMENT: A GUIDE FOR PENSION SCHEMES AND CHARITIES, 97-103 (Charles Scanlan ed., 2005); RICHARDSON, *supra* note 187.

²¹⁵ See AXEL HESSE, LONG-TERM AND SUSTAINABLE PENSION INVESTMENTS: A STUDY OF LEADING EUROPEAN PENSION FUNDS (2008) (presenting results of surveys and interviews of a number of leading pension funds, which showed that most of these funds see fiduciary duty as a significant barrier to the inclusion of ESG factors in pension fund investment decision-making); see also, John Langbein & Richard Posner, *Social Investing and the Law of Trusts*, 79 MICH. L. REV. 72, 88-91, 96-104 (1980) (arguing that making investments for social or ethical reasons is generally contrary to pension funds’ mandates); see also, Rosy Thornton, *Ethical Investments: a case of disjointed thinking*, Cambridge L.J. 396, 397-99, 415 [2008] (arguing that SRI is ‘of doubtful legality’); UNEP FI, LEGAL FRAMEWORK, *supra* note 214, at 7-8 (describing the perception of fiduciary duty regarding ESG issues in the UK).

FIDUCIARY DUTY AS A PERCEIVED BARRIER TO CHANGE

In the trusts law context, fiduciary duty exists to protect the interests of beneficiaries. Fiduciary duty arose in medieval England to protect the property claims of minors against the avaricious intent of guardians; in modern pension funds, it protects beneficiaries' retirement funds from conflicts of interest with the trustees and asset managers who take care of the trust funds, as well as from their imprudence in investment. Paul Finn defines a 'fiduciary' as 'simply, someone who undertakes to act for or on behalf of another in some particular matter or matters.'²¹⁶ A person does not owe a fiduciary duty because he is a fiduciary. Rather it 'is because a particular rule applies to him that he is a fiduciary or confidant *for its purposes*.'²¹⁷ The duty arises out of a relationship of trust and confidence in which a trustee has power to exercise discretion affecting the interests of a beneficiary 'in a legal or practical sense',²¹⁸ and it holds the fiduciary to a higher standard of conduct than that expected in normal business transactions.²¹⁹

The origin of the duty in the conscience-based courts of equity, long before it was known by the name 'fiduciary duty', gives it an inherently malleable quality. This was particularly so in medieval times – beneficiaries of a trust (or more accurately 'use', as it was then known) appealed to the Chancery courts with claims based in ethics or morality where they had no claim in common law (usually because the legal

²¹⁶ P.D. FINN, FIDUCIARY OBLIGATIONS 201 (1977).

²¹⁷ *Id.* at 2.

²¹⁸ *Hospital Products Ltd v United States Surgical Corporation* 156 CLR 41, 96-7 (1984) (Austl.) (Mason J).

²¹⁹ *See Meinhard v Salmon* 164 N.E. 545 (N.Y. 1928), at 546 (opinion of Cardozo J) ('Many forms of conduct permissible in a workaday world for those acting at arm's length, are forbidden to those bound by fiduciary ties. A trustee is held to something stricter than the morals of the market place. Not honesty alone, but the punctilio of an honour the most sensitive is then the standard of behaviour').

title to their property was in the hands of trustees).²²⁰ In these cases, justice was sought to correct an affront to the conscience, and an appeal was made to the Chancellor's moral and theological reasoning. Equity thus complemented the common law by providing justice in situations where the common law, which was restricted by precedent, could not. Those less charitable to the adaptable quality of equity regarded its development as *ad hoc*, with one prominent jurist complaining that 'equity is as long as the chancellor's foot'.²²¹ Fiduciary duty, like the rest of equity, evolved in a somewhat haphazard manner: why is it, asked Ernest Weinrib, two and a half centuries after the seminal case on fiduciary duty,²²² that 'certain categories of actors and certain types of acts are singled out for the application of the fiduciary standard and its attendant severe remedies?'²²³ The content and application of the duty have become clearer in recent years thanks to the introduction of legislation and academic work,²²⁴ including in the highly legislated area of pension funds and institutional investment.²²⁵ As we will see, however, some significant uncertainties remain about pension fiduciary duty, particularly with respect to the consideration of non-financial factors in investment decision-making.

²²⁰ See Donovan Waters QC, *The Trust: Continual Evolution of a Centuries-Old Idea* 14 J. INT'L. Trust and Corp. Plan. 257, 258 (2007).

²²¹ *Id.*

²²² *Keech v Sandford* 25 ER 223 (1726) (In this case, the defendant was required to hold a lease on constructive trust for an infant beneficiary).

²²³ Ernest J. Weinrib, *The Fiduciary Obligation*, 25 U. TORONTO L.J. 1, 1 (1975).

²²⁴ See, e.g., FINN, *supra* note 216.

²²⁵ John Langbein outlines the introduction of large amounts of legislation relating to fiduciary duty in the US investment context during the second half of the twentieth century: see John Langbein, *Why Did Trust Law Become Statute Law in the United States*, 58 ALABAMA L.R. 1069, 1069-71 (2007). Similarly, in the UK context, a number of acts have clarified fiduciary duty in the investment context, see, e.g., *Pensions Act* (1995) (UK), the *Trustee Act* (2000) (UK).

This section first outlines fiduciary duty as it applies to pension funds in the US and the UK, examining the main duties²²⁶ of loyalty and prudence. It then explores in detail why fiduciary duty has been found to prevent pension funds' consideration of non-financial factors in decision-making in the past, considering the US cases *Board of Trustees of Employee Retirement System of the City of Baltimore v City of Baltimore*²²⁷ and *University of Oregon v Oregon Investment Council*²²⁸ and the UK case *Cowan v Scargill*²²⁹ before looking at more recent legal developments in the US and UK. It is argued that the perceived danger of fiduciary consideration of non-financial issues has been construed too widely, setting the scene for the next stage of argument that the consideration of the risks and opportunities associated with climate change in most circumstances would not conflict with fiduciary duty. Finally, the scope for fiduciary duty to evolve is presented as paradoxical: fiduciary duty is flexible enough to adapt to evolving social expectations over time, but its prudence standard relies on reference to the investment decisions of fiduciaries' peer group, meaning that the prudence standard encourages conformity with convention and stifles innovation in the short-term. As a result, it is argued that although fiduciary duty does not present a legal barrier to pension funds' consideration of the risks and opportunities associated with climate change, in the absence of legislative clarification, it is likely that any move toward a broader investment approach will happen incrementally, in order to fulfil the conventionality requirements of the duty of prudence.

²²⁶ *Bristol & West Building Society v Mothew* Ch 1 (CA) [1998] at 18 per Millett LJ; *see also* Robert Flannigan, *The Fiduciary Obligation* 9 O.J.L.S. 285, 310 (1987).

²²⁷ *Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore* 317 Md. 72 (1989).

²²⁸ *Univ. of Oregon v Oregon Inv. Council* 82 Or. App. 145 (1987), 728 P.2d 30.

²²⁹ *Cowan v Scargill* Ch. 270 [1985].

Fiduciary Duty in the Context of Pension Funds

The investment powers of trustees and asset managers of trust funds are limited by their legal obligations to the funds' beneficiaries. Pension funds in the common law world are generally set up as trusts. Pension fund trustees are entrusted with the role of maintaining the fund for the benefit of future pensioners (as beneficiaries). In addition to obligations under legislation, the trust deed, contract and the common law duty of care, trustees, and in most cases, asset managers,²³⁰ are bound by fiduciary duty. Fiduciary duty originates from equity and trusts law, and today exists throughout the UK and US legal world in both case law and legislation.

Whereas pension fund trusts are similar in many ways to other trusts,²³¹ their peculiar intersection with other areas of law, especially employment law,²³² makes pension fund governance particularly complex. Graham Moffatt, writing in 1993, argues that the existence of the pension fund system within two spheres of law (trust law and employment law) leads to inconsistencies in its regulation.²³³ Scott Donald has gone further, arguing that the regulation of pension funds is somewhat schizophrenic: the funds exist, traditionally, as trusts, but they have a second identity as investment vehicles, where beneficiaries are better conceived of as investors, and a

²³⁰ In the UK, the Trustee Act 2000 provides that agents are subject to the same duties as trustees when exercising trust powers. When it comes to asset management, trustees are required to detail the agency agreement with asset managers in writing (s. 13(1)) and to prepare a 'policy statement,' which records how agents (eg asset managers) are required to exercise the powers that have been delegated to them (s. 13(2)). In the US, see ERISA, which provides that a person is a fiduciary with respect to a plan to the extent (i) he exercises any discretionary authority or discretionary control respecting management of such plan or exercises any authority or control respecting management or disposition of its assets, (ii) he renders investment advice for a fee or other compensation, direct or indirect, with respect to any moneys or other property of such plan, or has any authority or responsibility to do so, or (iii) he has any discretionary authority or discretionary responsibility in the administration of such plan: 29 U.S.C. § 1002(21)(A)(i)-(iii).

²³¹ *Cowan v Scargill* [1985] Ch 270 at 290 (judgment of Megarry VC).

²³² *Imperial Group Pension Trust Ltd v Imperial Tobacco Ltd* 1 WLR 589 [1991] at 597 (judgment of Browne-Wilkinson VC).

²³³ See Graham Moffatt, *Pension Funds: A Fragmentation of Trust Law* 56 M.L.R. 471, 488 (1993).

third identity as private welfare providers to beneficiaries/citizens that have filled in a public service function.²³⁴

In addition to these complexities, the content of pension fund fiduciary duty can vary according to jurisdiction²³⁵. Bearing in mind these complexities and variations, the remainder of this section outlines the contents of fiduciary duty in the pension fund context in the US and the UK. It presents the two central elements of trustee fiduciary duty: the duty of loyalty and the duty of prudence.

Duty of Loyalty: Primacy of beneficiary interests

The duty of loyalty establishes that fiduciaries must treat beneficiary interests as paramount in decision-making. It requires fiduciaries to act in the sole interests (or best interests, in certain contexts)²³⁶ of the beneficiaries when exercising their discretion with respect to trust funds.²³⁷ P.D. Finn's work in formulating general principles on fiduciary duty states that 'the general comments of the judges make it equally clear to what end [the fiduciary] must bend his exertions – the service of his beneficiaries' interests.²³⁸ The duty of loyalty can include (but is not limited to) the following:

- fiduciaries must not put themselves in a position where their interests could conflict with those of a beneficiary;
- fiduciaries must not profit from their position as fiduciaries;

²³⁴ See Scott Donald, *Beneficiary, Investor, Citizen: Characterising Australia's Super Fund Participants*, 8 UNIV. N.S.W. LEGAL RESEARCH SERIES 3 [2009].

²³⁵ See Flannigan, *supra* note 226, at 310.

²³⁶ See John Langbein, *Questioning the Trust Law Duty of Loyalty* 114 YALE L.J. P 929, 963-987 (2005) and for the UK context see *Occupational Pension Schemes (Investment) Regulations* (2005) (UK), cl. 4(2).

²³⁷ See generally Langbein, *supra* note 236.

²³⁸ Finn, *supra* note 216, at 15.

- fiduciaries must not misuse trust property.²³⁹

Public pension funds in most US states are subject to the *Uniform Prudent Investor Act* (UPIA). The notes to section 5 of this Act state that ‘the duty of loyalty is perhaps the most characteristic rule of trust law, requiring the trustee to act exclusively for the beneficiaries, as opposed to acting for the trustee’s own interest or that of third parties.’ UPIA provides that a ‘trustee shall invest and manage the trust assets solely in the interest of the beneficiaries’.²⁴⁰ A similar conception of the primary purpose of pension funds exists at common law in the various states.²⁴¹ Private pension funds in the US are governed by the *Employee Retirement Income Security Act* (1974) (ERISA). ERISA provides that ‘a fiduciary shall discharge his duties with respect to a plan solely in the interests of the participants and beneficiaries and ... for the exclusive purpose of (i) providing benefits to participants and their beneficiaries and (ii) defraying reasonable expenses of administering the plan.’²⁴²

US law for both public and private pension funds clearly commences with a sole interest test, but a closer examination reveals that the standard can yield, on occasions, to other interests. John Langbein points out that while US law uses the sole interests of beneficiaries as a starting point for the duty of loyalty, the sole interests standard has been whittled away to a ‘best interests’ standard in a number of contexts, in particular commercial contexts.²⁴³ The reasoning behind the increasing number of exceptions to the sole interests standard is that ‘the trust beneficiary will be better off if the law promotes the mutual advantage of trustee and beneficiary, in the fashion of

²³⁹ See Flannigan, *supra* note 226, at 311.

²⁴⁰ Uniform Prudent Investor Act (US) § 5.

²⁴¹ RESTATEMENT (THIRD) OF TRUSTS (1992).

²⁴² ERISA 29 USC §1104(a) (setting out the prudent standard of care).

²⁴³ See Langbein, *supra* note 236, at 968-978.

other commercial relationships, than if it insist that only the beneficiary can benefit.²⁴⁴ For example, UPIA allows pooled investment vehicles in order to facilitate adequate portfolio diversification, because a singular trust fund is often too small ‘to diversify thoroughly by constructing its own portfolio of individually selected investments’.²⁴⁵ Similarly, US law allows trustees to be remunerated based on the rationale that ‘the interest of trust beneficiaries as a class in obtaining the benefits of compensated trust services will more often be served by allowing the intrinsic conflict.’²⁴⁶

In the UK, a best interests standard is generally applicable. Under the 2005 UK *Occupational Pension Schemes (Investment) Regulations (2005)*, the trustee’s foremost duty to beneficiaries is to act in their ‘best interests’, except in the case of a conflict of interest, when they must act ‘in the sole interest of members and beneficiaries.’²⁴⁷ The common law loyalty requirement in the UK is somewhat circular: UK trustees must exercise their investment powers ‘fairly and honestly for the purposes for which they are given and not so as to accomplish any ulterior motive’.²⁴⁸ The purposes of the investment powers are set out in the trust deed and rules.²⁴⁹ The UK *Pensions Act (1995)* requires trustees to create and maintain a ‘statement of the principles governing decisions about investments for the purposes of the scheme’.²⁵⁰ In cases involving pension funds, ‘the best interests of the beneficiaries are normally their best financial interests,’²⁵¹ although there is some

²⁴⁴ *Id.* at 969.

²⁴⁵ Uniform Prudent Investor Act (US) § 3 cmt.

²⁴⁶ See Langbein, *supra* note 236, at 977.

²⁴⁷ *Occupational Pension Schemes (Investment) Regulations (2005)* (UK), cl. 4(2).

²⁴⁸ *The Duke of Portland v Lady Topham* 11 HL Cas 32 (1864) at 54.

²⁴⁹ See *Harries v Church Commissioners for England* 1 WLR 1241 [1992] at 1246.

²⁵⁰ See s. 35.

²⁵¹ *Cowan v Scargill* 1 Ch. 270 [1985] at 287 (judgment of Megarry VC).

potential (discussed below) for pension fund trustees to consider non-financial factors relevant to beneficiaries interests.²⁵²

The UK and US positions on the duty of loyalty both secure the interests of the beneficiaries, but in slightly different ways. In the US, the law recognises that in some instances, a slight compromise between interests results in best outcome of beneficiaries. By contrast, the UK approaches potential conflicts of interest by proscribing any compromise of beneficiary interests. The central focus of the duty of loyalty for both jurisdictions remains ensuring that fiduciaries who manage trust funds do not misuse their powers for dishonest gain at the expense of the beneficiaries. While both jurisdictions recognise wealth creation for beneficiaries as the pivotal role of trustees, in neither jurisdiction does the duty of loyalty require the untempered maximization of financial benefit for beneficiaries.²⁵³

Duty of Prudence: the modern prudent investor

In addition to the duty of loyalty, pension fund fiduciaries have a duty of prudence, or skill care and diligence. As this duty will be discussed in detail in later in this section, this subsection simply sets out the nature of the duty in the US and UK.

In the US, prior to the advent of modern portfolio theory, the classic statement of the prudence test for trustees is found in *Harvard v Amory*, which states that a trustee must ‘observe how men of prudence, discretion and intelligence manage their

²⁵² See *Martin v City of Edinburgh District Council* SLT 329 [1988]. In this case, Murray LJ questioned Megarry VC’s strong statement for purely financial considerations, saying ‘I cannot conceive that trustees have an unqualified duty simply to invest trust funds in the most profitable investment available. To accept that without qualification would, in my view, involve substituting the direction of financial advisers for the discretion of trustees.’ Similarly, in *Harries v Church Commissioners for England* 1 WLR 1241 [1992] at 1242 it was found that trustees ‘must not use property held by them for investment purposes as a means for making moral statements at the expense of the charity of which they are trustees’, but that this did not prevent them from acting as ‘responsible shareholders.’

²⁵³ This is discussed further below.

own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds'.²⁵⁴

Since the advent of modern portfolio theory,²⁵⁵ US pension funds' duty of prudence has been found in variations of the 'modern prudent investor rule': in ERISA (for private pension funds) and in UPIA (for almost all public pension funds), and in the Third Restatement of Trusts. Put briefly, the modern prudent investor rule requires prudent investment across a whole portfolio in the best interests of the beneficiaries and for the purposes of the fund.

With respect to private pension funds, ERISA's modern prudent investor rule requires fiduciaries to discharge their duties 'with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.'²⁵⁶ Fiduciaries must do so 'by diversifying the investments of the plan so as to minimise the risk of large losses, unless under the circumstances it is clearly prudent not to do so,'²⁵⁷ and must act 'in accordance with the documents and instruments governing the plan.'²⁵⁸

US public pension funds are governed by the laws of their state. Most US states²⁵⁹ have now adopted UPIA, which is an attempt to codify the common law prudent investor rule in each state jurisdiction. UPIA uses language taken mainly

²⁵⁴ *Harvard College v Amory* 26 Mass. (9 Pick.) (1830) at 461.

²⁵⁵ See the Uniform Prudent Investor Act (US), comment to § 5.

²⁵⁶ ERISA, 29 USC § 1104(a)(B).

²⁵⁷ ERISA, 29 USC § 1104(a)(C).

²⁵⁸ ERISA, 29 USC § 1104(a)(D) ('insofar as such documents and instruments are consistent with the [other] provisions' of ERISA.)

²⁵⁹ At the time of publication of this article, 48 US states (all except Delaware and Mississippi) as well as the District of Columbia, had adopted UPIA. See: Michael E. Hunter, *Prudent Investor Rule – Risk Management Update*, available at <http://prudentinvestor-trustee.com/jurisdictions.html>.

from the Third Restatement of Trusts. UPIA's modern prudent investor rule requires trustees to 'invest and manage trust assets as a prudent investor would, by considering the purposes, terms, distribution requirements, and other circumstances of the trust. In satisfying this standard, the trustee shall exercise reasonable care, skill, and caution.'²⁶⁰ In keeping with modern portfolio theory, a 'trustee's investment and management decisions respecting individual assets must be evaluated not in isolation but in the context of the trust portfolio as a whole and as a part of an overall investment strategy having risk and return objectives reasonably suited to the trust.'²⁶¹

In the UK, a trustee must manage the trust in the same manner as an ordinary prudent man of business would conduct his own affairs.²⁶² Under the UK *Trustee Act* (2000), all trustees are required to 'exercise such care and skill as is reasonable in the circumstances', having regard to 'any special knowledge or experience that he has or holds himself out as having'²⁶³. Therefore professional trustees and asset managers purporting to have special fund management skills have a higher standard of care.²⁶⁴

The *Pensions Act* (1995) requires pension funds to create a written statement of investment principles.²⁶⁵ Its subordinate regulations, the *Occupational Pension Schemes (Investment) Regulations* (2005) specifies that pension funds must obtain advice from a qualified person prior to preparing or revising the statement of principles²⁶⁶ and ensure adequate portfolio diversification.²⁶⁷ Pension fund trustees'

²⁶⁰ Uniform Prudent Investor Act (US) § 2(a).

²⁶¹ Uniform Prudent Investor Act (US) § 2(b).

²⁶² *Speight v Gaunt* 9 App Cas 1 (1883) (HL) at 19 (judgement of Lord Blackburn) (approving 22 ChD 727 at 739–740, CA, per Jessel MR); *Re Whiteley, Whiteley v Learoyd* (1886) 33 ChD 347 (CA) at 355 (Lindley LJ).

²⁶³ Trustee Act 2000 § 1(1)(a).

²⁶⁴ See also *Bartlett v Barclays Bank Trust Co Ltd* Ch 515 [1980] at 534.

²⁶⁵ See Pensions Act 1995, ss 35–36.

²⁶⁶ See *Occupational Pension Schemes (Investment) Regulations* (2005) (UK), cl. 2(2)(a)

investment powers must be ‘exercised in a manner calculated to ensure the security, quality liquidity and profitability of the portfolio as a whole.’²⁶⁸

Pension Fund Fiduciary Duty and Non-Financial Considerations

The fiduciary duties of loyalty and prudence have often been seen as presenting an impediment to the consideration of so-called non-financial factors, in particular ethical, environmental, social and governance (ESG) factors in investment strategy.²⁶⁹

In reality, it would be more appropriate to think of these ‘non-financial factors’ as *not-yet-financial factors*, thus acknowledging that currently non-financial factors may become financial as relevant legislation is introduced and public perception develops.

This subsection discusses why so-called non-financial factors have been seen as off-limits for pension fund fiduciaries: briefly, the duty of loyalty has on occasion been interpreted as requiring fiduciaries to focus solely on immediate financial returns from investments; courts have at times interpreted the duty of prudence in such a way as to encourage fiduciaries to adhere to the status quo, discouraging innovation in investment (including looking to factors other than traditional financial considerations). Critics oppose the consideration of non-financial issues on the basis that such consideration may indulge the political motives of trustees at the expense of financial earnings for beneficiaries.²⁷⁰ Public pension funds, in particular, may be

²⁶⁷ Cl. 4(7).

²⁶⁸ Cl. 4(3).

²⁶⁹ See PALMER ET AL., *supra* note 214 at 79; Richardson, *supra* note 187 at 206; *see also* HESSE, *supra* note 215; *see also*, Langbein & Posner, *supra* note 215 at 96-104.

²⁷⁰ *See, e.g.*, Jon Entine, *US Investment Funds and Fiduciary Irresponsibility*, ETHICAL CORPORATION January 16, 2004; Andrew Sheen, *Walk the Line*, GLOBAL PENSIONS, 26 November 2008 (citing the example of Connecticut public pension funds’ decision to invest in an large but ailing local employer, Colt, in 1990, to save the company from bankruptcy. The plans lost \$21 million of a combined \$25 million investment within two years.)

vulnerable to ill-judged, politically motivated investment decisions.²⁷¹ This reasoning, if applied to climate change, paints pension funds' consideration of the risks and opportunities associated with climate change in investment strategy as contrary to fiduciary duty, at least in so far as their inclusion is unconventional compared with industry peers.

Part of the reason for the perpetuation of the perception that fiduciaries should not have regard to non-financial factors in their investment approach is the lack of recent case law directly on point. The main cases in both the US and the UK were decided in the 1980s, and in both places, the questions usually had to do with ethical and political questions regarding investment in then-apartheid South Africa. No case has tested the issue of whether specifically environmental factors may be taken into account in pension fund investment decisions. Certainly, no case has yet dealt with the question of whether pension fund investment strategy may have explicit regard to the risks and opportunities associated with climate change.

There have been recent attempts to clarify the status of non-financial considerations in pension fund investment strategy on both sides of the Atlantic. Unfortunately, neither country has succeeded. In the US, recent Department of Labor Bulletins intended to clarify the Department's position have in fact confused the issue further. Some commentators from within the institutional investment industry have interpreted the bulletins as requiring strict avoidance of non-financial consideration in investment decision-making,²⁷² many regard them simply as confused, confusing and

²⁷¹ See Sheen, *supra* note 270.

²⁷² See Peter Kinder, "Rigid Rule" on Economically Targeted Investments: New ERISA Regulations on a Plan's "Economic Interests", *KLD Blog*, 25 November 2008, [http://blog.kld.com/uncategorized/"rigid-rule"-on-economically-targeted-investments-new-erisa-regulations-on-a-plan's-"economic-interests"/](http://blog.kld.com/uncategorized/).

contradictory.²⁷³ In the UK, comments from parliamentary debate in 2008 indicated some support for the view that ESG factors may legally be integrated into pension funds' investment strategies.²⁷⁴ However, no legislative change was made, and as a result the comments are in no way binding.

For these reasons, the uncertainty surrounding the requirements of fiduciary duty with respect to non-financial considerations remains, and creates a perception amongst trustees that it is safest not to test these waters. Without legislative clarification, it is likely that many pension funds will avoid the issue altogether by ignoring the question of climate change.

US Case Law and Recent Commentary

US cases considering trustees' regard to non-financial factors in investment decision-making have produced mixed outcomes. In *Board of Trustees of Employee Retirement System of the City of Baltimore v City of Baltimore*,²⁷⁵ the City of Baltimore had passed ordinances requiring the city's public pension funds to divest from companies that had business dealings in South Africa. The trustees of the funds sued the City, arguing that the ordinance restricted their ability to properly diversify by reducing their investment universe.²⁷⁶ This, they argued, unlawfully affected their duty of prudence.²⁷⁷ The trustees also argued that the ordinances unlawfully affected the

²⁷³ Lisa Woll, CEO, & Cheryl Smith, Board Chair, Social Investment Forum, *Letter to Bradford P Campbell, Assistant Secretary, Employee Benefit Security Administration, US Department of Labor*, 19 December 2008, <http://www.socialinvest.org/news/releases/pressrelease.cfm?id=129>.

²⁷⁴ Lord McKenzie of Luton, Hansard, House of Lords, 10 October 2008, column 917.

²⁷⁵ Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore 317 Md. 72 (1989).

²⁷⁶ Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore 317 Md. 72 (1989) at 103.

²⁷⁷ Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore 317 Md. 72 (1989) at 103.

common law duty of loyalty by diluting the trustees' focus on the exclusive benefit of beneficiaries through the inclusion of social considerations.²⁷⁸

The Court of Appeal found that although the ordinances did reduce somewhat the universe of potential investments for trustees, 'a diversified, [South Africa Free] portfolio can be managed consistently with the duty of prudence'.²⁷⁹ Furthermore, the court did 'not believe that a trustee necessarily violates the duty of loyalty by considering the social consequences of investment decisions.'²⁸⁰ Instead, the court stated that 'a trustee's duty is not necessarily to maximize the return on investments but rather to secure a "just" or "reasonable" return while avoiding undue risk.'²⁸¹

By contrast, in *University of Oregon v Oregon Investment Council*,²⁸² the Court of Appeal of Oregon refused standing to the University of Oregon students associations who sought a declaration that the state could not invest endowment funds in companies operating in Namibia, South Africa and Zimbabwe. The students had challenged the Oregon Attorney-General's view that such divestment amounted to a probable violation of fiduciary duty. The court stated that the students 'do not allege any legally recognized injury, and neither agreement with plaintiffs' opposition to apartheid nor the desirability of encouraging students to become concerned with social and moral wrongs and to seek to right them can turn the alleged "injuries" into legally recognized ones.'²⁸³

²⁷⁸ Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore 317 Md. 72 (1989) at 102.

²⁷⁹ Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore 317 Md. 72 (1989) at 104.

²⁸⁰ Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore 317 Md. 72 (1989) at 109.

²⁸¹ Bd. of Tr. Employee Ret. Sys. City of Baltimore v City of Baltimore 317 Md. 72 (1989) at 107.

²⁸² Univ. of Oregon v Oregon Inv. Council 82 Or. App. 145 (1987), 728 P.2d 30.

²⁸³ Univ. of Oregon v Oregon Inv. Council 82 Or. App. 145 (1987), 728 P.2d 30 at 150.

The findings in these two cases (as well as other contemporaneous cases²⁸⁴) suggest that whether or not non-financial considerations are permissible depends on the specific facts at hand. Surprisingly, there have been no significant recent US legal decisions to shed further light on these questions.

Contradictory views about the status of non-financial considerations also appear in US commentary surrounding the issue of non-financial considerations in pension fund investment. The comments to section 5 of UPIA, which applies to public pension funds in almost all states, say that

no form of so-called ‘social investing’ is consistent with the duty of loyalty if the investment activity entails sacrificing the interests of trust beneficiaries – for example, by accepting below-market returns – in favour of the interests of the persons supposedly benefited by pursuing the particular social cause.²⁸⁵

The UPIA comment suggests that there can be no trade-off between financial and non-financial gains in pension fund investment strategies. By contrast, the US Department of Labour’s position vis-à-vis non-financial considerations by private pension funds is less clear. In 1998, the Department stated that fiduciary duties under ERISA

do not preclude consideration of collateral benefits, such as those offered by a ‘socially-responsible’ fund, in a fiduciary’s evaluation of a particular investment opportunity. However, the existence of such collateral benefits may be decisive only if the fiduciary determines that the investment offering the collateral benefits is expected to provide an investment return commensurate to alternative investments having similar risks.²⁸⁶

Then, on 17 October 2008, the Department released two interpretive bulletins that further muddied its stance on non-financial considerations in institutional investment.

²⁸⁴ See, e.g., *Blankenship v Boyle*, 329 F. Supp. 1089 (D.D.C. 1971); *Withers v Teachers’ Ret. Sys. of City of N.Y.*, 447 F. Supp. 1248 (S.D.N.Y. 1978).

²⁸⁵ UPIA, comments to § 5.

²⁸⁶ Letter from the Department of Labor to William M. Tartikoff, Senior Vice President and General Counsel of Calvert Group Ltd. (May 28, 1998) [hereinafter Calvert Letter].

The first bulletin provides ‘supplemental guidance relating to fiduciary responsibility in considering economically targeted investments’²⁸⁷ (‘the ETI bulletin’). The second bulletin provides clarification on ‘the exercise of shareholder rights and written statements of investment policy, including proxy voting policies or guidelines’²⁸⁸ (‘the shareholder rights bulletin’). The bulletins are intended to reiterate and clarify the Department of Labor’s ‘longstanding view that workers’ money must be invested and used solely to provide for retirements and not for political, corporate or other purposes’.²⁸⁹

The ETI bulletin states that ERISA

establishes a clear rule that in the course of discharging their duties, fiduciaries may never subordinate the economic interests of the plan to unrelated objectives, and may not select investment on the basis of any factor outside the economic interest of the plan.²⁹⁰

However, where two or more alternative investments ‘are of equal economic value’, fiduciaries are permitted to ‘choose between the investment alternatives on the basis of a factor other than the economic interest of the plan’.²⁹¹ The bulletin highlights the Department of Labor’s belief that fiduciaries who rely on non-economic factors to make investment decisions will find it difficult to prove compliance with ERISA ‘absent a written record demonstrating that a contemporaneous economic analysis showed the investment alternatives were of equal value’.²⁹²

²⁸⁷ Employee Benefits Security Administration, *Interpretive Bulletin Relating to the Fiduciary Standard under ERISA in Considering Economically Targeted Investments*, 29 CFR §2509.08-1 [hereinafter *ETI bulletin*].

²⁸⁸ Employee Benefits Security Administration, *Interpretive Bulletin Relating to Exercise of Shareholder Rights*, 29 CFR §2509.08-2 [hereinafter *Shareholder Rights Bulletin*].

²⁸⁹ Employee Benefits Security Administration, News Release n. 08-1448-NAT, *US Department of Labor Updates Fiduciary Guidance on Exercising Shareholder Rights and Investing in Economically Targeted Investments*, October 16, 2008.

²⁹⁰ The ETI bulletin, *supra* note 287.

²⁹¹ *Id.*

²⁹² *Id.*

The shareholder rights bulletin states that the fiduciary duties described in ERISA require that

in voting proxies, regardless of whether the vote is made pursuant to a statement of investment policy, the responsible fiduciary shall consider only those factors that relate to the economic value of the plan's investment and shall not subordinate the interests of the participants and beneficiaries in their retirement income to unrelated objectives.²⁹³

The shareholder rights bulletin also reinforces that all proxy voting guidelines in statements of investment policy must comply with fiduciary duty. As such, these 'may not subordinate the economic interests of the plan participants to unrelated objectives.'²⁹⁴

While Department of Labour bulletins are only binding upon pension funds that are governed by ERISA and do not affect general trust law, they are nonetheless likely to influence judicial interpretation.²⁹⁵ Shortly after the publication of the bulletins, the Social Investment Forum, ('SIF'), wrote an open letter to the Department criticizing inconsistencies and ambiguities in the bulletins' language.²⁹⁶ The bulletins appear to have confused, rather than clarified, the US Department of Labor's views with respect to the inclusion of non-financial factors in decision-making.

In short, US legal cases, legislation and Department of Labor commentary present pension funds with unclear guidance about their obligations with respect to the consideration of non-financial issues in investment strategy.

²⁹³ The shareholder rights bulletin, *supra* note 288.

²⁹⁴ *Id.*

²⁹⁵ See Kinder, *supra* note 272.

²⁹⁶ See Woll & Smith, *supra* note 273.

UK Case Law and Recent Commentary

The case that has had the greatest influence, somewhat undeservedly, on the issue of non-financial considerations in pension fund investment decisions in the UK is *Cowan v Scargill*.²⁹⁷ In that case, the five Board-appointed trustees of the Mineworkers' Pension Scheme sued the other five (union-appointed) trustees over their refusal to agree to an investment plan unless it was amended 'so as to prohibit any increase in overseas investment, to provide for the withdrawal of existing overseas investments at the most opportune time, and to prohibit investment in energies which are in direct competition with coal'.²⁹⁸ The Court found that the union trustees were in breach of their fiduciary duty in refusing to accept the diversified investment plan. Megarry VC held that:

When the purpose of the trust is to provide financial benefits for the beneficiaries, as is usually the case, the best interests of the beneficiaries are normally their best financial interests.²⁹⁹

He went on to explain that trustees must put aside their social, political and moral views when making investment decisions on behalf of the trustees:

In considering what investments to make trustees must put on one side their own personal interests and views. Trustees may have strongly held social or political views. They may be firmly opposed to any investment in South Africa or other countries, or they may object to any form of investment in companies concerned with alcohol, tobacco, armaments or many other things. In the conduct of their own affairs, of course, they are free to abstain from making any such investments. Yet under a trust, if investments of this type would be more beneficial to the beneficiaries than other investments, the trustees must not refrain from making the investments by reason of the views that they hold.³⁰⁰

²⁹⁷ Ch. 270 [1985].

²⁹⁸ *Cowan v Scargill* Ch. 270 [1985] at 276-7.

²⁹⁹ *Cowan v Scargill* Ch. 270 [1985] at 287.

³⁰⁰ *Cowan v Scargill* Ch. 270 [1985] at 287-8.

Pension funds have often cited this case demonstrating that the ‘best interests’ of beneficiaries coincide with their financial interests and that non-financial considerations are likely to breach fiduciary duty. Therefore, the belief that trustees must seek to maximise profit at the expense of all other considerations has held currency with many institutional investors.³⁰¹ However, this interpretation has been challenged.

A number of commentators, including Megarry VC himself, have argued that the *Cowan v Scargill* decision has been overly influential and has been interpreted too widely. Writing in an academic paper in 1989, Megarry expressed surprise at amount of attention his decision had received³⁰² (that was twenty-two years ago, and the decision is still the primary case on the matter). This view was reinforced in *Martin v City of Edinburgh District Council*,³⁰³ in which Lord Murray said ‘I cannot conceive that trustees have an unqualified duty ... simply to invest trust funds in the most profitable investment available.’³⁰⁴

Under the *Occupational Pension Schemes (Investment) Regulations* (2005), a pension fund’s statement of investment principles must detail ‘the extent (if at all) to which social, environmental or ethical considerations are taken into account in the selection, retention and realisation of investments’³⁰⁵. On 7 October 2008, the UK legislature debated whether legislation should go further and establish a general rule that certain non-financial issues could inform pension fund investment decision-making. In speaking about a proposed amendment to the *Pension Bill*, Lord McKenzie stated that ‘there is no reason in law why trustees cannot consider social

³⁰¹ UNEP FI, LEGAL FRAMEWORK, *supra* note 214 at 3, 6, 9, 27-28, 82, 88.

³⁰² Robert Megarry, *Investing Pension Funds: The mineworkers’ case*, T.G. YODAN, EQUITY, FIDUCIARIES AND TRUSTS 115 (1989).

³⁰³ SCLR 90 [1988].

³⁰⁴ SCLR 90 [1988] at 334.

³⁰⁵ Cl. 3(b)(vi).

and moral criteria in addition to their usual criteria of financial returns, security and diversification'.³⁰⁶ Lord McKenzie went on to say that:

It follows from this that it may be appropriate for trustees to engage in these considerations with companies in which they invest. This may include disinvesting from such companies if, acting in accordance with their fiduciary duties and the objects of their trust, they consider that this is right and in the best interests of their members.³⁰⁷

These comments were not, however, followed by any legislative clarification of the issue in the UK. Indeed, they were intended to demonstrate that no legislative sanctioning of socially driven investing was necessary, with Lord McKenzie going on to say:

It would not be appropriate for the Government or Parliament to impose any guidelines that might restrict the trustee's independence in carrying out its overriding duty to members, although governments have a role in engendering a climate which fosters ethical investment and in ensuring that legislation does not act as a barrier to those who are committed to this.³⁰⁸

In 2005, the United National Environment Program Finance Initiative (UNEP FI) released a report that examined the issue of institutional investors' treatment of ESG factors in investment decision-making. The report surveyed the legal landscape in both common law and civil law jurisdictions and came to the conclusion that:

It is not a breach of fiduciary duties per se to have regard to ESG considerations while pursuing the purposes of the trust. Rather, in our opinion, it may be a breach of fiduciary duties to fail to take account of ESG considerations that are relevant and to give them appropriate weight, bearing in mind that some important economic analysts and leading financial institutions are satisfied that a strong link between good ESG performance and good financial performance exists.³⁰⁹

³⁰⁶ Lord McKenzie of Luton, *supra* note 274.

³⁰⁷ *Id.*

³⁰⁸ *Id.*

³⁰⁹ UNEP FI, FIDUCIARY RESPONSIBILITY, *supra* note 214, at 100.

Despite the sanguine views of UNEP FI, neither recent case law nor legislation has appeared to confirm or deny either their assertions or those of Lord McKenzie. Nor has the US Department of Labor's recent commentary been tested. With the recent entrance of the Obama administration, it is possible that the commentary will undergo further change before there is an opportunity for it to be tested. Therefore, the legal position with respect to pension funds' consideration of non-financial factors in investment strategy remains unclear in both the US and the UK. As the law currently stands, the inclusion of the risks and opportunities associated with climate change as a factor in investment decision-making may be perfectly acceptable. On the other hand, it may put pension funds at risk of violating their fiduciary obligations: until legislation or case law clarifies the point, funds will not know. And, until the advent of such a case or of relevant legislation, pension funds will be wary of amending their investment strategies. It is this uncertainty, rather than fiduciary duty itself, that acts as an impediment to the consideration of non-financial factors at present.

Fiduciary Duty's Paradox: Incrementally flexible

The above section has demonstrated that the uncertainty surrounding pension funds' obligations with respect to non-financial factors in investment decision-making presents a practical barrier to consideration of environmental factors, including climate change, in both the US and UK context. It is clear that part of the problem is the lack of both current case law and consistent legislative commentary on the topic. However, the problem runs deeper than that – it is tied to the nature of fiduciary duty itself. This subsection examines what it is about fiduciary duty that makes it ill suited to adapt to changing social circumstances in anything other than an incremental

manner. The urgent nature of climate change makes this situation all the more poignant.

Fiduciary duty is a ramshackle concept. In early case law it arose, organically, out of certain relationships of trust. Whether a particular relationship was fiduciary, and what duty it entailed, was often difficult to predict.³¹⁰ Indeed, it is difficult to escape the perception that in early times the finding of fiduciary duty, and its content, was rather arbitrary.³¹¹ The preceding sub-sections have demonstrated that although the nature of pension fund fiduciary duty has been clarified in both the US and the UK by successive pieces of legislation, uncertainties remain, particularly with respect to non-financial factors in investment decisions. And, as Langbein has argued, elements of the duty continue to evolve, both through legislation³¹² and through curial interpretation.³¹³ In short, pension fund fiduciary duty remains, to an extent, ‘a concept in search of principle’.³¹⁴

In order to deal with the changing social and environmental realities associated with climate change, fiduciary duty must be able to accommodate certain investment innovations – in particular to allow the explicit consideration of the risks and opportunities associated with climate change. It must be able to recognise the increasingly financial implications of climate change, as legislation (*e.g.* on emissions

³¹⁰ See, *e.g.*, RICHARD CLEMENTS & ADEMOLA ABASS, *EQUITY AND TRUSTS: TEXTS, CASES, AND MATERIALS* (2008) (‘The most common fiduciary relationships exist between trustees and beneficiaries, agents and principles, directors and companies and partners and co-partners’); L.S. Sealy, *Fiduciary Relationships*, *CAMBRIDGE L.J.* 69 [1962] at 73 (outlining four categories of fiduciary duty).

³¹¹ See KIRSTEN EDWARDS, *ESSENTIAL EQUITY AND TRUSTS* 88 (2005, 2nd ed) (arguing that fiduciary duty was plagued by uncertainty for a number of reasons, including ‘wide indicia for finding a fiduciary relationship, the necessity of flexibility in the approach of courts and the subjective notions of public policy and good conscience which underlie decision making’); see also L. S. Sealy, *supra*, note 310, at 73.

³¹² See Langbein, *supra* note 225, at 1070-71, 1077-78.

³¹³ *Id.* at 968-71.

³¹⁴ Sir Anthony Mason, *Themes and Prospects* in P.D. FINN (ED.), *ESSAYS IN EQUITY* 246 (1985).

trading) and markets are gradually doing. However, this subsection argues that while this type of innovation in fiduciary duty is possible, without legislative change it will be incremental – and too slow to meet the urgent changes required by climate change.

This subsection explores the paradoxical nature of fiduciary duty with respect to investment innovation: the duty can evolve – history has seen it adapt to emerging social expectations – but the tendency for courts to judge fiduciaries’ prudence by reference to existing investment norms means that any innovation in investment is bound to be incremental – any change in fiduciary duty must fight against considerable inertia. As a result, while the past flexibility of fiduciary duty suggests that the investment innovation of the risks and opportunities presented by climate *change* is acceptable in theory, the past also suggests that innovation in the courts (that is, absent legislation) is incremental. Change, when introduced too quickly, has been equated by courts with imprudence in the past. The following subsections visit fiduciary duty’s incrementally adaptable nature, showing how it has adapted to evolving financial and social norms in the past, but also discussing its tendency toward inertia. The final subsection discusses what the nature of fiduciary duty means for pension funds’ attitudes toward climate change.

Adapting to Changing Social Expectations (both Financial and Non-Financial)

Fiduciary duty in an investment context has adapted slowly to changing social expectations about finance over the years. If we trace the development of trustees’ fiduciary duty since Victorian times, the change in expectations of investment is striking. In the 18th and 19th centuries, English law took a prescriptive, risk-averse

approach to the investment of trust funds. In *Learoyd v Whitely*³¹⁵ Watson LJ explained the principle as follows

Business men of ordinary prudence may, and frequently do, select investments which are more or less of a speculative character; but it is the duty of the trustee to confine himself to the class of investments which are permitted by the trust and likewise to avoid all investments of that class which are attended with hazard.³¹⁶

According to John Langbein, early English legal attitudes toward investment of trust funds were deeply affected by the South Sea Bubble: in 1719, Parliament allowed trustees to invest in the South Sea Company, whose shares promptly dropped by 90 percent.³¹⁷ In the aftermath, the chastened Parliament instigated a conservative approach to investment of trust funds that began with the *Bubble Act* (1719)³¹⁸ and would not disappear completely until the *Trustee Act* (2000). Under this risk-averse approach, trustees were only permitted to invest in assets specifically authorised in legislation.³¹⁹ These generally included consolidated bank annuities, gilts and mortgages of real property.³²⁰

The prescriptive nature of these legislative lists was gradually relaxed over time: under the Trustee Investment Act 1961, trust funds were required to be divided

³¹⁵ *Learoyd v Whitely* 12 AC 727 (1887). In this case the trustees lost a significant sum of trust money by investing in the a mortgage of a brickfield that went broke.

³¹⁶ *Learoyd v Whitely* 12 AC 727 (1887) at 733.

³¹⁷ John Langbein, *The Uniform Prudent Investor Act and the Future of Trust Investing* 81 IOWA L.R. 641, 643 (1996).

³¹⁸ 6 Geo., ch. 18 (Eng.) The *Bubble Act* (1719) prevented fiduciaries from investing in anything but consul bonds (government backed bonds). See Randall H. Borkus, *A Trust Fiduciary's Duty to Implement Capital Preservation Strategies Using Financial Derivative Techniques*, 36 REAL PROP., PROBATE & TRUST J. 127, 130 (2001) (noting that Parliament's restriction of trust investment to government bonds had the added attraction of ensuring that English trust funds stayed within England).

³¹⁹ The earliest of these was the Law of Property (Amendment Act) (Eng.) 'Lord St Leonard's Act' of 1859, which was followed by further acts, including the Trust Investment Act 1889 and the Trustee Act 1925.

³²⁰ Paulo Panico, *Trustee Investment Powers in International Trust Law* 15 TRUSTS & TRUSTEES 96, 97 (2009).

into ‘narrower range’ and ‘wider range’ investments,³²¹ with wider range investments including UK securities and some shares.³²² It was not until the repeal of the 1961 Act with the *Trustee Act 2000* that the prescriptive approach to investment disappeared from English legislation, allowing trustees to invest in any asset class.

The law with respect to investment of trust funds in the US followed a similar trajectory. US law inherited the English system of prescribing suitable investments for trustees in Victorian times.³²³ It began to move away from the prescriptive approach with the seminal case, *Harvard v Amory*, which introduced the classic US statement of the more flexible prudent man test:

All that can be required of a trustee to invest, is, that he shall conduct himself faithfully and exercise a sound discretion. He is to observe how men of prudence, discretion and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds, considering the probable income, as well as the probable safety of the capital to be invested.³²⁴

While there was some resurgence of the process of requiring trustees to invest only in assets included on a ‘legal list’ of investment options for trustees following the New York case, *King v Talbot*,³²⁵ legislative initiatives gradually broadened trustees’ investment opportunities throughout the 19th and 20th centuries.³²⁶ In particular, the advent of modern portfolio theory in the 1940s led to the legislative introduction of

³²¹ Trustee Investment Act 1961, § 2.

³²² *See Id.* sched. III.

³²³ Langbein, *supra* note 225, at 1077-8.

³²⁴ *Harvard College v Amory* 26 Mass. (9 Pick.) (1830) at 461.

³²⁵ *King v Talbot* 40 N.Y. 76 (1869). The New York courts interpreted the investment powers of trustees narrowly, restricting them to statutory lists: *see* MARK L. ASCHER, SCOTT AND ASCHER ON TRUSTS §19.1.2. (2007, 5th ed).

³²⁶ *See* Fredric J. Bendremer, *Modern Portfolio Theory and International Investments under the Uniform Prudent Investor Act* 35 REAL PROP. PROB. & TR. J. 791, 797 (2001); Langbein, *supra* note 317, at 643.

the modern prudent investor rule.³²⁷ The large amount of legislative change regarding the investment of trust funds in the US is testament to the flexibility of fiduciary duty.

As Langbein notes

the trust of today bears only a distant relationship to the trust of former centuries. The trust that we know is mainly a creature of the 20th Century; accordingly, common law processes of incrementalism were no more suitable for today's trust law than for the regulation of nuclear power plants.³²⁸

Today, under the modern prudent investor rule, trustees in the US may invest in any asset that is appropriate to the fund portfolio, taking into account the risk and return objectives of the trust and its beneficiaries.³²⁹

The need for fiduciary duty to entertain new social and economic expectations surrounding investment was such that its adaption had to be facilitated by legislation. In this light, the past flexibility of fiduciary duty with respect to the investment of trust funds is demonstrated by its rapid adaptation to new financial standards. The potential for fiduciary duty to adapt to new investment approaches is therefore clear. Taking these points one step further, the next paragraphs argue that fiduciary duty also has the flexibility to adopt a broader view of investment by allowing the consideration of certain non-financial issues in investment decision-making.

Changing societal expectations have affected fiduciary duty's approach to investment in subtler ways than risk averseness. Fiduciary duty has had the flexibility to evolve with respect to non-financial factors in trustee decision-making in the context of changing attitudes toward women in the work place. Although dealing with

³²⁷ Langbein, *supra* note 317, at 644.

³²⁸ John Langbein, *supra* note 225, at 1071.

³²⁹ See Uniform Prudent Investor Act (US) § 2(e) ('A trustee may invest in any kind of property or type of investment consistent with the standards of this [Act]').

trustees of a council rather than those of a pension fund, *Roberts v Hopwood*³³⁰ provides a vibrant illustration of how fiduciary duty can evolve in a social context. In this case, a local authority used its powers under statute³³¹ to increase wages for its workers to above the national average and to pay men and women equally. The district auditor found that the council's wage increase was unreasonable and ordered its reversal.³³² The council appealed and the case progressed to the House of Lords. The House of Lords found that the council had breached its fiduciary duty by aiming to be a model employer instead of paying the minimum wage. Atkinson LJ stated that

the council would, in my view, fail in their duty if, in administering funds which did not belong to their members alone, they put aside [minimum wage indicators] and allowed themselves to be guided in preference by some eccentric principles of socialistic philanthropy, or by a feminist ambition to secure the equality of the sexes in the matter of wages in the world of labour.

Atkinson LJ regarded the council's decision to increase wages for both men and women as a symptom of 'the vanity of appearing as model employers of labour' and of the council becoming 'such ardent feminists as to bring about, at the expense of the ratepayers whose money they administered, sex equality in the labour market.'³³³ In this case, the council's consideration of non-financial factors in determining how to invest ratepayers' money was found to violate its fiduciary duty to ratepayers.

With the growth of the anti-discrimination movement throughout the 20th Century, the decision to grant wage parity between sexes no longer appears to be the fanciful indulgence of 'some eccentric principles of socialistic philanthropy.' Some sixty years later, in *Pickwell v Camden London Borough Council*,³³⁴ the Court

³³⁰ *Roberts v Hopwood* AC 578 [1925].

³³¹ *Metropolis Management Act* (1855) (UK), s. 62.

³³² *Roberts v Hopwood* AC 578 [1925] at 590-1.

³³³ *Roberts v Hopwood* AC 578 [1925] at 591-2.

³³⁴ *Pickwell v Camden London Borough Council* QB 962 [1983].

affirmed the fiduciary duty of a council to its ratepayers, but also noted the council's entitlement to ensure the welfare of its workers, stating that the council 'must therefore often be involved in balancing fairly these interests which may frequently conflict.'³³⁵ The Court referred to the decision of the House of Lords in *Roberts v Hopwood* and said

looking back, as we do, over 60 years of progress in the field of social reform and industrial relations some of their Lordships' observations may, with the benefit of this hindsight, appear unsympathetic... what has changed over those years is our attitudes to what should be regarded as pure philanthropy.³³⁶

In other words, whereas wage parity was once seen as philanthropy, it is now seen as a legitimate consideration potentially consistent with fiduciary duty. The Court's comments with respect to *Roberts v Hopwood* indicate an acknowledgment of the flexibility of fiduciary duty to yield in accordance with evolving social forces as well as commercial forces.³³⁷ The development of fiduciary duty here was ancillary to the commercial context: just as the duty has adapted to evolving expectations in the investment context, it has also adapted to admit considerations once considered to be non-financial. It is therefore possible that fiduciary duty could adapt to changing social expectations about the environment, and in particular climate change. It is important to remember that fiduciary duty, no matter how immutable it appears to be at a single moment in time, is and always will be the object of interpretation; how it will be interpreted will vary with evolving investment and social standards. It is the *rate* of its evolution that is uncertain, an idea that is discussed below.

³³⁵ *Pickwell v Camden London Borough Council* QB 962 [1983] at 987 (judgment of Forbes J).

³³⁶ *Pickwell v Camden London Borough Council* QB 962 [1983] at 986 (judgment of Forbes J).

³³⁷ It is possible that a similar change in the pension fund context would be more difficult to achieve than in the council context, because statutory requirements mean that councils have a wider stakeholder group than pension funds: *see* *Pickwell v Camden London Borough Council* QB 962 [1983] at 987 (judgment of Forbes J).

Inherent Inertia: Prudence tends toward the status quo

While the content of fiduciary duty clearly can evolve over time, change is often slow. It took more than 250 years for the investment conservatism engendered by the South Sea Bubble to give way to the concept of diversified investment portfolios. In particular, the law lagged significantly behind the finance industry (and, it must be said, financial reality) in adopting modern portfolio theory.³³⁸ It is argued here that legal inertia with respect to fiduciary duty and pension fund investment is linked to the prudent man standard.

What is prudence? According to the UK Pensions Regulator, '[p]rudence is difficult to define in general terms and will apply differently to different circumstances.'³³⁹ Prudence is so difficult to define precisely because it is circumstantial. When judges are faced with deciding whether a particular trustee's decision was prudent, both US and UK law requires them to look at what other trustees in a similar position would do – they must look to the conventional behaviour in the pension fund industry. In 2000, Hawley and Williams argued that 'the safest course of action for a professional owner is to take *only* those actions generally accepted as prudent – which historically has led institutions to adopt a conservative view of their responsibilities as owners.'³⁴⁰ The prudent course of action in this light becomes the status quo, slowing innovation in investment decision-making. Therefore although fiduciary duty in the investment context is flexible, it is, paradoxically, susceptible to significant inertia. This is of great consequence for pension fund trustees, as it reinforces pre-existing behavioural biases within the industry (this

³³⁸ See Frank Finn & Peter Ziegler, *Prudence and Fiduciary Obligations in the Investment of Trust Funds* 7 AUSTL. L.J. 329, 337 (1987) (with respect to UK and Australian contexts). See Langbein, *supra* note 317, at 643-45.

³³⁹ The Pensions Regulator (UK), Media Centre, *Questions and Answers: Scheme specific funding*, <http://www.thepensionsregulator.gov.uk/mediacentre/events/sfWorkshop/ssfQAanswers.aspx>.

³⁴⁰ Hawley & Williams, *supra* note 201, at 168.

problem is discussed in section IV below). This inertia comes from several quarters: legislation, incremental judicial interpretation, and through the behaviour of the pension fund industry itself.

In the US, a formula urging fiduciaries to perpetuate the status quo in investment behaviour is built into the modern prudent investor rule. Under the rule as it is formulated in ERISA, trust funds must be managed ‘with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.’³⁴¹ When determining how a prudent man in an investment context might act, it seems logical that investors should look to the investment behaviour of their peers – or at least to the behaviour of their peers that has not attracted criticism for imprudent investment. Fiduciaries are therefore encouraged to base their investment judgements essentially upon the prevailing investment conventions at any one time.

In the UK, a trustee must manage the trust in the same manner as an ordinary prudent man of business would conduct his own affairs.³⁴² Professional trustees and asset managers professing to have special fund management skills have a higher standard of care.³⁴³ The standard of care for both professional and other trustees is, like the US standard, self-referential. The prudence standard is once again associated with *what other investors do*. As such, UK pension fund trustees are expected to associate prudence with a conventional approach to investment.

³⁴¹ See ERISA, 29 USC §18.1104.

³⁴² *Speight v Gaunt* 9 App Cas 1 at 19 (1883), HL, per Lord Blackburn (approving 22 ChD 727 at 739–740, CA, per Jessel MR); *Re Whiteley*, *Whiteley v Learoyd* 33 ChD 347 (1886) at 355, CA, per Lindley LJ.

³⁴³ *Barlett v, Barclays Bank Trust Co Ltd* Ch 515 [1980] at 534.

A preference for maintaining the status quo in investment behaviour can be seen in the historical reluctance of many courts to accept modern portfolio investment as prudent. Prior to the introduction of the modern prudent investor rule, courts across the UK and US legal world required fiduciaries to be able to demonstrate that each individual investment is ‘prudent’ – any single investment failure could amount to imprudence on the part of the fiduciary. This legal stance resulted in risk-averse decisions by pension fund trustees, but also in returns that were significantly lower than they could have been.³⁴⁴ The introduction of the US modern prudent investor rule, and its equivalent diversification rule in the UK, allowed fiduciaries to make investments that were more beneficial for the beneficiaries. The ability of pension funds to adapt to the realities of climate change are similarly restrained by the prudence standard’s hostility to anything other than incremental change.

Judicial interpretation of the standard of prudence presents a further pressure on trustees to invest according to the convention of their day. Fratcher points out that

there is a tendency on the part of the courts even in the absence of a statute to lay down definite subsidiary rules on what is and what is not a prudent investment. When a certain investment is held in one case to be improper, the courts are likely to treat the case as a precedent holding that no investment of that type is proper.³⁴⁵

It is this tendency that has made palpable the fear of pension fiduciaries of considering factors traditionally seen as non-financial in investment decision-making; it is this tendency that allowed the judgment in *Cowan v Scargill* to grow to the (undeservedly) legendary proportions it has reached.

³⁴⁴ See Randall H. Borkus, *A Trust Fiduciary’s Duty to Implement Capital Preservation Strategies Using Financial Derivative Techniques*, 36 REAL PROP., PROBATE & TRUST J. 127, 129 (2001); See also Stephen P Johnson, Note, *Trustee Investment: The prudent person rule or modern portfolio theory, you make the choice* 44 SYRACUSE L. R. 1175, 1177 (1993).

³⁴⁵ WILLIAM FRATCHER, THE LAW OF TRUSTS (SCOTT ON TRUSTS) 434-5, § 227 (1988, 4th ed).

In the US, the testimony of experts in financial affairs is usually admissible for determining whether a fiduciary has acted prudently.³⁴⁶ This self-referential feature is likely to propagate conventional wisdom, rather than to encourage trustees to innovate. The practical consequence of requiring investors to base their actions on the actions of their peers is that the status quo tends to prevail. For this reason, Keith Johnson and Frank Jan de Graf have described the prudence standard as a ‘lemming standard’.³⁴⁷ In their view, ‘pension funds are often reluctant to pursue prudent strategies not being widely used by other pension funds for fear of exposure to liability’.³⁴⁸ In circumstances such as the present, where investors are typically driven by short-term performance, prudent investment becomes short-term investment.

The situation in the UK is similar. A report published by the UK Department of Social Security in 1997 used in-depth interviews with trustees of 48 self-administered private sector occupational pension schemes to examine trustee investment practice. The report found that the main objective for trustees in administering their funds was to provide a good return on assets, and that trustees sought to achieve this aim by ‘appointing expert advisers and fund managers with successful track records and monitoring their performance; adopting what they perceive as cautious investment policies; and providing guidelines and benchmarks for fund managers for investing schemes’ assets.’³⁴⁹ In the UK, trustees who are unsure of their duty may take advice from experts, including those within the finance industry.³⁵⁰

³⁴⁶ ASCHER, *supra* note 325, at 1396 §19.1.2.

³⁴⁷ Johnson & De Graaf, *supra* note 171, at 5.

³⁴⁸ *Id.*

³⁴⁹ C. PRATTEN & S. SACHELL, PENSION FUND SCHEME INVESTMENT POLICIES, DSS Research Report No. 82 (1998).

³⁵⁰ *Learoyd v Whiteley* 12 App Cas 727 (1887), HL, at 734 per Lord Watson.

There have been some moves made toward encouraging pension fund trustees to act independently of their peers if their fund is different to the norm. In 1990, the Committee of Enquiry Report into Investment Performance Measurement recommended that ‘trustees should consider whether their own fund has special characteristics which indicate that it should be invested differently from the generality of funds.’³⁵¹ However, this does nothing to encourage innovation in a fund which does not have ‘special characteristics’.

The Outcome for Climate Change

The evolution of fiduciary duty, from restricting investment to specific low-risk categories until the second half of the 20th Century to embracing the modern prudent investor rule, reflects a change in social attitudes toward investment. Statutes in both the UK and the US are helping to keep fiduciary duty up to date – this is particularly true of the statutory shift from prescriptive lists of investment options for fiduciaries toward the modern prudent investor rule. However, even the statutory developments of the last two decades are insufficient to enable pension funds to move toward a more sustainable investment paradigm.³⁵² The incrementalism central to the maturation of fiduciary duty in the past cannot facilitate the urgent action required by climate change. Nor does it, more importantly, encourage a deep philosophical change of the kind necessary to look at the long-term sustainability of investments.

An aggravating factor exists here in the question of whether, and to what extent, a court would consider an explicit reference to climate change in an investment strategy as a ‘non-financial’ issue. Until such a case is heard, or relevant

³⁵¹ PRATTEN & SATCHELL, *supra* note 349.

³⁵² Also an insufficient catalyst for change is any move toward greater democratisation of pension fund governance: *cf* BENJAMIN RICHARDSON, *supra* note 187 at 246-254. Given the behavioural biases described below, as well as the barriers Richardson acknowledges, the idea that beneficiaries may be a viable means of imposing discipline on funds is no more than a liberal dream.

legislation enacted, it will be difficult to displace fiduciaries' anxiety with respect to the appropriateness of attention to the complex web of issues surrounding climate change in the context of investment decision-making. It is reasonable to predict that courts will decide by reference to convention: if most pension funds view climate change as a non-financial issue, then courts are likely to see this position as the prudent one. While almost all governments and major companies around the world now see climate change as a financial issue, as well as an environmental and social one, few pension funds have demonstrated this view. In a way, therefore, pension fund inaction on climate change is likely also to be self-perpetuating without legislative clarification.

There is no intrinsic reason for fiduciary duty to prevent pension funds from adopting a forward-looking approach to investment that includes the consideration of factors (such as the risks and opportunities associated with climate change) which are coming to be recognised as financial but which have not traditionally informed investment decisions. In theory, fiduciary duty should adapt to new economic realities engendered by climate change, but change is likely to be incremental (just as it was with respect to modern portfolio theory and equal opportunity in the past). Left up to pension fund trustees and courts, it is likely that the concept of prudence will lag behind as legislative changes correct the market failures of climate change. In practice, the tendency for prudent behaviour to be equated with conventional behaviour means that most pension funds will not move beyond the *status quo* in terms of investment strategy.

Pension fund trustee caution with respect to uncharted financial territory is not surprising, given the uncertainty surrounding fiduciary duty. However, the focus of pension fund trustees on fiduciary duty as the main reason for eschewing change in

investment approach obscures significant behavioural impediments to sustainable investment: ingrained short-termism regarding both financial performance and environmental impact, and institutional inertia. These impediments, when combined with the prudence standard's constant reference to the *status quo*, create a collective action problem: in order for climate change to become an accepted consideration for pension fund trustees, a group of trustees must act in unison.

INGRAINED INERTIA, SHORT-TERMISM AND COLLECTIVE INACTION

Fiduciary duty is an oft-cited cause for resistance to innovation in investment culture, but it must not be mistaken for the only, or even most important one. While trustees' fears relating to fiduciary duty and environmental impact are understandable given conservative interpretation of the prudence standard in the past, the influence of fiduciary duty is overstated. This paper has argued that there is no inherent conflict between pension funds' fiduciary duty and the consideration of the risks and opportunities associated with climate change, in circumstances where climate change is likely to have a demonstrable financial impact over the long-term. The inherent flexibility of fiduciary duty, although incremental, is such that it should be able to adapt over time to the demands of an economy cognisant of the financial implications of climate change. Clarification by legislators could go a long way toward reducing the confusion-induced inaction on environmental issues attributed to fiduciary duty. In the meantime, the prominence of fiduciary duty as an explanation for stagnation in pension fund investment culture dissembles the more insidious reasons: the behavioural phenomena of institutional inertia and short-termism, which feed into a collective action problem.

This section argues that short-termism and inertia with respect to financial performance and environmental impact are central reasons for pension funds' slow reaction to change, and specifically, to climate change. While much has been said about how behavioural biases can affect financial performance, much less studied is how these biases can prevent innovation in the wider sense. In reality, these behavioural biases mean that the pension fund industry is slow to conduct self-examination, slow to diagnose its systematic shortcomings, and slow to treat them. It is asserted here that strong leadership from within the pension fund industry is needed to combat these problems.

Initiating change is an enduring problem for institutions. This problem becomes all the more pertinent as today's increasingly complex financial, economic and environmental conditions require not only change, but urgent change, to the way that financial institutions operate. Studies in psychology and economics have shown that behavioural inertia exists at an individual level, and that this individual behaviour is carried into group decisions within institutions. As a result, fiduciary duty's tendency to limit investment innovation is matched by resistance to change within the boards of pension funds. Pension fund trustees, this section argues, have a strong preference for the *status quo* when faced with decision-making. Moreover, pension fund trustees generally find it difficult to integrate unfamiliar and complex variables, such as those associated with climate change, into their decisions about investment. These limitations to trustees' ability to innovate investment processes in the context of climate change need to be recognised: even when legislation clarifies the reach of fiduciary duty, pension funds themselves will need to address their tendency toward inertia in investment strategy development.

Individuals generally are resistant to behavioural change. William Samuelson and Richard Zeckhauser demonstrate that when making a decision, people are biased toward maintaining the *status quo*.³⁵³ They suggest that *status quo* bias exists largely because individuals want to avoid the cost of changing their behaviour, and because people tend to prefer the certainty of the *status quo* to the uncertainty of change. This behavioural trait may be linked to a second trait: loss averseness.³⁵⁴ People generally prefer accepting a lower, but more certain gain than taking a risk for a higher, but more uncertain gain.³⁵⁵ Therefore the *status quo* is not only less costly, but also more certain.

This preference for the *status quo* has been demonstrated in the decision-making of pension fund trustees.³⁵⁶ It is perhaps somewhat counterintuitive that pension fund trustees are subject to behavioural biases in their trust fund management capacity, given that in their role as trustees they are investing other peoples' money. However, Clark *et al.* have shown that trustees are often even more careful with trust funds,³⁵⁷ reflecting perhaps a desire to respect the parameters of fiduciary duty and a reverence toward the higher stakes involved, and their potential personal liability. Their study finds that 'trustees believe that their beneficiaries would not, all things being equal, assume any risk if they could avoid it.'³⁵⁸ It should be noted that *status quo* bias also appears to affect beneficiaries when faced with similar decisions in defined contribution funds. In these funds, beneficiaries have some ability to direct

³⁵³ Samuelson & Zeckhauser, *supra* note 12, at 47-48.

³⁵⁴ Kahneman & Tversky, *supra* note 12, at 284-89.

³⁵⁵ *Id.*

³⁵⁶ See Clark *et al.*, *supra* note 205; see also Gordon L. Clark, Emiko Caerlewy-Smith & John C. Marshall, *Pension Fund Trustee Competence: Decision making in problems relevant to investment practice*, 5 J. PENSION ECON. & FIN. 91 (2006).

³⁵⁷ Clark *et al.*, *supra* note 356, at 101-2.

³⁵⁸ *Id.* at 102.

the investment management of their own fund benefit. However, the majority of such beneficiaries in the US and UK retain the default plan, rather than opting for a tailored plan.³⁵⁹ As a result, defined contribution funds are unlikely to differ much in practice from defined benefit funds when it comes to tackling the problem of climate change: since beneficiaries usually choose to leave decisions up to trustees, trustees' voices still remain crucial to the investment strategy of most defined contribution funds.

The addition of novel contextual layers, such as the consideration of unfamiliar variables, to decision-making, may weaken the ability of pension fund trustees to make sound investment decisions. Clark *et al.*'s 2007 study indicates that pension fund trustees, who are generally men in the 50s,³⁶⁰ while more competent than Oxford undergraduates 'when asked to solve a problem that drew upon specific knowledge derived from the context of their roles and responsibilities',³⁶¹ are less competent at integrating new contextual layers into their decision-making than Oxford undergraduates. It was found that the inclusion of new 'normative issues' expanded decision-making requirements 'well beyond trustees' roles and responsibilities'.³⁶²

The addition of the new considerations surrounding climate change tests pension fund trustee decision-making in just this way: it adds a novel contextual layer to decision-making. Because pension fund trustees prefer to avoid changing their current investment processes, the addition of a novel contextual element to the process makes it harder for pension fund trustees to make rational decisions. The

³⁵⁹ Alistair Byrne *et al.*, *Default Funds in UK Defined-Contribution Pension Plans*, 63 FIN. ANALYSTS J. 40, 40 (2007) (noting findings that from a survey of plans that 48-81 percent of US defined contribution plan assets and over 80 percent of such assets in the UK were invested in the default fund).

³⁶⁰ See, Clark *et al.*, *supra* note 205, at 73.

³⁶¹ *Id.* at 82.

³⁶² *Id.*

context of climate change is likely to be difficult for pension fund trustees to accommodate under their current decision-making frameworks. *Status quo* bias is therefore a major challenge for pension funds adjusting to innovative investment strategies in a climate change economy.

It is worth noting that a higher degree of professional qualification in trustees appears to *increase*, rather than decrease, their aversion to innovation in investment strategies.³⁶³ This may indicate that professional training in trustees reinforces existing bias toward inertia within the industry.

The second behavioural bias restricting pension fund innovation in the context of climate change is institutional myopia, or short-termism. That humans discount the value of the future is well established in psychology and economics.³⁶⁴ What matters here is the extent to which this phenomenon also affects pension fund trustees in their capacity as fiduciaries: most institutional investors focus on short-term performance to such an extent that investee corporations act to promote short-term gains at the expense of long-term performance.³⁶⁵

While pension funds usually have long time-horizons (to provide retirement income to current workers in the future), the Myners Report investigating short-termism in UK institutional investment found that the reward system of pension funds is structured to favour short-termism.³⁶⁶ In particular, bonuses for asset managers are awarded on an annual basis, and investee company performance is monitored

³⁶³ Emiko Caerlewy-Smith, Gordon L. Clark & John C. Marshall, Commentary, *Agitation, Resistance, and Reconciliation with Respect to Socially Responsible Investment: the attitudes of UK pension fund trustees and Oxford undergraduates* 38 ENV. & PLAN. A 1585, 1586 (2006).

³⁶⁴ See, e.g., Lowenstein & Thaler, *supra* note 135.

³⁶⁵ See, e.g., Clark et al., *supra* note 184, at 97-99.

³⁶⁶ PAUL MYNERS, INSTITUTIONAL INVESTMENT IN THE UNITED KINGDOM: A REVIEW (2001).

quarterly. Moreover, while short-term performance is easily measured, long-term value can only be predicted. The practical shortcomings in the methods available for measuring long-term performance are difficult to overcome. A potential solution for measuring long-term value is to assess the soundness of the investment *process* itself, rather than to make continuous reference to share price, but this method does not provide the quick and easy answer found in share price.

In this context, the tendency for fiduciary duty to encourage the maintenance of the *status quo* reinforces pension funds' ingrained preference for short-term performance over long-term value. It does more than merely reinforce these preferences, however. It also provides a smokescreen behind which these behaviours may escape scrutiny. To the extent that pension fund trustees and asset managers attribute their inaction to fiduciary duty, the concept of fiduciary duty obscures a capacity for change which is not only real, but also, increasingly, necessary.

When combined with the tendency of the trustees and courts to judge prudence by reference to conventional behaviour, these behavioural biases (especially inertia), create a problem of collective action within the pension fund industry. As this paper has argued, courts, legislation and trustees themselves all refer to conventional behaviour in order to determine what prudent investing is. As short-term focused, narrowly construed strategies are conventional for pension funds, these are widely seen as prudent missions. Independently of this, pension funds prefer to behave in accordance with conventional investment culture, which emphasises short-term financial performance, because they have behavioural biases toward cultivating, and then maintaining, short-termism on the one hand, and toward maintaining the *status quo* (that, is not challenging convention) on the other. Under these conditions, a

collective action problem arises to hinder investment innovation: the adoption by a small number of pension funds of a climate change conscious investment strategy will be seen as imprudent, because these innovative funds will be bucking convention in the minority. In order for change to occur, it will require the participation of a larger number of funds, or at least a number of respected, leading pension funds – in short, it will require a change of convention, so that courts and other funds will find climate change to be a prudent consideration.

This Chapter has argued that the uncertainty surrounding the requirements of fiduciary duty (and most relevantly here, the duty of prudence), could be alleviated through legislative clarification. However, legislative clarification would only go part of the way toward facilitating the adaptation of pension funds to a climate change economy. In order to overcome the behavioural biases that sustain short-termism and inertia, and fuel a collective action problem that nurtures an unhealthy dedication to convention, change needs to come from within the pension fund industry itself. The best way for funds to address these biases is to implement considered governance practices.³⁶⁷ Pension funds that believe in the need to innovate investment strategies with respect to environmental and social issues, and climate change in particular, need to promote change through strong leadership.

³⁶⁷ See Gordon L. Clark & Roger Urwin, *Best-Practice Pension Fund Governance*, 9 J. ASSET MGM'T 2, (2008) [hereinafter Clark & Urwin, *Best Practice Governance*]; see also Gordon L. Clark & Roger Urwin, *Making Pension Boards Work: the critical role of leadership*, 1 ROTMAN INT. J. OF PENSION MGM'T 38, 40-44 (2008) [hereinafter Clark & Urwin, *Making Pension Boards Work*].

CONCLUSION

Pension funds, with their staggering financial holdings, have the capacity to bring climate change to the forefront of business agendas. By including risks and opportunities associated with climate change explicitly in their investment strategies, pension fund trustees stand not only to improve the long-term financial performance of their funds, but also to contribute to a more sustainable economy. Furthermore, given their prominence as service providers in the vacuum created by the retreat of the state, it is arguable that pension funds have a *responsibility* to look beyond the financial impact of their decisions. However, very few pension funds have chosen to do so thus far. For most pension funds, climate change, like other issues trustees see as tangential to financial performance, remains beyond the scope of investment strategy.

Pension funds' reluctance to expand their investment strategies beyond their conventional barriers into the consideration of environmental issues is frequently attributed to trustees' fiduciary duty. For many years, trustees have interpreted this duty as preventing the consideration of non-financial issues in investment decision-making. Climate change, whose potential economic effects have only recently become widely accepted, is perceived as one of these. This paper has argued that this interpretation of fiduciary duty, based on outdated case law, is too narrow. Moreover, to the extent that climate change presents a real financial concern which is likely to increase as further legislation affects the price of carbon, pension funds' consideration of the risks and opportunities associated with climate *change* in devising their investment strategy should not, *in theory*, conflict with even a narrow interpretation of fiduciary duty.

In practice, however, the lack of recent case law and unclear commentary on fiduciary duty has created uncertainty for pension funds wishing to adapt to a climate change economy. Pension funds' concerns about fiduciary duty are to an extent justified. Past legal analyses have supported the classification of environmental issues as 'non-financial' issues, which, together with ethical, political and social issues, should not influence a fiduciary's investment strategy. As it stands, fiduciary duty in both the US and the UK provides a reason for pension funds to delay changing their investment policies to accommodate a broader (and arguably more sustainable) approach to strategy. Although fiduciary duty has a proven ability to adapt to changing social circumstances, this adaptation is incremental, and ill suited to the rapid changes required to meet the challenges of climate change. Clarification through legislation would help to alleviate the uncertainty surrounding fiduciary duty.

The advent of the financial crisis has given us a moment of pause to examine the state of finance and what it represents. For the work presented here, it represents both an end and a beginning. First, an end: the financial crisis heralds the demise of the efficient markets hypothesis. With its end, the colourful realities of human behaviour are suddenly more apparent against the hitherto black and white background of economic theory. These realities of human behaviour, in particular biases of inertia and myopia, are the greatest barrier to the pension fund industry's shift toward more sustainable investment strategies. The truth is, this paper has argued, fiduciary duty is only part of the problem. An unclear notion of fiduciary duty feeds into these biases, making them crippling. When these biases combine with prevailing pension fund trustee view that prudence equates to conventional behaviour, a collective action problem results: pension funds are unlikely to break with convention unless a significant number of them change their approach

simultaneously. Any institutional acceptance of innovation toward a longer term, more sustainable investment strategy will take strong leadership from pension funds themselves. It is fortunate then that the financial crisis also represents a beginning: it provides an opportunity for re-evaluation, and a chance to improve the sustainability of the financial system.

The implications to be drawn from this Chapter are threefold. First, the uncertainty surrounding pension fund fiduciary duty and environmental considerations, in particular those associated with climate change, should be clarified through legislation. Without this clarification, pension fund trustees will have all the impetus they need to shy away from changes they were already reluctant to make. Second, pension funds must re-examine their approach to investment, as they once did at the advent of modern portfolio theory – any move toward a more sustainable investment approach will require funds to act on their own behalf. An adoption of best practice governance measures will help pension funds to surmount the behavioural barriers to innovation. Finally, a broader point: this paper has allowed a brief, and rather dismal, glimpse at how UK and US courts interact with the institutional investment industry – in short, they appear to reinforce the industry's existing behavioural problems and mutual uncertainties about the application of fiduciary duty in an investment context. In this light, the spectre of fiduciary duty becomes a means to ensure that existing financial norms, of the sort that fuelled the present financial crisis, remain unaddressed.

IV. PUTTING SUSTAINABLE INVESTING INTO PRACTICE: A GOVERNANCE FRAMEWORK FOR PENSION FUNDS

INTRODUCTION

The recent global financial crisis has given UK and US pension funds cause to consider the suitability of their investment strategy and the adequacy of their governance techniques. While the crisis can provide no certain solutions as to how pension funds should invest, it does reveal shortcomings in some current approaches to investment. Most notably, it underlines the danger of becoming beholden to herd culture in which prudence is judged by reference to convention (that is, what other investors do).³⁶⁸ The crisis also reveals that a constant focus on short-term performance may distract attention from large, latent longer term risks and hazards, to pension funds' detriment.³⁶⁹ Time will tell how far-reaching the consequences of the financial crisis will be for pension funds.

In the fallout of the crisis, many pension funds have focused any strategic efforts, understandably, on the question of how to meet their obligations to beneficiaries under conditions of dwindling funds.³⁷⁰ Some, however, have used the time to consider a more fundamental shift in the way they meet their obligations to beneficiaries.³⁷¹ For those pension funds that have chosen to rethink their investment strategies, one approach has been to consider including an aspect of 'sustainability' in

³⁶⁸ Claire Woods, *Funding Climate Change: How pension fund fiduciary duty masks trustee inertia and short-termism*, in CORPORATE GOVERNANCE FAILURES: THE ROLE OF INSTITUTIONAL INVESTORS IN THE GLOBAL FINANCIAL CRISIS 242, 268-71 (James P. Hawley, Shyam J. Kamath, & Andrew T. Williams, eds., 2011).

³⁶⁹ Waitzer, *supra* note 23, at 4-8.

³⁷⁰ See, e.g., Clary, *supra* note 24, at 11-12; Mary Williams Walsh, *Public Pension Funds are Adding Risk to Raise Returns*, N.Y. TIMES, 9 March 2010, Business Day.

³⁷¹ See generally, Anson, *supra* note 25, at 12; Senior, *supra* note 25; but cf. Burr, *supra* note 25, at 40-41.

their investment strategy, whether it be in the form of longer term investment focus,³⁷² a move toward the integration of environmental, social and governance criteria within mainstream funds, the creation of specialised funds with green themes such as clean water or renewable energy,³⁷³ or some combination of these. This diversity of approaches underlines the flexibility of sustainability as a concept.

Beyond the world of investment, the concept of sustainability is now applied widely with varying significance to everything from power generation to agricultural production.³⁷⁴ For clarity's sake, this Chapter adopts the definition of sustainability derived from the World Commission that sustainable development 'is development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.³⁷⁵ This definition, while vague, captures a key idea: that growth should occur while ensuring a certain level of economic, social and environmental security for future generations – that is, a degree of intergenerational equity³⁷⁶. In this broader context of growing social awareness of, but not necessarily understanding of, the idea of sustainability, investors are more than ever in need of guidance about what sustainability might entail in investment practice.

The growing consciousness within the business and investment worlds of the idea of sustainability³⁷⁷ occurs in the context of the historical backdrop of investment practices related to the notion of socially responsible investment (SRI). Many changes

³⁷² Exley, *supra* note 26.

³⁷³ Senior, *supra* note 371, at 11-12.

³⁷⁴ Compare A.D. Basiago, *Methods of Defining Sustainability*, 3 SUSTAINABLE DEV. 109, 109-119 (1995), with B.J. Brown, *Global Sustainability: Toward Definition*, 11 ENV'T. MGM'T 713 (1987).

³⁷⁵ WORLD COMM'N ON ENV. & DEV., OUR COMMON FUTURE (1987).

³⁷⁶ Intergenerational equity may be defined as a principle of distributive justice requiring some level of equality between members of different generations: Brett Frischmann, *Some Thoughts on Shortsightedness and Intergenerational Equity*, 36 LOYOLA U. CHICAGO L. J. 457, 457-468 (2005); In the context of pension fund investment, this chapter views intergenerational equity as requiring some level of equality between members of a fund that have different expected retirement dates. While the concept is discussed only in passing here, it is examined in depth in the chapters that follow.

³⁷⁷ McKinsey & Co., *How Companies Manage Sustainability: McKinsey Global Survey Results*, MCKINSEY QUARTERLY (March 2010).

have occurred across the broad field of SRI over the past thirty years.³⁷⁸ The field has grown beyond the negative-screening approach of many early ethical investors to encompass a broader range of investment strategies.³⁷⁹ Most important, perhaps, is a movement (championed by the United Nations Principles for Responsible Investment (UN PRI)) toward integration of environmental, social and governance (ESG) issues into mainstream investment analysis and decision-making.³⁸⁰ In contradistinction to an ethically-oriented investment approach, UN PRI defines responsible investment (RI) as ‘the integration of ESG criteria into mainstream investment decision-making and ownership practices’³⁸¹, and underlines the business-case justifications for its adoption.³⁸² The sustainable investing approach outlined in this Chapter may be seen as strengthening and adding to the RI movement by presenting an additional focus on intergenerational equity and the long-term.

This Chapter presents a framework for UK and US pension funds who wish to invest more sustainably, but who are unsure of the practical requirements of such a change. The framework focuses on the adjustments that should be made to the fund’s strategy and governance in order to achieve a broader (ESG-inclusive) and longer term approach to investing. Acknowledging that the needs of every pension fund are different, the framework is structured as a spectrum, allowing for more or less extensive change to investment strategy and governance. The Chapter proceeds with a brief review of SRI and more recent RI literature, in the context of growing public awareness of the concept of sustainability. It then examines the literature on pension fund governance, arguing the need for more detailed practical guidance for funds

³⁷⁸ Benjamin J. Richardson, *Keeping Ethical Investment Ethical: Regulatory Issues for Investing for Sustainability*, 87 J. BUS. ETHICS 555 (2009).

³⁷⁹ See Hawley, *supra* note 30; Sparkes & Cowton, *supra* note 30.

³⁸⁰ Hugh Wheelan, *Integrating ESG into Mainstream Portfolios*, RESPONSIBLE INVESTOR 1, 1 (2008).

³⁸¹ <http://www.unpri.org/>.

³⁸² See Richardson, *supra* note 378.

moving toward sustainable investing. The framework is then presented as a practical means for UK and US pension funds to go about implementing a sustainable investing approach (ESG-inclusive, and long-term focused) through the adaptation of its investment strategy and governance practices (particularly through the formulation and articulation of clear investment mission and strong investment beliefs). The final section outlines the relevant UK and US legal background, first examining how fiduciary duty might affect pension funds who adopt the framework presented, and then looking briefly at potential regulatory enablers of sustainable investing.

LITERATURE REVIEW OF SRI FIELD: SRI, RI AND SUSTAINABLE INVESTING

This section looks first at the multiple meanings that the terms SRI and RI have accrued over time, and, referring to W.B. Gallie's notion of essentially contested concepts,³⁸³ argues that SRI is a confused and confusing term that connotes financial motivations for some and ethical motivations for others. It then suggests that the successful growth of membership of the UN PRI may have led to a degree of standardisation across understandings in this area, particularly with respect to RI. Finally, it notes the wide public awareness of the concept of sustainability, and suggest that some pension funds rethinking their approach to investment following the global financial crisis are attracted to the flexible concept of sustainable investing. It is argued that such investors will benefit from the clarity and concreteness provided by this framework.

³⁸³ W.B. Gallie, 'Essentially Contested Concepts', 56 PROCEEDINGS ARISTOTELIAN SOC'Y 167 (1955).

SRI: A radically confused concept?

Spreading far from its roots in negative screening of certain investments (such as tobacco or firearms) by church-based investors,³⁸⁴ the term SRI has become something of an ‘umbrella concept’³⁸⁵ for a range of different ethically, socially and/or environmentally oriented investment practices.³⁸⁶ Many authors have described a definitional ambiguity surrounding the term SRI,³⁸⁷ with some seeing the ambiguity as detrimental to the success of SRI movement,³⁸⁸ and others seeing it as necessary to retain nuances.³⁸⁹

Sandberg *et al.* argue that while there are ‘terminological’ ambiguities associated with the concept of SRI – different authors use the terms ‘socially responsible investment’, ‘social investment’, ‘responsible investment’, and ‘ethical investment’³⁹⁰ – all of these terms mean more or less the same thing, their ‘main characteristic’ being ‘the integration of certain non-financial concerns in the investment process’.³⁹¹ Similarly, Sandberg *et al.*’s content analysis of the websites of 101 UN PRI signatories finds that investors use these various terms to describe the same thing: the ‘integration of ESG criteria into mainstream investment decision-

³⁸⁴ Steve Schueth, *Socially Responsible Investing in the United States*, 43 J. BUS. ETHICS 189 (2003).

³⁸⁵ S.P. Sethi, *Investing in Socially Responsible Companies is a must for Public Pension Funds: Because there is no better alternative*, 56 J. BUS. ETHICS 99 (2005).

³⁸⁶ See Hawley, *supra* note 379; Richardson, *supra* note 378; Sparkes & Cowton, *supra* note 379; Schueth, *supra* note 384.

³⁸⁷ See A. O’Rourke, *The Message and Methods of Ethical Investment*, 11 JOURNAL OF CLEANER PRODUCTION 683 (2003); Sethi, *supra* note 385; Steve Viederman, *Addressing Obstacles to Social Investing*, 6 J. Practical Estates Planning 48 (2004); cf. Joachim Sandberg *et al.*, *The Heterogeneity of Socially Responsible Investment*, 87 J. BUS. ETHICS 519 (2009).

³⁸⁸ See, e.g., Sethi, *supra* note 385; Viederman, *supra* note 387; R. SPARKES, SOCIALLY RESPONSIBLE INVESTMENT: A GLOBAL REVOLUTION 370 (2002).

³⁸⁹ See Sandberg *et al.*, *supra* note 387.

³⁹⁰ *Id.* at 521.

³⁹¹ *Id.* at 519. Sandberg *et al.* suggest several explanations for the heterogeneity found within the SRI terminology, including regional or cultural forces, differing influences from stakeholders, and most interestingly, market pressures: ‘there is a commercial need for SRI fund managers and rating agencies to attain a strong identity in order to differentiate themselves from the rest of the “flock” and to attract investors’ (at 526); see also A. O’Rourke, *supra* note 387.

making and ownership practices'.³⁹² Not all scholars agree that there is a consensus definition of SRI centred on the UN PRI's Principles. For example, Richardson argues for the grounding of SRI within an ethical context, stating that SRI has 'problematically disavowed [its] ethical posture'.³⁹³ Richardson's argument suggests that the business-case justification for SRI, when divorced of ethical grounding, may act as a double-edged sword: for example, '[w]ithout demonstrated financial advantage, a [business-case SRI] investment analysis may advocate delaying or halting measures that mitigate pollution.'³⁹⁴ Rosy Thornton, writing in a different context, also acknowledges a fundamental difference between financially and ethically motivated SRI.³⁹⁵

At this point it is worth asking whether the term SRI is an 'essentially contested concept', or whether it is merely 'radically confused'.³⁹⁶ Gallie argues that there are certain concepts (for example 'democracy' and 'social justice'), 'which are essentially contested, concepts the proper use of which inevitably involves endless disputes about their proper uses on the part of their users'.³⁹⁷ An essentially contested concept should be distinguished from a 'thoroughly confusing term which cloak[s] the possibly perfectly consistent use of two or more concepts' which may simply be defined separately.³⁹⁸ Why does the distinction matter? Essentially contested concepts will never have unanimous definition amongst users, and are able to develop and flourish through continuous contestation. A confused term, by contrast, may be divided into its

³⁹² Sandberg et al.'s (2009) analysis shows that 43% of investors refer to these same activities as "socially responsible investment", 10% as "sustainable investment", 9% as "responsible investment" (p. 523). We note, however, that the study focused on UN PRI signatories, whose understandings of these terms are no doubt moulded by the framing of the UN PRI's Principles.

³⁹³ Richardson, *supra* note 378, at 555.

³⁹⁴ *Id.* at 569.

³⁹⁵ *See generally*, Thornton, *supra* note 215.

³⁹⁶ *See* Gallie, *supra* note 383.

³⁹⁷ *Id.* at 169.

³⁹⁸ *Id.* at 175.

correct parts through careful analysis; these parts may then be separated so that they can each be the subject of meaningful discussion in the future.

In Gallie's view, the competing interpretations of an essentially contested concept are 'derived by a process of imitation and adaptation from an exemplar' which all holders of competing views recognize as their source of the concept. Yet, due to the complex nature of the concept, 'it is natural that different features in it should be differently weighted by different appraisers, and hence that [competing views] should have come to hold their very different conceptions'³⁹⁹ of the concept. By contrast, the multiple meanings associated with a confusing term cannot be derived from a single exemplar, as they actually represent a number of different and distinguishable concepts.

Even a perfunctory application of Gallie's test indicates, in this author's view, that business case RI and ethics-based ethical investing cannot be said to have derived from the same exemplar: the two appear to have contradictory cores, with the former having at its heart improved financial return for beneficiaries through the exploitation of ESG-related market inefficiencies, and the latter focusing on the promotion of ethically sound corporate behaviour through techniques such as negative screening and engaged ownership. If we accept that SRI is one of Gallie's 'radically confused' terms, then different species of SRI (for example, RI and ethical investing) would perhaps be more successfully advanced once distinguished from one another, so that their separate goals may be pursued with greater transparency and clarity of aim. Bearing in mind this distinction between RI and ethical investment, the framework presented later in this Chapter is pitched solely to pension funds pursuing an RI-like sustainable investing strategy.

³⁹⁹ *Id.* at 176.

UN PRI: Standardising understandings of RI?

The SRI definitional debate aside, it could be argued that a level standardization of some of the RI terminology is occurring through the UN PRI movement. The 922⁴⁰⁰ signatories to the PRI commit to six Principles of Responsible Investment (the Principles),⁴⁰¹ whose central focus is the integration of ESG criteria into mainstream investment decision-making and ownership practices. The UN PRI movement, with its financially-oriented justifications, has made RI more palatable to pension funds and other institutional investors who were traditionally cautious about the concept of ethical investment, whether due to an aversion to screening's reduced investment universe,⁴⁰² concerns (justified or not) about fiduciary duty⁴⁰³ (discussed further below), or a general sense that ethics should not drive investment decision-making.⁴⁰⁴

If the Principles are to go forward as a quasi-standard in RI, their strengths and weaknesses should be subject to scrutiny by the academic community. In this author's view, whilst the Principles rightly make clear the importance of ESG integration and active ownership, they do not adequately address the issues of short-termism and intergenerational equity in investment. Particularly for UK and US pension funds, with large funding obligations going into the future, these are issues that need to be addressed. For that reason, the framework makes specific reference to the strategic

⁴⁰⁰ As of 18 July 2011 there are 922 signatories to the UN PRI: <http://www.unpri.org/signatories/>.

⁴⁰¹ Signatories to the UN PRI commit to the following (see : <http://www.unpri.org/principles/>)

1. We will incorporate ESG issues into investment analysis and decision-making processes.
2. We will be active owners and incorporate ESG issues into our ownership policies and practices.
3. We will seek appropriate disclosure on ESG issues by the entities in which we invest.
4. We will promote acceptance and implementation of the Principles within the investment industry.
5. We will work together to enhance our effectiveness in implementing the Principles.
6. We will each report on our activities and progress towards implementing the Principles.

⁴⁰² Langbein & Posner, *supra* note 215.

⁴⁰³ See Richardson, *supra* note 187; UNEP FI, FIDUCIARY RESPONSIBILITY, *supra* note 214; UNEP FI, LEGAL FRAMEWORK, *supra* note 214; Woods, *supra* note 368.

⁴⁰⁴ Cf. Milton Friedman, *The Social Responsibility of Business is to Increase its Profits*, N.Y. Times Magazine, 13 September 1970, at SM17.

and governance changes that should be implemented in order to foster longer term investment.

Sustainability: Emphasising the long-term

The increasing prominence in recent years of the terms ‘sustainable’ and ‘sustainability’ in the public arena⁴⁰⁵ adds another layer of complexity to how pension funds approach RI. This greater prominence of the term may be related to increasing public awareness of intergenerational problems due to factors such as ageing populations in many Western countries, resource constraints, and long-term environmental impacts from climate change. Moreover, there appears to be an increased general acknowledgement of the interplay between environmental risk and economic performance: the US Securities and Exchange Commission, for example, recently released interpretive guidelines about whether and when listed companies should disclose climate change risk (including risk from the impact of legislation and regulation, international accords, indirect consequences of regulation or business trends, or physical impacts of climate change).⁴⁰⁶ That said, an increasing public awareness of the concept of sustainability does not amount to an understanding of it.

Sustainability is another term that is subject to deep definitional ambiguity.⁴⁰⁷

Beyond providing the World Commission’s definition as a starting point (see

⁴⁰⁵ R.O. Vos, *Defining Sustainability: A conceptual orientation*, 82 J. CHEM. TECH. & BIOTECH. 334, 334-339 (2007).

⁴⁰⁶ John M. Broder, *S.E.C. Adds Climate Risk to Disclosure List*, N.Y. TIMES, 27 January 2010.

⁴⁰⁷ Sustainability could be subjected to Gallie’s test for essentially contested concepts. While this is beyond the scope of this paper, other authors have looked at this question: *see for example* M. Jacobs, *Sustainable Development as a Contested Concept*, in FAIRNESS AND FUTURITY: ESSAYS ON ENVIRONMENTAL SUSTAINABILITY AND SOCIAL JUSTICE 21 (Dobson ed., 2006); S. Connelly, *Mapping Sustainable Development as a Contested Concept*, 12 LOCAL ENV’T 259 (2007). On the definitional ambiguity of the term, see Basiago, *supra* note 374; Brown *supra* note 374; B.D. Ratner, *‘Sustainability’ as a Dialogue of Values: Challenges to the sociology of development*, 47 SOCIOLOGICAL INQUIRY 50 (2004); M. Van Marrewijk, *Concepts and Definitions of CSR and*

Introduction), this Chapter does not delve further into the competing definitions of sustainability here – it is the malleability of the term that is of interest. Pension funds that consider moving toward some form of RI may value the term ‘sustainable investing’ both for its flexibility and for its distinction from the connotations of ethical investment.

The notion of sustainability, on a larger scale, has much to add to pension fund investment. It is arguable that it has different ontological foundations to that of responsibility: while responsibility implies duty, sustainability implies ensuring that the *conditions* for responsibility remain intact – that a level of intergenerational equity is fostered. Ensuring sustainability in its wider social sense implies constraining actions, including investing, to ensure the workability of the economic system as a whole. This is a consideration for governments. However, the scope of the term is such that pension funds adopting a sustainable investing approach may flounder without practical knowledge about the changes to investment strategy and governance that should accompany any successful implementation of a sustainable investing strategy. This framework is intended to provide guidance to this class of investor. In order to underline the importance of long-term investing and intergenerational equity for pension funds, and to distinguish itself from the connotations of a sometimes idiosyncratic morality associated with ethical investment, which is generally undesirable from a fiduciary’s perspective, the framework is designed for pension funds adopting what might be termed a ‘sustainable investing’ approach. This approach requires RI’s ESG inclusiveness and active ownership, but also emphasises the importance of long-term, intergenerational awareness.

Corporate Sustainability: Between agency and communion, 44 JOURNAL OF BUSINESS ETHICS 95 (2003); Vos, *supra* note 405.

UK AND US PENSION FUND GOVERNANCE

The investment industry relies on certain assumptions about how markets work – that markets are relatively efficient, that regulation by the market (rather than governments) is effective, that financial innovation is necessarily beneficial.⁴⁰⁸ Following the advent of 2008’s global financial crisis, some of these assumptions are being questioned not only by left-leaning economists,⁴⁰⁹ but also by their former champions.⁴¹⁰ In this regard, pension funds are subject to the same fundamental uncertainties as the investment industry as a whole.⁴¹¹ Under conditions of risk and uncertainty,⁴¹² pension fund governance processes help to bring some structure to investment practice.⁴¹³ Ambachtsheer and Clark have written extensively on pension funds governance.⁴¹⁴

Pension fund governance can be described as ‘the oversight, accountability, transparency, and decision-making norms underpinning the operations and

⁴⁰⁸ F.J. de Graaf & C.A. Williams, *The Intellectual Foundations of the Global Financial Crisis: Analysis and proposals for reform*, 32 U.N.S.W. L. J. 390 (2009).

⁴⁰⁹ See, e.g., Joseph E. Stiglitz, *Capital-Market Liberalization, Globalization, and the IMF*, 20 OXFORD REV. ECON. POLICY 57 (2004).

⁴¹⁰ See, e.g., Alan Greenspan, *We Will Never have a Perfect Model of Risk*, FIN. TIMES, 16 March 2009, at 9; de Graaf & Williams, *supra* note 408.

⁴¹¹ See Clark & Urwin, *Best Practice Governance*, *supra* note 367; D. Hess, *Protecting and Politicizing Public Pension Fund Assets: Empirical evidence on the effects of governance structures and practices*, 39 U.C. DAVIS L. REV. 187 (2005).

⁴¹² On risk and uncertainty see FRANK KNIGHT, *RISK, UNCERTAINTY AND PROFIT* (1921).

⁴¹³ Robert Merton & Zvi Bodie, *The Design of Financial Systems: Towards a Synthesis of Function and Structure*, 3 J. INV. MGM’T 1 (2005).

⁴¹⁴ Keith Ambachtsheer, *Why we Need a Pension Revolution*, 63 FIN. ANALYSTS J. 21 (2007) [hereinafter Ambachtsheer, *Pension Revolution*]; Keith Ambachtsheer, *Dedicated Governance a ‘Win-Win’ Solution*, 25 PENSIONS & INVESTMENTS 14 (1997); Keith Ambachtsheer *et al.*, *Trustee Competency*, 35 PENSIONS & INVESTMENTS 18, 18 (2007); Gordon L. Clark, *Expertise and Representation in Financial Institutions: UK Legislation on Pension Fund Governance and US Regulation of the Mutual Fund Industry*, 2 TWENTY-FIRST CENTURY SOCIETY 1 (2007); Gordon L. Clark & Roger Urwin, *Innovative Models of Pension Fund Governance in the Context of the Global Financial Crisis*, 15 PENSIONS 62 (2010) [hereinafter Clark & Urwin, *Innovative Models*]; Gordon L. Clark & Ashby Monk, *Vermont Pension Investment Committee: Effectiveness and Governance Assessment A Consultancy Project for the Office of the State Treasurer* (2008); Gordon L. Clark, *Governing Finance: Global Imperatives and the Challenge of Reconciling Community Representation with Expertise*, 84 ECON. GEOGRAPHY 281 (2008); Clark & Urwin, *Best Practice Governance*, *supra* note 367.

investments of a pension plan'.⁴¹⁵ UK and US pension fund governance is framed by legal requirements, both under the common law of trust and under statute.⁴¹⁶ Under these laws, pension fund trustees owe certain duties to the beneficiaries of the funds that they manage (discussed in more detail below). Pension fund trustees and their advisors use a number of techniques in order to ensure that they meet their legal obligations to beneficiaries. Clark and Urwin conducted research into pension fund governance in order to discover what constitutes best-practice.⁴¹⁷

The discussion begins by revisiting Clark and Urwin's (2008) framework for pension fund governance. In doing so, the Chapter focuses particularly on two core elements of their framework: investment mission and investment beliefs. This sets the scene for the following section, which presents the framework for sustainable investing, describing changes both to investment strategy and pension fund governance designed to aid UK and US pension funds pursuing a strategy of sustainable investing.

Clark and Urwin (2008) present a pension fund governance framework based on their observations of best-practice amongst a range of institutional investors (including both public and private UK and US pension funds) who demonstrate exemplary governance practices. In examining a range of pension fund governance processes, Clark and Urwin distil twelve 'best-practice factors'.⁴¹⁸ Noting that not all institutional investors have the resources to implement these governance principles to the same extent, they designate six of the twelve as 'core' factors (see Table IV-1, at 133). They view the other six principles as only relevant to resource-rich

⁴¹⁵ Ashby Monk, *The Geography of Pension Liabilities and Fund Governance in the United States*, 41 ENV'T & PLANNING A 859 (2009).

⁴¹⁶ Benjamin J. Richardson, *Do the Fiduciary Duties of Pension Funds Hinder Socially Responsible Investment?*, 22 BANKING & FIN. L. REV. 145 (2007); Woods, *supra* note 368.

⁴¹⁷ See Clark & Urwin, *Best Practice Governance*, *supra* note 367.

⁴¹⁸ *Id.* at 13.

organisations comprising of an executive team in addition to board of trustees and investment committee. This Chapter’s framework builds on Clark and Urwin’s work.

Table IV-1: Clark and Urwin (2008): Core best-practice governance factors for pension funds	
1. Mission clarity	Clarity of the mission and the commitment of stakeholders to the mission statement
2. Effective focusing of time	Resourcing each element in the investment process with an appropriate budget considering impact and required capabilities
3. Leadership	Leadership, being evident at the board/investment committee level, with the key role being the investment committee Chairman
4. Strong beliefs	Strong investment beliefs commanding fund-wide support that align with goals and inform all investment decision-making
5. Risk budget framework	Frame the investment process by reference to a risk budget aligned to goals and incorporates an accurate view of alpha and beta
6. Fit-for-purpose manager line-up	The effective use of external managers, governed by clear mandates, aligned to goals, selected on fit-for-purpose criteria

Of Clark and Urwin’s six core best-practice factors, the two most relevant to the framework for sustainable investing governance are mission clarity and strong beliefs (highlighted in **Table 1**). Moreover, it would appear that whilst the use of the terms ‘investment belief’ and ‘mission’ is widespread within the investment industry, these terms may be unclear to those with less practical familiarity with the industry. For that reason, it is worth discussing the terms in some detail here. While Clark and Urwin’s other core governance factors are not discussed in detail in this section, reference is made to them below.

Mission Clarity

Trustees must have a clear understanding of what they are required to do on behalf on beneficiaries. Trustees’ aims in dealing with trust funds on behalf of beneficiaries

may be described as an ‘investment mission’. Investment mission is rarely defined in academic articles. Instead, authors tend to provide assertions about the characteristics an investment mission should have. It should be ‘clear’⁴¹⁹ and should be communicated to relevant stakeholders.⁴²⁰ Clark and Urwin argue that a clear mission and ‘the commitment of stakeholders to the mission statement’ is a core factor in pension fund governance.⁴²¹ An investment mission *statement* articulates the mission of the trustees: it is a statement that defines the goals of trustees and their agents in investing trust funds on behalf of beneficiaries.

Academic work on corporate mission statements provides some insight that may be applied to pension fund mission statements. Whilst corporate mission statements tend to have a broader focus than pension fund investment missions (they often refer amongst other things to customers, employees, products or services, markets, public image, and growth),⁴²² studies nonetheless emphasise the role of mission statements in providing clarity of aims,⁴²³ and in communicating them.⁴²⁴ In this author’s view, it is useful for pension fund trustees to articulate their mission with respect to specific factors as well as specifying an overall mission statement. As such, pension funds might have, for example, a financial mission statement, a long-term mission statement, and an ownership mission statement in addition to their overarching investment mission statement.

Many pension funds (both public and private) create a written a statement of

⁴¹⁹ *Id.*

⁴²⁰ See, e.g., Clark & Monk, *supra* note 414.

⁴²¹ Clark & Urwin, *Best Practice Governance*, *supra* note 367, at 9.

⁴²² F.R. David, *How Companies Define their Mission*, 22 LONG RANGE PLANNING 90, 90-97 (1989).

⁴²³ L.S. Williams, *The Mission Statement*, 45 Journal of Business Communication 94 (2009).

⁴²⁴ B. Bartkus, *Mission Statements: Are they smoke and mirrors?*, 43 BUS. HORIZONS 23 (2000).

their investment policy⁴²⁵ (US) or principles (UK), whose aims may be used to inform trustees' understanding of their mission, and therefore an investment mission statement. In the UK, the *Occupational Pension Schemes (Investment) Regulations* (2005) require all pension funds to create a written statement of investment principles.⁴²⁶ While neither private nor public US pension funds are required by law to produce a written statement of investment policy, it is considered best-practice to do so.⁴²⁷ Moreover, the US Department of Labor has released interpretive guidelines endorsing the use of such statements.⁴²⁸ These statements of investment policy and principles are more extensive than mission statements. For example, UK statements of investment principles must contain a statement of the fund's policies in relation a number of factors, including 'the kinds of investments to be held', 'risks, including the way risks are to be measured and managed' and 'the extent the extent (if at all) to which social, environmental or ethical considerations are taken into account in the selection, retention and realisation of investments.'⁴²⁹ As most trustees will have prepared these statements already, they may provide a convenient starting point for articulating, and then evaluating, an appropriately considered and clear mission statement.

⁴²⁵ The US Department of Labour defines 'statement of investment policy' as 'a written statement that provides the fiduciaries who are responsible for plan investments with guidelines or general instructions concerning various types or categories of investment management decisions.' See Interpretive bulletin relating to written statements of investment policy, including proxy voting policy or guidelines: 29 CFR 2509.94-2(1).

⁴²⁶ *Occupational Pension Schemes (Investment) Regulations* (2005) (UK), cl. 3(b).

⁴²⁷ W. Martin, *Socially Responsible Investing: Is Your Fiduciary Duty at Risk?*, 90 JOURNAL OF BUSINESS ETHICS 549 (2009).

⁴²⁸ The US Department of Labour states that 'a statement of investment policy designed to further the purposes of the plan and its funding policy is consistent with the fiduciary obligations set forth in ERISA section 404(a)(1)(A) and (B)': see 29 CFR 2509.94-2(1).

⁴²⁹ *Occupational Pension Schemes (Investment) Regulations* (2005) (UK), cl. 3(b).

Investment Beliefs

Our experience has shown that while the concept of investment beliefs is widely used within the pension fund industry, it has been subjected to little academic scrutiny. Kees Koedjik and Alfred Slager⁴³⁰ have addressed the subject in some detail; Keith Ambachtsheer⁴³¹ and Clark and Urwin⁴³² have also made reference to the concept as part of their broader work on pension fund governance. The term ‘investment belief’ itself is widely used without being widely defined. The definitions that do exist are perfunctory in most cases. Koedjik and Slager treat investment beliefs in more detail than most authors, and define investment belief as ‘a statement about human behaviour in the financial marketplace’.⁴³³ Gray defines investment beliefs as ‘assertions about critical aspects of investing regarding the drivers of return generation, the multi-dimensional nature of risk, the dynamic scenario-dependent trade-offs between the two, and expectations about outcomes, and others’ expectations.’⁴³⁴ As both of these authors note, investment beliefs are not always articulated; the terms ‘statement’ and ‘assertion’ do not adequately acknowledge the fact that many beliefs are in fact implicit. Therefore, a preferable definition of investment beliefs is the following: investment beliefs are the conjectures⁴³⁵ and working assumptions about the investment world (including the economy, the workings of the financial system, and social, environmental and other risks) that underlie and inform investment decision-making.

⁴³⁰ K. Koedjik & A. Slager, *Do Institutional Investors Have Sensible Investment Beliefs?*, 2 ROTMAN INTERNATIONAL J. OF PENSION MGM'T 12 (2009) [hereinafter Koedjik & Slager, *Sensible Investment Beliefs*]; K. Koedjik & A. Slager, *Investment Beliefs: Every asset manager should have them*, 33 J. PORTFOLIO MGM'T 77 (2007) [hereinafter Koedjik & Slager, *Every asset manager*].

⁴³¹ See Ambachtsheer, *Pension Revolution*, *supra* note 414;

⁴³² Clark & Urwin, *Best Practice Governance*, *supra* note 367; Clark & Urwin, *Innovative Models*, *supra* note 414.

⁴³³ Koedjik & Slager, *Sensible Investment Beliefs*, *supra* note 430.

⁴³⁴ Jack Gray, *Rethinking Investment Beliefs in a Time of Crisis: The Calming Hand of Philosophy*, ROTMAN INT'L J. PENSION MGMT 6, 7 (2009).

⁴³⁵ Karl Popper, *CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE* (1963).

Despite the scarcity of detailed definitions, there seems to be a level of agreement in the literature, both implicit and explicit, that strong, sound investment beliefs are beneficial to pension fund governance. According to Koedjik and Slager, beliefs are important because they improve stakeholder governance by reducing conflict of interest.⁴³⁶ In other words, when investment beliefs are out in the open, pension fund trustees, their advisors, asset managers and beneficiaries have a common understanding about the working assumptions underlying the pension funds' investment practices; there is a meeting of minds. The transparency achieved allows any of the stakeholders to question first whether a stated investment belief is sound, and second whether a particular investment practice or decision is consistent with the stated investment beliefs. Moreover, clearly stated investment beliefs may help pension funds to design investment strategies that are appropriate for the needs of their beneficiaries.⁴³⁷

In order to make the discussion less abstract, it is worth providing some hypothetical examples of investment beliefs, and evaluating them. These are the sorts of beliefs that pension fund trustees typically advance in the context of RI:

1. RI has produced better performance than conventional investing.
2. RI has produced worse performance than conventional investing.
3. RI is likely to produce performance as least as good as conventional investing because it uses additional information that influences price and value.
4. RI is likely to produce lower performance than conventional investing because it acts as a constraint on choice.
5. There is no firm evidence that RI will perform as well as conventional investing.
6. There is no firm evidence that RI will perform any worse than conventional investing.

⁴³⁶ Koedjik & Slager, *Every asset manager*, *supra* note 430.

⁴³⁷ Gray, *supra* note 434; Koedjik & Slager, *Sensible Investment Beliefs*, *supra* note 430.

7. Extra-financial factors including ESG factors influence returns and risk over extended time periods.
8. The active use of ownership rights through company engagement can enhance the value of an investment if deployed appropriately.

Statements like (1) and (2) are not definitive. Performance is always contextual to a particular set of conditions or particular period, so the statement may be true and false. In any case, the inductive step that links past and future performance is relatively weak. Qualitative arguments like (3) or (4) have greater merit but they may prove difficult to advance with high conviction. RI approaches vary widely and the belief that RI works may be difficult to advance as a generality. This leads many fiduciaries to favour a null form of belief like (5) or (6). The beliefs in (7) and (8) correspond to a more constructive approach. The framework presented in this Chapter is designed to provide a structure from which trustees can articulate more concrete beliefs like these.

Writing in the *Financial Times*, Skypala notes that ‘there is a danger [in acknowledging investment beliefs] that the realisation of how much [of investment practice] is based on beliefs rather than facts may reveal how little certainty there can be about investment outcomes’.⁴³⁸ This danger is a reality in that uncertainty and potential ambiguity are endemic to the investment world. That said, a distinction should be drawn between the largely subjective investment beliefs of naïve investors, and the beliefs of investment experts that are trialled and reformed through a recursive process in practice. Indeed, a lack of transparency is a much greater danger: even if a pension fund does not make beliefs explicit, they exist.⁴³⁹ Pension fund investment practices rely on conjectures and working assumptions about the world in which

⁴³⁸ Pauline Skypala, *Clear Investment Beliefs are Crucial*, FIN. TIMES, 11 October 2009, at 6.

⁴³⁹ See Gray, *supra* note 434; Koedjik & Slager, *Every asset manager, supra* note 430.

investing occurs. The articulation of investment beliefs allows for them to be tested, and for investment practices to be altered as necessary.

SUSTAINABLE INVESTING FRAMEWORK

This section introduces a sustainable investing framework for UK and US pension funds. The conception of sustainable investing presented here is based around the notion of RI as designed by UN PRI, modified by an additional emphasis on long-term investing and intergenerational equity. This sustainable investing framework is therefore designed for pension funds take into account ESG issues and practice active ownership, but also to emphasise long-term risk control and value creation, and to ensure that their investment strategy and governance are appropriate to sustainable investing aims. Investment strategy for sustainable investing is addressed first, followed by pension fund governance for sustainable investing. Conventional pension fund investment strategies and governance practices are outlined simultaneously in order to provide a point of comparison. This section should be read in conjunction with **Tables IV-1 to IV-5**.

Investment Strategies For Pension Fund Sustainable Investing

Conventional pension fund investment strategies usually fail to bring ESG issues sufficiently into account in making investment decisions and specify investment targets that are relatively short-term. This type of conventional strategy is referred to here as ‘Strategy A.’ This sort of strategy has significant limitations, as it does not align sufficiently with the long-term investment principles to which pension funds are

suited.⁴⁴⁰ Furthermore, delegation to asset managers of too much responsibility for exercising their ownership interests and duties, and reliance on short-term performance benchmarks, creates a risk of thoughtless adherence to herd investing.⁴⁴¹

In order for a pension fund to take up a sustainable investing approach, a number of adjustments to investment strategy are required. First, investment strategies could integrate ESG issues into investment decision-making and analysis.⁴⁴² Second, trustees could provide more specific instructions to asset managers with respect to a) ESG integration; and b) engagement with investee companies. Third, performance benchmarks and the associated investment focus for activities could be based on longer term horizons, with more emphasis on absolute returns. This sustainable investing strategy is referred to here as ‘Strategy B.’

In addition to these measures, some pension funds may wish to make targeted investments in sustainably-themed products, such as clean technology ventures (we will refer to these as ‘environmentally targeted investments’). This sort of investment should be distinguished from community investment, where the aim is to create benefits for communities⁴⁴³ – the focus for pension funds here must remain on creating return for beneficiaries as part of a risk-adjusted portfolio. Furthermore, any such environmentally targeted investments must be in line with investment beliefs (discussed more below). This area is likely to involve allocations outside quoted equities and bonds in areas like venture capital, private equity, real estate and infrastructure.⁴⁴⁴ The typical pension fund employs external managers to cover these

⁴⁴⁰ See generally Sethi, *supra* note 385.

⁴⁴¹ See Johnson & de Graaf, *supra* note 171.

⁴⁴² See generally Sethi, *supra* note 385; Sandberg *et al.*, *supra* note 387.

⁴⁴³ See Schueth, *supra* note 384.

⁴⁴⁴ For an example of a targeted infrastructure investment, see Tessa Hebb, *Pension Funds and Urban Revitalisation: California Case Study A – Private Equity, CalPERS’ California Initiative*, Labor & Worklife Program Harvard Law School, Working Paper 2005, revised 2006 (discussing the case of CalPERS’ urban revitalisation project).

areas; the fund’s responsibilities hinge on being able to select these managers successfully, draw up appropriate mandates governing their actions and targets and apply effective oversight. This type of extended sustainable investing strategy is referred to here as ‘Strategy C.’ Environmentally targeted investments are unlikely to be appropriate for all pension funds; as with any investment, an environmentally targeted one must be considered in light of a fund’s own risk budget.⁴⁴⁵ **Table IV-2** summarises these strategies.

Conventional investment strategy (Strategy A)	<ul style="list-style-type: none"> • Performance benchmark and therefore investment focus based on short-term time horizons • High degree of delegation of ownership interests to managers
SI strategy (Strategy B)	<ul style="list-style-type: none"> • ESG issues integrated into investment decision-making and analysis including active ownership • Managers given specific instructions with respect to ESG integration and the exercise of ownership interests • Performance benchmarks and therefore investment focus based on longer term time horizons
SI extended strategy with targeted investments in sustainable areas (Strategy C)	<ul style="list-style-type: none"> • Strategy B components, plus: • Investment in environmentally targeted investment, such as clean technology ventures and other sustainable themes

Pension Fund Governance for Sustainable Investing

The most detailed analyses of pension fund governance have dealt with how pension funds can best meet their financial obligations to beneficiaries.⁴⁴⁶ Very little of this literature deals specifically with governance with respect to sustainable investing or, more generally, in the context of the requirements of a more sustainable economy.

⁴⁴⁵ See Clark & Monk, *supra* note 414.

⁴⁴⁶ See, e.g., Ambachtsheer, *Pension Revolution*, *supra* note 414; Clark & Urwin, *Innovative Models*, *supra* note 414; Monk, *supra* note 415.

What has been written about UK and US pension fund governance with respect to sustainability has been reasonably high-level.⁴⁴⁷ As the framework aims to aid pension funds with the practical implementation of a sustainable investing process, the section provides a more detailed outline of governance for sustainable investing. As foreshadowed above, it looks first at mission clarity for sustainable investing, then at investment beliefs for sustainable investing. Finally, this section addresses Clark and Urwin's remaining core pension fund governance factors.⁴⁴⁸

As noted above, mission clarity is one of Clark and Urwin's core best-practice governance factors for pension funds; it is essential that pension funds adopting a sustainable investing approach ensure that they adjust their mission appropriately. An example of a conventional pension fund investment mission (Mission 1) might be to invest trust funds with appropriate risk in order to meet future liabilities to beneficiaries at an appropriate cost. The conventional mission, Mission 1, exists in the vast majority of pension funds. A sustainable investing mission (Mission 2) would focus on continued value creation as in Mission 1, but it would also aim to manage risk more effectively through integrating ESG into investment decision-making (in order to evaluate the value of potential investments more accurately) and through active ownership actions with investee companies over ESG issues where relevant. Furthermore, a sustainable investing mission would include dedication to long-term planning and intergenerational equity.

An extended sustainable investing mission (Mission 3) would allow for a more significant level of commitment to sustainability goals, but this would rarely be appropriate for pension funds because of its extra-financial reach (discussed more below). Investors adopting an extended sustainable investing mission as described

⁴⁴⁷ See, e.g., Sethi, *supra* note 385.

⁴⁴⁸ See Clark & Urwin, *Best Practice Governance*, *supra* note 367.

here would have the value creation and ESG integration/active ownership/long-term planning aims described in Mission 1 and Mission 2 respectively, and they would also aim to achieve certain extra-financial goals (for example, the creation of a national fund for education, or the production of cleaner energy through investment in renewable energy technology), such goals overlapping with the financial goals. The focus for funds wishing to adopt Mission 3 would remain on the creation of ‘value’ for beneficiaries, but the ‘value’ might be more social or environmental than strictly financial. In adopting Mission 3, funds would have to make clear the balance between their financial and extra-financial aims.

It is important to emphasise that Mission 3 is an example of a specialised mission that will *rarely be consistent with pension fund fiduciary duty*, because it is likely to involve a conscious compromise on a portion of financial return in exchange for an extra-financial reward. Under UK and US law (both statute and case law), fiduciary duty requires trustees to manage trust funds in the best interests of beneficiaries, which generally means in their best financial interests.⁴⁴⁹ Only where all beneficiaries of a pension fund agreed to such a mission would it be in keeping with fiduciary duty.⁴⁵⁰

An extended sustainable investing mission like Mission 3 is therefore more likely to be an appropriate for a sovereign wealth fund that may have national environmental or social goals to incorporate in its investment mission, or an endowment fund that aims to marry a financial purpose with some wider social agenda. While an extended sustainable investing mission like Mission 3 will rarely be suitable for pension funds, it is nonetheless worth noting for completeness’ sake that

⁴⁴⁹ The notion of what constitutes a beneficiary’s ‘best interests’ has been problematised. This is addressed below; see also Woods, *supra* note 368.

⁴⁵⁰ See Thornton, *supra* note 215; see also UNEP FI, FIDUCIARY RESPONSIBILITY, *supra* note 214.

such mission could exist, and that it would lead to a significantly different investment outcome. A spectrum of investment missions: a conventional mission (Mission 1); a sustainable investing mission (Mission 2); and an extended sustainable investing mission (Mission 3) are canvassed in Table IV-3.

Table IV-3: Conventional investment mission compared to sustainable investing (SI) missions	
Conventional investment mission (Mission 1)	<ul style="list-style-type: none"> Invest trust funds with appropriate risk in order to meet future liabilities to beneficiaries at an efficient cost
SI mission (Mission 2)	<ul style="list-style-type: none"> As for Mission 1, plus: Avoid various risks associated with investment ownership by integrating ESG and active ownership into analysis and decision-making Promote intergenerational equity within fund by focusing resources and planning on the longer term
Extended SI mission (Mission 3) NB: Mission 3 will rarely be consistent with pension fund fiduciary duty	<ul style="list-style-type: none"> As for Missions 1 and 2, plus: Achieve certain extra-financial goals, with respect to environmental or social issues (recognising that these might conflict with the financial goals)

As emphasised in Part III above, best-practice pension fund governance requires both clarity of mission and effective communication of mission. Therefore, a pension fund sustainable investing mission should be communicated through a clear mission statement. In addition to the overall sustainable investing mission statement, it may be useful for trustees to articulate their mission with respect to specific areas of governance under sustainable investing as well. Examples of possible mission statements for pension funds adopting a sustainable investing mission are shown in **Table IV-4**.

Table IV-4: Sample sustainable investing (SI) mission statements		
Type of mission	Sample mission statement wording	Value created if mission is implemented successfully
Financial mission (for all Missions)	Create value for beneficiaries at appropriate levels of risk through investment practices and	Net financial returns in excess of liabilities allowing

	decisions	for risk
ESG mission (for Missions 2 and 3)	Manage certain extra-financial risks by integrating ESG assessment into investment practices and decisions	Net financial returns from risk mitigation; non-financial returns
Ownership mission (for Missions 2 and 3)	Manage ownership risks through exercising voting and/or engagement with investee companies on ESG and long-term issues	Net financial returns from risk mitigation; non-financial returns
Long-term mission (for Missions 2 and 3)	Create value by exploiting the long-term endowment of the fund while avoiding the inefficiencies in short-term behaviours	Net financial returns over long-term allowing for risks and costs
Intergenerational equity mission (for Missions 2 and 3)	Ensure value is sustained for current and future generations of beneficiaries by investment practices and decisions that focus on planning ahead	Net financial returns to successive generations of beneficiaries
Extra-financial mission (for Mission 3 only)	Create extra-financial value for beneficiaries (and other stakeholders) by investing in ESG-related opportunities	Non-financial returns to explicit wider missions

This Chapter has defined investment beliefs as the conjectures and working assumptions about the investment world (including the economy, the financial system, and social, environmental and other risks) that underlie and inform investment practices and decisions. It is argued here, as elsewhere,⁴⁵¹ that strong investment beliefs are vital to best-practice pension fund governance. In order for pension funds to successfully adapt their governance practices to the requirements of sustainable investing, it is essential that they re-examine their investment beliefs.

Why is a re-examination of investment beliefs necessary in order for pension funds to pursue sustainable investing? Articulating investment beliefs aids investors in making sensible decisions about investment strategy. If a pension fund is considering moving from a conventional investment mission to a sustainable

⁴⁵¹ See generally Ambachtsheer, *Pension Revolution*, *supra* note 414; Clark & Urwin, *Innovative Models*, *supra* note 414; Gray, *supra* note 434; Koedjik & Slager, *Sensible Investment Beliefs*, *supra* note 430; Koedjik & Slager, *Every asset manager*, *supra* note 430.

investing mission, then the trustees of that fund are likely to have altered their beliefs about the value of sustainable investing. For example, a pension fund that becomes interested in sustainable investing is likely to hold an investment belief that ESG issues influence financial returns and risk over the long-term, and should form part of all investment analysis and decision-making. If the pension fund in question did not hold this belief, then adopting an investment strategy in which ESG issues are included in investment analysis and decision-making would be inappropriate. In order to ensure that a sustainable investing strategy is appropriate for beneficiaries, trustees of pension funds considering sustainable investing should therefore a) articulate their investment beliefs; and b) assess whether these are compatible with a sustainable investing strategy. Once investment beliefs that support the introduction of a sustainable investing strategy have been acknowledged and articulated, pension fund stakeholders (including beneficiaries and asset managers) are able to see the trustees' justification for a sustainable investing strategy.

Having underlined the importance of ensuring that investment beliefs fit sustainable investing goals, institutional change is rarely easy.⁴⁵² In Ambachtsheer's (2007) view, pension funds are too often chained to investment beliefs that are no longer appropriate: 'the beliefs of many funds continue to be based on historical rules of thumb'⁴⁵³ that are ill suited to the current environment. The acknowledgement of new investment beliefs is no different from other types of institutional change in this respect, as it means accepting that one's underlying assumptions about the workings of the investment world have changed. Nonetheless, the acknowledgement and expression of appropriate beliefs is a necessary precursor to the successful

⁴⁵² Ambachtsheer, *Pension Revolution*, *supra* note 414; Clark & Urwin, *Innovative Models*, *supra* note 414.

⁴⁵³ Ambachtsheer, *Pension Revolution*, *supra* note 414, at 23.

implementation of sustainable investing practices. Examples of investment beliefs that might support a sustainable investing strategy are set out in **Table IV-5**.

Table IV-5: Examples of investment beliefs supporting sustainable investing	
Source of risk/return	Related investment belief
ESG issues	ESG issues influence financial returns and risk over the long-term, and should form a part of all investment analysis and decision-making
Active ownership	The execution of ownership rights can influence performance and risk over time
Engaged ownership	The active use of engagement with investee companies can enhance the financial performance of an investment over time
Contracts with asset managers	Contracts and fees for asset managers can be designed to align their long-term interests with those of the fund
Oversight of delegated investment responsibilities	Appropriate oversight of asset managers' integration of ESG issues into investment analysis and decision-making can improve its effectiveness
Environmental change	Longer term risks of climate change and resource degradation can be offset by investment in environmental opportunities and clean technology

Finally, there are four best-practice governance practices⁴⁵⁴ in addition to mission clarity and strong investment beliefs (see **Table IV-1**, on page 133) that may be adapted in order for pension funds to pursue a strategy of sustainable investing successfully. First, *effective focusing of time*: trustees should map out the resources needed to implement a sustainable investing strategy, including parts of the implementation process that will be delegated to asset managers. Second, *leadership*: trustees should provide strong leadership to mediate varying opinion about the value of a sustainable investing strategy. Where applicable, the pension fund's Investment Committee Chairman should play the main leadership role. After the sustainable investing strategy has been introduced, the Chairman should continue to mould

⁴⁵⁴ As described by Clark & Urwin, *Best Practice Governance*, *supra* note 367.

consensus.⁴⁵⁵ Third, *risk budget framework*: trustees should attempt, as far a possible, to place quantifiable risk parameters on risk related to ESG issues. Fourth, *fit-for-purpose manager line-up*: it is essential that asset managers have appropriate capability for implementing a sustainable investing strategy, including understanding how to integrate ESG issues into investment analysis and decision-making, and how to lengthen the investing time horizon where relevant.

This Chapter has argued that in order for pension funds to implement sustainable investing effectively, they should make certain adjustments to their investment strategies, including the integration of ESG issues into investment analysis and decision-making and engagement with companies where necessary, and the emphasis of longer term investment time horizons (see **Table IV-2**, on page 141). In addition, pension funds implementing sustainable investing should ensure that their governance practices align with their sustainable investing strategy. Building upon Clark and Urwin's 2008 study⁴⁵⁶ of best-practice pension fund governance (see **Table IV-1**, on page 133), this chapter has argued that pension funds implementing sustainable investing should articulate both a clear sustainable investing investment mission (see **Table IV-3**, on page 144 and **Table IV-4**, on page 144) and strong investment beliefs with respect to the soundness of sustainable investing as an investment approach (see **Table IV-5**, on page 147). Finally, it is noted that best-practice pension fund governance indicates that effective focusing of time, leadership, risk budget framework and appropriate management should all be adjusted to meet the needs of sustainable investing.

⁴⁵⁵ *See id.*

⁴⁵⁶ *See id.*

LEGAL CONTEXT: BARRIERS TO AND ENABLERS OF SUSTAINABLE INVESTING

UK and US pension funds planning to engage in sustainable investing should not overlook their fiduciary requirements. These were discussed in detail in the previous Chapter, but it is worth adding a few further comments in the context of this Chapter's framework.⁴⁵⁷ Debate surrounding fiduciary duty with respect to sustainable investing, and more generally SRI and RI, should move beyond references to the 1984 UK case of *Cowan v Scargill*⁴⁵⁸ and the early US work of Langbein and Posner,⁴⁵⁹ upon which many industry discussions on the subject appear to be built. The preliminary work of Johnson and de Graaf with respect to the oft-forgotten duty of impartiality⁴⁶⁰ is useful in this regard. The fiduciary focus here is practical – this Chapter emphasises the importance for pension funds of documenting prudence and loyalty. The framework presented is designed to help pension fund trustees to do so, and therefore to protect themselves (and their beneficiaries) against potential breaches of fiduciary duty. This section concludes by considering the law's constructive capacity, and suggests a number of potential regulatory enablers of sustainable investing for future discussion and research.

⁴⁵⁷ See also Woods, *supra* note 368.

⁴⁵⁸ *Cowan v Scargill* Ch. 270 [1985] (UK).

⁴⁵⁹ Langbein & Posner, *supra* note 215.

⁴⁶⁰ Johnson & de Graaf, *supra* note 171.

Fiduciary Duty and Sustainable Investing: the need to document prudence and loyalty

Many authors have addressed the issue of whether various forms of SRI and RI are consistent with fiduciary duty.⁴⁶¹ It is beyond the scope of this Chapter to examine all of their arguments in depth. It suffices to say that the issue of whether SRI and RI are compatible with fiduciary duty centre on two element of fiduciary duty as it applies in the context of US⁴⁶² and UK⁴⁶³ pension funds: the duties of loyalty and of prudence. Putting to aside the minor variations in formulation between sources of law,⁴⁶⁴ the duty of loyalty requires trustees to act in the best interests of the beneficiaries. The duty of prudence requires trustees to exercise prudence, or skill, care and diligence, in managing trust funds for beneficiaries. Under both US and UK law, prudent management of trust funds today means managing trust funds in accordance with modern portfolio theory.⁴⁶⁵

⁴⁶¹ See, e.g., Langbein, *supra* note 236; Langbein & Posner, *supra* note 215; Martin, *supra* note 427; Richardson, *supra* note 187; Weinrib, *supra* note 223.

⁴⁶² In the US, the duty of loyalty is contained in Uniform Prudent Investor Act ('UPIA') (US) at s. 5 for public pension funds in almost all states); and in Employee Retirement Income Security Act 1974 ('ERISA') at 29 USC § 1104(a) for private pension funds. The duty of prudence may be found in UPIA at s. 2(a) for public pension funds; and in ERISA at 29 USC § 1104(a)(B). In US case law, the classic statement of the duty of prudence is: a trustee must "observe how men of prudence, discretion and intelligence manage their own affairs, not in regard to speculation, but in regard to the permanent disposition of their funds": *Harvard College v Amory* (1830) 26 Mass. (9 Pick.) at 461.

⁴⁶³ In the UK, the duty of loyalty may be found in *Occupational Pension Schemes (Investment) Regulations* (2005) (UK), which provide that the trustee's foremost duty to beneficiaries is to act in their "best interests", except in the case of a conflict of interest, when they must act "in the sole interest of members and beneficiaries": cl. 4(2). The duty of prudence requires the trustee to manage the trust in the same manner as an ordinary prudent man of business would conduct his own affairs: *Speight v Gaunt* 9 App Cas 1 (1883) (HL) at 19 (judgement of Lord Blackburn) (approving 22 ChD 727 at 739–740, CA, per Jessel MR); *Re Whiteley, Whiteley v Learoyd* (1886) 33 ChD 347 (CA) at 355 (Lindley LJ). Under the UK Trustee Act 2000, all trustees are required to "exercise such care and skill as is reasonable in the circumstances", having regard to 'any special knowledge or experience that he has or holds himself out as having' s. 1(1)(a).

⁴⁶⁴ See *id.*

⁴⁶⁵ See previous chapter.

Following a spate of ethically-driven SRI in the late 1970s and 1980s (mainly consisting of divestment from companies in Apartheid Africa)⁴⁶⁶ critics argued that trustees were using SRI to further their own moral or political purposes, rather than to promote the financial interests of beneficiaries, and in doing so narrowed their funds' investment universe in what amounted to a violation of both the duties of loyalty and prudence. These views were backed up by judicial decisions in both the US and the UK.⁴⁶⁷ However, the form that SRI took in the early cases such as these differs markedly from the form of RI or sustainable investing around which this Chapter's framework is designed.

Nonetheless, as the previous Chapter argued, the persistent lack of clarity in this area, combined with a tendency for courts and commentators to equate prudence with adherence to the *status quo* continues to dissuade trustees from adopting investment strategies (such as Strategy B) that break with convention (Strategy A) (see **Table 2**). In this climate of legal anxiety, it is all the more important for pension funds trustees to protect themselves (and the beneficiaries of their funds) with good governance. Where pension fund trustees can document the steps they have taken to arrive at the decision to implement an RI or sustainable investing strategy, and where those steps are based on sound investment beliefs, they should be able to demonstrate that their decisions were in the best interests of beneficiaries. In this context, the framework provides trustees with a transparent structure, which, if executed properly, should establish that any such strategy is based on strong beliefs about the advantages it will provide to beneficiaries. It is difficult to see how a well articulated RI or sustainable investing approach demonstrably based on sound investment beliefs in

⁴⁶⁶ See Richardson, *supra* note 187.

⁴⁶⁷ See, e.g., *Cowan v Scargill* Ch. 270 [1985] (UK); *Univ. of Oregon v Oregon Inv. Council* 82 Or. App. 145 (1987), 728 P.2d 30 (US).

and designed in the best interests of beneficiaries can be said to violate either the duty of loyalty or of prudence.

The debate over whether RI or sustainable investing (in the form presented in this Chapter) violates the duties of loyalty and prudence has become somewhat stale. Until a new case on point is heard or relevant legislation is enacted, little can be gained from continuous rehashing of these old issues.⁴⁶⁸ That said, Johnson and de Graaf's recent article questioning whether pension fund trustees are adequately addressing another aspect of their fiduciary duty, the duty of impartiality, does bring some fresh thought to the area.⁴⁶⁹ The duty of impartiality requires trustees to 'make diligent and good-faith efforts to identify, respect, and balance the various beneficial interests when carrying out the trustees' fiduciary responsibilities in managing, protecting, and distributing the trust estate'.⁴⁷⁰ While it is a long-standing duty in trust law, courts and scholars 'have generally left the nature and implications of the duty vaguely defined and little explained.'⁴⁷¹

Johnson and de Graaf argue that pension fund trustees who are overly short-term oriented may breach their fiduciary duty by, in essence, favouring older beneficiaries over younger ones:

Excessive focus on short-term investment horizons, use of short-term benchmarks and evaluation of portfolio managers based on short-term results, as well as a lack of attention to the risks associated with potential long-term value destruction ... should ring fiduciary alarms for pension funds that are managing assets to meet liabilities over several generations.⁴⁷²

It is difficult to know where to limit Johnson and de Graaf's argument. In the context of pension funds, which often have thousands of beneficiaries at any one time, a

⁴⁶⁸ *But see* Woods, *supra* note 368.

⁴⁶⁹ *See* Johnson & de Graaf, *supra* note 171.

⁴⁷⁰ Restatement of Trusts (Third), comments to § 79(1).

⁴⁷¹ E.C.J. Halbach, *Trust Investment Law in the Third Restatement*, 27 REAL PROP. PROB. & TR. J. 407, 441 (1992).

⁴⁷² Johnson & de Graaf, *supra* note 171, at 6.

narrow interpretation of the duty of impartiality could place unreasonable burdens on trustees. However, it is an argument worth developing further, and may provide extra support for the value to be derived from long-term investing strategies.

Potential Regulatory Enablers of Sustainable Investing

Fiduciary duty is chiefly seen as a preventer of harm; regulation may also act as an enabler of constructive behaviour. Leaders in both the US and the UK could consider a number of potential regulatory enablers of sustainable investing. The suggestions here are not detailed, and do not presume to answer the questions they will raise, but instead to outline some discussion points for future research:

- The introduction of ‘safe harbour’ principles: this approach could create incentives for sustainable investing by preventing litigation against fiduciaries with respect to practices covered by safe harbour clauses (where fiduciaries have followed due process and acted in good faith). The safe harbour clauses could be designed to protect from litigation fiduciaries that choose to adapt an RI or sustainable investing approach as described in this Chapter. Safe harbour principles have been used to provide trustees with a degree of certainty of compliance with their fiduciary obligations with respect to defined contribution default plans in the US under ERISA.⁴⁷³
- The introduction of a ‘comply or explain’ process with respect to sustainable investing: under this approach, legislators would encourage pension funds to think of sustainable investment as a norm, by requiring them to either comply and adopt aspects of sustainable investment (‘comply’) or provide a written explanation detailing why they have chosen not to comply and for what time

⁴⁷³ Bill Shaw *et al.*, ‘Investment Prudence and Fiduciary Responsibility in Managing Defined Benefit Pension Funds Under ERISA’, 22 SUFFOLK U. L. REV. 83 (1988).

period ('explain'). This approach portrays sustainable investing as legislatively sanctioned, while allowing an alternative line of action to be pursued subject to explanation. Similar legislation has been effective in raising governance standards in the UK with respect to corporate governance (see *Combined Code on Corporate Governance 2003* (UK)) and pension investment governance ('Myners Principles')⁴⁷⁴, and has already appeared to a limited extent for UK pension funds with respect to ESG issues. Under the *Pensions Act 1995*, pension funds must produce a written statement of investment principles ('SIP').⁴⁷⁵ The SIP must cover 'the extent (if at all) to which social, environmental or ethical considerations are taken into account in the selection, retention and realisation of investments'.⁴⁷⁶ This regulation stops short of being a comply or explain approach because it merely requires pension funds to state whether they take social, environmental and ethical considerations into account, but not why they choose not to do so. This approach, while accommodating very limited response by many funds, is still productive in that it is sufficiently flexible to allow pension funds to adjust their strategies at their own pace, while gradually contributing to a change in expectations about sustainable investment.⁴⁷⁷

- Government funding for a permanent academy for training with respect to RI or sustainable investing: this has occurred in Australia, with the creation of the Responsible Investment Association of Australasia in 2007 (previously known

⁴⁷⁴ See MYNERS, *supra* note 366.

⁴⁷⁵ See *Pensions Act* (1995) (UK) ss. 35-36.

⁴⁷⁶ *Occupational Pension Schemes (Investment) Regulations* (2005) (UK), cl. 3(b)(vi). Similarly, it must cover the fund's "policy (if any) in relation to the exercise of the rights (including voting rights) attaching to the investments": cl 3(c).

⁴⁷⁷ On this soft approach to behavioural change see generally Cass Sunstein & Richard Thaler, *Libertarian Paternalism is not an Oxy Moron*, 70 U. CH. L. REV. 1159 (2003).

as the Ethical Investment Association).

- Government support for and engaged oversight of collaborative responsible investing activity: the UN PRI Clearinghouse arrangement is an early example of appropriate support for such activity.

CONCLUSION

This Chapter has presented a governance framework intended to provide UK and US pension funds with practical guidance for the successful implementation of sustainable investing. It has focused on the changes that pension funds adopting sustainable investing could make to their investment strategies and governance (in particular with respect to investment mission and investment beliefs). It has discussed how the framework is positioned with respect to fiduciary duty, arguing that it offers pension funds a structure that will help them to demonstrate their compliance with the fiduciary requirements of prudence, loyalty and impartiality. Finally, this Chapter notes that regulation, while often proscriptive, may also act as an enabler of constructive behaviour – to this end several potential regulatory enablers of sustainable investing have been put forward for future discussion.

This Chapter has acknowledged the extensive terminological debate in this area. It is to be hoped that widespread, successful implementation of sustainable investing or RI would put an end to the need for such debate. That is to say, if over time ESG-inclusive, intergenerationally equitable investing can be shown to be effective and desirable, at some point its goals will become internalised into pension fund investment beliefs systems. At this point, terminology would change: the terms sustainable investing and RI could drop from the lexicon, and the actions they

describe would become merely ‘investment’. Behavioural norms have been shown to have a deep influence on the development of legal understandings.⁴⁷⁸ Thus, should norms change with respect to investment, a parallel development might be expected of law. If sustainable investing were to become increasingly conventional, it is arguable that trust law would treat it increasingly as a prudent manner of investing, obviating the need for inquiry into whether sustainable investing (as opposed to mainstream investment) met with fiduciary standards.

Beyond the practical focus of this Chapter, there is a wider story to tell. In today’s changing economic conditions, a question arises about how pension fund investing should evolve to deal with emerging intergenerational problems associated with environmental and social risk and uncertainty. The US Securities and Exchange Commission’s release of interpretive guidance about whether and when public companies should disclose climate change risk demonstrates, at the very least, an acknowledgment of the potential of climate change risk. Beyond climate change, other issues are changing the world economy. Ageing populations are expected to put increasing burdens on the pension fund industry.⁴⁷⁹ The developing economies of countries such as China, India, and Indonesia are now increasingly influential. The scale of the US’s debt to China seems to suggest if not the start of, then at least the potential for, a new economic order.⁴⁸⁰

Under these circumstances, it is not inconceivable that pension fund governance may need to be rethought in the future. The pension fund, after all, is one of the few institutions that has a truly intergenerational role – arguably more so than

⁴⁷⁸ See POSNER, *supra* note 33.

⁴⁷⁹ R. Disney, *Crises in Public Pension Programmes in OECD: What are the Reform Options?*, 110 THE ECON. J. 1 (2000).

⁴⁸⁰ G. Epstein, *China’s US Debt Quandary*, Forbes Beijing Dispatch, 19 March 2009.

governments, whose mandates often go no further into the future than the date of the next election. As the demands of the economy change, the role of pension funds in ensuring a level of intergenerational equity between members may become increasingly significant, perhaps through a renewed interpretation of the duty of impartiality. For the time being, however, the framework presented here provides a practical way for pension funds to implement a sustainable investing strategy that not only includes ESG and ownership considerations, but also provides for a focus on the long-term, allowing funds to prepare themselves for the economic and legal challenges of the future.

V. NASCENT JURISPRUDENCE ON INTERGENERATIONAL EQUITY

INTRODUCTION

Over the last forty years, environmental law (both internationally and in domestic jurisdictions across the world) has increasingly been required to address the special issues created by geographically and temporally disparate damage and causes.⁴⁸¹ Environmental harm can be long lasting or irreversible,⁴⁸² or can remain undiscovered for many years, even after the practices causing it have ceased.⁴⁸³ In other words, some environmental harm is not only spatially but also temporally disconnected from its causes. Climate change presents a clear example: the harm likely to be caused by climate change in the future will be far removed in time from its causes (which include greenhouse gas emissions dating from the time of the Industrial Revolution).⁴⁸⁴ Environmental law has come a long way since its early focus on assigning liability for point source pollution.⁴⁸⁵ Nonetheless, a better capacity to deal with the *temporally* disparate nature of the causes and effects of environmental

⁴⁸¹ On the trans-boundary nature of environmental damage see BIRNIE *et al.*, *supra* note 34. On the uneven effects of climate change across the globe, see Stern, *supra* note 34, at 2.

⁴⁸² Climate change and the extinction of a species provide examples of such harm: see Sunstein, *supra* note 35, at 1-5, 18-19.

⁴⁸³ See Peter S. Menell, *The Limitations of Legal Institutions for Addressing Environmental Risks*, *supra* note 62, at 95.

⁴⁸⁴ Before the Industrial Revolution, CO₂ concentrations in the atmosphere had been at a constant 280 ppm for the past 500,000 years. CO₂ concentrations rose steeply following the Industrial Revolution to approximately 380 ppm in 2005: see INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 4, at 511.

⁴⁸⁵ This is not to deny that environmental law more generally faces many challenges: see, e.g., Mary Christina Wood, “*You Can’t Negotiate with a Beetle*”: *Environmental law for a new ecological age*, 50 NATURAL RES. J. 167, 191-4 (2010) (arguing that a permit-based legal culture in the USA has rendered environmental law ineffectual).

damage is long overdue.⁴⁸⁶ The principle⁴⁸⁷ of intergenerational equity, which provides a particular focus on temporal relations, has great potential as means of resolving environmental problems in which current interests conflict with the reasonably identifiable interests of future generations.⁴⁸⁸ This Chapter's analysis of the jurisprudence relating to the principle, hitherto underexamined, provides a new focus on the practical implications of the principle of intergenerational equity when enforced by courts.

Before going further, it is necessary to define the concept of intergenerational equity, both in its general sense and in the legal context in which it occurs in this Chapter. At its most basic level, a principle of intergenerational equity is a principle that promotes equitable relationships between generations. It is based on the notion that justice between generations requires equity between generations.⁴⁸⁹ As with any application of equity, what constitutes an equitable relationship in an intergenerational context is essentially a normative question. That is to say, a principle of intergenerational equity should address such issues as whether all people have equal moral status (or, practically speaking, whether and to what extent future generations' interests should be discounted), and what distributive principles should apply between

⁴⁸⁶ The Precautionary Principle is concerned with the temporal in that it seeks to prevent irreversible harm: see Sunstein, *supra* note 35, at 4. Yet the precautionary principle is primarily intended to prevent potentially dangerous projects; it does not seek specifically to balance the interests of current and future people.

⁴⁸⁷ As this paper draws on upon case law which cites the 'principle' of intergenerational equity, the term 'principle' is used here. The use of the word 'principle' is not uncontroversial: see the second section.

⁴⁸⁸ Edith Brown Weiss first brought wider attention to the notion of intergenerational equity: *see generally* BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37; Brown Weiss, *The Planetary Trust*, *supra* note 37. Since Brown Weiss's original work, there has been substantial academic attention to the principle, but little case law has put the principle to a practical test until recently.

⁴⁸⁹ There are many different conceptions of what justice between generations requires. For a concise summary of the concept of intergenerational justice, including competing and complementary theories, see GOSSERIES & MEYER, *supra* note 38, at 1-21.

generations.⁴⁹⁰ What a principle of intergenerational equity would require in any one case is likely to vary; this is why an examination on real case law on the principle is so useful.

While a general definition of intergenerational equity is therefore in essence a framework (an idea discussed further below), several observations can be made about the principle in the abstract. First, in distinction to most principles of equity, a principle of intergenerational equity does not seek to address imbalances within society, but rather to preserve opportunity universally for future generations; it is focused on temporal rather than geographic distributional issues.⁴⁹¹ Second, the timeframe over which a principle of intergenerational equity can be said to operate must, for practical purposes, be limited.⁴⁹² The classical economics approach of applying a discount rate to future values is useful for comparing options or impacts over the near future, but becomes problematic over long timeframes, when future lives at any meaningful discount rate become nearly worthless.⁴⁹³ If the principle of intergenerational equity is to serve a useful purpose, the timeframe over which it is considered must have some inherent relevance to decision-makers (whether legislators or jurors); it must be able to form part of a narrative about what justice requires.⁴⁹⁴ Relevant timeframes over which a principle operates therefore could be,

⁴⁹⁰ See Caney, *supra* note 39, at 165.

⁴⁹¹ As such the principle accords with a universalist view of morality, such as that of Emmanuel Kant: see Dieter Birnbacher, *What Motivates Us to Care for the (Distant) Future?*, in INTERGENERATIONAL JUSTICE, *supra* note 38, at 276-279. Treating an entire generation as whole has its own problems of course: see for example, Alan S. Manne, *Equity, Efficiency, and Discounting*, in DISCOUNTING AND INTERGENERATIONAL EQUITY, *supra* note 40, at 115.

⁴⁹² See, e.g., RAWLS, *supra* note 14, at 128 (arguing that justice between generations can normally extend no further than our 'goodwill', which typically stretches over about two generations); Stephen M. Gardiner, *A Contract for Future Generations?*, in INTERGENERATIONAL JUSTICE, *supra* note 38, at 104-5 (arguing that a contract-like arrangement between generations is more difficult to sustain for distant generations).

⁴⁹³ PAUL R. PORTNEY & JOHN PETER WEYANT, *Introduction*, in DISCOUNTING AND INTERGENERATIONAL EQUITY, *supra* note 40, 7.

⁴⁹⁴ See AKERLOF & SHILLER, *supra* note 12, at 51-56 (on the importance of narrative integrity, or 'stories' with respect to decision-making). Dieter Birnbacher notes that regardless of our view of moral

for example, sixty years (the rough time lapse between a grandparent's birth that of her grandchild), or ninety years (the length of a long human life).⁴⁹⁵ The exact timeframe relevant to the principle may vary as long as it has some underlying meaning for decision-makers.

In a legal context, the definition of intergenerational equity becomes more solid. The most cited definition of intergenerational equity in a legal context is that of Edith Brown Weiss, who presented a theory of intergenerational equity in 1989, writing from an international environmental law perspective.⁴⁹⁶ Her premise is that '[e]very generation needs to pass the Earth and our natural and cultural resources on in at least as good condition as we received them.'⁴⁹⁷ According to Brown Weiss, three principles of intergenerational equity can be derived from this premise. These principles require that the current generation:

1. 'Conserv[e] the diversity of the natural resource base so that future generations can use it to satisfy their on values';
2. 'Ensur[e] the quality of the environment is on balance comparable between generations'; and
3. Provide 'non-discriminatory access among generations to the Earth and its resources.'⁴⁹⁸

While providing some substance to the concept, Brown Weiss's definition nonetheless leaves much open to interpretation.⁴⁹⁹ Similarly, international law provides a sense of what a principle of intergenerational equity might require, but

obligations toward future generations, our *motivation* to act on those obligations diminishes over time: *see generally* Birnbacher, *supra* note 491.

⁴⁹⁵ These suggested time frames are consciously anthropocentric, given that the decision-makers using the principle operate within a social context that is, rightly or wrongly, most concerned with human welfare. For discussion of a less anthropocentric approach, see ANDREW DOBSON, *JUSTICE AND THE ENVIRONMENT* 216-239 (1998).

⁴⁹⁶ Edith Brown Weiss used the term 'intergenerational equity' in a way that could be substitutable for the term 'intergenerational justice': BROWN WEISS, *IN FAIRNESS TO FUTURE GENERATIONS* *supra* note 37. It appears to be part of the legacy of Brown Weiss' work that the term intergenerational 'equity' rather than 'justice' is found more often legal writing.

⁴⁹⁷ Edith Brown Weiss, *Climate Change, Intergenerational Equity and International Law* 9 Vt. J. Envtl. L. 615, 617 (2008) (explaining her earlier work in the context of climate change).

⁴⁹⁸ *Id.* at 617.

⁴⁹⁹ *See* Collins, *supra* note 40, at 103.

references to the principle remain vague. For example, Principle 3 of the *Rio Declaration on Environment and Development* (1992) states that ‘the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.’⁵⁰⁰

Refining the definition further, at a domestic level, Australian law provides the strongest exemplar of the principle; in Australia a single statement of the principle of intergenerational equity exists throughout the state and territory legislation:

the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.⁵⁰¹

This particular formulation makes no explicit statement about the moral status of future generations or the way in which resources should be distributed over time: these essential concerns have been left to the judiciary to determine through case law.⁵⁰² At all levels therefore – general and legal, international and domestic – definitions or statements of intergenerational equity provide little more than a framework upon which enforceable requirements might be built. For this reason, it is jurisprudence, the practical application of the principle of intergenerational equity, that provides the strongest insight into its practical implications.

Scholarship on intergenerational equity over the years has been largely normative in character – it seeks to explain why a principle of intergenerational equity is desirable.⁵⁰³ Much less work has been done to understand the practical implications

⁵⁰⁰ This and other international law statements alluding to intergenerational equity are discussed further in section II.

⁵⁰¹ *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.5.2.

⁵⁰² Brian Preston, *The Role of the Judiciary in Promoting Sustainable Development: The experience of Asia and the Pacific*, 2 (Sydney Law School, Legal Research Paper No. 08/46, 2008).

⁵⁰³ See generally BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37; Collins, *supra* note 40. Indeed, the majority of this work has occurred outside the field of law, particularly in

of judges' application of the principle to factual situations.⁵⁰⁴ This Chapter seeks to fill that gap. A review of relevant literature and case law internationally shows that very few cases have addressed the concept of intergenerational equity. Only in Australia does a nascent jurisprudence on the principle of intergenerational equity appear to have formed.⁵⁰⁵

This Chapter therefore presents an analysis of the existing jurisprudence on intergenerational equity. The principle is striking in its ambition. As the examination of its definition indicates, it has received attention on the world stage, most notably as a concept informing a number of international conventions, including, most obviously, the *Rio Declaration on Environment and Development* (1992). It is somewhat surprising, then, that it has thus far had limited application in practice. Nonetheless, the ramifications of its application, however infrequent, must not be underestimated. The most significant case law in the field internationally has been generated in Australia; three decisions from the New South Wales Land and Environment Court are examined here: *Gray v Minister for Planning*,⁵⁰⁶ *Taralga Landscape Guardians Inc v Minister for Planning*,⁵⁰⁷ and *Walker v Minister for*

philosophy and economics: *see generally* DISCOUNTING AND INTERGENERATIONAL EQUITY, *supra* note 40; JUSTICE BETWEEN AGE GROUPS AND GENERATIONS, *supra* note 14; RAWLS, *supra* note 14; RAWLS *supra* note 40; THOMPSON, *supra* note 14.

⁵⁰⁴ *But see* Peel, *supra* note 41, at 962-975 (discussing principles of sustainable development more generally with some reference to intergenerational equity). Much has been made of the Philippine case, *Oposa v Factoran*, 224 SCRA 792 (1993) (Phil.), as an example of an application of the principle of intergenerational equity: *see, e.g.*, Boer, *supra* note 41, at 1534-37; Osofsky, *supra* note 41, at 376; Puvimanasinhe, *supra* note 41, at 43. However, its true reach is likely to be limited: *compare* Gatmaytan, *supra* note 41, at 458-460, *with* Manguiat & Yu, *supra* note 41, at 488-496.

⁵⁰⁵ Several cases from outside of Australia have made reference to a principle of intergenerational equity, but discussion of the nature and implications of the principle is limited: *see, e.g.*, Razzaque, *supra* note 42 (mentioning two Bangladeshi cases in which the principle of intergenerational equity has been mentioned, but not discussed: W.P. no. 300 (1995) and W.P. no. 278 (1996)). In the Indian case of *Jagannath v Union of India* (1999) 2 S.C.C. 87, the court found that the process of environmental impact assessment should refer to intergenerational equity, but did not expand upon what that would entail.

⁵⁰⁶ [2006] NSWLEC 720.

⁵⁰⁷ [2007] NSWLEC 59.

Planning.⁵⁰⁸ The use of Australian cases to elucidate the nature and requirements of the principle should not be construed as limiting the arguments and implications of this work to the Australian context. On the contrary, the issues raised in this Chapter are relevant to all common law jurisdictions and go to the heart of humanity's prospects for addressing long-term environmental problems.

The Australian case law on intergenerational equity raises several salient issues. First, Australia's legislative provision with respect to intergenerational equity leaves much of the responsibility for determining the content or practical consequences of the principle to judges. Given the difficulty inherent in legislating for long-term goals,⁵⁰⁹ these cases highlight the potential for the judiciary, as an independent and tenured political branch, to develop systematic protection for the interests of future generations. Second, the Australian example suggests that legislative temptation might be overcome by judicial foresight and prudence in this area. If this is true, its implications for democracy should be assessed. Third, the case law indicates that the principle of intergenerational equity requires decision-makers to consider cumulative environmental impact, hinting at a radical change in the way that environmental harm is assessed: it represents a clear departure from earlier interpretations of environmental harm, which were largely concerned with point source pollution (pollution originating in an identifiable and discrete time and place). It also underscores a judicial willingness to recognise the long time-horizon of many environmental problems. Fourth, cases on the principle of intergenerational equity may require judges to prioritise the interests of future generations over those of current generations to some extent. As such, an examination of the early case law on intergenerational equity must bring us to question whether intergenerational equity

⁵⁰⁸ [2007] NSWLEC 741.

⁵⁰⁹ See Krugman, *supra* note 46, and accompanying text.

and intra-generational equity are mutually reinforcing, as is often claimed. These points are significant. Finally, a set of implications can be drawn from the fact that all of these cases are all based in administrative law. While the use of administrative law as a form of environmental redress has advantages in the context of the principle of intergenerational equity (in particular, it provides a preventative rather than reactive remedy), it also has several limitations. In particular, the broader applicability of decisions made under the New South Wales Land and Environment Court's special merits review jurisdiction is somewhat uncertain. Moreover, there appears to be a trend toward viewing the principle of intergenerational equity as an element environmental impact assessment, rather than a broad principle of environmental law; this risks limiting its scope.

The Chapter proceeds as follows. The first section outlines where the principle of intergenerational equity is situated within both international law and domestic jurisdictions. The second section looks at how courts have given effect to the principle in practice, focusing on the Australian context, where the most relevant cases appear. Three cases from the Land and Environment Court in New South Wales are analysed: *Gray v Minister for Planning*, *Taralga Landscape Guardians Inc v Minister for Planning*, and *Walker v Minister for Planning*, all of which have contributed to the nascent practical formulation of the principle of intergenerational equity. The final section discusses the implications of these decisions for environmental law both in Australia and beyond.

WHAT IS INTERGENERATIONAL EQUITY?

The concept of intergenerational equity (which is sometimes described as a principle,⁵¹⁰ and other times merely a concept or theory)⁵¹¹ presents a potential legal solution to environmental problems whose effects are likely to be spread unevenly over time, or across generations, because of its explicit reference (in the legislation relevant to this Chapter) to needs or benefit of future generations.⁵¹² Before wading into the legal potential of the concept, however, it is worth briefly tracing its relevance in philosophy and economics, as these have direct bearing on its use in law. Part of the failure of law to facilitate justice effectively over extended time periods within the context of the environment is a product of the difficulty more generally of constructing a satisfactory regime for determining justice between individuals who are not contemporaries.⁵¹³ Only relatively recently have Western philosophers included the question of justice between generations in more detailed and sophisticated theories of justice.⁵¹⁴ In doing so, they have addressed questions arising

⁵¹⁰ See, e.g., *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.5.2 (Austl.); see also Edith Brown Weiss, *Reply to Barresi's Beyond Fairness to Future Generations*, 11 TUL. ENVTL. L.J. 89, 94-96 (1997).

⁵¹¹ There is no specific reference to the phrase 'intergenerational equity' in any international law instrument, nonetheless, references to future generations within international legal materials have prompted a number of academics to argue that an emerging concept (at weakest) or principle (at strongest) can be seen at international law: see, e.g., Rio Declaration on Environment and Development, princ. 3, UN Doc. A/CONF. 151/26 (1992), reprinted in 31 ILM 874. While sustainable development was first described explicitly as a 'principle' in the *Danube Dam* case, the same has not yet occurred for the concept of intergenerational equity under international law: *Case concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia)* 37 ILM (1998) 162 (*Danube Dam*): STUART BELL & DONALD MCGILLIVRAY, ENVIRONMENTAL LAW 58 (7th ed. 2008).

⁵¹² *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.5.2 (Austl.).

⁵¹³ See JANNA THOMPSON, *supra* note 14 at 3: '[t]heories of justice, right or political responsibility centre on the interests and relationships of co-temporal adult individuals. They concentrate on determining the bargains or agreements that would be endorsed by these individuals, the rights that they can claim or on the responsibilities that arise from their collective political actions. Such accounts cannot easily encompass intergenerational relationships.'

⁵¹⁴ Peter Laslett & James S. Fishkin, *Introduction: Processional justice*, in JUSTICE BETWEEN AGE GROUPS AND GENERATIONS, *supra* note 14, at 1: '[a]lthough such recent theorists of justice as Rawls, Nozick and Ackerman all gesture toward taking time into account ... their efforts should be

from the wider notion of justice between generations: how do we know what future generations will want or need?⁵¹⁵ How do we determine what is just for people who do not yet exist?⁵¹⁶ And how do we prioritise justice for future generations when there is an abundance of injustice within the current generation?⁵¹⁷

Many philosophers, including John Rawls, see justice between generations as reliant on a sort of intergenerational social contract.⁵¹⁸ Brown Weiss relies on a similar notion of intergenerational obligation to justify her ‘Planetary Trust’ argument, which states that each generation holds the planet on trust for the next.⁵¹⁹ By contrast, others have argued that a comprehensive understanding of intergenerational justice must find foundations outside of the notion of social contract.⁵²⁰ For example, some have situated a basis for cultivating intergenerational justice within individuals’ self-interest,⁵²¹ or within the vulnerability of future generations vis-à-vis current generations.⁵²² It is beyond the scope of this Chapter to evaluate these competing theoretical bases for determining justice between

considered to be no more than gestures’; see also THOMPSON, *id.* at 3. See DOBSON, *supra*, note 495, at 102-128 for a summary of theories of justice and the environment that consider future generations.

⁵¹⁵ Edith Brown Weiss argues that this problem should be addressed by ensuring that *options* are conserved for future generations: *In Fairness to Future Generations and Sustainable Development* 8 AM. U. J. INT’L L. & POL’Y 23, 23 (1992).

⁵¹⁶ See DEREK PARFIT, REASONS AND PERSONS 377, 451 (1984) (setting out problems of ‘non-identity’). Some philosophers argue that the non-identity problem is lethal to any attempt to form a theory of justice involving future people: see generally, David Heyd, *The Intractability of the Non-identity Problem*, in HARMING FUTURE PERSONS 35 (MELINDA A. ROBERTS & DAVID T. WASSERMAN EDs., 2009). However, it has not stopped others from formulating such theories: see generally, TIM MULGAN, FUTURE PEOPLE: A MODERATE CONSEQUENTIALIST ACCOUNT OF OUR OBLIGATIONS TO FUTURE GENERATIONS (2006); EDWARD A. PAGE, CLIMATE CHANGE, JUSTICE, AND FUTURE GENERATIONS (2006); THOMPSON, *supra* note 14513.

⁵¹⁷ Frederic Gaspard & Axel Gosseries, *Are Generational Savings Unjust?* 6 POL., PHIL. & ECON. 193, 204 (2007).

⁵¹⁸ See RAWLS, *supra* note 1415, at 292; see also RAWLS, *supra* note 40, at 275.

⁵¹⁹ BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37, at 38.

⁵²⁰ See, e.g., Peter Laslett, *Is There a Generational Contract?*, in JUSTICE BETWEEN AGE GROUPS AND GENERATIONS, *supra* note 14514, at 46.

⁵²¹ See THOMPSON *supra* note 14513, at 5, who bases her own theory of intergenerational justice on the notion of ‘lifetime-transcending interests’, which are the basis of practices that enable citizens and members of communities to make moral demands of their successors and which, in turn, give these individuals obligations in respect to their predecessors.’

⁵²² See ROBERT E. GOODIN, PROTECTING THE VULNERABLE: A REANALYSIS OF OUR SOCIAL RESPONSIBILITIES 169-179 (1985).

generations. However, it is worth stressing that for some, the questions raised above suggest that justice between generations can be achieved by the attainment of *equity* between generations. It is this approach, largely through the influence of Brown Weiss⁵²³ and the Rio Conference,⁵²⁴ that has influenced the cases examined in this Chapter,⁵²⁵ and the development of much legal thinking on the topic more generally.⁵²⁶

Economists have also addressed the concept of intergenerational equity, focussing largely on how discount rates should be set in order compare policies whose effects will be felt over long timeframes, by many generations.⁵²⁷ The setting of a discount rate has deep ethical implications.⁵²⁸ As Derek Parfit and Tyler Cowen note, with a discount rate of 10 percent, one life today is worth the equivalent of one million lives in 145 years.⁵²⁹ Moreover, the setting of a discount rate relies on a series of uncertain assumptions about the future. It does, however, have practical value for policy evaluation. For example, according to the Organisation of Economic Cooperation and Development, the Netherlands and Norway use ‘generational

⁵²³ See generally BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37; Brown Weiss, *The Planetary Trust*, *supra* note 37; Brown Weiss, *supra* note 497.

⁵²⁴ Rio Declaration on Environment and Development, UN Doc. A/CONF. 151/26 (1992), reprinted in 31 ILM 874.

⁵²⁵ This is addressed in more detail below.

⁵²⁶ See, e.g., Tracy Bach & Justin Brown, *Recent Developments in Australian Climate Change Litigation: Forward momentum from down under*, 8 Sustainable Dev. L. & Pol’y 39, 40 (2008); Achala Chandani, *Distributive Justice and Sustainability as a Viable Foundation for the Future Climate Regime*, 2 Carbon & Climate L. Rev. 152, 155 (2007); Armin Rosencranz, *The Origin and Emergence of International Environmental Norms*, 26 HASTINGS INT’L & COMP. L. REV. 309, 313 (2003); Mary Pat Williams Silveira, *International Legal Instruments and Sustainable Development: Principles, requirements, and restructuring* 31 WILLAMETTE L. REV. 239, 243-4 (1995).

⁵²⁷ See Robert M. Solow, *Foreword*, in DISCOUNTING AND INTERGENERATIONAL EQUITY, *supra* note 40, vii, vii-ix. This book provides a number of useful accounts of intergenerational equity through the eyes of economists.

⁵²⁸ See generally Derek Parfit & Tyler Cowen, *Against the Social Discount Rate*, in JUSTICE BETWEEN AGE GROUPS AND GENERATIONS, *supra* note 491, at 144.

⁵²⁹ *Id.* at 145. See also Cass Sunstein & Arden Rowell, *On Discounting Regulatory Benefits: Risk, Money and Intergenerational Equity*, 74 U. CHI. L. REV. 171, 172 (2007).

accounts⁵³⁰ in order to help determine the fiscal sustainability of current government projects.⁵³¹ The United Kingdom and the United States have the ability to produce generational accounts, but have recently stopped doing so.⁵³² In generational accounting, the ethical implications of discount rates become practical.⁵³³ Not surprisingly, as Paul Portney and John Weyant note, ‘even the best minds in the [economic] profession’ feel a sense of ‘unease’ about discounting.⁵³⁴ The difficulty that economists face in selecting an appropriate discount rate is a testament to the complex ethical and practical issues surrounding the concept of intergenerational equity.

In law, the concept of intergenerational equity remains largely in the realm of theory; we are unsure, often, of what it signifies in practice. This is partially due to the definitional vagueness of the concept. For example, the terms of the concept, as they appear in Principle 3 of the Rio Declaration (‘the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations’),⁵³⁵ are so wide that they give little insight into how they might be applied in a particular factual situation. This formulation of the concept

⁵³⁰ Generational accounts are used to assist in determining the ‘distributional implications of fiscal policy for different [demographic] cohorts’: Organisation for Economic Cooperation and Development, Glossary of Statistical Terms (2007) accessed online 8 March 2011: <http://stats.oecd.org/glossary/detail.asp?ID=7297>. Generational accounts are created by ‘estimating the present value of net tax ... over the lifetime of different generations under current tax and spending policies.’

⁵³¹ Barry Anderson & James Sheppard, *Fiscal Futures, Institutional Budget Reforms, and Their Effects: What can be learned?*, 9 OECD J. ON BUDGETING 1, 28 (2009).

⁵³² *Id.*

⁵³³ See ALAN J. AUERBACH, LAURENCE J. KOTLIKOFF, WILLI LEIBFRITZ, GENERATIONAL ACCOUNTING AROUND THE WORLD 89 (1999) (noting discount rate assumptions can be altered to make generational accounts appear to be in balance).

⁵³⁴ Paul R. Portney & John Peter Weyant, *Introduction*, in DISCOUNTING AND INTERGENERATIONAL EQUITY, *supra* note 40, at 5.

⁵³⁵ See BIRNIE ET AL., *supra* note 34, at 120 (stating that ‘inter-generational [sic.] equity is explicitly referred to in Principle 3 of the 1992 Rio Declaration... and is reiterated in the same terms in the 1993 Vienna Declaration on human rights.’) The Convention on Climate Change, 31 ILM 818 (1992), at art. 3(1) also refers to inter-generational equity, calling for it to be taken into account in decisions of the parties.

immediately raises a number of questions, including what ought to happen if members of different generations prefer different outcomes to the same problem; the Rio Declaration's notion of intergenerational equity disregards the potential for conflict within a generation.⁵³⁶ The question of how effect might be given to such terms, and whether they indicate something more than mere aspiration, is addressed below. As Birnie *et al.* note:

‘the essential point of the theory [of intergenerational equity], that mankind has a responsibility for the future, and that this is an inherent component of sustainable development, is incontrovertible, however expressed. The question then becomes one of implementation.’⁵³⁷

More than anything the ambiguity surrounding the real implications of the concept have to do with its infrequent application to factual situations.

This section examines the legal sources of the concept of intergenerational equity, drawing upon international law material and domestic legislation. While the term ‘intergenerational equity’ *per se* does not appear in any international agreement,⁵³⁸ references to concern for future generations in some international agreements suggest that a concept (and perhaps even a principle) of intergenerational equity exists. The term intergenerational equity also appears infrequently within domestic legislation in several jurisdictions around the globe. Australia is one country in which the term has found its way into a number of domestic legislative instruments. In Australian legislation, the concept is referred to as ‘the principle of intergenerational equity’, and that terminology is adopted when referring to the Australian context.

⁵³⁶ See BIRNIE ET AL., *supra* note 34, at 119-122.

⁵³⁷ *Id.* at 121.

⁵³⁸ See *supra* text accompanying note 511.

International Legal Sources of Intergenerational Equity

An analysis of the legal sources of intergenerational equity should begin within the broader framework of international environmental law principles. Although the notion of intergenerational justice and the related principle of intergenerational equity are not concerned exclusively with environmental issues, the promotion of intergenerational equity does require, at a fundamental level, the appropriate management of natural resources and concern more broadly for the environment.⁵³⁹ From an empirical perspective, those legal instruments (both international and domestic) that make reference to a concept of intergenerational equity (or something similar) are largely concerned with environmental issues.⁵⁴⁰ The concept of intergenerational equity at international law forms part of the principle⁵⁴¹ of sustainable development.⁵⁴² The concept's central function is one of increasing time-horizons of development decision-making in order to take into account the interests of future generations. In doing so, it provides the essential temporal dimension to the principle of sustainable development.

International environmental law is characterised by a number of rules and principles that aim to safeguard the protection of the environment.⁵⁴³ These include the precautionary principle, the polluter pays principle, and the principle of

⁵³⁹ In any case, as BIRNIE ET AL. note, international environmental law 'is not a separate or self-contained field of law. In some respects it is simply the application of well-established rules, principles and processes of general international law to the resolution of international environmental problems and disputes': *supra* note 34, at 106. In this sense, any principle of intergenerational equity that exists at international law need not be seen as an exclusively environmental concept, but rather as a principle that demands, amongst other things, appropriate environmental behaviour.

⁵⁴⁰ However, the concept of intergenerational equity also appears in the 1993 Vienna Declaration on Human Rights: *see supra* text accompanying note 535.

⁵⁴¹ Sustainable development was first described explicitly as a 'principle' in *Case concerning the Gabcikovo-Nagymaros Project (Hungary/Slovakia)* 37 ILM (1998) 162 (*Danube Dam*); *see* BELL & MCGILLIVRAY, *supra* note 511, at 58.

⁵⁴² *See id.*

⁵⁴³ *Id.* at 53-71; BIRNIE ET AL. *supra* note 34, at 106.

sustainable development, which are by comparison reasonably well-established.⁵⁴⁴ These, and other rules and principles of international environmental law, receive differing levels of acceptance by states.⁵⁴⁵ The status of some rules and principles of international environmental law remains controversial,⁵⁴⁶ and development of this area of law is ongoing.⁵⁴⁷ As the most significant, widely accepted statement of states' rights and obligations with respect to the environment, the Rio Declaration on Environment and Development ('the Rio Declaration'), adopted at the United Nations Conference on Environment and Development in 1992, provides a starting point for the elucidation of international environmental law principles.⁵⁴⁸ While the Declaration itself is not enforceable, it does have some value: it provides evidence of what states' stated beliefs are with respect to what the law is or what it should be.⁵⁴⁹ Most relevantly here, it gives some insight into the way that states regard future generations with respect to development.

The Rio Declaration notes (in Principle 3) that there is a right to development, and that this right 'should be fulfilled so as to meet equitably the developmental and environmental needs of present and future generations.' A number of scholars have pointed to this as an explicit reference to the notion (if not the phrasing) of intergenerational equity.⁵⁵⁰ Most of the Rio Declaration is concerned with the various contemporaneous balancing processes that must occur in order for sustainable development to succeed. In invoking the interests of future generations, the concept of

⁵⁴⁴ See, e.g., BELL & MCGILLIVRAY, *supra* note 511, 53-71; but note that authors do not agree unanimously on the names, status and strength of these principles: Geoffrey Palmer, *New Ways To Make Environmental Law*, 86 AM. J. INT'L. L. 259, 268 (1992).

⁵⁴⁵ For example, the US has studiously avoided commitment to the precautionary principle in international agreements; some developing countries have avoided commitment to the polluter pays principle: BIRNIE ET AL. *supra* note 34, at 111.

⁵⁴⁶ *Id.* at 107. See also BELL & MCGILLIVRAY, *supra* note 511, at 54.

⁵⁴⁷ BIRNIE ET AL. *supra* note 34, at 108.

⁵⁴⁸ See *id.* at 112.

⁵⁴⁹ *Id.*

⁵⁵⁰ *Id.* at 120; see also BELL & MCGILLIVRAY, *supra* note 511, at 63.

intergenerational equity provides a temporal dimension to the other statements made in the Rio Declaration. Principle 3 of the Rio Declaration links the notions of sustainable development and intergenerational equity; as we shall see below, the association of the two appears to have influenced domestic legislation with respect to intergenerational equity in Australia.

In addition to the Rio Declaration, references to equity between generations have appeared elsewhere in international legal instruments. Indeed, environmental responsibility toward future generations is mentioned as early as the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment, in Principles 1 and 2.⁵⁵¹ Both the 1993 Vienna Declaration on Human Rights⁵⁵² and the 1992 Convention on Climate Change (article 3(1)) make reference to the needs of future generations.⁵⁵³ As is the case with the Rio Declaration, while these international declarations ‘indicate the importance now attached in international policy to the protection of the environment for future generations’,⁵⁵⁴ they are not enforceable.⁵⁵⁵ Their legal value is limited to their ability to demonstrate states’ understanding of and aspirations for the law with respect to development.

Along these lines, Catherine Redgwell argues that ‘while intergenerational equity has not yet achieved the status of a binding rule (or perhaps more accurately, set of rules) under international law, a process of “creeping intergenerationalisation”

⁵⁵¹ See David Wirth, *The Rio Declaration on Environment and Development: Two steps forward and one back, or vice versa?* 19 GA. L. R. 599, 625-6 (1995).

⁵⁵² Art. 11 states that ‘[t]he right to development should be fulfilled so as to meet equitably the developmental and environmental needs of present and future generations. The World Conference on Human Rights recognizes that illicit dumping of toxic and dangerous substances and waste potentially constitutes a serious threat to the human rights to life and health of everyone.’

⁵⁵³ Art. 3 states that ‘[i]n their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided’ by a number of principles including art 3(1): ‘[t]he Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.’

⁵⁵⁴ BIRNIE ET AL. *supra* note 34, at 120.

⁵⁵⁵ *Id.*

may be observed' within international law.⁵⁵⁶ According to Redgwell, an increasing focus on intergenerational issues is entering international law in two ways. First, many preambles to international treaties make reference to future generations.⁵⁵⁷ While such references are not in themselves legally binding, judges are able to use them in the interpretation and application of substantive treaty provisions. Second, elsewhere in international environmental law there are substantive principles which contain an intertemporal dimension. In addition to the principle of sustainable development, Redgwell argues⁵⁵⁸ that intergeneralisation may be seen within the common heritage of humankind principle,⁵⁵⁹ the principle of custodianship or stewardship,⁵⁶⁰ the precautionary principle⁵⁶¹ and the principle of common but differentiated responsibilities.⁵⁶² It is worth noting that the not all of these references to the concept of intergenerational equity are completely consistent,⁵⁶³ this could affect how the concept comes to be applied.

The concept of intergenerational equity under international law has not been fully tested in court. Philippe Sands notes that something resembling a principle of intergenerational equity has been known to international law since at least 1893 when the US relied on a related argument in the *Pacific Fur Seals Arbitration*.⁵⁶⁴ However, the practical applicability of the notion of intergenerational equity in international case law appears to be limited. Its most important application may be in assisting

⁵⁵⁶ CATHERINE REDGWELL, INTERGENERATIONAL TRUSTS AND ENVIRONMENTAL PROTECTION 126 (1999).

⁵⁵⁷ *Id.*

⁵⁵⁸ *Id.* at 127.

⁵⁵⁹ *Id.* at 129-132.

⁵⁶⁰ *Id.* at 132-138.

⁵⁶¹ *Id.* at 138-140.

⁵⁶² *Id.* at 140-142.

⁵⁶³ See Wirth, *supra* note 551, at 627-629.

⁵⁶⁴ PHILIPPE SANDS, PRINCIPLES OF INTERNATIONAL ENVIRONMENTAL LAW 256 (2nd ed. 2003).

members of the current generation to assert rights with respect to the environment.⁵⁶⁵ Indeed, the case most often cited as giving effect to the principle of intergenerational equity under international law, *Minors Oposa v Factoran*,⁵⁶⁶ is largely an expression of current generations' rights under the Constitution of the Philippines.⁵⁶⁷

Domestic Legislation Referring to Intergenerational Equity

A survey of national legislation throughout the common law world shows that the concept of intergenerational equity has gained little legislative traction in most jurisdictions. A complete analysis of the various domestic legislative instruments referring to the principle is beyond the scope of this thesis. However, it can be said that of all common law jurisdictions, Australian legislation refers most widely to the concept of intergenerational equity. Indeed, it goes further, by describing the concept as a 'principle' – one of the 'principles of ecologically sustainable development' that have been introduced in Australian states and territories.⁵⁶⁸

In Australia, the *Rio Declaration*, along with the *Intergovernmental Agreement on the Environment*,⁵⁶⁹ an agreement between the Commonwealth, States and Territories of Australia and the Australian Local Government Association, and the *National Strategy for Ecologically Sustainable Development*⁵⁷⁰ created the impetus for Australian legislation on sustainable development.⁵⁷¹ The *Intergovernmental Agreement on the Environment* provides a number of principles of

⁵⁶⁵ *Id.* at 257.

⁵⁶⁶ *Oposa v Factoran*, 224 SCRA 792 (1993) (Phil.)

⁵⁶⁷ See Dante Gatmaytan, *supra* note 41, at 1-7.

⁵⁶⁸ *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.

⁵⁶⁹ *Intergovernmental Agreement on the Environment 1992* (Cth).

⁵⁷⁰ Ecologically Sustainable Development Steering Committee, endorsed by the Council of Australian Governments, December 1992, (downloaded April 4, 2011, 2:12pm). Available at: <http://www.environment.gov.au/about/esd/publications/strategy/index.html>.

⁵⁷¹ *Walker v Minister for Planning* [2007] NSWLEC 741 per Biscoe J, ¶ 61.

ecologically sustainable development⁵⁷² that ‘should inform policy making and program implementation’⁵⁷³ in order to promote an ecologically sustainable approach to development. These include (at section 3.5.2) the principle of intergenerational equity, which is stated as follows:

the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

The principle is appears (with this same definition) in various state and territory legislation (in the Australian Capital Territory,⁵⁷⁴ Queensland,⁵⁷⁵ New South Wales,⁵⁷⁶ Northern Territory,⁵⁷⁷ South Australia,⁵⁷⁸ Victoria,⁵⁷⁹ and Western Australia⁵⁸⁰) and in commonwealth legislation.⁵⁸¹

Similarly, the *National Strategy for Ecologically Sustainable Development*, created as a result of the *Intergovernmental Agreement*, sets the broad strategic and policy framework for cooperative action on ecologically sustainable development (ESD) by Australian governments. The *National Strategy* does not create legally binding rules for governments, but it does set out a strategy for implementing the mutually agreed upon goals of the *Intergovernmental Agreement*. The *National Strategy*’s ‘goal’ is ‘[d]evelopment that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life

⁵⁷² *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.3.

⁵⁷³ *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.5.

⁵⁷⁴ See, e.g., *Planning and Development Act 2007* (ACT) s 9.

⁵⁷⁵ See, e.g., *National Environment Protection Council Act 1994* (QLD) Schedule, s 3.5.2.

⁵⁷⁶ See, e.g., *Protection of the Environment Administration Act 1991* (NSW) s 6(2)(b).

⁵⁷⁷ See, e.g., *National Environment Protection Council Act 1994* (Northern Territory) s 3.5.2.

⁵⁷⁸ See, e.g., *National Environment Protection Council Act 1995* (SA) Schedule 1, s 3.5.2.

⁵⁷⁹ See, e.g., *Environment Protection Act 1970* (VIC) s 1D.

⁵⁸⁰ See, e.g., *Environmental Protection Act 1986* (Cth) s 4A(2).

⁵⁸¹ See, e.g., *National Environmental Protection Council Act 1994* (Cth) Schedule: Intergovernmental Agreement on the Environment Section 6(3.5.2).

depends'. The 'Core Objectives' of the strategy include aims 'to enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations' and 'to provide for equity within and between generations'.

The abundant presence of the principle of intergenerational equity within Australian legislation is not matched by depth in its description. As in relevant international legal instruments, the principle is described in the vague terms. While the principle as it appears in Australian legislation requires the present generation to 'ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations', there is no indication as to *how* this should occur. For example, who within the present generation is responsible for future generations? Which aspects of health, diversity and productivity of the environment should be prioritised? What processes should be put into place in order to ensure that this occurs? And how should the interests of future generations be balanced against those of the current generations? These uncertainties have significant implications for the content of the principle. In effect, it means, in the absence of further legislation, that how the principle is applied in a particular setting remains largely up to judges.

To summarise, a number of international law provisions, both preambular and substantive, make reference to future generations and their equitable treatment. To this extent, they indicate that some states support a notion of intergenerational equity. The Australian legislative provisions go further, often explicitly stating that ecologically sustainable development requires the principle of intergenerational equity to be taken into account. Neither the international nor the domestic provisions, however, elaborate on how effect is to be given to their aims. As intergenerational equity remains a nascent concept at law, it may not be possible at this stage to

overcome all of the ambiguity with which the term is imbued. Nonetheless, if any progress is to be made at solidifying the legal meaning of intergenerational equity, it is essential to understand as much as possible about the substantive content of the concept. In the legal context, the substantive nature of the term must be gleaned from case law.

CASE LAW ON INTERGENERATIONAL EQUITY

While the principle of intergenerational equity appears frequently within Australian legislation, the legislation is silent on how effect should be given to the principle. This has the effect of giving judges a great deal of responsibility over the evolution of the principle. In this vein the Chief Justice of the New South Wales Land and Environment Court (NSWLEC), Preston CJ,⁵⁸² writing in an academic context about the concept of sustainable development more generally, states that

international, national, provincial and local law and policy-making bodies may have been reticent in explicating their meaning, circumstances of application and the precise details of the means of implementation. The judiciary, particularly at a national level, is therefore faced with the task of explicating the law of sustainable development, case by case. Incrementally a body of environmental jurisprudence will emerge.⁵⁸³

Similarly, Biscoe J notes in *Walker* that ‘ESD and its supporting principles are concepts which the legislature has left the courts to flesh out’.⁵⁸⁴ A number of Australian decisions make reference to the principle of intergenerational equity.⁵⁸⁵ Generally, the principle is merely mentioned in passing. There are, however, a number of cases that discuss the principle with some degree of detail. The cases in

⁵⁸² Chief judge of the New South Wales Land and Environment Court (at time of writing, July 2011).

⁵⁸³ Preston, *supra* note 502, at 2.

⁵⁸⁴ *Walker v Minister for Planning*, NSWLEC 741 ¶ 81.

⁵⁸⁵ A search for the term (“intergenerational equity” OR “inter-generational equity”) in all case law databases on the Australasian Legal Information Institute (AustLII) caselaw databases reveals 46 cases as at April 4, 2011: see <http://www.austlii.edu.au/>.

which the principle has been examined in the most detailed fashion include the recent decisions of *Gray v Minister for Planning*,⁵⁸⁶ *Taralga Landscape Guardians Inc v Minister for Planning*,⁵⁸⁷ and *Walker v Minister for Planning*,⁵⁸⁸ all heard by NSWLEC. Each of these cases centres upon disputes over administrative planning decisions. These cases provide the beginnings of jurisprudence on intergenerational equity.

Gray v Minister for Planning

Gray v Minister for Planning concerned the decision of the Director-General of the Department of Planning to grant permission to Centennial Hunter Pty Ltd (Centennial) to commence development of a coalmine at Anvil Hill in New South Wales in 2006. In *Gray*, the Applicant, an environmental activist, argued amongst other things that the Director-General had failed to take into account principles of ESD, including the principle of intergenerational equity, in his decision to accept Centennial's environmental impact assessment for public display.⁵⁸⁹ The presiding judge, Pain J, found that the Director-General had failed to take ESD principles into account in his decision to accept Centennial's environmental impact assessment, and declared that the decision was void. Noting that 'intergenerational equity has received relatively little judicial consideration in this Court in the context of the requirements for environmental assessment under the EP&A Act',⁵⁹⁰ Pain J drew upon an academic article written by Justice Brian Preston (which was itself influenced by the writings of

⁵⁸⁶ *Gray v Minister for Planning* [2006] NSWLEC 720.

⁵⁸⁷ *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59.

⁵⁸⁸ *Walker v Minister for Planning* [2007] NSWLEC 741.

⁵⁸⁹ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶¶ 35-45 (Pain J).

⁵⁹⁰ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 118 per Pain J. Note that the "EP&A Act" is an abbreviation of the Environmental Planning and Assessment Act 1979 (NSW).

Brown Weiss)⁵⁹¹ in order to elucidate the principle of intergenerational equity. Her Honour stated that Preston's article pointed to 'three fundamental principles underpinning the principle of intergenerational equity',⁵⁹²:

- (i) The conservation of options principle which requires each generation to conserve the natural and cultural diversity in order to ensure that development options are available to future generations;
- (ii) The conservation of quality principle that each generation must maintain the quality of the earth so that it is passed on in no worse condition than it was received;
- (iii) The conservation of access principle which is that each generation should have a reasonable and equitable right of access to the natural and cultural resources of the earth.⁵⁹³

In doing so, Pain J anchored the beginnings of Australian jurisprudence on the principle firmly within the model set out by Brown Weiss. While the conservation of options, quality and access principles outlined by Brown Weiss provide high-level conceptual guidance to the understanding of intergenerational equity, they do not dictate what practical actions are required in specific cases. However, following this articulation of the principle, Pain J went on to describe her view of what this might mean in practice, stating in particular two things. First, she argued that the principle required, in the context of environmental impact statements, 'the assessment of cumulative impacts of proposed activities on the environment.'⁵⁹⁴ Second, she held that simply raising a point of impact in the environmental impact assessment was insufficient to discharge the decision-maker's onus in considering the impact; it had to be considered in an appropriately detailed manner:

⁵⁹¹ These three principles of intergenerational are taken from EDITH BROWN WEISS, *Intergenerational Equity: A legal framework for global environmental change*, in ENVIRONMENTAL CHANGE AND INTERNATIONAL LAW: NEW CHALLENGES AND DIMENSIONS (Edith Brown Weiss, ed. 1992) 397, 402-5, see Preston, *supra* note 502, at 51-2.

⁵⁹² *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 119.

⁵⁹³ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶¶ 118-9.

⁵⁹⁴ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 122.

simply raising an issue such as climate change/global warming is unlikely to satisfy a requirement that intergenerational equity or the precautionary principle has been considered in the absence of any analysis of the impact of activities which potentially contribute in the NSW context in a substantial way to climate change/global warming.⁵⁹⁵

Pain J concluded that the environmental impact assessment for the Anvil Hill coal mine should include estimations of greenhouse gas emissions from not only the construction of the coal mine but also from the end-uses of the coal to be mined there.⁵⁹⁶ As a result, *Gray* has received some academic interest as an example of a potentially far-reaching climate change law case.⁵⁹⁷ However, the specific factual outcome of the case cannot be extrapolated as a requirement of intergenerational equity more broadly. Instead, the judgment in *Gray* suggests two requirements of the principle of intergenerational equity in the context of environmental impact assessment: an assessment of cumulative impact, and an appropriately detailed analysis of relevant considerations.

Taralga Landscape Guardians Inc v Minister for Planning

*Taralga Landscape Guardians Inc v Minister for Planning*⁵⁹⁸ was a 2007 case involving a dispute between a group of rural residents and a wind energy company over the company's development proposal for a wind farm that would be visible from the residents' properties. The case required the balancing of local interests (the appearance, noise and impact upon local flora and fauna of the wind farm, considered

⁵⁹⁵ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 137.

⁵⁹⁶ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 100.

⁵⁹⁷ See, e.g., Anna Rose, Case and Comment, *Gray v Minister for Planning: The rising tide of climate change litigation in Australia*, 27 SYDNEY L. REV. 725, 725-734 (2007); Peel, *supra* note 41, at 957-964.

⁵⁹⁸ *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59.

unacceptable by local residents)⁵⁹⁹ with wider interests (the advantages to the community at large of provision of wind energy, a low carbon-emitting energy). The presiding judge, Preston CJ, found that the interests of the broader population in having a clean energy source at the site outweighed those of the local residents:

Resolving this conundrum – the conflict between the geographically narrower concerns of the [residents] and the broader public good of increasing the supply of renewable energy – has not been easy. However, I have concluded that, on balance, the broader public good must prevail.⁶⁰⁰

Most relevantly to this Chapter, Preston CJ drew upon the concept of intergenerational equity, arguing that in the context of energy production, intergenerational equity requires two things: first, sustainable extraction and use, with respect to both the resource and the environment surrounding the resource; and second, the increasing substitution of cleaner energy sources for existing, dirtier ones.⁶⁰¹ His Honour stated that ‘the attainment of intergenerational equity in the production of energy involves meeting at least two requirements’⁶⁰²:

1. ‘[M]ining of and subsequent use in the production of energy of finite, fossil fuel resources need to be sustainable. Sustainability refers not only to the exploitation and use of the resource (including rational and prudent use and the elimination of waste) but also to the environment in which the exploitation and use takes place and which may be affected. The objective is not only to extend the life of the finite resources and the benefits yielded by exploitation and use of the resources to future generations, but also to maintain the environment, including the ecological processes on which life depends, for the benefit of future generations’; and
2. ‘[A]s far as is practicable, to increasingly substitute energy sources that result in less greenhouse gas emissions for energy sources that result in more greenhouse gas emissions, thereby reducing the cumulative and long-term effects caused by anthropogenic climate change. In this way, the present generation reduces the adverse consequences for future generations.’

⁵⁹⁹ *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59 ¶¶ 97-114.

⁶⁰⁰ *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59 ¶ 3.

⁶⁰¹ *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59 ¶ 74.

⁶⁰² *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59 ¶ 74.

Taralga applies the principle of intergenerational equity to the concrete context of energy production. In this context, the Court found that the principle not only demands that the process of production and use of energy occur in a manner which accounts for the requirements of future generations, but also requires new types of clean energy production to be substituted increasingly for old, emissions-intensive methods. The extent to which the outcomes of this element of the case can be generalised for future cases is likely to be limited – it seems fanciful to expect that *Taralga* on its own will present any real challenge to the construction of, for example, new coal-fired power plants. It is doubtful that it would have precedential value in this respect.⁶⁰³ Nonetheless, Preston CJ’s focus in this case on the long-term interests both of the environment and future generations in the context of energy production is remarkable.

More generally, and indeed more importantly, *Taralga* involved a situation in which narrow, immediate interests (those of the local residents) were in conflict with broader, long-term interests (those of the wider community over a long timeframe). This case demonstrates that the Australian principle of intergenerational equity (in this case in combination with other principles of ESD) has the potential to protect the interests of members of future generations, when they conflict with the interests of members of the current generation.

Walker v Minister for Planning

The case of *Walker v Minister for Planning* (*‘Walker’*) concerned a concept plan for a development proposal for a retirement village on a coastal plain in New South Wales.

⁶⁰³ See discussion below.

The Applicant challenged the NSW Minister for Planning's decision to approve the concept plan, arguing that the approval was invalid because the Minister had failed, amongst other things, to take into account the principles of ESD.⁶⁰⁴ At first instance, in the NSWLEC, Biscoe J found that the Minister was 'under an obligation to consider the public interest, including ESD, when making decisions' under the relevant NSW planning legislation.⁶⁰⁵ However, on appeal, the Court of Appeal overturned Biscoe J's ruling, finding instead that while the public interest is a mandatory consideration for the Minister under the relevant planning legislation, the specific consideration of ESD principles is not.⁶⁰⁶ Instead, the Court of Appeal found that consideration of ESD principles is relevant to demonstrating that due regard has been given to the public interest in decision-making:

'the "mandatory" requirement that the Minister have regard to the public interest does not of itself make it mandatory ... that the Minister have regard to any particular aspect of the public interest, such as one or more of the principles of ESD. Whether or not it is mandatory to have regard to one or more principles of ESD must depend on statutory construction.'⁶⁰⁷

Nonetheless, the Supreme Court of New South Wales stressed the importance to the public interest of the consideration of ESD principles in this context.⁶⁰⁸ Following that judgement, Jill Walker applied for leave to appeal to the High Court, but the application was refused.⁶⁰⁹ Despite the ultimate lack of success by the Applicant, the

⁶⁰⁴ *Walker v Minister for Planning* [2007] NSWLEC 741 ¶¶ 1-2.

⁶⁰⁵ *Walker v Minister for Planning* [2007] NSWLEC 741 ¶ 163.

⁶⁰⁶ *Minister for Planning v Walker* [2008] NSWCA 224 ¶ 44-5 161 (Hodgson J); ¶¶ 65-66 (Campbell and Bell JA, agreeing).

⁶⁰⁷ *Minister for Planning v Walker* [2008] NSWCA 224 ¶ 44-5 161 (Hodgson J).

⁶⁰⁸ Hodgson JA stated with respect to the substantive planning decision in this case that '[i]t may be that failure to [consider ESD principles] could, having regard to the content of this judgment, be considered evidence of failure to take into account the public interest': *Minister for Planning v Walker* [2008] NSWCA 224 ¶ 63. Campbell JA agreed (¶ 65), but Bell JA reserved judgment on this particular point (¶ 66).

⁶⁰⁹ *Walker v Minister for Planning* HCATrans 50 (13 March 2009) (*per curiam*).

original NSWLEC decision has helped to advance judicial construction of the principle of intergenerational equity. Biscoe J conducted an extensive review of cases dealing with the principle of intergenerational equity. In addition to rehearsing the judges' treatment of intergenerational equity in *Gray*, *Taralga*, and several other cases, Biscoe J commented that the principle of intergenerational equity 'has endured as the fundamental principle of ESD.'⁶¹⁰

IMPLICATIONS

The cases described in the preceding section are significant to this Chapter less for their specific outcomes than for the contribution they have made to the elucidation of the principle of intergenerational equity under Australian law (and, potentially, to law internationally). In combination with several other cases and academic writing, these cases have contributed to the beginnings of judicial understanding of the principle of intergenerational equity under Australian law. Five main implications can be drawn from these cases on intergenerational equity. The first three suggest that the principle of intergenerational equity is extending the temporal reach of environmental law. First, the fact that the Australian legal system relies on judges to elaborate the content of the principle of intergenerational equity is profound. The strong judicial role in developing the content of the principle could lead to a requirement of genuine consideration of the interests of future generations in relevant decision-making. This could provide a viable means to overcome the short-term bias so often encountered in legislative attempts to address environmental problems. The cases indicate that the principle of intergenerational equity requires decision-makers to consider a development's cumulative impacts on the environment. This seems to indicate a

⁶¹⁰ *Walker v Minister for Planning* [2007] NSWLEC 741 ¶ 51.

judicial interest in long-term environmental consequences and represents an encouraging departure from myopic interpretations of environmental law. It does however raise the question of how to prioritise future environmental interests against the resource needs of the least well-off members of the current generation. While this Chapter makes no claim to having a solution to this problem, the issues and their implications are discussed. A final, and more procedural (but nonetheless important) implication, can be drawn: the cases underline the propensity for administrative law actions to advance environmental law interests. However, they also raise the question of the extent to which the decisions rely on basic administrative law principles, rather than newer environmental law principles. In other words, if a principle of administrative law had been at odds with the relevant ESD principle, which would have prevailed? Biscoe J's judgement in *Walker* in particular gives the impression that administrative procedures lie at the heart of the outcomes of these decisions. For this reason, the reach of these decisions should not be overstated; instead they should be taken as laying the foundations of a nascent jurisprudence on intergenerational equity.

Intergenerational equity as a judge-made principle

It is important to stress the significance of the strong role judges have in determining the content of the principle of intergenerational equity. As tenured and appointed decision-makers, judges have an enhanced ability to consider the long-term impacts of cases at hand. In this author's view, the ability of the judges to consider long-term interests when interpreting the principle of intergenerational equity is desirable. However, the potential scope for the judicial interpretative role here is very wide; as such its implications for democracy are also considered. In an academic article,

Justice Ronald Sackville notes the increasing range and depth of Australian judicial lawmaking in recent times.⁶¹¹ This phenomenon, he argues,

has less to do with the particular reforming proclivities of Australian judges than with the far-reaching changes in Australian society and the structure of the legal system itself... the social welfare state has left a legacy in the form of reliance on legislation as the means of regulation and a source of rights.⁶¹²

Noting that legislation underpins the relatively new legal field of environmental law, Sackville notes that '[p]aradoxically perhaps, the greater the degree of legislative intervention, the more extensive the discretionary power conferred on courts and the greater the range of politically sensitive decisions the courts are obliged to make.'⁶¹³

This certainly appears to be the case with respect to judges' discretion about the content of principles of ESD. The simple wording of the principle of intergenerational equity under Australian law provides a wide interpretative scope for judges:

the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.⁶¹⁴

If we consider how judges might, hypothetically, interpret this provision over time, it is clear that there is a wide range of potential outcomes. On the one hand, the legislative requirement has the potential to create a very onerous burden on current generations. Ensuring that environmental conditions are *enhanced*, in particular, could be interpreted judicially to require not only that the current generation refrain from taking certain polluting actions, but also that they take positive actions to improve the health, diversity and productivity of the environment. On the other hand, the legislative provision could be interpreted as requiring only a light burden on current

⁶¹¹ See generally Ronald Sackville, *Continuity and Judicial Creativity – Some observations* 20 U. NEW SOUTH WALES L. J. 145 (1997).

⁶¹² *Id.* at 152.

⁶¹³ *Id.*

⁶¹⁴ *Intergovernmental Agreement on the Environment 1992* (Cth) s 3.5.2.

generations in order to *maintain* current environmental conditions, potentially allowing the *status quo*. As the Australian population grows, this could result in *de facto* reduced environmental standards for future generations, assuming that a greater population with the same environmental resources results in a lower *per capita* environmental quality.⁶¹⁵

Furthermore, the principle of intergenerational equity has the potential to be applied in a wide range of legal contexts. While the cases discussed in this Chapter mainly consider the notion of intergenerational equity within the context of determining the adequacy of environmental impact assessment, there is no reason that the judicial application of the principle should be so limited in the future. This is particularly so given that the principles of ESD are foreseen as applicable in a wide range of circumstances under the various schedules of the *Intergovernmental Agreement on the Environment*. The nine schedules to the *Intergovernmental Agreement* provide information on the implementation and application of the principles of sustainable development, including the principle of intergenerational equity. One of these schedules (schedule 3) deals with environmental impact assessments, but the other eight deal with a wide range of situations: (1) data collection and handling; (2) resource assessment; (4) national environment protection measures; (5) climate change; (6) biological diversity; (7) national estate; (8) world heritage; and (9) nature conservation. Presumably, therefore, the principle of intergenerational equity could arise with respect to any of these scheduled contexts.

⁶¹⁵ This is, of course, a complex issue the full examination of which is beyond the scope of this paper. For some nuanced views on the interaction between population growth and environmental degradation, see, e.g., Maureen Cropper & Charles Griffiths, *The Interaction of Population Growth and Environmental Quality*, 84 AM. ECON. REV. 250, 250-254 (1994).

Judges, Democracy and the Environment

In short, the scope for judicial lawmaking here is wide, and raises the question of whether the judiciary is properly placed to make the decisions that, as the cases show, may involve balancing the competing interests of current and future generations. Judicial lawmaking is, of course, a matter which has often been the cause of deep political debate.⁶¹⁶ In the US, Justice Antonin Scalia has described how judges interpret legislation as ‘a question utterly central to the existence of democratic government.’⁶¹⁷ For many, the question as to how and to what extent the current generation should foster the environmental interests of future generations would be best left up to a democratically elected body to decide, rather than to judges, who are unaccountable to the electorate. This is the sort of judicial philosophy championed⁶¹⁸ by some of the US Supreme Court Judges for the early 20th Century, including Oliver Wendell Holmes and Louis Brandeis, whose opposition to judicial lawmaking ‘revolved around the supposed superiority of democratic – that is, legislative – choice mechanisms’.⁶¹⁹ These observations are relevant to the present context, if only because such a preference for democratic environmental decisions might be inferred from the approach that Brown Weiss suggests for the implementation and enforcement of the principle of intergenerational equity. Brown Weiss, whose writing

⁶¹⁶ See generally Keenan D. Kmiec, *The Origin and Current Meanings of ‘Judicial Activism’* 92 CAL. L. REV. 1441 (2004); Bradley Selway QC, *The Principle Behind Common Law Judicial Review of Administrative Action – The search continues*, 30 FED. L. REV. 217 (2002); Cass Sunstein, *Interpreting Statutes in the Regulatory State* 103 HARV. L. REV. 405 (1989).

⁶¹⁷ ANTONIN SCALIA & AMY GUTMANN, *A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW* 133 (1997).

⁶¹⁸ It should however be noted that the debate about judicial lawmaking has been going on at least since Montesquieu developed the doctrine of separation of powers: see Sol Watchler, *Judicial Lawmaking* 65 N. Y. U. L. REV. 1, 4 (1990).

⁶¹⁹ Robert M. Cover, *Origins of Judicial Activism in the Protection of Minorities*, 91 YALE L. J. 1287, 1287 (1982).

has influenced not only academics⁶²⁰ but also judges⁶²¹ in this field, has argued that each member of the current generation acts as a ‘guardian’ of the planet, holding it on trust for members of the future generation (a concept she refers to as the ‘Planetary Trust’).⁶²² This approach assumes that all members of the current generations will accept a role as guardian. It also leaves unsaid what should occur if member of the current generation hold different views as to what their guardianship entails. It seems reasonable to deduce that Brown Weiss’s theory would require members of the current generation to take a democratic approach to deciding how best to manage the environment.

However, as past and indeed present environmental performance in democratic countries around the world indicates, a democratic approach to management of the environment is by no means a safeguard of the interests of the environment itself. Legislation is subject to the short-term demands of the political cycle. Once again, climate change provides an apt example: governments around the common law world (with some notable exceptions⁶²³) have thus far failed to enact comprehensive legislation to reduce greenhouse emissions effectively. The advantages of climate change legislation will be felt over the long-term, but in the short-term, putting a price on carbon dioxide is likely to have the effect of increasing fuel and energy prices. In short, the temporal nature of environmental problems like

⁶²⁰ See, e.g., Collins *supra* note 40, at 93; Preston, *supra* note 502, at 50-4; Sunstein & Rowell, *supra* note 529, at 35. Brown Weiss’s work also appears to have generally influenced Wood, *supra* note 485; and Peter Barnes et al., *Creating an Earth Atmospheric Trust*, 319 SCIENCE 724 (2008).

⁶²¹ See *Gray v Minister for Planning* [2006] NSWLEC 720 ¶119. Brown Weiss’s ideas were imported into the judgment indirectly when Pain J cited Justice Preston’s academic article (*supra* note 502).

⁶²² BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37, at 96.

⁶²³ The UK, both in national policy and as a member of the European Union, has been a leader in legislation to combat climate change, although the effectiveness of its policies is not completely clear cut: Stephen Smith & Joseph Swierzbinski, *Assessing the Performance of the UK Emissions Trading Scheme* 37 ENVTL. RESOURCE ECON. 131, 139-151 (2007). New Zealand has also been an early adopter of greenhouse gas emissions reduction through the introduction of a national carbon dioxide trading scheme: see New Zealand Government, *New Zealand Emissions Trading Scheme*, CLIMATE CHANGE INFORMATION (6 April 2011, 4:38pm), <http://www.climatechange.govt.nz/emissions-trading-scheme/>.

this one makes them difficult for legislatures to address. A similar difficulty occurs with respect to capital savings for the future; in a range of contexts we search for institutions capable of prioritising the longer-term. In Australia, for instance, the founders of the Future Fund, a large national fund set aside for meeting future public sector pension obligations, has struggled to find a way to protect the fund capital from being used to fulfil short-term needs.⁶²⁴ Established by an Act of Parliament, there is nothing to prevent future parliaments from repealing the *Future Fund Act* and creating a new Act redirecting its capital elsewhere. The *Future Fund Act* names those responsible for the management of the fund ‘guardians’;⁶²⁵ this is symbolic, implying a special level of protection or isolation from politics.⁶²⁶ It is an illusion: the guardians may be removed by whenever ‘the responsible Ministers are satisfied that the performance of the Board member has been unsatisfactory for a significant period.’⁶²⁷ More effective is the creation of conditions that mimic those of senior judges: tenure and independence from political demands. This approach has been taken, for example, with respect to central banks in some countries, where various structural measures are put in place to increase the independence of the bankers.⁶²⁸

While legislative decisions about environmental problems are fraught with short-term biases, an approach which leaves environmental decisions to the most vocal or powerful people is no better. The recent attempt by the Australian Government to introduce a tax on mining profits not only saw off Prime Minister

⁶²⁴ Interview with Peter Costello, Former Treasurer of Australia (Dec. 11, 2008).

⁶²⁵ *Future Fund Act 2006* (Cth) s 34.

⁶²⁶ Interview with Peter Costello, Former Treasurer of Australia (Dec. 11, 2008).

⁶²⁷ *Future Fund Act 2006* (Cth) s 44(2)(e). The ‘responsible ministers’ are the Treasurer and the Finance Minister: s 5.

⁶²⁸ These include, e.g., minimum term times for board members of the central bank and protection from arbitrary dismissal: see, e.g., Sylvester C. W. Eijffinger & Jakob de Hahn, *The Political Economy of Central-Bank Independence* 22-28, (International Finance Section, Department of Economics, Princeton University, Special Papers in International Economics, No. 19, 1996), available at http://www.princeton.edu/~ies/IES_Special_Papers/SP19.pdf.

Kevin Rudd, but also demonstrated the ability of a tiny but vocal minority of Australians (mining industry leaders) to turn public opinion against an idea that was, at least in theory, to the benefit of the vast majority of Australians. With respect to enforcement of ‘planetary rights’⁶²⁹, Brown Weiss has suggested that parliaments appoint a planetary ombudsman⁶³⁰ who can ensure that the Planetary Trust is upheld: in fact, this has occurred in Hungary and Israel; in neither place has the outcome been as Brown Weiss might have hoped.⁶³¹

By contrast, judges, who are reasonably isolated from political pressure through tenured positions,⁶³² are in a unique position to make decisions that could prove unpopular with vocal members of the community. While the Parliament has little incentive to promote the interests of future generations where they conflict with interests of current constituencies, judges are not beholden to the same concerns. For this reason, judges have a more realistic potential to protect the interests of future generations, who, though addressed in the legislative principle of intergenerational equity, are unable voice their concerns in the political arena. It was this line of reasoning that led Justice Weeramantry of the International Court of Justice to say in the *Nuclear Tests Case* that ‘this Court must regard itself as a trustee of the interests of an infant unable to speak for itself’.⁶³³

⁶²⁹ BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37, at 96-103.

⁶³⁰ *Id.* at 109.

⁶³¹ The Hungarian ombudsman for future generations largely functions as an environmental ombudsman: private communication with Sándor Fülöp, Hungarian Ombudsman for Future Generations (27 May, 2010). In Israel the first Ombudsman for Future Generations, Judge Schlomo Shaham, was vocal about a wider range of issues: private conversation with Judge Schlomo Shaham (28 May 2010). After his term ended, a Bill was table in the Israeli parliament moving to abolish the position of Ombudsman for Future Generations: see Gideon Alon, *Bill Would Abolish Future Generations Commissioner*, Haaretz Newspaper online, 2 November 2006, (downloaded 6 April 2011, 3:30pm) <http://www.haaretz.com/print-edition/news/bill-would-abolish-future-generations-commissioner-1.204035>.

⁶³² Note, though, that judicial isolation from political pressure is by no means complete: see Michael Kirby, *Attacks on Judges – A universal phenomenon* 81 JUDICATURE 238, 242 (1998).

⁶³³ Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court’s Judgment of 20 December 1974 in the Nuclear Tests Case (N.Z. v Fr.) (1995) I.C.J. 288 (Sept. 22).

As it currently stands, judges have the main role in shaping the character of the principle of intergenerational equity in Australia. For now judges have the opportunity to give effect to the principle of intergenerational equity, and in doing so may shift the balance in environmental responsibilities between current and future generations in ways that prove to be unpopular with some members of the community. It remains to be seen at what point Parliament would intervene. More broadly, the effects of judicial interpretation of the principle of intergenerational equity may have force beyond the courtroom; they may play a role in the formation of social norms with respect to the timeframe of interests considered in environmental decision-making. As Marcia Mulkey notes, ‘the judiciary’s upholding of appropriate and well-grounded environmental protection laws and actions to implement them adds materially to their acceptance by society at large.’⁶³⁴

Cumulative Impact: a longer timeframe?

The principle of intergenerational equity is fundamentally different to other principles of ESD (and indeed other legal principles more generally) in that its focus is on justice not between contemporaries but between members of different generations. Its temporal insistence is its essential feature. Whilst the precautionary principle requires decision-makers to act prudently with respect to potential future environmental problems, the principle of intergenerational equity is the only ESD principle that requires the balancing of future generations’ interests with those of the current generation. The notion of cumulative impact emphasizes the principle’s long-term focus: cumulative impact is, by nature, significant over either a wider space or a

⁶³⁴ Marcia E. Mulkey, *Judges and Other Lawmakers: Critical contributions to environmental law enforcement* 4 SUSTAINABLE DEV. L. & POL’Y 2, 8 (2004).

longer timeframe. Cumulative impact is, by definition, not relevant to a specific site, but rather becomes relevant in a broader context. The notion of cumulative impact represents a shift from a site-specific, spatially and temporally narrow view of environmental harm, to a more universal view of environmental impact.

The treatment of the principle of intergenerational equity in *Gray, Traralga* and *Walker*, and other Australian cases,⁶³⁵ reveals a judicial view that the principle of intergenerational equity requires administrative decision-makers to consider the *cumulative impact* on future generations of proposed developments. In *Gray*, Justice Pain argued that in an

environmental impact assessment which takes into account the principle of intergenerational equity..., one important consideration must be the assessment of cumulative impacts of proposed activities on the environment. As I stated in *BT Goldsmith*,⁶³⁶ failure to consider cumulative impact will not adequately address the environmental impact of a particular development where often no single event can be said to have such a significant impact that it will irretrievably harm a particular environment but cumulatively activities will harm the environment.⁶³⁷

Chief Justice Preston echoed this line of reasoning in *Taralga*, arguing that in the context of energy production, the principle of intergenerational equity requires:

as far as is practicable, to increasingly substitute energy sources that result in less greenhouse gas emissions for energy sources that result in more greenhouse gas emissions, thereby reducing the *cumulative and long-term* effects caused by anthropogenic climate change. In this way, the present generation reduces the adverse consequences for future generations. [Emphasis added]⁶³⁸

The idea of cumulative impact within the principle of intergenerational equity has appeared outside of the three major cases examined in this Chapter as well. For

⁶³⁵ See in particular *Anderson v Director-General of the Department of Environment and Conservation* (2006) 144 LGERA 43 para 199, a case about the cultural impact for a group of aboriginal people of a proposed development project.

⁶³⁶ *BT Goldsmith Planning Services Pty Ltd v Blacktown City Council* [2005] NSWLEC 210 ¶ 90.

⁶³⁷ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 122.

⁶³⁸ *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59 ¶ 74 (Preston CJ).

instance, Pain J argued that intergenerational equity required cumulative impact assessment in the context of cultural impact in *Anderson and Anor v Director-General of the Department of Environment and Conservation*,⁶³⁹ stating in that case that the principle of intergenerational equity requires ‘an assessment of the cultural significance of a particular area in the context of whether its destruction would mean there was less opportunity for future generations of Aboriginal people to enjoy the cultural benefit of the site’.⁶⁴⁰ Part of Justice Pain’s reasoning concerned ‘the need to assess the cumulative impact of allowing the destruction of aboriginal objects in a particular area.’⁶⁴¹ It should be noted that the relevance of cumulative impact assessment may be limited in cases where the relevant cumulative impact includes impacts that are ‘hypothetical’ or ‘potential’.⁶⁴²

Despite these caveats, the endorsement by several judges of the importance of cumulative impact to the principle of intergenerational equity is significant in that it indicates an awareness of the long-term impact of multiple instances of environmental damage, something which is highly relevant to the interests of future generations. It is all the more significant as it appears to depart from the (mistaken) assumption that some legal academics (and to a lesser extent, members the judiciary)⁶⁴³ take in asserting that the principle of intergenerational equity and the principle of *intra-*

⁶³⁹ *Anderson v Director-General of the Department of Environment and Conservation* (2006) 144 LGERA 43 ¶ 199. See also *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 123.

⁶⁴⁰ *Anderson v Director-General of the Department of Environment and Conservation* (2006) 144 LGERA 43 ¶199.

⁶⁴¹ *Gray v Minister for Planning* [2006] NSWLEC 720 ¶ 126.

⁶⁴² See *Anvil Hill Project Watch Association Inc v Minister for the Environment and Water Resources* (2007) 243 A.L.R. 784, 795 (per Stone J).

⁶⁴³ Writing extra-curially, Preston argues that ‘while intergenerational equity may be viewed by some to be in conflict with achieving intragenerational equity, the two concepts are consistent and intertwined. Even members of the present generation who care only about their own descendants will increasingly care about the general environment that will be inherited and, because a healthy environment requires the cooperation of all countries, meeting the needs of developing countries is part of the pursuit of intergenerational equity’: *supra* note 502, at 51.

generational equity are mutually reinforcing.⁶⁴⁴ This view appears to originate from principle 3 of the *Rio Declaration*, which states that ‘the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.’ The conflation of interests of current and future generations was not, however, carried forth into the *Intergovernmental Agreement on the Environment*. It is worth noting that the tendency to bundle together in an unproblematic fashion these two notions of equity appears to afflict legal academics more than others such as economists,⁶⁴⁵ presumably because it is lawyers who have replicated the wording of the *Rio Declaration* in judgments and academic Chapters.

Intergenerational versus Intra-generational Equity

Whilst the notions of intergenerational equity and intra-generational equity are not always completely incompatible, the assumption that they are necessarily mutually reinforcing is certainly misguided. The notions of equity as between non-contemporaries and contemporaries can quickly be distinguished. The former requires thought about levels of savings of natural and other assets over time.⁶⁴⁶ The latter is inherently connected to distributive politics between contemporaries. The notion of

⁶⁴⁴ Academics who argue actively that the two notions of intergenerational and intra-generational equity are complementary include Brown Weiss, *supra* note 497, at 618; *see also* Brown Weiss, *supra* note 515, at 21-22. Other academics group the two notions of intergenerational and intra-generational equity together without analysing their potential to conflict, *see for example* Godden (2009) at 556. Others have made an effort to distinguish between the two: *see, e.g.*, Paul A. Barresi, *Beyond Fairness to Future Generations: An intragenerational alternative to intergenerational equity in the international environmental arena*, 11 TUL. ENVTL. L.J. 59, 73-9 (1997); Michael Doran, *Intergenerational Equity in Fiscal Policy Reform* 61 TAX L. REV. 241, 242 (2008) (arguing that ‘[i]n sharp contrast to the intra-generational distribution of wealth – where government policy plays an active and commanding role in transferring resources between and among different groups – the intergenerational distribution of wealth is determined mainly by decisions of private actors that fall outside government policy and that may blunt or even reverse the distributional effects of government policy’; Gaspart & Gosseries, *supra* note 517, at 204.

⁶⁴⁵ For a number of economic analyses in which the intergenerational concerns are the main focus, *see generally* DISCOUNTING AND INTERGENERATIONAL EQUITY, *supra* note 40.

⁶⁴⁶ This short-hand description of course fails to depict variations of the ways in which justice between generations might be carried out. For a detailed consideration of three different views of environmental justice over time, *see generally* DOBSON, *supra* note 495.

distributive justice between contemporaries is a highly contested area, of course, and presents a great potential constraint on the exercise of the principle of intergenerational equity.⁶⁴⁷ Those who mention the two notions within one breath⁶⁴⁸ underemphasise, in this author's view, the deep-seated potential for conflict between them. If more than lip-service is to be paid to either principle, then they must be distinguished from one another. Legal academics and judges would do better to draw out the distinction between the two terms and consider both their competing and complementary requirements in any given case.

It may be that judges are in some cases forced to delineate a hierarchy between the two competing considerations. Though preferable to decision-making that fails to confront the issue, such a decision would be a fraught task. One school of thought would hold that the quest for intra-generational equity should never trump that of intergenerational equity. This type of approach sees intergenerational equity as anterior to intra-generational equity in the sense that unless certain aspects of the natural environment are preserved for future generations, there will be no patrimony to be distributed geographically within future generations. According to this view, there are certain environmental imperatives that must occur even at the expense of some members of the current generation. This is the type of view likely to be associated with deep ecology,⁶⁴⁹ but a parallel can be seen in some views of fiscal policy.⁶⁵⁰ By contrast, another school of thought holds striving for intergenerational equity through future-oriented redistribution is unjust to the extent that it moves

⁶⁴⁷ See Gaspart & Gosseries, *supra* note 517, at 204 (arguing that intergenerational wealth redistribution has the potential to be unjust when it reduces to scope for intra-generational wealth redistribution).

⁶⁴⁸ The *Rio Declaration* is particularly guilty in this regard.

⁶⁴⁹ Perhaps this is little more than coincidence; deep ecology in general is not concerned with justice between humans, but rather man's relationship with the environment: see *supra* note 495, at 220-1.

⁶⁵⁰ Personal communication with Gordon Clark, Halford Mackinder Professor of Geography, School of Geography and Environment, University of Oxford (April 1, 2011).

resources away from the needy of the current generation. Drawing on Rawls' notion of just savings,⁶⁵¹ Frédéric Gaspart and Axel Gosseries note that transfers of generational (as opposed to purely private) savings to future generations might be regarded as unfair 'toward the least well-off members of the *current* generation.'⁶⁵²

They put it this way:

“Imagine that a given generation anticipates that at the end of its existence a surplus is likely to be transferred to the next generation on top of the equivalent of what the current generation inherited to the previous one. If the constitution of such a surplus is likely, it should benefit the least well-off members of the current generation rather than the next generation as a whole.”⁶⁵³

It is worth noting that Gaspart and Gosseries do not see this approach as in any way inimical to impartiality between generations; they stress that this argument does not 'presuppose any priority of intra-generational justice over intergenerational justice.'⁶⁵⁴

It would, however, require intra-generational redistribution of savings as to occur before any intergenerational redistribution: any inequity within the current generation would have to be addressed before generational savings could be put away for future generations. More broadly, there seems to be a failure by those touting the notion of sustainable development to confront the dilemma posed by the (often) contradictory requirements posed by these two ethical aims. Perhaps Gaspart and Gosseries are correct on a theoretical level in suggesting that the attainment of intra-generational equity need not rule out intergenerational equity. However, in the concrete and more bounded situations likely to be heard by judges, in which only the parties before the court have standing in the matter at hand, and in which only the principle of

⁶⁵¹ See RAWLS, *supra* note 14, at 288 (arguing that each generation should pass on a fair amount of real capital, including “not only factories and machines ... but also the knowledge and culture, as well as the techniques and skills, that make possible just institutions and the fair value of liberty”).

⁶⁵² Gaspart & Gosseries, *supra* note 517, at 204.

⁶⁵³ *Id.*

⁶⁵⁴ *Id.*

intergenerational is to be applied, it seems likely that some decisions will have to set aside the geographical demands of equity in order to focus on the temporal.

On a final note, while the two concepts roll quite glibly off the tongue together, after a moment's consideration it seems somewhat odd that the notions of intergenerational and intra-generational equity terms should be associated in the first place. Common law (and other) legal systems are infused to their very core with the notions of equity and fairness between contemporaries.⁶⁵⁵ Intergenerational equity, however, offers something different – an attempt to facilitate a level of justice between members of *different* generations, and in doing so presents a potential key to the instigation of a longer term decision-making process. This is something that common law legal systems have not prioritised in the past (and understandably so: not only is the structure of the common law legal system poorly equipped for such an approach, but also achieving justice between contemporaries is hard enough in itself).⁶⁵⁶ However, the long-term nature of complex environmental problems creates the need for innovation within the legal system. The notion of intergenerational equity, while fraught with challenges, presents an opportunity for the law to take a new approach to justice over the long-term. The fact that Australian judges have taken a cumulative approach to assessing impacts upon future generations indicates an appreciation for the central temporal quality of the principle of intergenerational equity.

⁶⁵⁵ See THOMPSON, *supra* note 14, at 3.

⁶⁵⁶ See *id.*; see also JUSTICE BETWEEN AGE GROUPS AND GENERATIONS, *supra* note 14, at 1.

Administrative Law as Environmental Governance

The judgements in *Gray*, *Taralga*, and *Walker* are grounded in administrative law. More specifically, they each deal with administrative decisions concerning environmental impact assessment. They form part of a broader ascension of administrative law as a tool for environmental legal challenge in Australia.⁶⁵⁷ Bell and McGillivray note that ‘environmental law has not been developed as a self-contained discipline, but has simply borrowed concepts from other areas of law.’⁶⁵⁸ When new types of environmental problem, such as climate change, arise, environmental solutions must take whatever form they can.⁶⁵⁹ The use of administrative law as a form of environmental redress has both advantages and limitations in the context of the principle of intergenerational equity.

In addition to being a well-established area of law, administrative law has the advantage of offering preventative, rather than reactive, forms of redress. The temporal characteristics of environmental problems can present a particular challenge when it comes to finding an appropriate legal remedy. Environmental solutions conceived under the common law, such tort actions in nuisance or negligence, have traditionally been reactive rather than preventative.⁶⁶⁰ Moreover, with respect to climate change, the temporal disconnection between the causes of global warming (carbon dioxide emissions) and its negative effects (for example, extreme weather events) appears to contribute to the difficulty plaintiffs face in proving causation in negligence suits.⁶⁶¹ By allowing parties to challenge administrative decisions

⁶⁵⁷ See generally Fisher, *supra* note 57.

⁶⁵⁸ See BELL & MCGILLIVRAY, *supra* note 511, at 10.

⁶⁵⁹ See *id.*

⁶⁶⁰ *Id.*

⁶⁶¹ Eric Posner & Cass Sunstein, *Climate Change Justice* 25-6 (U of Chicago Law & Economics, Olin Working Paper No. 354 U of Chicago, Public Law Working Paper No. 177, 2007).

affecting the environment that have failed to consider ESD principles, the administrative law approach facilitates the *prevention*, rather than the retrospective compensation for environmental harm. This helps to give proper effect to the notion of intergenerational equity, which requires that the interests of future generations be taken into account in decision-making.

Administrative law also has a number of limitations as a means for facilitating the principle of intergenerational equity. Generally, judges conducting judicial review of an administrative decision are prevented from reviewing the decision on its merits.⁶⁶² In such cases, judges must restrict themselves to determining the legality of the decision-making *process*, rather than the merits of the decision itself.⁶⁶³ The NSWLEC is distinctive in that it has a merits review jurisdiction in addition to its ordinary judicial review jurisdiction.⁶⁶⁴ In cases falling under its merits review jurisdiction, the NSWLEC is required to put itself in the shoes of the original administrative decision-maker and to make a new decision.⁶⁶⁵ As Biscoe J notes in *Walker*, most of the NSWLEC's decision on ESD principles have occurred within the Court's merits review jurisdiction. While this affords the Court an opportunity to discuss the constitution of ESD principles in depth, it is unclear to what extent decisions made under this special jurisdiction can be deemed to contribute to the development of jurisprudence. Jagot J notes in *Drake-Brockman v Minister for Planning* that 'care must be taken in applying observations about the level or extent of issues found to be appropriate in merits appeals to other contexts.'⁶⁶⁶ In that case, Jagot J refused to accept the Applicant's argument that *Gray* stood for a general

⁶⁶² *Minister for Aboriginal Affairs v Peko-Wallsend Ltd* (1986) 162 CLR 24, 41 – 43.

⁶⁶³ See, e.g. *Walker v Minister for Planning* [2007] NSWLEC 741 ¶¶ 81-84.

⁶⁶⁴ *Land and Environment Court Act 1979* (NSW) Pt 3.

⁶⁶⁵ *Land and Environment Court Act 1979* (NSW) s 39(2).

⁶⁶⁶ [2007] NSWLEC 490 ¶ 124.

proposition an environmental impact assessment will be inadequate if it does not include a quantitative analysis of greenhouse gas emissions. Jagot J distinguished *Gray* on the grounds that, essentially, it was the process of decision-making that had been flawed in *Gray*, rather than the substance of the decision itself:

what appeared to have been critical in *Gray* was the disjunction between what the Director-General required ... and what the Director-General accepted as adequate... *Gray* does not stand for a general proposition that Pt 3A of the EPA Act requires any particular form of assessment of greenhouse gas emissions for each and every project to which that Part applies.⁶⁶⁷

The foregoing suggests one should be cautious about reading too much into the substance of decisions on ESD principles, particularly to the extent that decisions on substance coincide with decisions based on well-established principles of administrative law. By contrast, while merits review is generally overlooked as a source of legal reasoning,⁶⁶⁸ Elizabeth Fisher has demonstrated (in the context, particularly, of Australian specialist environmental tribunals) that merits review has more precedential value than is commonly recognised.⁶⁶⁹ Fisher argues that while merits review decisions are traditionally seen as lacking a *ratio decidendi*, ‘the reality is ... that in environmental and planning law practice and scholarship merits review decisions are treated as *ratios* for lawyers and primary decision-makers alike.’⁶⁷⁰ She notes that merits review decisions are often included in volumes of law reports and cited by judges as legal authorities.⁶⁷¹ This is true of all of the three cases examined most closely in this Chapter, notwithstanding Jagot J’s scepticism in *Drake-Brockman v Minister for Planning*.⁶⁷² While Fisher is sympathetic to Jagot J’s words of

⁶⁶⁷ [2007] NSWLEC 490 ¶ 131 (Jagot J).

⁶⁶⁸ See Fisher, *supra* note 57, at 329.

⁶⁶⁹ *Id* at 332-348.

⁶⁷⁰ *Id* at 330.

⁶⁷¹ *Id*.

⁶⁷² [2007] NSWLEC 490 ¶ 124.

caution,⁶⁷³ and notes that there is great variation between tribunals as to what constitutes the process and impact of merits review,⁶⁷⁴ her work nonetheless demonstrates that the merits review decisions cannot be dismissed as extra-legal.⁶⁷⁵ Far from it, merits review decisions are helping to develop jurisprudence within environmental law.

A separate but related point with respect to constructing a jurisprudence of intergenerational equity through administrative law is that there is a risk that the principle will come to be treated as a procedural step in development decisions rather than a principle of wide applicative scope. In *Bentley v BGP Properties Pty Ltd*,⁶⁷⁶ a case, once again, dealing with the requirements of an environmental impact assessment, Preston J stated that the requirement for

prior environmental impact assessment and approval enables the present generation to meet its obligation of intergenerational equity by ensuring the health, diversity and productivity of the environment is maintained and enhanced for the benefit of future generations'.⁶⁷⁷

This view, if read as describing the exhaustive role of the principle of intergenerational equity, greatly diminishes the scope of the principle. A preferable view would be that prior environmental impact assessment is a necessary but insufficient requirement of the notion of intergenerational equity in the specific context of some planning decisions under the relevant legislation.

⁶⁷³ Fisher, *supra* note 57, at 345-6.

⁶⁷⁴ *Id.* at 345.

⁶⁷⁵ Fisher argues that 'while merits review bodies may be novel and *ad hoc* in their legal construction, their powers are by no means non-legal. These courts and tribunals do not operate outside the law; rather, they are legal constructions deploying or adapting conventional legal processes': *id* at 347.

⁶⁷⁶ [2006] NSWLEC 34.

⁶⁷⁷ *Bentley v BGP Properties Pty Ltd* [2006] NSWLEC 34 ¶ 69.

CONCLUSION

The interests of future generations are often at odds with those of the present, particularly in the context of the environment. Legislators, as elected representatives of current generations, have little incentive to make laws that protect the environmental well-being of future generations if those laws in any way restrict the way of life of their living constituency.⁶⁷⁸ Even where legislators do enact measures that risk current unpopularity for a future gain, their work may be repealed by a more populist successor; parliaments cannot bind their successors. On a more local scale, administrative decision-makers are often tempted by similarly short-term incentives.

For these reasons, the principle of intergenerational equity is a hopeful addition to environmental law. Though thus far little-used, the principle aims to balance the interests of current and future generations in decision-making, in particular with respect to the environment. In Australian legislation, the definition of the principle of intergenerational equity is vague. Legislators have left the elucidation of the principle to the Courts. Academic interest in the principle has generally focused on its normative basis; this Chapter has sought to elucidate the practical implications of the principle by examining its appearance in Australian case law, where the jurisprudence on the principle is most developed. The practical impact of the principle of intergenerational equity is potentially far-reaching, and as such judges have been given a wide discretion with respect to the environmental interests of future generations. Given the failure of legislators to protect the environmental interests of future generations where they conflict with the current interests (usually economic) of

⁶⁷⁸ The leader of Australia's opposition said recently that a carbon tax to combat climate change 'must utterly transform the way we live and how we work' – using this as an argument *against* introducing such a tax. He understands only too well that it is difficult to garner popular support for measures whose benefits are felt largely in the future: see Sid Mayer, *PM's Carbon Tax Will Change Daily Life, Warns Tony Abbott*, THE AUSTRALIAN, March 8, 2011.

current constituencies, the tempering potential for the principle of intergenerational equity is profound. Moreover, the tenured and independently appointed judiciary is structurally less beholden to short-term considerations than those in the legislature.

An examination of three relevant cases reveals the formation of a nascent jurisprudence on intergenerational equity within Australia. As the first of its kind globally, the impact of this jurisprudence could influence case law beyond Australia. These cases, all occurring within the context of administrative decisions about planned developments, show that the principle intergenerational equity requires administrative decision-makers to do a number of things. First, decision-makers must consider the *cumulative* environmental impact of proposed decisions. This is significant in that it attempts to prevent the creeping accumulation of negative environmental impacts, however small individually. Second, it demonstrates the propensity of the judiciary to take a longer term view of environmental management. Third, the decision in *Gray* suggests that the principle of intergenerational equity requires more than the mere flagging of environmental issues in an impact assessment, instead it requires a thorough consideration of their impact within the relevant contextual setting. This suggests that judges are unwilling to allow the environmental impact assessment process to become a mere box-ticking exercise. The decision in *Taralga* moved beyond the environmental impact assessment context to that of energy production and is sweeping in its scope. In this context, the Court found that the principle not only demands that the process of production and use of energy occur in a manner which accounts for the requirements of future generations, but also requires new types of clean energy production to be substituted increasingly for old, emissions-intensive methods. The reach of this finding is potentially great – it seems likely that were it applied to prevent the construction of, for example, a new coal

mine, it would spark a legislative reaction. Perhaps of more general applicability is the Court's finding in this case that the long-term interests of a community may at times trump the narrow, immediate interests of the present.

The jurisprudence on intergenerational equity is of course very limited. This article has aimed to sketch a preliminary picture of the principle to date, and to draw from it implications about the power of the principle to overcome the short-term focus of many environmental projects when left to the legislature. The feature that sets apart the principle of intergenerational equity from other pieces of environmental law is its focus on redressing the imbalance between current and future interests. The Australian legislation has left the development of the principle in the hands of judges, a (perhaps unintentionally) wise decision given the general inability of legislators to make current sacrifices in order to achieve long-term benefits. In the case of *Taralga* in particular, the NSWLEC has shown a willingness to genuinely balance narrow current interests with broader future ones, finding in favour of the future. As Preston CJ noted, 'resolving this conundrum' is 'not easy'.⁶⁷⁹ Nonetheless, this finding in particular embodies the spirit of the principle of intergenerational equity and offers some hope that its influence may in time play a part in tipping the balance back toward the future.

⁶⁷⁹ *Taralga Landscape Guardians Inc v Minister for Planning* [2007] NSWLEC 59 ¶ 3.

VI. INVESTING IN THE FUTURE: THE STORY OF A RIVER

INTRODUCTION

This Chapter aims to conceptualise intergenerational equity in resource management as an issue of long-term investment. To do so requires a series of links and analogies that have only been hinted at in the relevant literature. Long-term investment is generally described within the context of financial markets; this Chapter associates the strategies for and barriers to long-term investing in the financial world with long-term natural resource management. In doing so, it draws extensively upon Brown Weiss's seminal treatise⁶⁸⁰ on the virtues of an intergenerational perspective for the environment and considers her proposed Planetary Trust – an institutional solution to the problem of governing long-term commitment.⁶⁸¹ Crucial for the argument presented here is the suggestion that her solution looks very much like the governing structure of a funded pension plan – a beneficial institution that carries obligations to different generations, with time-horizons as long as 80-100 years. The problem, though, is that these types of institutions have struggled to be effective long-term investors. Crucially, the trustees of these institutions often fail to balance the competing interests of current and future beneficiaries, typically focussing on short-

⁶⁸⁰ See BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37.

⁶⁸¹ Brown Weiss's notion of a planetary trust has been resuscitated by Barnes *et al.* in their Atmospheric Trust: *see supra* note 620. Arguing that 'climate change will require drastic departures from business as usual' they suggest a 'visionary' governing entity for the 'management and protection of the global commons.' Drawing upon the trust institution, which is recognised as a 'well-developed legal mechanism designed to protect and manage assets on behalf of specific beneficiaries,' Barnes *et al.* acknowledge that its global mandate may have to begin at the regional or national levels. Unlike many governments' environmental policies, the Atmospheric Trust would use market instruments to realise long-term goals of innovation and adaptation 'for the benefit of current and future generations.'

term rather than long-term outcomes. Where they succeed, they remain vulnerable to intervention by the state on behalf of current generations (who are, of course, political constituents). The Planetary Trust notion, while conceptually useful in the context of resource management, is flawed in theory, just as its resemblant institutions are in practice. The theoretical insights gained through a critique of the Planetary Trust concept are then tested within the practical context of water management in Australia's Murray Darling Basin. The Murray Darling Basin Authority (the Authority) is an institution that adopts some of the Planetary Trust's essential features as an independent (trustee-like) institution charged with managing Australia's most significant freshwater resources over the long-term; likewise, it faces many of the challenges predicted in this Chapter's critique of the Planetary Trust.

The management of water over the long-term involves the interests of current and future generations. Rainfall patterns differ from year to year, leading to highly variant ecological pressures over the short-term. Over the longer-term, population growth and development are expected to put an increasing strain on water resources globally. If current rates of growth continue, global annual water use is expected to increase to 6.9 trillion cubic metres (2 trillion more than currently).⁶⁸² This is 40% more than current water sources can provide.⁶⁸³ Climate change presents additional uncertainties to the availability of water across space and time over the next century.⁶⁸⁴ In these circumstances, the gradual depletion and degradation of river systems could lead to significantly compromised access to water resources for future generations in some regions. The management of water for the future becomes, increasingly, an immediate concern.

⁶⁸² Gilbert, *supra* note 50.

⁶⁸³ *Id.*

⁶⁸⁴ See LITERATURE REVIEW chapter.

The Chapter begins by conceptualizing long-term investment as a means to strive for intergenerational equity. In order to do so, it is necessary to return briefly to the notions of intergenerational justice and equity, which were discussed in Chapter V, before detailing the concept of long-term investment and the barriers obstructing its realisation; adherence to long-term aims, whether in investment or in management of resources, often proves difficult to achieve. The next section begins by describing Brown Weiss's notion of Planetary Trust as a rare attempt to produce an instrumental means for facilitating justice between members of different generations. The Planetary Trust concept is flawed, however; this section continues with a critique of both the theoretical underpinnings and the practical implications of the Planetary Trust concept. In particular, it notes the similarities between the Planetary Trust and the defined benefit pension fund – an institution which must now be considered largely failed as a communal savings vehicle. The final section relates the Planetary Trust concept to the practice of water management in Australia's Murray Darling Basin, arguing that the Murray Darling Basin Authority (the Authority) has a role with respect to the long-term management of water that can be categorized as analogous, in its essential features, to that of the Planetary Trust. The section outlines the role and structure of the Authority, its recent findings with respect to the long-term environmental requirements of water use in the Basin, and finally the political reaction to these findings. In short it is argued that the stated reasons for the government and other stakeholders' negative reception of the Authority's findings, couched in fantastical demands for a 'triple bottom line' approach, in fact demonstrate the most fundamental theoretical flaw of the Planetary Trust: the impossibility, in a politicised context, of protecting long-term interests from the meddling hands of the present.

INTERGENERATIONAL EQUITY THROUGH LONG-TERM INVESTMENT?

The notion of intergenerational equity was examined in detail in Chapter V; the earlier discussion need not be repeated here. Suffice it to say that determining what constitutes justice between generations is very difficult ‘if not impossible’.⁶⁸⁵ As Chapter V notes, part of the failure of law to facilitate justice effectively over extended time periods within the context of the environment is a product of the difficulty more generally, including in more informal normative contexts, of constructing a satisfactory regime for determining justice between individuals who are not contemporaries. Nonetheless, according to the conception of justice most aligned with this thesis (that of Rawls),⁶⁸⁶ equitable allocation of resources amongst generations requires each generation to preserve institutions of culture and civilisation and to put aside for each generation a suitable amount of ‘real capital accumulation’.⁶⁸⁷ Leaving aside the questions of substitutability of other assets for natural resources that have been argued extensively elsewhere,⁶⁸⁸ this must include a sufficiently rich natural environment.

Clearly, this approach cannot be perfected in practice: we are unsure of how many generations are to come; we are uncertain of the relative productivity payoff to be achieved from a particular amount of consumption; we cannot even predict, with acceptable certainty, the extent of the natural resource base available to us. Nonetheless, the most acceptable practical means for addressing the problem of providing for future generations, however imperfect, is to conceive of our dealings with future generations as investment, and to strive for longer term investment. As

⁶⁸⁵ Rawls, *supra* note 14, at 284.

⁶⁸⁶ Competing conceptions of justice are discussed at greater length in Chapter V.

⁶⁸⁷ Rawls, *supra* note 14, at 285.

⁶⁸⁸ *See generally*, DOBSON, *supra* note 495.

Chapter IV has shown, it is possible for investors to implement governance structures for longer term investment; could a similar approach be taken with natural resources? It may be that in the context of natural resource management, we must satisfy ourselves with building structures that aim to prevent the impulse to focus on the short-term.

Societies, from individuals⁶⁸⁹ to organisations,⁶⁹⁰ tend to focus on short-term goals. At the very least, a move toward a longer term perspective with respect to the natural environment could help to achieve a greater level of intergenerational equity. Environmental policies that are designed to preserve environmental quality in the future are consistently whittled away in their implementation in order to meet the vocal demands of the present. The management of the Murray Darling Basin provides a strong example of this phenomenon, discussed at length toward the end of this Chapter. The argument made here is that this sort of acquiescence to short-term demands over long-term environmental needs is closely aligned with the impulse for short-term investment (to the potential detriment of long-term gains) that beleaguers the finance world. Therefore, while the discussion that follows is most clearly relevant to the financial world of institutional investment, the arguments made about the barriers to long-term investment are, in this author's view, no less applicable to the context of intergenerational equity with respect to natural resources. Before proceeding to the financial context, however, it is worth sketching several ideas relevant to the assertion that intergenerational equity in the context of the environment may be conceived as an issue of long-term investment.

⁶⁸⁹ See generally Kahneman & Tversky, *supra* note 12.

⁶⁹⁰ Clark *et al.*, *supra* note 205; Clark *et al.*, *supra* note 356.

Most individuals struggle to picture themselves and their needs in the future, to say nothing of the difficulty they have conceptualising the future needs of *others*. The cognitive difficulties involved in conceptualising the future drive rational individuals to rely on fuzzy sources when making decisions about their future: hunches, heuristics and ‘animal spirits’.⁶⁹¹ Very few people actively plan for their future;⁶⁹² more effective savings policies, such as Australia’s compulsory superannuation policy, use a more paternalistic approach.⁶⁹³ For better or for worse, moreover, our conception of the future fades as the timeframe becomes longer (as is demonstrated by the notion of discounting that is ubiquitous in economics).

From a familial perspective, while parents have an immediate interest in the future of their own children, this interest usually does not translate into a broader interest in the future of society in anything other than a fairly abstract sense. While Elinor Ostrom has demonstrated that in some circumstances local communities can manage common natural resources in a sustainable, long-term manner,⁶⁹⁴ it is unclear that the approach Ostrom describes could be successful on a larger scale.

For governments, moreover, there is a temptation to meet short-term demands for resources at the potential expense of long-term planning because of the immediate political benefits of rewarding local interests (in both a spatial and temporal sense).⁶⁹⁵ In most countries, future generations are unrepresented politically in any direct way, and arguably are *unrepresentable*.⁶⁹⁶ Notable exceptions to this rule exist in Israel and Hungary where a member of parliament for future generations and an ombudsman for

⁶⁹¹ See discussion in Chapters IV and V. See Kahneman & Tversky, *supra* note 12, at 284-89; Samuelson & Zeckhauser, *supra* note 12, at 47-48; see also generally Akerlof & Shiller, *supra* note 12; Clark *et al*, *supra* note 205; Clark *et al.*, *supra* note 356.

⁶⁹² Akerlof & Shiller, *supra* note 12.

⁶⁹³ As an aside, on libertarian paternalism see Sunstein & Thaler, *supra* note 477.

⁶⁹⁴ ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION (Cambridge University Press 1 ed., 1990).

⁶⁹⁵ See generally Clark & Knight, *supra* note 12.

⁶⁹⁶ Compare PARFIT, *supra* note 516, with BROWN WEISS, *supra* note 37.

future generations exist respectively.⁶⁹⁷ However, the extent to which these positions hold any real potential for power is questionable: in Israel, the post has been left unfilled since the first term of the post ended; in Hungary, the duties of ombudsman for intergenerational equity might be better described as those of an environmental ombudsman.⁶⁹⁸

If the objectives of environmental policies include the interests of future generations, then it is arguable that some of the methods used to enhance long-term investment in the finance world could be applied with some effect. In so doing, the capacity for these policies to facilitate intergenerational equity might well be enhanced. However, as the following paragraphs argue, long-term investment is very difficult to achieve.

Conceptualizing the ‘long-term’

It is useful as an exercise in clarification and nomenclature to begin by exploring the meanings of the ‘long-term’. A simple way to begin is by considering the different time-horizons that seem natural to humans, given the average length of a human life. To conceptualise the long-term in this way is to subscribe to a form of anthropocentrism which, in itself, requires reasoned justification rather than simple-minded acceptance without debate.⁶⁹⁹ Nonetheless, assuming that this notion has wide appeal, the most obvious way of grounding the meaning of the long-term is to refer to a timeframe which is short enough to be conceptualised by humans, and short enough to presume continuity of political and institutional processes.

⁶⁹⁷ See Chapter V.

⁶⁹⁸ See Chapter V.

⁶⁹⁹ See generally DOBSON, *supra* note 495.

The long-term is quite elastic: when fully extended, it may refer to time periods relevant to the natural world: from the supereon at one extreme, to geological eras (hundreds of millions of years) and so on down the scale. If we leave aside these extreme geological timeframes on the grounds that they are incomprehensible with respect to political and institutional life, we can frame the environmental long-term in the context of climate change, the effects of which will be felt within a time-horizon of 50 to 100 years, at a minimum. The timeframe of climate change is such that the interests of several generations are relevant at the point that any one decision is made. The long-term may also refer to the length of the social contract binding generations (25 to 75 years). As the elastic retracts, it may refer to the time-horizon of structural change occurring where technological innovation and development privileges certain industries and regions (10 to 25 years). As the elastic retracts further, the long-term may, in the context of institutional investment strategy, be relevant to asset allocations that focus upon fundamentals (whether found in structural change or in cyclical change) (one-five-seven years). The upper-limits of the definition of 'long-term' relevant to a particular context are determined by the time-horizon of the inherited commitments and obligations of the institutions involved (whether investors or governments). So, for many institutions the long-term has two interrelated meanings: it refers to the search for value or utility *and* it refers to a set of possible time-horizons for planning, each of varying relevance given inherited commitments.

Barriers to Long-term Investment

It is widely recognized in the institutional investment industry that long-term investment in both senses (value and time-horizon) is far more difficult to realise than

to plan. A number of barriers to long-term investing exist, ranging from fundamental traits in human behaviour to failures in government policy-making.

The first barrier has to do with the cognitive bias (myopia) of those that design investment strategy and those that make day-to-day investment decisions. Whereas much of social science takes as its object the uniformly rational agent, the accumulated evidence suggests that financial markets are characterised by the coexistence of agents with varying degrees of decision-making confidence, competence, and consistency.⁷⁰⁰ Recognizing that human beings vary in terms of their cognitive abilities, and recognizing that markets are very demanding settings in terms of risk and uncertainty, it is widely appreciated that the lessons of the behavioural revolution associated with Kahneman and Tversky⁷⁰¹ apply with some force. That is, identified behavioural anomalies and biases, including the problems people have in planning for the future and attributing value to possible outcomes sequentially distributed into the future, may conspire to foreshorten the time-horizon of any entity charged with acting on behalf of the future.⁷⁰²

The larger problem is that much of human behaviour is responsive to social cues; norms and conventions impose significant limits on decision-making. As Chapter III argued, trustees and fund managers in the institutional investment world are encouraged, under the current common law position on fiduciary duty, to invest like their peers. As a result, in a climate in which short-term decision-making is the norm, many investors simply fail to even consider the long-term connotations of their decision.

⁷⁰⁰ This idea has been discussed in some detail in Chapter IV. *See generally* Clark *et al.*, *supra* note 205; Clark *et al.*, *supra* note 356.

⁷⁰¹ *See, e.g.*, Kahneman & Tversky, *supra* note 12.

⁷⁰² Time inconsistency and the human predisposition in favour of short-term temptation are well-documented: *See* GEORGE AINSLIE, *BREAKDOWN OF WILL* (2001); *see also* George Ainslie, *Précis of Breakdown of Will*, 28 *BEHAVIOURAL & BRAIN SCI.* 635 (2005) (on the debate following his 2001 work).

The myopia affecting individuals is mediated by institutions. For Herbert Simon, one of the fathers of the behavioural revolution, institutional context was as important as cognitive ability in producing human behaviour – the implication being that institutional design is a crucial element in producing desired long-term goals especially in circumstances where human predisposition may undercut both individual and collective competence.⁷⁰³ By this logic, institutions can make a difference to human predisposition by amplifying, neutralising, or managing its effects in ways that produce results that are substantively different from that which individuals left to themselves may produce, or that which groups of individuals without the benefit of institutional protocols and procedures may produce. If this sounds optimistic with respect to achieving long-term goals, it should be noted that poorly designed institutions can amplify human predisposition so as to undercut long-term goals.⁷⁰⁴

Writing in the context of institutional investment, Clark and Urwin emphasise the importance of both institutional design and governance in collective decision-making.⁷⁰⁵ In particular, they argue that there is an intimate relationship between the process whereby decision-making is organised and resolved, the skills and qualities of those involved in decision-making, and the ways in which commitment to the enterprise and its objectives are mobilised and maintained. This relationship is *prima facie* an issue of institutional design (as broadly conceived by Ostrom in analogous terms of rules, conditions, and community attributes).⁷⁰⁶ However, in many cases, we do not have the opportunity to design or re-design investment institutions; more often than not, the design process takes place at some ‘distance’ in time and space from the

⁷⁰³ See generally, Herbert A. Simon, *Bounded Rationality and Organizational Learning*, 2 ORGANIZATION SCIENCE 124 (1991).

⁷⁰⁴ Clark & Urwin, *Innovative Models*, *supra* note 414.

⁷⁰⁵ *Id.* See also Chapter IV (published as Woods & Urwin, *supra* note 198). Cf. Merton & Bodie, *supra* note 413.

⁷⁰⁶ OSTROM, *supra* note 694.

loci of those responsible for institutional performance. For Roe the design process is inevitably political, where the interests of those involved in the design process give shape to institutional form often at some cost to functional efficacy.⁷⁰⁷ In this sense, institutions are, more often than not, imperfect.

Having inherited the form and function of an institution, those responsible for its performance use the tools of ‘governance’ to realise its objectives. Clark and Urwin identify three crucial resources that underwrite the effective governance of investment institutions: time, expertise, and collective commitment.⁷⁰⁸ The importance of devoting resources to a governance regime should not be overlooked.⁷⁰⁹ The potential costs associated with risk and uncertainty mean that effective investment management organisations should match their governance budgets with their risk budgets.⁷¹⁰ Failure to do so can result in volatility against the market and, at worst, catastrophic institutional failure.⁷¹¹ However, institutional governance requires the expenditure of resources in the short-term for stability over the longer-term; as this thesis has argued, for many investors such investment is hard to justify given the normative landscape of their industry.

By this logic, the second barrier and third barrier to long-term investing are to be found in institutional design and governance respectively: design may be flawed and governance may be inadequate such that short-termism becomes the only viable option for those responsible for institutional performance. Inevitably, in these circumstances, the time-horizon of decision-making is foreshortened so as to cope with the dysfunctional organisational structure and the dysfunctional decision-making

⁷⁰⁷ M. J. Roe, *Legal origins, politics, and stock markets*, 120 HARVARD L. REV. 460 (2006).

⁷⁰⁸ Clark & Urwin, *Best Practice Governance*, *supra* note 367; Clark & Urwin, *Making Pension Boards Work*, *supra* note 367.

⁷⁰⁹ *Id.*

⁷¹⁰ *Id.*

⁷¹¹ *Id.*

process; there is no organised means to reward long-term strategy and performance and, by default, strategy and performance are judged by more visible, tangible short-term indicators. However, while this commentary is largely critical of many investment institutions, it is apparent that ‘best practice’ institutions have been developed in ways that have deliberately sought to overcome design flaws and match governance budgets with risk budgets in ways that extend the time-horizon for decision-making.⁷¹² As for many of the rest, the consequences of design and governance inadequacies have been revealed by the global financial crisis.

The fourth barrier to long-term investment is to be found in government policy and in the institutions that directly or indirectly oversee market performance. For many years, governments directly regulated the asset allocation policies of investment institutions by quantitative and qualitative restrictions on their desired asset allocations (see Chapter III). Until the enactment of the *Trustee Investment Act* (1961), pension funds in the UK were required to invest in a short list of government-approved asset classes, generally restricted to consolidated bank annuities, gilts, and mortgages of real property.⁷¹³ This conservative regulatory approach to asset allocation did not disappear completely until the *Trustee Act* (2000) was introduced (see Chapter III). More recently, governments have sought to restrict domiciled investment institutions’ commitments to asset classes such as hedge funds, venture capital, and private equity. The effect of these types of regulations has been to limit the time and geographical horizons of investment. The return to stringent solvency requirements in the aftermath of the global financial crisis has had very similar effects.

⁷¹² Clark & Urwin, *Innovative Models*, *supra* note 414.

⁷¹³ Panico, *supra* note 320.

The loosening of governments' qualitative and quantitative restrictions on asset allocation and the resulting widened investment universe for most large investors reflected a recognition that these types of restrictions were self-defeating in terms of realising, on a global basis, superior long-term risk adjusted rates of return. But they demonstrated, nonetheless, quite a profound divergence in policy perspectives as to whether governments should set the time-horizon of investment or markets (this divergence echoing the larger divergence between bank-led financial intermediation in continental Europe versus market-led intermediation in the Atlantic economies).⁷¹⁴ While many argue that continental European bank-led financial intermediation is often more consistent with long-term investment, it is arguable that this regime has protected entrenched interests while imposing upon those outside of privileged networks the costs of such commitments. In any event, it is also arguable that bank-led financial intermediation combined with strictly enforced solvency requirements on insurance companies, pension funds and other institutional investors actually limited both the time-horizon and geographical scope of investment, reinforcing lower long-term rates of return.

Finally, government policy has encouraged professional accounting associations, ratings agencies, and investment companies to value long-term commitments against the short-term prices of invested assets. This practice has shortened the time-horizon of institutional investors and their clients to that which can be measured in quarterly rates of return. In doing so, a great deal of volatility has been introduced into what were otherwise long-term norms and conventions that distinguished long-term commitments from market risk and uncertainty. So as to

⁷¹⁴ See, e.g., GORDON L. CLARK & DARIUSZ WOJCIK, *THE GEOGRAPHY OF FINANCE: CORPORATE GOVERNANCE IN THE GLOBAL MARKETPLACE* (2007); Anjan v Thakor & Jess Beltz, *A 'Barter' Theory of Bank Regulation and Credit Allocation*, 26 J. MONEY, CREDIT & BANKING 679 (1994).

compensate for the pernicious effects such changes in policy have on the balance sheets of institutional investors, governments have, once again, introduced stricter solvency requirements, thereby prompting investors to switch from the frontiers of financial innovation to the supposedly safe world of government bonds. All in all, Western governments have sought to encourage long-term investing while in fact reinforcing market agents' predilections for managing short-term market positions. Lack of consistency in public policy, combined with episodes of extreme risk aversion, has simply accentuated the rollercoaster ride of public markets.

Having outlined the barriers that exist to achieving long-term investment, the next section turns to a potential instrumental means for facilitating equity between members of different generations: the Planetary Trust.

THE PLANETARY TRUST: A FLAWED INSTRUMENT OF INTERGENERATIONAL EQUITY

Brown Weiss's Planetary Trust concept is significant in that it presents a potential instrumental means for facilitating equity between generations. This section begins by outlining Brown Weiss's Planetary Trust concept, setting it within the context of trust law more generally. It then presents a critique of the Planetary Trust on both a theoretical and practical level, before comparing the Planetary Trust concept to defined benefit pension funds, noting that any practical incarnation of the Planetary Trust is likely to face many of challenges that have all but defeated defined benefit funds.

The Planetary Trust Concept

While a number of theorists have attempted to establish a normative basis for justice between the generations,⁷¹⁵ very few have suggested an instrumental means of governance for achieving justice between generations. An exception is Brown Weiss, whose theory ‘tries to anticipate the norms required to bring about justice between our generation and future generations’ with respect to ‘the natural and cultural patrimony of our planet’.⁷¹⁶ Brown Weiss has suggested an *instrument* that legislators could adopt in order to give effect to the theory of intergenerational equity: the ‘Planetary Trust’. It is

a normative framework which, if adopted and internalized by our political, economic and social institutions, might enable them to serve as vehicles for ensuring that future generations will inherit their just share of our global heritage. Its thesis is that the human species holds the natural and cultural resources of the planet in trust for all generations of the human species.⁷¹⁷

The concept is, therefore, based in trust law. Brown Weiss describes the functionality of the Planetary Trust as follows:

This Planetary Trust obligates each generation to preserve the diversity of the resource base and to pass the planet on in no worse condition than it receives it. Thus, the present generation serves both as a trustee for future generations and as a beneficiary of the trust. In fulfilling our role as Planetary Trustees, we can draw on the law of trusts, a body of distilled teachings concerning intergenerational cooperation and conflict, to help resolve the challenges confronting our global heritage.⁷¹⁸

As such, the Planetary Trust institution conceives the entire planet as a trust fund, which must be managed by trustees in the best interests of beneficiaries. Brown Weiss relies, in particular, upon the law of charitable trusts in order to constitute her legal framework for the Planetary Trust.

⁷¹⁵ See Chapter V and the texts set out in note 14.

⁷¹⁶ BROWN WEISS, IN FAIRNESS TO FUTURE GENERATIONS, *supra* note 37, at 2.

⁷¹⁷ Brown Weiss, *The Planetary Trust*, *supra* note 37, at 498.

⁷¹⁸ *Id.* at 499.

Trust law originated in England as a means for transferring property from one generation of a family to the next, and remains a central feature of common law legal systems today. As noted in Chapter V, the trust institution was born of conscientious necessity: it was created to overcome situations in which existing legal obligations had failed to protect the property of minors from unscrupulous guardians. Thus from its earliest days, the trust had the makings of a bespoke institution of intergenerational justice. The situations in which this propensity can be realised, of course, are limited by contextual legal requirements. Under trust law in common law jurisdictions, a number of different types of trust exist (for example, expressed, constructive and resulting trusts).⁷¹⁹ Here we will confine ourselves to outlining the law relating to charitable trusts, given Brown Weiss's focus. A charitable trust has a number of features. These include the capital of the fund itself, beneficiaries, trustees, an explicit or implicit decision to create the trust, and rules governing the management of the trust.⁷²⁰ It is worth explaining briefly how each of these requirements is addressed in Brown Weiss' theory of the Planetary Trust.

First, at the heart of a trust fund is the trust property. The property of the Planetary Trust 'includes both the natural heritage of the planet and the cultural heritage of the human species'.⁷²¹ Second, trustees manage the trust fund on behalf of the beneficiaries. In charitable trusts, the beneficiaries do not need to be specific individuals. Instead, the trust should benefit society, or at least an appreciable and identifiable part of it.⁷²² The beneficiaries of the Planetary Trust are to be 'all human

⁷¹⁹ See generally, J.E. PENNER, *THE LAW OF TRUSTS* (6th ed. 2008); PHILIP PETTIT, *EQUITY AND THE LAW OF TRUSTS* (11th ed. 2009).

⁷²⁰ See generally *id.* It should also be noted that trust law is fundamentally the same in the common law jurisdictions addressed in this thesis (the UK, the US, and Australia). Distinctions between the different jurisdictions are only mentioned when necessary.

⁷²¹ Brown Weiss, *The Planetary Trust*, *supra* note 37, at 502.

⁷²² See A.J. OAKLEY, *PARKER AND MELLOWS: THE MODERN LAW OF TRUSTS* (8th ed. 2008).

generations, born and unborn.⁷²³ Third, the trust must have trustees who manage the trust property with a high level of care, according to the requirements of fiduciary duty (described in detail in Chapter III). Under the Planetary Trust ‘each generation acts as trustee for beneficiaries in succeeding generations, just as past generations served as trustees for it’.⁷²⁴ Fourth, the purpose of the trust must be clear. The owner of the trust property must manifest an intention that it be held on trust for the beneficiaries. Brown Weiss argues that

[t]he Planetary Trust is an *inter vivos* trust between generations of the human species. Its existence is implicit in the nature of the relationship between generations. It derives from an implied declaration by each generation that it holds the resources of the planet in trust for future generations. This intention is universally reflected in diverse human cultural and religious traditions.⁷²⁵

The Planetary Trust concept has several advantages. First, it sets out clearly the intergenerational problems inherent in natural resource management. Second, it emphasises the role that must be played by the current generation in ensuring future generations have access to a range of natural resources of a decent quality, and not just what is left over after thoughtless exploitation by the current generation. Third, and most importantly, it presents a theoretical framework upon which a functional instrument may be designed and managed. In Robert Merton and Zvi Bodie’s terms, it has a form and function.⁷²⁶ Despite the elegance of the notion of Planetary Trust in a symbolic sense, however, its practical application, when imagined, appears impossible. Upon closer examination, moreover, the theoretical underpinnings of the concept appear to be unworkable.

⁷²³ Brown Weiss, *The Planetary Trust*, *supra* note 37, at 503.

⁷²⁴ *Id.* at 504-5.

⁷²⁵ *Id.* at 504.

⁷²⁶ See Merton & Bodie, *supra* note 413.

Critique of the Planetary Trust Concept

While Brown Weiss's institution provides something of a seductive metaphor, the foundational arguments for implying the Planetary Trust are contestable in both their general sense and in their details. Broadly, Brown Weiss' assumption that all humans intend to hold the planet on trust for all future generations is, of course, utopian. Her suggestion that this intention is universal and manifest in 'diverse human cultural and religious traditions' is, similarly, morally and practically contentious. It relies upon a belief that the regard one generation has for its children is *natural* in the sense that it is ahistorical and not contingent on culture and society and is repeated one generation to the next by reference to some undefined thread binding humanity. It also assumes the longevity and continuity in the institutional form and function of the trust institution itself. It ignores the fact that behavioural science has shown individuals to be motivated by the local – both in time and space⁷²⁷ – and fails to question whether conflict within and between societies threatens what uniform moral standards might exist.

The details of Brown Weiss's institution are, if anything, more problematic than its broad strokes. From a practical perspective, trust law does not exist in most countries outside the common law tradition. Even assuming that countries could overcome this impediment and accept the Planetary Trust institution, there are clear limitations on the extent to which the trust, as an institution, can facilitate intergenerational justice in a coordinated institutional manner, across political, economic, legal and geographic borders. Most importantly, in order for a trust to exist, an individual or group of individuals must want to act as settlors, that is, they must want to create a trust. In the context of the Planetary Trust, the significance of

⁷²⁷ See Clark & Knight, *supra* note 12.

the will or intention of would-be settlors cannot be underestimated. A trust cannot be imposed upon a potential settlor. Secondly, under the common law, future property (for example expected future inheritance) cannot be owned or held on trust.⁷²⁸ Thus, trust property must be limited to existing property. It is unlikely that the planet, as an evolving system; a moveable feast, could be so narrowly defined. Finally, idea that a trust as complex as the Planetary Trust Brown Weiss describes could be implied from ‘diverse human cultural and religious traditions’ is so far-fetched that it might be better described as a hopeful rumination than constitutive of an institution.

Indeed, it is unclear whether Brown Weiss intended this concept to be taken as anything more than a moral or ethical construct, but she did acknowledge the *potential* for a more formal institution:

[w]hile no affirmative action need be taken to create the Planetary Trust as a moral obligation, to have legal force it must be effectuated by positive law. Thus, the members of each generation must confer legal status on the trust by enacting and enforcing positive laws affirming their obligation to future generations.⁷²⁹

Beyond the impracticability of the Planetary Trust concept lies a more serious flaw in the theoretical fabric of the Planetary Trust concept: the notion of the Planetary Trust sidesteps the (real) risk of intergenerational conflict between current and future beneficiaries of the trust.

The maintenance of environmental resources for future generations may require the restriction of the current generation’s access to these resources. In such situations, Planetary Trustees would be forced to choose between the interests of their own generation (often vociferously present) and future generations (largely

⁷²⁸ See Pettit, *supra* note 719, at 118. In a situation where property that had been hoped for and previously promised to a trustee materializes, there may be some instances in which this promise is enforceable (see *Re Northcliffe* [1925] Ch 651).

⁷²⁹ Brown Weiss, *The Planetary Trust*, *supra* note 37, at 504.

unrepresented). While Brown Weiss notes that the ‘dual role of trustee and beneficiary creates conflicts’,⁷³⁰ she does not offer a way of transcending this conflict other than evoking (once again) the natural relationship and commitment between one generation and its children. Even if plausible, in some quarters, it is not adequate as a means of joining generations many years removed, or those who are geographically and culturally distant. Obviously lacking in the Planetary Trust is a means by which people are able to give voice to their interests – assuming they have interests other than the shared welfare of their children.

Comparison with defined benefit pension schemes

The Planetary Trust institution bears a striking resemblance to funded pension schemes and especially defined benefit pension funds, which have, in recent years, revealed themselves to be largely unsustainable from a financial perspective.⁷³¹ These schemes are trust funds set up by companies, organisations, or industries to provide an income to employees and their survivors after they retire.⁷³² In defined benefit funds, employers agree to set aside a certain portion of employees’ current wages and pay them a certain income upon their retirement.⁷³³ As a result, employers bear the risks of the invested trust fund; if it underperforms against estimated liabilities, the employer has to reach into its own pocket in order to make up the deficit.⁷³⁴ In many plans, younger, middle-aged, and older generations of workers co-exist together, paying in their contributions with the employer or sponsor as those retired draw their

⁷³⁰ *Id.* at 508.

⁷³¹ Gordon L. Clark & Ashby H.B. Monk, *The Crisis in Defined Benefit Corporate Pension Liabilities. Part 1: Scope of the problem* 12(1) PENSIONS: AN INT’L J. 43 (2007); Gordon L. Clark & Ashby H.B. Monk, *The Crisis in Defined Benefit Corporate Pension Liabilities. Part 2: Current solutions and future prospects* 12(2) PENSIONS: AN INT’L J. 68 (2007).

⁷³² See OAKLEY, *supra* note 722.

⁷³³ *Id.*

⁷³⁴ *Id.*

entitled benefits. It functions well as long as no generation exploits the others, and the background sponsor remains solvent with respect to assumed liabilities and current contributions and obligations. As such, it can be a self-perpetuating trust joining the interests of different generations in their long-term welfare.

Like the Planetary Trust concept, pension funds in common law legal systems are based on trust law. They have fund capital (that is, a pool of capital produced by the company or organisation creating the pension scheme), beneficiaries (employees of the company or organisation), trustees, trust purposes, and evidence of the intention of the trust when created. These elements differ in fact from those Brown Weiss described with respect to the Planetary Trust, but from a conceptual point of view they are closely aligned. For instance, while the current beneficiaries of a defined benefit pension fund are ascertainable, being past or present employees of the company or organisation, the institution functions on the assumption that it will continue to accept new members not yet determined at the time the trust is created. Whereas all people are trustees of the Planetary Trust, the trustees of pension plans are representatives of those participating in the fund. Pension plans are bound by a trust deed; the Planetary Trust is presumably bound by a social contract which may have as much force if implicit as it would have if explicit.

In addition to these structural similarities, defined benefit funds face a similar challenge to the Planetary Trust concept with respect to the management of conflicting intergenerational interests within the fund. It is arguable that the defined benefit pension fund institution has failed in the UK and the US in part because younger generations of workers have not valued the institution as highly as older generations of workers. Where salary-sacrifices have been asked of younger participants, they have opted, more often than not, for alternative forms of retirement

saving that favour the short-term over the long-term. By contrast, older workers facing the same claim for resources have opted to make the sacrifices necessary to realise their long-term interests. Thus in general, older participants value the future far more than younger participants. Here, the trust institution contains competing interests which are nominally bound together by a shared commitment to the future. More subtly but perhaps more insidiously, short-term biases in trustees and asset managers lead them to focus on the short-term performance of a fund (either defined benefit pension fund or Planetary Trust).⁷³⁵ In practice, this strengthens the position of the generation of beneficiaries that benefits more immediately from the trust fund compared to those set to benefit in the future.⁷³⁶

Here, there are two options for trust funds with implications for the Planetary Trust. In the absence of common agreement over current sacrifices, the trust institution, through its trustees, may have to override some interests in favour of the notional ‘common good’. If this does not work the state which underwrites the formal status and legitimacy of the trust (in the sense that it facilitates the justice system as a whole) may intervene to enforce the common good, whatever it is determined to be. By this assessment, the Achilles heel of the Planetary Trust, like defined benefit pension funds, is its vulnerability to government intervention. If we rely on external sources to overcome the tensions within the trust fund, then the purposes of the trust, vested in the responsibilities of its trustees, are less sacrosanct. Granting the possibility that the enforcement of the Planetary Trust would require a government to intervene on behalf of future citizens, would the Planetary Trust be effective as a long-term investor on our behalf? The experience of the Murray Darling Basin

⁷³⁵ See generally Chapter III.

⁷³⁶ Johnson & De Graaf, *supra* note 171.

suggests that the government would much more reliably intervene on behalf of current generations: its constituency.

TESTING THE PLANETARY TRUST: 'TRUSTEES' OF AUSTRALIA'S WATER

Australia is an arid continent. The Murray Darling River Basin, which spans parts of the Australian Capital Territory, New South Wales, Queensland, South Australia and Victoria, is Australia's most significant river system. The Basin hosts 39% of Australia's total agricultural production and contains about 65% of Australia's irrigated land.⁷³⁷ Highly ecologically degraded through years of inadequate management, though central to generations of Australian agriculture, the Basin is a prime location for a study into intergenerational equity within the context of intergenerational natural resource management.

Water was first diverted from the River Murray in the 1880s, and it soon became clear that the quantity of water available for use would become problematic.⁷³⁸ In response to growing concerns about the quantity and quality of water in the Basin, Australia's Commonwealth and relevant state governments (New South Wales, Victoria and South Australia in 1987, followed by Queensland in 1996 and the Australian Capital Territory in 1998) negotiated a basin-wide agreement for its management.⁷³⁹ The new agreement failed to prevent a decline in the health of the Murray Darling Basin, however, and various iterations were agreed culminating in 2007 with the *Water Act* (2007) (Cth) ('the *Water Act*'). Despite having for a purpose

⁷³⁷ MURRAY DARLING BASIN AUTHORITY, GUIDE TO THE PROPOSED BASIN PLAN (2010).

⁷³⁸ W. Musgrave, *Historical Development of Water Resources in Australia*, in WATER POLICY IN AUSTRALIA 28 (L. Crase ed., 2008).

⁷³⁹ This Agreement, known as the Murray-Darling Basin Agreement since 1992, is annexed to the Water Act (Schedule 1).

to ‘promote and co-ordinate effective planning and management for the equitable, efficient and sustainable use of the water and other natural resources of the Murray-Darling Basin’,⁷⁴⁰ between 1988 and 1994, Basin governments allowed water diversions to increase significantly.⁷⁴¹ Today, twenty of the 23 major river valleys in the Basin are in poor to very poor ecological condition.⁷⁴²

As a contextual note, it should be underlined that the *Water Act* differs significantly from the *Murray Darling Basin Agreement* which preceded it in that the latter was an agreement between Basin states; the former a Commonwealth Act of parliament. Under the Australian Constitution, the power to legislate with respect to water was left to states at the time of Federation (it is not enumerated as a Commonwealth power).⁷⁴³ Therefore, in order for the *Water Act* to be constitutionally acceptable, it had to fall within the ambit of an existing commonwealth power. By requiring the *Basin Plan* to give effect to relevant international agreements,⁷⁴⁴ the *Water Act* could be seen as falling with the Commonwealth’s power to make law with respect to external affairs.⁷⁴⁵ Thus the fulfilment of requirements of the relevant international conventions (the Convention on Biological Diversity and the RAMSAR Convention) is essential to the *Water Act* in the sense that it justifies the existence of the Act as a Commonwealth law. This becomes relevant to arguments over the interpretation of the *Water Act* discussed below.

⁷⁴⁰ *Murray Darling Basin Agreement*, s. 1.

⁷⁴¹ MURRAY DARLING BASIN AUTHORITY, *supra* note 737.

⁷⁴² *Id.*

⁷⁴³ The only powers that the Australian Constitution gives to the Australian federal government are those that are enumerated within the document. Any power not explicitly given to the federal government belongs to the state governments.

⁷⁴⁴ *See Water Act*, s. 21.

⁷⁴⁵ *See* CONSTITUTION OF AUSTRALIA, s. 51(xxix).

The Murray Darling Basin Authority: Analogous to the Planetary Trust?

The *Water Act* establishes the Murray Darling Basin Authority (the Authority), an independent authority charged with giving effect to various the requirements of the Act. The Authority's role under the *Water Act* endows it with responsibilities with respect to the current usage and long-term planning of the Basin. Most essentially, the *Water Act* requires the Authority to produce a *Basin Plan* for the Murray Darling Basin⁷⁴⁶ in line with the Act's Objects.⁷⁴⁷ The Objects most relevant to this study are stated as follows:

- s. 3(a) to enable the Commonwealth, in conjunction with the Basin States, to manage the Basin water resources in the national interest; and
- (b) to give effect to relevant international agreements (to the extent to which those agreements are relevant to the use and management of the Basin water resources) and, in particular, to provide for special measures, in accordance with those agreements, to address the threats to the Basin water resources; and (c) to promote the use and management of the Basin water resources in a way that optimises economic, social and environmental outcomes

and

- s. 3(d) ...
 - (i) to ensure the return to environmentally sustainable levels of extraction for water resources that are overallocated or overused; and
 - (ii) to protect, restore and provide for the ecological values and ecosystem services of the Murray-Darling Basin ...; and
 - (iii) subject to subparagraphs (i) and (ii) – to maximise the net economic returns to the Australian community from the use and management of the Basin water resources...

⁷⁴⁶ *Water Act*, s. 41.

⁷⁴⁷ Listed in *Water Act*, s. 3.

In other words, the *Water Act* requires the Authority to determine the maximum amount of water available for use in irrigation (long-term average sustainable diversion limits) for the purpose of facilitating the long-term sustainability of the Basin⁷⁴⁸ while promoting the use and management of the Basin water resources in a way that optimises economic, social and environmental outcomes,⁷⁴⁹ which suggests the promotion of both current and future outcomes.⁷⁵⁰

As such, the Authority has been given an intergenerational responsibility much like that of trustees for the Planetary Trust. The analogy is not perfect: structurally, the Authority is not a trust fund, it is an independent statutory authority. Moreover, as large as its task is, the Authority is far from planetary in scale – importantly, it is subject to only the Australian legal system and does not face the same sort of legal challenges that the Planetary Trust would be likely to face. Nonetheless, there are features of the Authority that make it fundamentally comparable to the notion of Planetary Trust. First, the Authority is required to structure the management (in the manner prescribed by the *Water Act*) of the Basin’s water assets on behalf of current and future water users. Second, the Authority is intended to be independent from political influence when making its decisions. Finally, the Authority resembles the Planetary Trust in that it manages a *natural resource* for current and future users. In these ways, the Authority is analogous (if imperfectly so, and on a smaller scale) to a practical incarnation of the Planetary Trust.

⁷⁴⁸ *Water Act*, s. 3(d)(i); see also s. 22(1).

⁷⁴⁹ *Water Act*, s. 3(c).

⁷⁵⁰ The reader will note that the Objects set out in s. 3(c) and s. 3(d)(i) could be interpreted as somewhat contradictory. The former seems to advocate an optimisation in balanced proportions for the economic, social and environmental outcomes for the Basin; the latter appears to promote ecological health of the basin as the primary object – this will be explored further below.

And, as with the Planetary Trust, a conflict between current and future generational interest emerges immediately. In simplified terms, any reduction in current diversion limits represents an economic loss to the current generation of water users, and a gain to the future water users due to the enhanced long-term ecological health of the Basin. This trade-off is of course complicated by the fact that future generations may also be negatively affected by reduced economic productivity today, where restricted irrigation reduces relevant economic activity; alternatively, if farming in the basin is in fact an inefficient use of water resources, a reduction in current diversion limits may reinforce economic productivity.

On 8 October 2010, the Authority released its *Guide to the Plan*,⁷⁵¹ in reality a proposed *Basin Plan*. Unsurprisingly given the ecological state of the Basin, the Authority recommended a significant reduction in water available for irrigation and other uses. The Authority considered a reduction in diversion of water from the Basin by between 3000GL and 7600GL in order to meet the minimum ecological requirements for the Basin.⁷⁵² However, after reviewing the likely social and economic impacts of a reduction toward the upper limit of this range (7600GL), the Authority decided to recommend sustainable diversion limits of between 3000GL and 4000GL, an average reduction of diversion limits by 22 to 29 per cent across the Murray Darling Basin, and up to 45 per cent in some regions.⁷⁵³ It is worth noting here that the Australian government had by this stage already committed to recovering 2000GL of this by 2014 through water buybacks or investment in efficient irrigation under the ‘Water for the Future’ program, and had stated an intention to

⁷⁵¹ MURRAY DARLING BASIN AUTHORITY, *supra* note 737.

⁷⁵² *Id.* at 81.

⁷⁵³ *Id.* at 82.

bridge the remaining gap through further water buybacks from irrigators.⁷⁵⁴ It is unclear why the Authority did not emphasise this fact when setting out its recommended diversion limits in the *Guide*; in effect, the government's proposed contribution under the Water for the Future program was likely to be enough to reduce actual water usage reductions to between 1000GL and 2000GL from current usage volumes.

Triple Bottom Fantasy – Political reaction to the Guide

The release of the *Guide* on 8 October 2010 was met with strong opposition from some quarters, particularly from irrigators. In essence, those reliant on irrigation and associated benefits within the Basin argued that the *Guide*'s recommended diversion limits would place an untenable strain on their productivity. Many complained that the ecological requirements set out in the *Guide* would occur to the detriment of the social and economic wellbeing of communities living within the Basin.⁷⁵⁵ The reaction to the *Guide* is unsurprising – moving toward an ecologically sustainable amount of water diversion from the Basin system, given its poor health, was always going to require a significant reduction in the water available for irrigation and other uses. However, the negative reaction was amplified through several organised public relations strategies. For example, local councils within the Basin hired a public relations firm, Socom, to project community opposition to the *Guide*'s sustainable

⁷⁵⁴ *Id.* at xxix, 152.

⁷⁵⁵ B. Herbert, *Murray-darling cuts 'could spark riots'*, ABC NEWS ONLINE, 8 October 2010, <http://www.abc.net.au/news/stories/2010/10/08/3032717.htm>.

diversion limits.⁷⁵⁶ According to one journalist, Socom provided the Councils with a number of *pro forma* media releases, one of which stated:

It was clear to us from reading the *Guide to the Murray-Darling Basin Plan* that the Murray-Darling Basin Authority had not considered the drastic effects its cuts to the water allocations would have on our communities; judging from the large groups that have been attending the Authority's consultations, we weren't the only ones who felt this way (Crook, 2010).

In addition, Socom arranged a number of community meetings to discuss the *Guide*. The discussions held in these meetings were recorded to form part of a submission to a separate Parliamentary inquiry, led by Tony Windsor MP, into the economic and social impacts held into the Basin.⁷⁵⁷ Similarly, an Australian journalist reported that the NSW Irrigators' Council hosted a summit attended by the National Council of Irrigators, the National Farmers Federation and representatives of the major banks aimed creating a campaign to 'reframe' the debate around the *Basin Guide*, reportedly with the advice of an external public relations expert.⁷⁵⁸ According to Keane, a number of ways to reframe the debate were suggested: the campaign could attack the science behind the *Guide*,⁷⁵⁹ the campaign could warn of rising food prices, or it could do case studies of individual families affected by the Authority's recommendations. By contrast, the Authority had not sought outside assistance in public relations.⁷⁶⁰

⁷⁵⁶ A. Crook, *Murray-Darling authority losing the spin war with councils' PR flacks*, CRIKEY, 9 November 2010, <http://www.crikey.com.au/2010/11/09/murray-darling-authority-losing-the-spin-war-with-councils-pr-flacks/>.

⁷⁵⁷ *Id.*

⁷⁵⁸ Bernard Keane, *MDB stakeholders call for RSPT-style campaign against government*, CRIKEY, 27 October 2010, <http://www.crikey.com.au/2010/10/27/mdb-stakeholders-call-for-rspt-style-campaign-against-government/>.

⁷⁵⁹ This approach was recommended by the Australian Environment Foundation, a group sceptical of mainstream climate science which frequently questions the legitimacy of the science behind climate change. An Australian Securities and Investment Commission search on this Foundation reveals that its registered address is that of the right wing think tank, Institute of Public Affairs.

⁷⁶⁰ Crook, *supra* note 756.

The *Water Act* requires the Authority to consult with relevant stakeholders.⁷⁶¹ In the consultations that followed the release of the *Guide*, a central theme of dispute was reportedly the fact that the Authority had found an absolute minimum range (3000 to 7600 GL) for sustainable diversion limits based on ecological requirements first, and then used this as a baseline from which to take account of economic and social considerations within this range. Many critics argued, in essence, that economic and social considerations should be able to compete with ecological ones when determining sustainable diversion limits.

In the wake of the Basin communities' outcry over the *Guide*, the Government began to distance itself from the Authority's position. The Australian water Minister, Tony Burke MP, did not join in the community consultations until two weeks after the release of the *Guide*, when he attended a consultation in the town of Griffin. At that meeting, he is reported as saying 'the *Guide* is not government policy, it is not my document, I have deliberately made sure I did not launch it'.⁷⁶² It is true that the Authority is an independent body, and under the *Water Act* is charged with making its decisions with respect to sustainable diversion limits free from government influence. The Minister is free to then adopt or reject the Authority's *Basin Plan*.⁷⁶³ However, soon after appearing at the Griffin community meeting, the Minister Mr Burke interfered, quite deliberately, in the consultation process: he sought and received legal advice from the Australian Government Solicitor on whether the Authority's interpretation of the *Water Act* was correct. In a media release explaining the outcome of his legal advice request, Mr Burke described the advice as allowing a 'triple bottom line' approach to the determination of sustainable diversion limits, stating that '[i]t is

⁷⁶¹ *Water Act*, ss. 42, 43.

⁷⁶² Lauren Wilson, *Minister Distances Himself from Murray-Darling Basin Report*, THE AUSTRALIAN, 23 October 2010.

⁷⁶³ *Water Act* (2007) (Cth), s. 44.

clear from this advice that environmental, economic and social considerations are central to the *Water Act* and that the *Basin Plan* can appropriately take these into account'.⁷⁶⁴ In this way, Mr Burke hoped to be able to avoid the stringent ecological requirements of the *Water Act* without having to amend the Act: 'I trust that the issuing of this advice provides a level of confidence to members of Parliament that it is possible to provide sensible and lasting reform of the Murray Darling Basin within the current structure of the *Water Act*'.⁷⁶⁵

Let us be clear: the *Water Act* is a confusing document, in some ways open to varying interpretations. Nonetheless, Mr Burke's interpretation of the Australian Government Solicitor's legal advice was controversial, not least because the Authority had been working closely with Australian Government Solicitor's office throughout the development of the *Guide*, apparently with a very different understanding of the priorities of the Act.⁷⁶⁶ While Mr Burke argued that 'the *Basin Plan* can appropriately take [environmental, economic and social considerations into account]', this does not mean that these three factors are to be given equal weight. Indeed, the emphasis of the Act on giving effect to international agreements should be seen as suggesting the primacy of ecological considerations: the international agreements to which the Act refers⁷⁶⁷ are centred on environmental concerns. In short, Mr Burke's suggestion the *Water Act* calls for a triple bottom line approach to the

⁷⁶⁴ Media Release from the Hon. Tony Burke, MP, *Ministerial Statement: Murray Darling Basin Reform - Interpretation of the Water Act 2007*, 25 October 2010.

⁷⁶⁵ *Id.*

⁷⁶⁶ Interview between Bronwyn Herbert and Mike Taylor (Chairman of the MURRAY DARLING BASIN Authority) on 26 October 2010, *AM* (Australian Broadcasting Corporation).

⁷⁶⁷ For example, the Convention on Biological Diversity and the Ramsar Convention.

Basin is rather wishful; support for his proposed approach is certainly not plain from the advice he received.⁷⁶⁸

Following Mr Burke's announcement that the *Water Act* required, according to his advice, a different approach, the Chairman of the Authority sought his own advice, once again from the Australian Government Solicitor, on the question of the *Basin Plan's* priorities. On 7 December 2010, the Authority sent out a press release stating that 'the Authority has sought, and obtained, further confirmation that it cannot compromise the minimum level of water required to restore the system's environment on social or economic grounds.'⁷⁶⁹ The Chairman of the Authority, Mr Mike Taylor, then announced his resignation from the Authority. The Water Minister, Mr Burke, has refused to release the legal advice obtained by the Authority on the grounds that the advice was sought in the 'ordinary course of government business.'⁷⁷⁰ Since then, the Government has appointed a new Chairman, Mr Craig Knowles. Mr Knowles has stated that he rejects Mr Taylor's interpretation of the Act (and presumably all of the Australian Government Solicitor advice that supported that interpretation).⁷⁷¹ What the future holds for the *Basin Plan* is now uncertain.

All of the foregoing commentary on the political context of the Authority's Plan is intended to demonstrate a practical (imperfect) incarnation of the Planetary Trust. One can see in the events surrounding the Authority's release of the *Basin Guide* the sort of fault lines that might appear in the Planetary Trust, were it to be put

⁷⁶⁸ See Australian Government Solicitor, *The Role of Social and Economic Factors in the Basin Plan*, 25 October 2010; see also, George Williams, *When Water Pours into Legal Minefields*, SYDNEY MORNING HERALD, 26 October 2010.

⁷⁶⁹ Murray Darling Basin Authority, *Press Release: Plan for the Murray-Darling Basin – Role of Authority Chair* (7 December 2010).

⁷⁷⁰ C. Bettles, *MDBA will keep legal advice hidden*, FARM WEEKLY, 16 December 2010.

⁷⁷¹ Transcript of Press Conference, The Hon. Tony Burke, MP, *New Murray Darling Basin Authority Chair*, 28 January 2011, [http://www.tonyburke.com.au/getattachment/media-centre-\(1\)/transcripts/mdba-chair.pdf/](http://www.tonyburke.com.au/getattachment/media-centre-(1)/transcripts/mdba-chair.pdf/).

into practice: any trust-like entity which is charged with promoting the interests of both present and future generations will at some point be unable to fulfil its duties. The Authority's adherence to the *Water Act's* requirement that it make safe the long-term interests of the Basin (by setting long-term average sustainable diversion limits) before meeting the social and economic needs of the present generation of Basin users aligns closely with the purported purposes of the Planetary Trust. However, as the foregoing indicates, the Authority could not withstand the political clout of present interests in the (natural) absence of vocal advocates for future interests.

The complaints about the Authority's recommendations came in a number of guises. At first they were couched in terms of 'food security'. For example, Independent senator Barnaby Joyce stated (erroneously) that Australia's food security would be at risk if diversion limits in the Basin were increased to the recommended levels. In fact, the majority (60 per cent) of Australia's food is exported.⁷⁷² Next came complaints about the failure of the Authority to argue for infrastructure-based solutions to water shortages. In fact, the Authority is limited under the *Water Act* in respect of factors it can take into account in making its determination; efficiency through infrastructure is not one of its areas of inquiry; this is receiving some attention under the Governments Water for the Future program. Finally, irrigators and, indeed, the water Minister himself, argued that the Authority should take a 'triple bottom line' approach in creating the *Basin Plan*. In an interview with Australian Broadcasting Corporation, Mr Burke refused to acknowledge that a policy that achieving the *Water Act's* requirements might require accepting some level of sacrifice, whether it be environmental, social or economic:

⁷⁷² I. Roberts, *et al.*, *Factors Affecting Australian Agricultural Exports*, Report 09.5, Australian Bureau of Agricultural and Resource Economics 2 (2009).

Samantha Hawley (ABC): ... In [Mike Taylor's] letter to you he ... says he cannot compromise the minimum level of water needed to restore the river system's environment. Are you willing to compromise that level?

Tony Burke: Oh no in optimising all three [economy, society and environment], you don't wreck any of the three. We do need to have healthy river systems, we do need to have strong communities and we need to have food production. I don't view this as an old-style environment versus production debate...

Mr Burke's position here is relatively easy to defend: no one *wants* to argue against any of the economic, social and environmental considerations that 'triple bottom line' implies. However, in practice, in no situation can these three factors be given equal weight. The triple bottom line approach, in the context of the Basin, is little more than tactic designed to delay reductions of benefits to current users of the Basin's water resources. Realistically speaking, a triple bottom line approach would give no indication of the priorities, and therefore purpose, of the Authority's role.⁷⁷³

However, whatever the form of the criticisms levelled at the Authority's *Guide*, their underlying motivation is a refusal to accept the curtailment of access to water assets in the short-term for the long-term benefit of the Basin. In practice, in a trust-like situation, where an independent, disinterested group manages assets on the behalf of current and future generations, immediate interests will always trump the long-term wherever a trust is not protected from outside interference. In the case of the Basin, the independent statutory status of the Authority was not enough to allow it to make decisions free from government interference. This is symbolic of the reality that would defeat the Planetary Trust.

⁷⁷³ See Dobson, *supra* note 495 (Dobson argues that contemporaneous maximisation of growth and environmental quality, if possible at all, can never be sustainable over the long-term.)

IMPLICATIONS

This Chapter has been thorough in critiquing the Planetary Trust concept, both in theory and, using the analogy of the Murray Darling Basin Authority, in practice. It is only fair, therefore, to consider whether changes could be made to the Planetary Trust concept, and its practical incarnations, in order to improve their functionality as long-term investors in natural resources. In other words, this section examines two ways in which governance structures within institutions could enhance the prospects of intergenerational equity. It considers first whether a decision-making entity such as the Authority can ever be independent from political pressure within a democracy. It then examines how time inconsistency could have been avoided in the context of the *Water Act*, arguing that a reduction of regulatory objectives would have allowed for a surer focus on the ecological future of the Basin. Finally, it compares two different institutional structures for the management of natural resources, concluding that a trust-like institution, despite its imperfections, is better than a consensus-based institution in the context of the Basin. Necessarily, the suggestions made here are far from comprehensive. Nonetheless, they provide a starting point for viewing intergenerational equity as an issue of long-term investment.

Independent thinkers

In the search for robust institutions fit for long-term decision-making, democratic governments have often recognised the value of politically independent bodies. These institutions' missions are best served by the practice of keeping at arm's length of short-term political battles. The judiciary, at least in those jurisdictions that appoint

judges and give them tenure, provides a clear example of a decision-making body that is largely free from political influence. In most governments, the legal foundations of the judiciary are constitutionally protected. While constitutions may be amended, this process is of course much more difficult than the amendment of ordinary laws. For Planetary Trust-like entities, such constitutional protection does not apply. Governments undergo a recursive struggle in determining not only how best to design these institutions, but also whether and when to intervene in the institution of their creation, foregoing the independence for which it was formed. The iterative process involves the isolation of an institution from political pressure for a time, followed by the eventual intervention of governments in response to the very democratic demands that the independent authority was designed to avoid.

The *Water Act* ensures that the body managing the Basin is an independent statutory authority, recognising that its function requires long-term decision-making of a sort suited to insulation from immediate political demands. Despite this tacit acknowledgement of the value of independent authorities in long-term decision-making with respect to the Basin, however, the democratic imperative remains ever-present. Should the decisions of the Authority prove too politically unpopular, the *Water Act* may be amended or appealed. Or as Water Minister Tony Burke's actions reveal, it may simply be reinterpreted (though of course any interpretation of the Act could be challenged in a court). The temptation for governments to intervene lies, of course, in the vocal opposition of their constituents to the long-term focused decisions of an independent authority.

The fact is that while the Planetary Trust concept is designed to be independent of political interference, its large scale and legal foundation makes that impossible. Despite its nomenclature, the Planetary Trust differs foundationally from a private

trust in two main ways. First, whereas the views of a settlor in a private trust can be contained whole and uncompromised within trust deed, Planetary Trust seeks to apply itself across humanity as a whole; in doing so it assumes that all members of a generation have a similar view of how natural resources should be managed. This in itself invites democratic scrutiny. Second, from a foundational perspective, the Planetary Trust does not have the same legal inviolability of that ancient institution. While the private trust has an ancient history of protecting trust property from those who would use it selfishly and in line with the letter of the law, the Planetary Trust has no such normative pedigree. The Planetary Trust concept relies, Brown Weiss argues, on legislative enactment by successive legislatures.⁷⁷⁴ Similarly, the Authority relies for its existence on the *Water Act*, a piece of legislation that may be altered according to democratic will.

Avoiding Time Inconsistency in Regulatory Design

One of the great temptations for legislators, when considering environmental problems, is to include too many, and potentially contradictory, objectives in a single instrument. This is clearly visible in the *Water Act*, and is central to the debate over whether the Act requires ecological considerations to be the primary concern of the Authority, or whether the Act allows environmental, social and economic factors to be considered equally and contemporaneously. This failure in the drafting of the Act has allowed the exploitation of the central theoretical weakness of the Planetary Trust: it has cast doubt about the weight the Authority should place on protecting the Basin's *future* health, leaving the Authority vulnerable to the demands of present Basin users (couched in terms of the triple bottom line).

⁷⁷⁴ Brown Weiss, *The Planetary Trust*, *supra* note 37.

In other words, the *Water Act* presents a time inconsistency problem.⁷⁷⁵ The Act has two conflicting objectives: protecting the future ecological health of the Basin (and in so doing, complying with relevant international treaties), and managing the Basin's water assets for current users. According to Helm *et al.*, there are a number of ways to solve a time inconsistency problem in environmental policy.⁷⁷⁶ The first is to reduce the number of the policy objectives, focusing instead on the main environmental objective.⁷⁷⁷ This would reduce the incidence of conflict between objectives. The second is to increase the number of policy instruments used to achieve the objectives.⁷⁷⁸ Further possibilities include delegating the policy objectives to an international body (option three) or to a national body (option four).⁷⁷⁹ The first option seems most appropriate here. Ideally, in order to give effect to its objective of protection of the future of the Basin, the *Water Act* would focus upon the setting of ecological diversion limits, with economic and social considerations subject to these limits. This is, of course, what the Authority tried to do in setting ecologically anchored long-term diversion limits, and what has provoked such negative response from current Basin users. Perhaps it would have had more success had the Act clearly set out the hierarchy of its objectives. It may be that the Authority's interpretation of the Act would be accepted were it to undergo legal challenge; this remains to be seen.

Choosing the Right Institutional Structure for Intergenerational Equity

A further question to be considered is whether the trust or a trust-like structure is in fact best-suited to promoting intergenerational equity. In this author's view, a trust-

⁷⁷⁵ Dieter Helm, *et al.*, *Credibly Carbon Policy*, 19 OXFORD REV. ECON. POLICY 438 (2003).

⁷⁷⁶ *Id.* at 444-5.

⁷⁷⁷ *Id.* at 444.

⁷⁷⁸ *Id.*

⁷⁷⁹ *Id.* at 444-5.

like structure, despite all its imperfections, is indeed more suited to the long-term management of natural resources than other institutions. The Basin once again provides evidence of why this is the case. In the period since the 1980s, the governance of the Basin can be divided into two stages. In the first stage, prior to the enactment of the Water Act, decisions about water allocations in the Basin were made by the Murray Darling Basin Commission ('the Commission'). It was made up of representatives of the six relevant states and territory governments, and its decisions on water allocations were made by consensus. There was a certain amount of competition between the various government representatives over water allocation. In the second period, the trust-like Authority, which has been discussed at length above, managed the Basin.

Should these two governance structures be expected to have different effects on the long-term environmental health the Basin? At first glance, it appears that the Commission structure should be shorter-term focused, because the members of the group are competing with each other over the resource allocation; individually each member has an incentive to maximise the allocation of water to itself, and little incentive to save water (in the communal Basin). This would hold true if there had been only a single negotiation, as each Commissioner would wish to maximise her state's allocation of water now and in the future. However, given the fact that the group would have many sets of negotiations over time, game theory's repeated prisoner's dilemma would suggest that cooperation with respect to future water allocation (or savings thereof) between Commissioners, would be one possible outcome.⁷⁸⁰ In situations involving ongoing negotiations, cooperation is one possible outcome because anyone who is greedy can be threatened with punishment or

⁷⁸⁰ ROBERT AXELROD, THE EVOLUTION OF COOPERATION (1984).

retaliation in future periods. This is the case provided Commissioners care ‘sufficiently’ much about water allocation in the future; they need not care as much about future water allocations as they do about present water allocation.

It is, of course, debatable to what extent the prisoner’s dilemma would have been applicable to the Commission context in practice. An additional consideration is the idea that in theory, the more Commissioners care about the future, the more likely they are to cooperate in the present. This is because the threat of future punishment is more onerous the more a person cares about the future. So while Commissioners are not necessarily likely to squander current resources, there is no structured safeguard to encourage them to consider the future. Instead, we must rely on their having a *prima facie* interest in the future.

By contrast, the governance structure provided by the Authority is more systematic in its protection of the future environmental health of the Basin. This is for two main reasons. First, the members of the Authority are appointed by the Commonwealth government, and in that sense are not (on the face of it) competing to the same extent that Commissioners might have competed for water allocations. Second, the Authority is expected to make its decisions independently of political influence, in contrast to the Commission, for whom political interests were central to negotiation. The fact the Government has thus far rejected the Authority’s findings on the ecological requirements of the Basin is a testament to the independence with which the Authority compiled its *Guide*.

CONCLUSION

It is difficult to conceive of, much less realise, equity between generations. This Chapter has nonetheless suggested that our most effective means for realising

intergenerational equity may be to think of the management of the natural environment as a type of long-term investment. To make this claim is not to deny the difficulty involved in successfully investing for the long-term. Indeed, while a long-term investing based approach to the management of natural resources may provide a helpful conceptual framework for the problem, in practice it is more likely to be the least unworkable solution than a clear one.

In arriving at this conclusion, the Chapter has looked closely at Brown Weiss' Planetary Trust concept. It is a seductive metaphor, but its fundamentals are deeply flawed. Aside from its practical impossibility, the concept is rendered largely powerless by its failure to perceive the perniciousness of its in-built generational conflict. Requiring one generation to manage equitably natural resources *both* for itself *and* for future generations is to have a blind and erroneous optimism in the universality of one generation's concern for the next. Moreover, when the Planetary Trust concept is applied to an analogous real situation (that of the management of the Murray Darling Basin), two related fault lines are exposed in the Planetary Trust, the first intrinsic and the second contextual. First, the contemporaneous and conflicting interests of current and future beneficiaries of the Basin's water quickly appear. The Authority had been charged with releasing a Plan for the Basin that would allow for both usage of the Basin water today and the ecological health of the Basin system in the future. In the wake of the Authority's decision to increase the limits on current diversions of water, current users of the Basin's water (chiefly irrigators and communities reliant on irrigation) protested the extent to which their water use would be curtailed in favour of the long-term ecological sustainability of the Basin.

Second, the Planetary Trust is deeply vulnerable to intervention by the government on behalf of current interests. In reality, democracy acts to prevent the

Planetary Trust's practical incarnations (like the Authority and the Future Fund) from functioning in the same protective manner in which private trusts operate. The private trust relies on a strong normative history – the law of trusts has, for hundreds of years, protected trust property from those who would spirit it away, through otherwise legal means, for their own uses. The law of trusts allows trustees to manage a private trust fund for the future benefit of users, without fear of intervention by the avaricious hands of the present. However, the notion of the Planetary Trust, the Authority, and the Future Fund all rely, for their foundation, on specific statutory instruments, and these statutes, despite any guise or gimmick in which they are cast, may be repealed. Such is the prerogative of a parliamentary democracy: no law shall bind future parliaments. Thus the second fatal flaw of the Planetary Trust is not intrinsic, but is rather a function of its scale (large and public) and legal foundation (purpose-built legislation). In this context, the sanctity of the trust is defeasible.

The Murray Darling Basin story as is cautionary tale about natural resource management. It reinforces this thesis' recognition of the importance of institutional design in overcoming short-term biases. Decision-makers charged with the management of natural resources over a long-term timeframe must have structural independence from the short-term incentives present in political battles. This thesis has also shown that where different beneficiaries of the same trust have different temporal interests, even the best-intentioned trustees face a great challenge. At times like these, a systematic means for determining how best to meet the various competing interests is very useful. The Authority had a structural means for navigating the interests of current and future water users: the *Water Act*, though far from perfect, provided legislative guidance on how to balance the competing needs of the ecosystem (securing the sustainability of the Basin for future water users) with

those of current irrigators and their surrounding communities. What it lacked was the independence from political interference necessary to implement the decisions that it had made.

VII. CONCLUSION

Many obstacles stand in the way of long-term environmental decision-making. Individual behavioural biases, short-term financial incentive structures, the myopic pressures of the electoral cycle and the tendency of the common law to reinforce the (often short-termist) *status quo* all present significant barriers to the capacity of both private and public decision-makers to act in ways that favour the longer term interests of the environment. Nonetheless, this thesis argues that there is reason for hope: it has presented evidence that legal and governance structures may help to overcome these obstacles. It has outlined how legal and governance structures can extend timeframes for environmental decision-making within the contexts of institutional investment by pension funds and public environmental decision-making by legislators, the judiciary, and administrators.

These two contexts differ in many respects, but are bound by the three central themes that underlie the thesis: in both contexts, the temporal and spatial characteristics of environmental problems present their particular challenge; in both contexts short-termism is present and powerful; and in both contexts the legal notion of the trust becomes a valuable means for analysing and addressing problems of a long-term or intergenerational nature. The ways in which these themes have influenced the substantive Chapters of this thesis are elaborated below. The themes have borne upon the proposed changes to legal and governance structures outlined in the thesis' various conclusions, which are set out in the section that follows. Finally, the themes underlie and bind the implications and opportunities for further research that proceed from the findings of this thesis.

TEMPORAL AND SPATIAL CHALLENGES LOOM LARGE

This thesis has emphasised that the spatio-temporal peculiarities of environmental problems create a particular dilemma for decision-makers both in the pension fund investment and in public policy. From a temporal perspective, environmental problems tend to require effort and funding up front to provide a solution whose beneficial impact will be felt in the (sometimes distant) future. In the context of climate change (the backdrop to Chapters III in particular, but relevant to the other Chapters as well) this means that the burden of the solution will be borne by the current generation and the benefit will be felt by future generations. Conversely, should the current generation choose to ignore the problem, it will often avoid both the expense of the solution and the consequences of inaction – these will be experienced instead by citizens of the future. Some environmental problems are also spatially complex. This is particularly true of climate change, where the most severe physical and social impacts are expected to occur in developing countries, despite the fact that greenhouse gas emissions have originated primarily (at least until very recently) from developed countries.

In institutional investment, financial performance of funds is of paramount importance. Environmental impact is often not aligned with financial returns: appropriate legislation may be lacking – for example, carbon dioxide emissions may be free; environmental issues almost inevitably operate over a longer term timeframe than most investment horizons can conceive – a corporate environmental policy may pay off in ten years time, by which time most investors have long since moved on). It is for this reason that some academics have argued for a (re)turn to ethically motivated pension fund investment. Even if this works for some pension funds, it

cannot work for all. If business that creates environmental collateral is profitable, then some pension funds are likely to be attracted to it. Likewise, pension funds cannot be expected to support industries or companies with admirable environmental practices that fail to provide a return for their beneficiaries. The point here, as Chapters III and IV strongly conclude, is that pension funds cannot, on their own, overcome the obstacles to sound financial decision-making posed by the spatio-temporal peculiarities of environmental problems. The legal and governance solutions put forward in these Chapters rely not only on the actions of pension funds, but also on government initiative.

The spatio-temporal complexities of environmental problems could not be starker than in Australia's Murray Darling Basin. Chapter VI describes the Basin's spatial characteristics: it is a river system roughly the size of France and Spain together in which the actions of upstream water managers have a profound impact on inhabitants of the downstream water users. The system operates across six different jurisdictions, whose squabbling might well adorn the pages of a textbook on the tragedy of the commons. From a temporal perspective, the Basin presents a classic problem of inter-temporal choice, a working example in the ethics and practice of intergenerational equity. In the Basin system, as Chapter VI demonstrates in detail, current water use must be reduced in order to preserve the Basin's future productive and environmental integrity. In both cases, any effective solution will require a current sacrifice in order to improve future outcomes. The conclusions to Chapters Three and Four are cognisant of the demands that these special characteristics place on any legal or governance solution, noting in particular the need for robust institutional structures.

SHORT-TERMISM CASTS A LONG SHADOW

Short-termism casts a long shadow over the social sciences. From the behavioural biases that compel individuals to favour short-term outcomes in certain situations, to the incentive structures that motivate financial professionals on the one hand and political leaders on the other, to the institutional barriers that preserve and sometimes sanctify short-term predilections, short-termism is both insidious and ingrained. This thesis has demonstrated that it is an issue particularly relevant to environmental decision-making, both within the world of institutional investment, and in the within public policy. The substantive Chapters of this thesis articulate the dangers that such short-term focused attitudes present to the long-term integrity of environmental systems.

One could be forgiven for assuming that institutional investment is built upon a conscientious intellectual focus on the short-term; investors construct the quarterly performance timeframes within which they assess their investment universe. Here, the term ‘investment universe’ is apt: the world viewed through such a frame is a very different one to the one in which the natural environment exists. In reality, though, Chapters III and IV demonstrate that the timeframes of institutional investors are constructed by both conscious and unconscious factors, reinforced by legal rules and norms (and their interpretation), and by governance practices. Chapter III, in particular, outlines the behavioural biases that often cause individuals to prefer short-term rewards and the incentives aligned with quarterly performance, encourage investors to focus their decision-making on drivers of short-term profit. It concludes that an outdated interpretation of fiduciary duty (in essence, the view that trustees’ duty to beneficiaries is to maximise financial profit, measured on a quarterly basis), as

well as legal practice, reinforce these short-term tendencies. Chapter IV demonstrates that many pension funds lack the appropriate governance structures to think about broader, longer term environmental and social issues in a systematic way. As a result, the trustees are left in a state of confused trepidation that prevents their moving toward newer and more sustainable approaches to investment. These Chapters conclude short-termism in institutional investment is difficult but not impossible to overcome.

Public decision-makers are also dogged by incentives to favour short-term solutions to problems. This thesis has argued that legislators and administrative decision-makers often face intense pressure from constituents and stakeholders to pursue policies or projects that will provide them a tangible benefit. This is, of course, a natural part of democracy. Democracy in its current incarnation is ill-equipped to deal with problems of inter-temporal choice. Chapters V and VI examine potential legal means to overcome the short-term incentives of public decision-makers. The two Chapters delve deeply into the related concepts of intergenerational equity and the Planetary Trust; both concepts which have at their heart the notion that within trust law might be found a means for the current generation to hold environmental assets on behalf of future generations. These Chapters conclude with a significant amount of optimism about the ability of one category of public decision-maker – the judiciary – to take a longer term timeframe when considering environmental questions (all the while acknowledging the structural independence that judges must have in order to achieve longer term thinking). The recommended legal reforms and structural changes to governance with which all the substantive Chapters of the thesis conclude are suffused with an understanding of the centripetal forces acting constantly upon the timeframes of decision-makers in both contexts.

A MATTER OF TRUST

The common law concept of the trust is essential to this thesis. It provides a conceptual foil – with no legal notion does the idea of intergenerational wealth transfer sit more elegantly – and the legal structure at the core of two vital institutions: the pension fund and the Planetary Trust. The trust institution is conceptually valuable because it presents a unique way of thinking about wealth, whether that wealth is the capital of a pension fund or the water resources of the Murray Darling Basin. It is conscientiously unique – as Chapter III recounts, the trust was developed in feudal England as means for avoiding the unjust property outcomes that resulted from the operation of existing law. In its earliest incarnation, the trust was a vessel through which a property owner could ensure that his property was preserved for his underage heirs in the case of his death – in effect preventing guardians from spiriting the property away. Trustees manage funds primarily for the future, something which presents a challenge on not only an evidential level (the future is always uncertain, and performance becomes more uncertain as a timeframe extends), but also from the perspective of behavioural psychology.

As well as providing a valuable conceptual foil, the trust provides the legal structure for two of the central institutions presented in this thesis. The first is the pension fund. In the pension fund, the trust exists on a much grander scale than it did in feudal times. With greater scale comes greater complexity – pension fund trustees are charged with managing huge pools of capital over timeframes that may extend as far as forty years. Within a fund, beneficiaries needs differ depending on when they are likely to retire. For this reason, pension fund trustees often face significant inter-temporal choices with respect to the management of the funds. The trust is bound by legal requirements, the most significant of which are the fiduciary duties that trustees

owe to beneficiaries. These duties frame the way that trustees think about investment, and have proved to be of great consequence for the findings of this thesis. The second trust-based institution at the heart of the thesis is that of the Planetary Trust. This institution is rather more esoteric than the pension fund; it remains, largely, theoretical: a notion that the current generation holds the planet on trust for future generations. Nonetheless, its inventor, Edith Brown Weiss, was adamant that it had the propensity not only for institutional form but also for function. It is with this in mind that this thesis approached its case study of the Murray Darling Basin Authority, and found within the Authority many of the elements essential to the Planetary Trust.

While this thesis is at times very critical of the Planetary Trust, it is this notion that perhaps best captures the hope of the thesis. Hope – just that. Practically speaking, the Planetary Trust provides little comfort. Its practical flaws are too significant for it to become a realistic means for addressing environmental problems into the future. Its practical incarnation, as reflected to some extent in the Authority, demonstrates the very intergenerational conflict that it was designed to avoid. It reinforces the conclusions made throughout this thesis that certain legal and governance structures – for example, safeguards for the independence of those charged with environmental decision-making – are necessary in order for the timeframes of decision-makers to extend beyond the short-term. Nonetheless, it is the Planetary Trust concept that draws together the themes that underlie the thesis. It was created as an institutional means for addressing environmental problems, and in full knowledge of their particular spatio-temporal characteristics. It was designed to overcome short-termism by privileging long-term natural resource management. Finally, it is anchored in trust law – an area of law that is imbedded with intergenerational principles.

IMPLICATIONS AND SOLUTIONS

Bearing in mind these intertwined themes, this thesis has reached a number of conclusions about specific changes to legal and governance structures that should be made in order to extend the timeframe for environmental decision-making, both in the context of institutional (especially pension fund) investment and in the context of public environmental decision-making by legislators, the judiciary, and administrators. These solutions are diverse, and have been grouped for the purposes of this conclusion into four categories: legislative changes, legal and institutional reflections, governance structures, and theoretical implications. It should also be said that they can make no claim to being comprehensive – they are designed to address the specific questions asked in each of the substantive Chapters of the thesis. It should be borne in mind that while the implications of these solutions may be broad, the ambit of influence of environmental issues is broader still.

Legislative Changes

The first legislative change proposed is in the context of pension fund fiduciary in the UK and the US. Chapter III argues that in theory, the fiduciary duties of prudence and loyalty should not prevent pension fund trustees from considering the environmental and social impacts that climate change is likely to have on their investments (and indeed, to the extent that these environmental and social impacts also have a financial impact, fiduciary duty should *compel* their attention to these issues). However, it finds that a one-dimensional but highly publicised judicial interpretation of the fiduciary duty of loyalty as requiring the maximisation of financial benefit to the exclusion of all other considerations, and the lack of recent case law on the subject, has led to

uncertainty about the legality of having regard to environmental and social impacts. This has left pension fund trustees reluctant, or unwilling, to rethink their investment strategies in the light of climate change. This inertia is exacerbated by behavioural biases toward the *status quo* and reinforced by an approach to the fiduciary duty of prudence that involves evaluating investors' decisions against those of their peers, discouraging deviation from accepted behaviour. As a result, Chapter III concludes that legislation should be enacted in both jurisdictions, clarifying that an investment approach which has regard to the environmental and social impacts of prospective investments is not in and of itself inconsistent with the requirements of fiduciary duty.

A second set of proposed legislative changes, intended to encourage sustainable investing, is set out in Chapter IV. While much of the regulation relating to investment may be viewed as aimed at preventing harm, there are a number of legislative measures that could act as 'enablers' of constructive behaviour. Once again, the recommendations made here are broad – they leave the details of the proposed legislative clauses as a project for further research – but they nonetheless sketch an opportunity for positive reform. First, legislation could be enacted to introduce 'safe harbour' principles, which would create incentives for sustainable investing by preventing litigation against trustees who choose to adopt a sustainable investing approach (while following due process and acting in good faith). Second, legislation could introduce a 'comply or explain' process with respect to sustainable investing. Under this approach, legislators would encourage pension funds to think of sustainable investing as a norm, by requiring them to either comply and adopt aspects of a sustainable investing approach, or provide a written explanation detailing why they have chosen not to comply and for what period. This approach portrays

sustainable investing as legislatively sanctioned, while allowing an alternative line of action to be pursued subject to explanation.

Legal and Institutional Reflections

The thesis has searched for ways in which the law can help to extend the timeframe for environmental decision-making. A number of related legal and institutional reflections can be expressed. First, the principle of intergenerational equity is a hopeful addition to environmental law, because it presents a mechanism by which judges balance the interests of current and future generations, especially with respect to the environment. Quite apart from imbedding a longer term timeframe within the patchwork of environmental law capabilities, the development of the principle by judges appears to be shaping the way that non-judicial decision-makers are required to think about environmental issues.

Chapter V's review of relevant case law indicates that the principle of intergenerational equity is beginning to affect the ways in which administrative decision-makers approach environmental problems. First, the principle of intergenerational equity has been interpreted as requiring administrative decision-makers to think about the *cumulative* environmental impact of proposed development projects. This is significant from a broader institutional perspective, because it represents an acknowledgment of the dangers of creeping environmental damage, those situations that arise in which courts ignore small environmental infringements without considering their cumulative impact. Second, the case law suggests that courts are prepared to take a much more demanding approach to environmental impact assessments than previously. The *Gray* case paints this in stark relief:⁷⁸¹ that

⁷⁸¹ *Gray v Minister for Planning*; see Chapter V.

case required an environmental impact assessment for a proposed coalmine development to include not only projected greenhouse gas emissions attributable to the construction of the mine, but also those greenhouse gas emissions expected to arise from the end use of the coal to be mined at the site. In these ways, the principle of intergenerational equity appears to have the scope to expand not only the way judges, but also administrative decision-makers, think about environmental problems.

Closely tied to the principle of intergenerational equity is the institution of the trust. The trust is a common law institution that since its creation in the Middle Ages has served as means for intergenerational wealth transfer. The trust therefore provides not only a theoretical lens for this thesis, but also an institutional basis for its conclusions. The trust was once primarily used for managing wealth within families; it now serves as the legal structure for pension funds, many of which have thousands of beneficiaries of different ages, worldviews and risk appetites. Reflecting upon the findings made throughout the thesis, it seems fair to conclude that the trust as an institution deals with these increased complexities imperfectly. Trustees struggle to manage situations in which the interests of different beneficiaries within a fund conflict. As this thesis has shown, given the many different retirement horizons of pension fund beneficiaries, the ideal timeframe over which their wealth should be managed varies even within a single fund. This should have significant implications for investment strategy, but trustees of pension funds tend to revert to short-term strategies that are verifiable on a quarterly basis. Within the theoretical legal structure of the Planetary Trust, trustees are faced with deeply challenging questions of intertemporal choice. In effect, Planetary Trustees are required to put aside their own interests as current users of the planet's resources in order to give effect to the interests of future generations. It is a profoundly problematic position.

Moreover, while the trust has a demonstrated ability to manage wealth effectively (though as the recent financial crisis has shown, some trust funds are better managed than others), the institution's implications for environmental outcomes are less clear. In reality, trusts become a microcosm of the investment world: where financial implications of an environmental issue cannot be established, then for many investors it becomes irrelevant. Chapters III and IV argue that the context of climate change should catalyse a change in the approach that institutional investors take to environmental and social issues, making them a routine consideration within pension fund governance. However, trust law is a conservative beast. It is conscience-based (and probably more flexible than most areas of law), but although it adapts to social change, it does so slowly. It tends to follow, rather than to shape, social norms. Thus although this thesis is optimistic about the ability of trust law (and fiduciary duty in particular) to make the institutional changes within the institutional investment industry that climate change might require, including encouraging pension funds to adopt a more nuanced way of formulating investment strategies and implementing governance principles, it nonetheless regards this process as incremental. Indeed, as the above section notes, legislative changes may be needed in order to speed the process along. How these imperfections within the trust's operation might be addressed creates a series of questions for further research.

Governance Structures

Two main conclusions with respect to governance structures are drawn in this thesis. The first, raised in Chapter III and addressed in Chapter IV, is a recommendation that pension funds wishing to invest in a more sustainable manner (by having appropriate regard to environmental, social and governance considerations, and by extending the

timeframe over which their investment strategies operate) do so within the structure of a purpose-built governance framework. This framework builds upon the pension fund governance work done by Clark and Urwin, and systematically addresses the changes to investment missions, investment beliefs, and investment strategies that should be made in order to achieve different degrees of commitment to sustainable investing. This framework offers pension funds a structure that will help them not only to attain a broader perspective on financial performance and a deeper timeframe with respect to that performance, but also to demonstrate their compliance with the fiduciary requirements of prudence, loyalty and impartiality.

The second conclusion on governance structures is drawn from Chapter VI's case study of the Murray Darling Basin. Chapter VI looks closely at the operation of the Murray Darling Basin Authority, the most recent incarnation of the body charged with governing the water assets of the Murray Darling Basin. The Authority must follow the procedures outlined in the *Water Act (2007)*, which requires the Authority to determine the amount of water needed to meet the ecological needs of the basin, before allocating the remaining water to other uses. In essence, the Authority is required by statute to arbitrate between the competing interests of current and future users of the Basin's water. The Authority's findings have met with great political opposition – irrigators, and the communities reliant upon them, have objected stringently to the suggestion that their water entitlements be reduced in order to meet the ecological needs of the basin. The Australian government has taken a number of political measures in order to change the course of the Authority's recommendations.

Chapter VI sees the Murray Darling Basin story as a cautionary tale about natural resource management. It concludes that a group of decision-makers charged with the management of natural resources over a long-term timeframe must have

structural independence from the short-term incentives present in political battles. This independence may take a number of forms, but two examples of clearly independent decision-makers are first, judges, and second, trustees. In the common law jurisdictions in which this thesis is situated, the judiciary is constitutionally independent from the legislative branch of government. The trust provides a different, but similarly protective, structure for independent decision-making. As this thesis has stressed, the trust has developed over hundreds of years as an institution of intergenerational wealth management; its inviolability is almost sacrosanct – the duties of trustees to their beneficiaries are protected not only by law but also by strong societal norms. That said, this thesis has also shown that where different beneficiaries of the same trust have different temporal interests, even the best-intentioned trustees face a great challenge. At times like these, a systematic means for determining how best to meet the various competing interests is very useful. The Authority had a structural means for navigating the interests of current and future water users: the *Water Act*, though far from perfect, provided legislative guidance on how to balance the competing needs of the ecosystem (securing the sustainability of the Basin for future water users) with those of current irrigators and their surrounding communities. What it lacked was the independence from political interference necessary to implement the decisions that it had made.

Implications for Theory

This thesis provides a running commentary on the theoretical implications of issues addressed. There are several salient implications for theory that should be restated here. First, bearing in mind the themes underlying this thesis (the spatio-temporal characteristics of environmental problems, short-termism, and the institution of the

trust), an examination of institutional investment in the context of climate change makes clear the need for pension fund trustees to rethink their approach to investment, just as they did at the advent of modern portfolio theory. Chapter III delves deeply into the historical evolution of fiduciary duty alongside investment norms. Over time, investors (and the legal practitioners that judge their compliance with the requirements of fiduciary duty) have adapted to social change. This is often gradual – for example, trustees were at one time restricted to investing in financial products (such as bonds and gilts) enumerated on a short list; their freedom to invest has increased as theoretical understandings of investment have developed.

Both investors and legal practitioners tend to lag somewhat in their response to social change – as the House of Lords case *Roberts v Hopwood*⁷⁸² demonstrates so eloquently, in the 1920s equal pay for women was seen as a culpable squandering of pension fund capital.⁷⁸³ Nonetheless, by the 1980s, Forbes J had stated, in a related case,⁷⁸⁴ that ‘some of their Lordships’ observations’ with respect to what investors may legitimately take into account ‘may ... appear unsympathetic’.⁷⁸⁵ Times had changed – but rather more slowly than one might have hoped. We find ourselves at a similar juncture today with climate change. The social, environmental and financial implications of climate change require pension funds to adapt their approach to investment; as Chapter IV puts it, they must adopt not only a broader approach (considering in earnest the implications of relevant environmental and social issues on investment) but also a deeper one, in which the timeframe for investment becomes longer and more nuanced than the ubiquitous quarterly period.

⁷⁸² *Roberts v Hopwood* AC 578 [1925].

⁷⁸³ *Roberts v Hopwood* AC 578 [1925] at 591–592: the Court found that the Council trustees had acted upon ‘some eccentric principles of socialistic philanthropy’ in being ‘such ardent feminists as to bring about, at the expense of the ratepayers whose money they administered, sex equality in the labour market’ (per Atkinson LJ).

⁷⁸⁴ *Pickwell v Camden London Borough Council* QB 962 [1983].

⁷⁸⁵ *Pickwell v Camden London Borough Council* QB 962 [1983] at 987.

The principle of intergenerational equity is developing in a peculiar way. Its somewhat esoteric legislative embodiment leaves one with the impression that the Australian legislators responsible for its coming into being had very little understanding of what it might become. Its development has been left in the hands of judges. Leaving aside the practical consequences of this distribution of powers with respect to the principle, the theoretical implications are fascinating. In some ways, the development of the principle has become something of a democratic experiment: here is an unelected, independent body of decision-makers entrusted with interpreting the implications of principle whose potential (if not yet realised) reach is remarkably wide, and whose primary focus is advancing the interests of future generations. In particular, the nascent jurisprudence giving life to the principle of intergenerational equity might be able to test the theory that long-term (environmental) decision-making under conditions of inter-temporal choice and intergenerational conflict is best left up to decision-makers who are isolated from the short-term political demands of the electoral cycle.

Finally, the findings in this thesis have several implications with respect to the use of terminology. Academic and professional literature in the field of sustainable investing is suffused with competing and often confused terminology: is there any significant difference, one might ask, between the terms ‘ethical investment’, ‘socially responsible investment’, and ‘responsible investment’? There often is, but as Chapter IV points out, the terms are rarely understood consistently from one investor to the next (although the UN PRI has managed to achieve some level of consistency amongst investors with respect to the term ‘responsible investment’). This has two main implications for those contributing to the academic literature in this area. First, given the general lack of consensus on the meaning of these terms, authors should

have a clear understanding of the terms that they choose to use, and should be able to communicate their own interpretation of these terms to readers. Where possible, authors should allude to common reference points, such as the UN PRI. Moreover, terms like ‘ESG issues’ should be avoided where a more specific term or series of terms (for example, ‘greenhouse gas emissions’, ‘child labour’ or ‘corruption’) would provide a clearer insight. Second, rather than being an essentially contested concept⁷⁸⁶ that will thrive on ongoing debate over its philosophical origins, SRI is a confused and confusing term that should be broken down into its component parts. Different species of SRI (for example ‘responsible investing’ and ‘ethical investing’) would perhaps be more successfully advanced once distinguished from one another, so that their separate goals may be pursued with greater transparency and clarity of aim.

FURTHER RESEARCH

As the previous section stressed, this conclusion does not claim to be able to answer all of the questions raised throughout the thesis. Indeed, the findings of the thesis open a number of areas with potential for further research, the most important of which are outlined here.

Drafting Legislative Solutions

Drawing upon the context of the investment risks and opportunities presented by climate change, Chapter III argued for legislative clarification of the requirements of pension fund fiduciary with respect to environmental and social considerations within investment strategies. Beyond the scope of Chapter III was a discussion of the shape

⁷⁸⁶ See the discussion provided in Chapter IV on Gallie.

that such a legislative measure might take. This line of research could make a practical contribution to the wider policy debate that surrounds this area. While much of the research focusing on environmental, social and governance issues is directed toward establishing a correlation between these issues and financial performance, detailed accounts from a legal perspective are rare. Legislative approaches from related areas of the law might prove to be instructive. For example, a future research project could examine relevant legislative provisions relating to directors duties: the UK's *Companies Act 2006* provides that a director not only can but indeed *must* have regard to 'the impact of the company's operations on the community and the environment'⁷⁸⁷ when fulfilling his duty to 'act in the way he considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole.'⁷⁸⁸ The extent to which these clauses have been effective is not yet proven, but they nonetheless provide a starting point for more targeted legislative research. Much may be learnt from the legislative successes and failures that have occurred in this and other related areas of law.

Similarly, the legislative recommendations made in Chapter IV are general – details of the wording of the potential legislation with respect to safe harbors and comply or explain procedures have been left as an area for future research. Here again, existing legislation from a related area could help to formulate an appropriate legislative approach. Legislative safe harbors under ERISA have been used in the US to provide trustees with a degree of certainty of compliance with their fiduciary obligations with respect to defined contribution default plans, the design of these legislative provisions might prove instructive. The design of legislative provisions necessary for the introduction of a 'comply or explain' process with respect to

⁷⁸⁷ S. 172(1)(d).

⁷⁸⁸ S. 172(1).

sustainable investing could draw upon existing legislation with respect to corporate governance within the UK.⁷⁸⁹

Deepening our Understanding of Fiduciary Duty

A second area for further research is within fiduciary duty itself. This thesis, and the legal academic literature in the field of institutional investment more generally, has focused on the main two fiduciary duties: the duty of prudence and the duty of loyalty. In addition, this thesis has provided a limited review of the duty of impartiality, and mentions a range of other duties in passing. Further research is needed to examine why the other duties are so rarely examined in academic literature, and how they are treated by courts. If these duties have disappeared from usage, then it may be useful to examine why. Case law involving pension funds would provide the primary focus for this research, but jurisprudence with respect to directors and other fiduciaries could provide another source of information. The findings of this research would make an important academic contribution – the academic research on fiduciary duty is sparse, and rarely goes into much depth even with respect to the duties of prudence and loyalty. Beyond academia, the findings could provide a valuable insight for pension fund trustees, giving them a fuller understanding of their fiduciary duties.

More generally, further research is required into how fiduciary duty operates over time. Specifically, where pension fund trustees are faced with inter-temporal questions and situations of intergenerational conflicts of interest between beneficiaries, how should these conflicts be resolved? And how should trustees improve their capacity to think about longer term risks, opportunities, and

⁷⁸⁹ In particular, the Combined Code on Corporate Governance 2003 could provide some guidance.

performance. Building upon the findings of this thesis, what are the legal and governance structures that can be put in place in order to ensure that the temporal dimensions of fiduciary duty are met?

FINAL REMARKS

This thesis has drawn together a range of responses to the question ‘how can the law extend the timeframe for environmental decision-making?’ in the contexts of institutional investment and public environmental decision-making by legislators, the judiciary, and administrators. Drawing upon the three themes that underlie all of the substantive Chapters (the spatio-temporal peculiarities of environmental problems, the spectre of short-termism, and the institution of the trust), this thesis has articulated potential legislative changes, provided a number of legal and institutional reflections, recommended the adoption of particular governance structures, and explored the findings’ implications for theory. It is a large project, and although it is presented here as a contained set of explorations and findings, it has opened the door to further targeted academic research.

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