Consideration of Climate Risk by Pension Funds: A just transition risk lens

by

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For my family – my newborn Yusuf, my darling wife Nabila, my mum Asiya, my dad Atif, my brother Rafay, my sister-in-law Bismah, my niece Roha and my parents in-law Manzar and Mussarrat Siddiqui.

Declaration of Originality

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Muhammed Zain Ul Abedin
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Abstract

Pension funds and other financial institutions need to address climate risk on an urgent basis to meet the Paris Agreement goals. For some time, the law was viewed as a barrier to pension funds considering climate risk as part of their disclosure obligations and duties to their members. However, this legal uncertainty has subsided, and climate risk is now considered as potential financial risk that can be legally considered. Unfortunately, the end of one legal uncertainty has bred another: while it is legal for pension funds to consider climate risk, the extent of that consideration remains uncertain. Pension funds approach climate risk with a multitude of strategies. While seemingly optimistic, these multiple strategies divert pension funds from a holistic consideration of climate risk. This in turn, distracts pension funds playing their part in meeting the Paris Agreement goals which causes a general ignorance of the urgency of climate risk.

To understand the legal extent of the current approach of pension funds to climate risk globally, this thesis analyses the jurisdictions of the UK and Australia via a unique lens of just transition climate risk. In analysing these jurisdictions with a specific climate risk lens, this thesis finds that the current approach to climate risk by pension funds is inadequate and suffers from legal gaps specifically in the form of clear regulatory guidance. These gaps stem from silent and open-ended regulations and supplementary regulatory guidance that allow pension trustees in both jurisdictions to satisfy the threshold of consideration of climate risks quite easily via multiple strategies at various degrees. These multiple strategies distract the current approach of pension funds in the UK and Australia from the urgent and holistic approach needed to address climate risk. The thesis finds that, in order to meet the Paris Agreement goals, subtle aspects of climate risk such as just transition risk need to be addressed by pension funds as such risk crystalises in the long-term and the short-term while encapsulating the elusive aspects of climate risk. Uncertainty about the legality of considering climate risk has been replaced by a lack of regulatory direction in legally considering climate risk.

Consequently, the thesis utilises a just transition lens across four developed indicators – incorporating a policy on climate risk, divesting from fossil fuels, incorporating member views and incorporating climate scenario analysis – to shed light on the current compartmentalised approach to climate risk by pension funds in the UK and Australia. The duties of trustees and disclosure norms are analysed using this lens. Additionally, the actual practices of pension funds are analysed by utilising publicly available disclosures. The impact of soft law on pension fund practices is also analysed by comparing Principles of Responsible Investment (PRI) signatory funds with non-PRI funds in the UK and Australia. The thesis finds that the pension fund legal regime in relation to climate risk suffers from legal gaps. To alleviate this situation and fill some of the legal gaps, the thesis proposes a reform pathway that can potentially embed a holistic and urgent approach in the pension fund industry to climate risk in the UK and Australia, which address subtle aspects of climate risk, such as just transition climate risk.

Chapter 1 Introduction: A just transition lens to understand the current relationship between climate risk and pension funds

1.1 Introduction: Pension funds and climate risks

Climate change risks pose an imminent threat on the functioning of the global economy. Pension funds and other large institutional investors are already being impacted by climate change risks.[1] The increasing manifestation of climate change risks requires pension funds and other large institutional investors to address climate change risks holistically. The holistic approach refers to the consideration of physical, liability and transition risks of climate change consistently by the pension industry, as opposed to consideration of only one aspect of climate change risk.[2] The holistic approach also entails a long-term consideration of climate risk by pension funds relative to a short-term approach. Thus, the long-term holistic approach to climate risk encapsulates all three segments of climate risk: physical risks, transition risks and legal risks over the long-term. However, the prevalence of multiple strategies utilised by pension trustees in the UK and Australia deviates from this holistic approach and promotes a compartmentalised approach to climate risk by the pension fund industry. This compartmentalised approach does not encapsulate all three segments of climate risk and favours the short-term over the long-term.[3]

[1] Vast data and reports on the subject exist. For more recent examples, see John Colas, Ilya Khaykin and Alban Pyanet, *Climate Change: Managing a New Financial Risk* (Oliver Wyman, 2019) <https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2019/feb/Oliver_Wyman_Climate_Change_Managing_A_New_Financial_Risk_paper.pdf>; Financial Stability Board, *The Implications of Climate Change for Financial Stability* (Financial Stability Board, 2020) <https://www.fsb.org/wp-content/uploads/P231120.pdf>; Bank of England, *Climate Change: What are the Risks to Financial Stability?* (Web Page, 15 November 2017) <https://www.bankofengland.co.uk/knowledgebank/climate-change-what-are-the-risks-to-financial-stability>.

[2] Nick Robins, Vonda Brunsting and David Wood, *Climate Change and the Just Transition: A Guide for Investor Action* (Grantham Research Institute on Climate Change and the Environment, 2018) <https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/11/IJT-guidance-for-investors_web-spreads.pdf>. For general support of the holistic approach, see CEEweb for Biodiversity, *Climate Change from a Holistic Approach* (Web Page) <http://www.ceeweb.org/work-areas/priority-areas/other/climate/climate-change-from-a-holistic-approach/>; Jim Baird, 'The Holistic Approach to Climate Change', *Energy Central* (Web Page, 20 August 2020) <https://energycentral.com/c/ec/holistic-approach-climate-change>; Christian Dymén, 'A Holistic Approach to Climate Change' (2011) 2 *Nordregio News* <https://archive.nordregio.se/en/Metameny/Nordregio-News/2011/Sustainable-urban-planning-revisited/A-holistic-approach-to-climate-change/index.html>.

[3] For recognition of the limitations of the compartmentalised approach and advocacy of a holistic approach, see Robins, Brunsting and Wood (n 2) 10.

The law needs to enable the pension fund industry – on an urgent-basis – to holistically consider climate change risks in order to meet the obligations of the Paris Agreement 2015[4] (Paris Agreement) and to limit climate impacts on the economy and their own portfolios. The urgency stems from aligning with the the 2030 and 2050 Paris Agreement goals, coupled with the global warming warnings of the International Panel on Climate Change ('IPCC').[5] Section 1.2.1 elaborates this central argument in relation to the pension fund industry aligning with the Paris agreement goals.

This PhD thesis finds, that while the current pension fund legal regime in the UK and Australia – including hard and soft law – allows pension funds to address climate change risks, the regime suffers from legal gaps. Specifically, the legal gaps consist of gaps in regulatory guidance released by pension regulators in the UK and Australia in relation to climate risk, rather than the hard law. Additionally, the lack of modern judicial test cases in this area widen the legal gaps. The legal gaps result in uncertainties surrounding considering the subtleties of climate change risks holistically. The legal regime struggles to focus the approach of pension funds collectively in the UK and Australia to address climate change risks in a holistic manner. Thus, while the debate surrounding the legal consideration of climate change risks by pension funds has virtually ended,[6] the extent to which climate risks can be addressed – including subtle aspects of climate risks – remains uncertain. This point is illustrated by recent legal proceedings, where a member is bringing an action against his Australian superannuation fund for failing to disclose its action in relation to consideration of climate risk.[7] Additionally, where a university student is suing the Australia Government for failure to disclose the impacts of climate change risks on superannuation and other safe investment instruments, such as bonds.[8] These uncertainties and variability in addressing the subtleties of climate risk by pension funds leads to a lack of a holistic industry response. To

[4] United Nations Framework Convention on Climate Change ('UNFCCC'), Conference of Parties, Twenty-First Session, Adoption of the Paris Agreement, UN Doc. FCCC/CP/2015/L.9/Rev.1 (12 December 2015) ('Paris Agreement').
[5] International Panel on Climate Change ('IPCC'), *Special Report: Global Warming of 1.5°C* (IPCC, 2018) <https://www.ipcc.ch/sr15/> ('*SR1.5*').
[6] This is clearly the finding of the United Nations' Principles for Responsible Investment project on fiduciary duties. See United Nations Environment Programme Finance Initiative ('UNEP'), *Fiduciary Duty in the 21st Century. Final Report* (UNEP FI, 2016) 21–22 <https://www.unpri.org/download?ac=9792>.
[7] The case against REST is discussed later in s 1.3.4(b).
[8] Michael Slezak and Rahni Sadler, 'Australian Government Sued by 23-year-old Melbourne Student over Financial Risks of Climate Change', *ABC News* (Web Page, 22 July 2020) <https://www.abc.net.au/news/2020-07-22/student-sues-australian-government-over-climate-change/12480612>; This case is discussed in more detail later see s 1.3.4(b).

illustrate the legal gaps in the form of regulatory guidance, the lens of just transition climate risk is utilised. Just transition climate risks not only embody elements of physical, transition and legal climate risks, but also crystalise over the long-term. Pension funds that only focus on short-term climate risks will not be able to incorporate subtle aspects of climate risks, such as just transition risks. The thesis proposes that an urgent and holistic response is needed to meet the goals and warnings of the Paris Agreement and the IPCC. The IPCC's *Special Report: Global Warming of 1.5°C* ('*SR1.5*') emphasises the importance of addressing transition risks of climate change along with its physical risks.[9] If climate risks are addressed partially, rather than in a holistic and uniform manner, then they will increasingly impact global economies and cause irreversible damage.[10]

The open-endedness of regulatory guidance in relation to climate risk allows pension funds in the UK and Australia to incorporate climate risk via multiple strategies at various degrees. In other words, the current legal regime allows pension funds to satisfy the notion of 'considering climate change risks' through multiple strategies signposted across hard law and soft law. While allowing flexibility, these multiple strategies for addressing climate change risks greatly increase the problem of not considering such risks holistically; rather, they supplement the short-term, compartmentalised consideration of climate risk.[11] The multiple strategies approach limits the ability of the pension fund industry in the UK and Australia to adequately respond to climate change risks in a holistic manner and stagnates the legal regime. The multiple strategies include: a mixture of negative and positive screening of certain companies; complete and partial divestment from fossil fuel assets and companies; disclosure of policies on responsible investment, climate change and general sustainability issues; disclosure of utilisation of self-developed and/or market tools on climate change, such as scenario analysis and stress-testing; engagement with companies the funds invest in (investee companies); and engagement with members of the fund.[12]

Additionally, pension funds apply these multiple strategies at various degrees; for instance, some pension funds have a responsible investment policy and a separate climate change

[9] IPCC (n 5).
[10] Ibid ch 3.
[11] Robins, Brunsting and Wood (n 2).
[12] See for example APRA's survey: Australian Prudential Regulation Authority (APRA), *Climate Change: Awareness to Action* (APRA, 2019) <https://www.apra.gov.au/sites/default/files/climate_change_awareness_to_action_march_2019.pdf>.

policy, while others only disclose general policies.[13] The multiple strategies have led to a compartmentalised consideration of climate risk as opposed to a holistic approach. The variability in applying these multiple strategies highlights the uncertainties and limitations in addressing the subtleties and specifics of climate change risks holistically. What results from this compartmentalised approach is the ignorance of subtle and medium to long-term aspects of climate risk in favour of more short-term aspects.[14] Additionally, the multiple strategies and lack of a unified and holistic approach to climate change risks not only hinder the goals of the Paris Agreement, but also cause an unorganised and disorderly transition to a low-carbon economy. This will lead to social inequalities and potentially destabilise the economies.[15]

The thesis highlights this uncertainty and the general lack of a holistic approach in addressing climate change risks by utilising a just transition risk lens. Just transition climate risks are subtle climate risks that manifest over the short-term and more distinctly over the long-term. Just transition risks for pension funds are the by-product of the necessary and ongoing shift to a low-carbon economy that will make assets, technologies and industries inconsumable (for example, fossil fuels). Pension funds which do not take into account just transition climate risks may be invested in such assets, technologies and industries that will become stranded in the near future. Ignorance of just transition risks will undoubtedly lead to stranded pensions and smaller pensions for members,[16] and consequently impact on the members' financial interests in the future. The lens of just transition climate risks acts as an exemplar that exposes the lack of a holistic approach to the consideration of climate risk by pension funds in the UK and Australia. The case of focusing on the just transition risk lens for pension funds allows for highlighting the legal gaps in the current legal regime, even though the

[13] For example, AustralianSuper has a separate climate change policy: AustralianSuper, *Climate Change Report: Managing the Transition to a Low Carbon Economy* (AustralianSuper, 2020) <https://www.australiansuper.com/-/media/australian-super/files/investments/how-we-invest/climate-change/climate-change-report.pdf>. QSuper does not have a separate climate change policy: QSuper, *Investment Principles* (Web Page, 2020) <https://qsuper.qld.gov.au/investments/how-qsuper-invests/investment-principles>.
[14] On the short-term focus of climate risks, see generally, Mercer, *Climate Change Scenarios – Implications for Strategic Asset Allocation* (Mercer, 2011) 7 <https://www.mercer.com/content/dam/mercer/attachments/global/investments/responsible-investment/Climate-change-scenarios-Implications-for-strategic-asset-allocation.pdf>; Kevin Davis and Martin Jenkinson, *Risk Management and Climate Change: The Role of the Financial Services Sector* (Australian Centre for Financial Studies/Victorian Centre for Climate Change Adaptation Research, 2013) 5 <http://www.aph.gov.au/DocumentStore.ashx?id=20546b45-50c2-4a56-a3ef-1c15a6dc90e3>.
[15] IPCC (n 5) ch 3.
[16] Robins, Brunsting and Wood (n 2) 6.

regime does allow pension funds to take climate risk into account. However, an inadequate consideration of just transition risks points to the issue that, while the legal regime provides certainty in taking into account climate risks, it is uncertain in relation to addressing the subtleties of climate risks specifically by pension funds. This leads to the lack of a holistic approach to climate risks by pension funds.

To gauge whether or not pension funds are considering climate risks holistically by addressing subtle risks such as just transition risks for pension funds in the form of stranded pension assets, the impact on the financial interests of members and social risks. four indicators are developed and utilised: incorporating a policy on climate risks; divesting from fossil fuels; incorporating member views; and incorporating climate scenario analysis.[17] The thesis develops and utilises these four indicators of minimum best practice to evaluate the approach to consideration of climate risk by pension funds. It is posited that if the pension fund legal regime provides clarity and encouragement on incorporating at least these four indicators, then pension funds are taking necessary 'first steps' in addressing just transition risks of climate change for pension funds and, by extension, addressing climate risks holistically. However, the thesis finds that here are legal gaps and variability in addressing climate risks that deviate from a uniform presence of these factors. The empirical data from the utilised case studies of a selection of pension funds[18] also indicates the same issue: that the regulatory framework in both jurisdictions lacks uniformity and allows for the prevalence of multiple strategies over various degrees for pension funds to address climate risk. This approach ultimately distracts from the holistic approach needed to combat climate risks urgently.

Following on from the empirical findings, the thesis uses Oran Young's conception of regime patterns to identify the state of the pension fund legal regime as per the findings of the legal analysis.[19] Given the lack of a holistic response to climate risks in the pension legal regime, legal gaps and lack of uniformity in the UK and Australia, the regime is identified as being in what Young defines as a state of 'arrested development'.[20] This is a cause for grave concern

[17] For the reasons for labelling these four requirements as indicators of the just transition risk lens, see s 1.3.5(b).
[18] For the findings and analysis of the data, see s 6.3.
[19] For analysis of the four indicators in relation to the duties of pension trustees, see ch 4; for analysis of the four indicators in relation to the disclosure standards, see ch 5; for analysis of the impact of soft law in relation to the accommodation of the four indicators of just transition risk, see ch 6.
[20] See s 7.4.

for the legal regime of pension funds in relation to climate change risks as pension funds need to be able to address climate change risks holistically on an urgent basis. Applying Young's exogenous-endogenous argument to the thesis's findings highlights the state of the current legal regime. Thereafter, a reform pathway is proposed that can arguably enable the regime to identify with a more progressive state while addressing current legal gaps that hinder a holistic and uniform approach by pension funds in relation to climate risks. The reform pathway aims to mitigate two aspects of legal gaps: precise regulatory guidance linked with the Paris Agreement goals and the IPCC scenarios; and clearer guidance on the duties of trustees in the absence of a judicial test case on climate risk and duties of trustees.

This introductory chapter outlines the core concepts and research methods. First, it provides an overview of the basis for focusing on pension funds in the UK and Australia, along with key concepts surrounding legal regimes. It explains that the significance of pension funds for combatting climate change flows from their large asset holdings and fund pools. Section 1.2 articulates the major research questions analysed across the chapters. Section 1.3 elaborates on the key concepts in the research questions surrounding climate change risks. This aids in an understanding of exactly how just transition risks fit within the umbrella concepts of Environmental, Social and Governance factors (ESG) and responsible investment.
Section 1.4 provides an account of the methods that inform the research. Finally, section 1.5 provides an overview of the thesis structure and development of the remaining chapters.

1.2 Elaboration of the central argument and the research questions

1.2.1 Elaboration of the link with the Paris Agreement goals for pension funds

The thesis establishes that there is no legal requirement or obligation that binds Australian and UK pension funds to meet with the Paris Agreement goals or rather play their part in contributing to the goals, This is because no specifc legislation creates direct legal obligations on pension funds in the UK and Australia even though these two are signatory countries to the Paris Agreement. The Paris Agreement creates soft obligations on nation states without setting emission targets but rather sets temperature goals. The obligations vary between developed countries and developing countries and absent any national promulgation, does not trickle down to private financial institutions such as pension funds.[21]

Nonetheless, while pension funds and other financial institutions are not legally obliged to contribute towards the Paris Agreement goals; the exposure of financial risk coupled with the fact that pension funds possess a large amount of investing and influencing power in the economy does require the funds to align their investment practices with the Paris Agreement.[22]

Throughout the thesis, reference is made to the fact that the pension fund industry need to address climate risks holisitically which includes addressing subtle aspects such as just transition risks in order to meet the Paris Agreement goals including warnings of the IPCC. The intention behind arguing for and referencing the Paris Agreement goals and warnings of the IPCC throughout the thesis is specifically in-relation to the 'Paris Aligned Investment Initiative' (PAII).[23] The PAII was established by the Institutional Investors Group on Climate Change (IIGCC) in May 2019.[24] The initiative is synonymous with the Paris alignment or rather aligning goals of institutional investors globally with the Paris Agreement. In the thesis, the phrases: meeting with the Paris Agreement goals, meeting the goals of the Paris Agreement and aligning with the Paris goals are used interchangeably and sit directly under the Paris alignment movement in the form of the PAII.

Paris alignment entails that finances of private and public actors be positioned in-line with the climate change goals of the Paris Agreement. Private actors predominantly include institutional investors such as pension funds, investment banks, hedge funds and etc. The PAII aggregates financial streams to align with the Paris Agreement i.e. reduction of emissions and development of climate resilience.[25] The PAII as a norm provides numerous

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[21] Patricia Glavao Ferreira *'Climate Finance and Transparency in the Paris Agreement: Key Current and Emerging Legal Issues'* (Paper No 195, Centre for International Governance Innovation, October 2018) < https://www.cigionline.org/sites/default/files/documents/Paper%20no.195_1.pdf> Pages 3 – 8.

[22] To gauge the breadth of the size of pension fund holding and influencing power on the economy see s 1.3.1 , 1.4.3(a) & 3.3.

[23] *Institutional Investors Group on Climate Change Paris Aligned Investment Initiative* <https://www.parisalignedinvestment.org/>

[24] Ibid;

[25] See Paris Agreement (n 4) Article 2.1(c); James Ridge, *Aligning finance with the Paris Agreement* (Grantham Research Institute on Climate Change and the Environment, December 2020) <

benefits as it enables a global financial norm to navigate finances in line with meeting the goals of the Paris agreement. The PAII focusses on three main overarching goals i.e. tractioning a net zero investing mandate across the investment chain, supporting investors to implement Paris-aligned commitment and collaborating with other soft law initiatives to develop Paris aligned investing.[26]

However, there are various challenges that still face implementation of the PAII and generally aligning with the goals of Paris to pension funds and other institutional investors. As can be recalled from section 1.1 earlier, pension funds are utilising multiple methods at various degrees and various forms due to the open-endedness of the law, particularly regulatory guidance, to address climate risks. The Paris alignment initiative in embedding the PAII inherits the same challenges of prevalence of multiple strategies. While institutional investors are increasingly affirming the Paris Agreement, the need to be Paris-aligned and other similar soft law initiatives, nonetheless the utilisation of methods of aligning with the Paris Agreement are not standard and in their infancy and comprise of multiple methods at various degrees and forms.[27] Consequently, what is required are a set of minimum indicators for financial institutions that help in understanding the level of alignment of institutional investors with the Paris Agreement goals. Pertaining to pension funds in the UK and Australia, the thesis develops four indicators that are used to gauge the extent to which pension funds are considering climate risk holistically. Section 1.3.5(b) analyses the four indicators and also discusses the challenge of aligning each with the Paris Agreement.[28]

1.2.2 Research Questions

The thesis analyses the relationship between responsible investment in the form of climate risks and the pension fund legal regime in the UK and Australia. Until recently, research and academic interest surrounding this relationship has focused on the legality and certainty of considering climate change risks as per the tenets of the duties of trustees and disclosure

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https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/12/Aligning-finance-with-the-Paris-Agreement-3.pdf> page 4

[26] For the discussion and general growing impact of the Paris alignment see s 2.2

[27] For elaboration on soft law see s 1.3.3 and s 2.6.

[28] See section 1.3.5(b)

obligations.[29] While the legality of considering climate change risk is arguably no longer a source of uncertainty, uncertainty remains about the approaches pension funds can utilise to address climate change risks. These stem from a misplaced understanding of climate change risks and from legal gaps in the regimes themselves. To highlight the legal gaps, predominantly in the form of regulatory guidance, and to infer the state of the current pension fund regime, the thesis uses the lens of just transition risks for pension funds.

Although climate change risks and even subtle aspects of climate change risks are increasingly recognised as policy objectives in the UK and Australia, a clear-cut and holistic approach to climate risk by pension funds is still a cause of uncertainty. We still do not know much about the approach to climate risk by pension funds, and regulators are doing little to embed a uniform and holistic approach to climate risk. This becomes obvious in the analysis of disclosure documents of pension funds, as multiple strategies are prevalent to mitigate climate risk. The haphazard and open-ended approach to climate risk by pension funds not only limits global efficiency for aligning with the goals of the Paris Agreement, but also leads to a disorderly transition to a low-carbon economy. This will lead to economic inefficiencies, economic instability and social inequality.[30]

If the goals of the Paris Agreement are to be met, a holistic approach to climate risk is needed. To embed a holistic approach, pension funds need to address subtle aspects of climate risk, such as just transition risks for pension funds. While just transition is developed as a scholarly concept, we still need to understand the extent to which it is reflected in the implementation of the duties of trustees and disclosure obligations in the UK and Australia. Knowing the extent of the implementation will enable us to appreciate the legal gaps in addressing climate risks holistically by pension funds and infer the state of the current

[29] See for example Steve Lydenberg, 'Reason, Rationality and Fiduciary Duty' (2012) 119(3) *Journal of Business Ethics* 365; James P. Hawley, Keith L. Johnson and Edward J. Waitzer, 'Reclaiming Fiduciary Duty Balance' (2011) 4(2) *Rotman International Journal of Pension Management* 4. Recent legal opinions also point to the same. See Noel Hutley and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties' (Memorandum of Opinion, Centre for Policy Development and Future Business Council, 7 October 2016) <http://cpd.org.au/2016/10/directorsduties>; Keith Bryant and James Rickards 'The Legal Duties of Pension Fund Trustees in Relation to Climate Change' (Abridged Joint Opinion, Client Earth, 25 November 2016) <www.documents.clientearth.org/wp-content/uploads/library/2016-12-02-the-legal-duties-of-pension-fund-trustees-abridged-opinion-ext-en.pdf>; Noel Hutley and James Mack, 'Superannuation Fund Trustee Duties and Climate Change Risk' (Memorandum of Opinion, Market Forces, 15 June 2017) <https://envirojustice.org.au/sites/default/files/files/20170615%20Superannuation%20Trustee%20Duties%20and%20Climate%20Change%20(Hutley%20%26%20Mack).pdf>.
[30] IPCC (n 5) ch 3.

pension fund regime. Finally, understanding the current implementation provides insights into pathways for reform to better implement climate risks holistically by pension funds.

To address these issues, the thesis addresses the following research questions.

> **1) Main research question:** To what extent does the current legal regime allow pension funds to respond to climate change risks in a holistic manner?
>
> **2)** To what extent can current laws in the UK and Australia accommodate consideration of the four key indicators of the just transition risk lens as part of the holistic consideration of climate risks for pension funds.
>
> **3)** To what extent does soft law in the form of the PRI embed the four indicators of the just transition risk lens in the implementation of current laws in the UK and Australia?
>
> **4)** What reform might promote holistic climate risk management among pension funds in the UK and Australia?

1.3 Explanation of key concepts

1.3.1 What are pension funds and why pension funds?

Pension funds, commonly known as superannuation funds in Australia, comprise funds, plans and schemes that provide income upon retirement to individuals. These funds are generally established by employers, unions, particular industries, and even the state governments, to enhance and safeguard retirement benefits for the fund members (also known as beneficiaries). Pension funds pool contributions and invest the accumulated contributions or funds on the behalf of members. This generates income for members on retirement.[31] This thesis focuses on pension funds in the UK and Australia that comprise large pension funds across the corporate, occupations and industry sectors.

This focus on large pension funds is due to multiple reasons. First, these large pension funds hold large portfolios of assets and their response to climate change risk influences a large section of the national economies in the UK and Australia.[32] Additionally, pension funds

[31] The thesis takes inspiration from the precise definition by the CFA Institute: CFA Institute, *What is a Pension Fund?* (Web Page) <https://www.cfainstitute.org/en/advocacy/issues/pension-funds>.
[32] See s 1.4.

globally[33] – including the UK and Australia – invest significantly in equities. Investing in equities allows pension funds to leverage their ownership stake in the companies they invest in (investee companies). This means that the funds invest and hold company shares and also influence the investee companies' response to climate change risk. Second, the Universal Investor (UI) argument holds that asset owners can accumulate such large numbers of diversified asset holdings that they arguably own a major slice of the whole economy.[34] The large, diversified ownership stakes entail that pension funds (UIs) are exposed to all positive and negative externalities of the economy over the long-term. Following the UI characteristics, for large pension funds the response of their investee companies in considering financial risk is financially beneficial to pension funds themselves as they are in receipt of all externalities of their investment decisions.

Third, the the relationship between the legal regime and the circumstances that allow pension funds to consider climate change risks is not clear-cut but is affected by legal gaps that cause uncertainty and prevalence of multiple strategies. While the uncertainty surrounding the possibility of legal consideration of climate change risks by pension funds has, for the most part, decreased, uncertainty still exists surrounding the extent of addressing climate change risks by pension funds. The extent of the legal licence in considering climate risks is unclear as the obligations of minimum best practice that fund trustees need to action in relation to climate risks are too open ended, flexible and vague. For example, is a disclosure of a responsible investment policy adequate, or does a fund need to display evidence of active consideration of climate risks, such as investment in renewables or divestment from fossil fuels? Is a complete divestment from fossil fuels the legal expectation, or is a partial divestment satisfactory as per the current law? The legal gaps stand in contrast to the increasingly significant interest over the last decade in the relationship between pension funds and climate change risk and increasing pension fund activity in considering climate change risks.

This contrast between the law and pension fund behaviour means this study is timely, due to the significance of pension funds as one of the largest and prime financial institutions in the global economy and the need to address climate change risks as a matter of urgency. Pension

[33] OECD, *Pension Funds in Figures* (Web Page, June 2020) 3 <http://www.oecd.org/daf/fin/private-pensions/Pension-Funds-in-Figures-2020.pdf>.

[34] For detailed analysis of the UI as a determining factor in addressing climate risk by pension funds, see s 3.3.

fund activity threads through the economy as these entities invest in investee companies on behalf of their members. The size of pension funds and the impact of pension fund investment on the economy, along with the goals of the Paris Agreement and warnings from the IPCC, make proportionality and clarity in the legal responses available to pension funds with respect to climate change risks particularly important, if pension funds are to meet the Paris Agreement goals by considering climate risks holistically. Pension funds can legally consider climate risks as per the current legal and regulatory set-up that is viewed as a 'legal regime' by this thesis.

1.3.2 Utilising regime patterns to understand pension funds' consideration of climate risk

The thesis characterises the situation surrounding the legal response of pension funds to climate change risk in the UK and Australia as a regime, taking inspiration from international environmental regimes. Characterising the situation as a regime based on international environmental regimes is done cautiously, noting that pension funds governance, while having global trends, is based on domestic legislation. Nonetheless, applying international regimes to the case study of pension funds and climate risk is apt as a specific lens because pension funds have a part to play within international environmental regimes. International environmental regimes are conceptualised as institutions that are a 'cluster of rights, rules and procedures…that assigns roles to participants…and guides interactions among occupants of these roles'.[35] These international environmental regimes emerged as a response to deal with environmental concerns specifically.[36]

Due to the size of pension funds and their response to environment specific issues, this thesis classifies pension funds' current legal response to climate change risks as a regime or an alternate conception of the regime at a microeconomic level. The response of pension funds as an institution channelled through the duties of trustees and disclosure obligations and the

[35] O. R. Young, 'Building Regimes for Socioecological Systems: Institutional Diagnostics' in Oran R. Young, Leslie A. King and H. Schroeder (eds), *Institutions and Environmental Change: Principal Findings, Applications, and Research Frontiers* (MIT Press, 2008) xxii.

[36] M. G. De Vos et al, 'Formalizing Knowledge on International Environmental Regimes: A First Step Towards Integrating Political Science in Integrated Assessment of Global Environmental Change' (2013) 44 *Environmental Modelling & Software* 101, 102; Andreas Hasenclever, Peter Mayer and Volker Rittberger, *Theories of International Regimes* (Cambridge University Press, 1997).

interplay between these rules and participants (such as pension trustees, fund managers, beneficiaries, investee companies and regulators) make up this regime.

Without exception, no scholar has done more in the area of environmental regimes generally, or regime effectiveness and identification of regime patterns, than Oran Young. A pioneer Arctic expert, Young is renowned as a global force in the area of international governance and environmental institutions and was recently appointed professor emeritus and co-director of the Program on Governance for Sustainable Development at the Bren school of Environmental Science and Management at the University of California (Santa Barbara).[37] Young's influence and work date back to the 1960s.[38] It is his relatively recent work,[39] however, researching pattern in environmental regimes that this thesis utilises to infer the state of the current legal regime pertaining to pension funds and the legal responses available in relation to climate change risk. The thesis applies Young's 'endogenous-exogenous alignment thesis'[40] to its conceptualisation of the pension fund legal regime in relation to climate change risk.

Young argues that environmental regimes exhibit patterns that can be characterised in one of five states. In other words, the five states are distinct patterns with which a regime can be identified at any point in time. The five states – progressive development, punctuated equilibrium, arrested development, diversion and collapse – are defined below.

- **Progressive development:** This is the best state to be in and is what all regimes aim for. In the state of progressive development, the regime is in a progressive and upward trajectory, while building capacity over time so that it is always equipped to

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[37] See generally Springer, *Interview with Oran R. Young* (Web Page) <https://www.springer.com/gp/interview-with-oran-r--young/15790538>; Polar Connection, *Prof Oran Young* (Web Page) <http://polarconnection.org/profiles-advisory-bo/oran-young/>.
[38] For example, O. R. Young, *The Intermediaries: Third Parties in International Crises* (Princeton University Press, 1967); O. R. Young, 'Political Discontinuities in the International System' (1968) 20(3) *World Politics* 369; O. R. Young, *The Politics of Force: Bargaining during International Crises* (Princeton University Press, 1968); O. R. Young, *Systems of Political Science. Foundations of Modern Political Science Series* (Prentice-Hall, 1968); O. R. Young, 'Interdependencies in World Politics' (1969) 24(4) *International Journal* 726.
[39] For example, O. R. Young, 'Determining Regime Effectiveness: A Commentary on the Oslo-Potsdam Solution' (2003) 3(3) *Global Environmental Politics* 97; O. R. Young, 'Vertical Interplay among Scale-Dependent Environmental and Resource Regimes' (2006) 11(1) *Ecology and Society* 27; O. R. Young, 'Building Regimes for Socioecological Systems' (n 35) 115; O. R. Young, *Institutional Dynamics: Emergent Patterns in International Environmental Governance* (MIT Press, 2010).
[40] Young, *Institutional Dynamics* (n 40) 3, 13.

manage the problems the regime was created to solve.[41] A progressively developing regime starts out with a set of parameters and an overarching authority (such as an umbrella agreement or dedicated body) and adapts progressively over time to maintain its progressive state.

- **Punctuated equilibrium:** This state sits below progressive development but is still a reasonable state to be in for a regime. Due to intermittent stresses and setbacks, a regime in punctuated equilibrium struggles to adequately address its purpose, while sometimes being limited in its means to build capacity. However, it may also have short spells of progress in addressing problems and building capacity.
- **Arrested development:** The regime in arrested development starts out in the same manner as regimes in progressive development and punctuated equilibrium, but never lives up to its promise in adequality addressing the problems for which it was created. It may show early signs of progress, and adapt and receive updates retrospectively, but it struggles to overcome barriers and challenges. Any signs of progress in overcoming the barriers may be too late, and then the regime may face new obstacle and barriers.
- **Diversion:** A regime enters a state of diversion when it is 'diverted' to address problems different from the purposes for which it was created. Diversion may be caused due to recent developments, awareness of new risks, technological innovation, political turmoil, budgetary concerns, and so on. When a regime is diverted, it will inevitably be in a state of transition where it does not have a clear direction of operation and action. Diversion may be a temporary condition, rather than a permanent state.
- **Collapse:** As the name implies, a regime collapses, either when it is formally suspended and invalidated, or when, de facto, it is of no consequence. In the second scenario, the regime may still exist on the face of it, but in reality is incapable of doing anything to meet its purposes. In other words the regime exists as a sham and is not serving its purpose.

Thus, a regime may be in any one of these five states at any given point in time; it may also transition from one to another, depending on when regime patterns are assessed. Young argues that the identification of a regime's state is dependent on external ('exogenous') and

[41] Ibid 9.

internal (‘endogenous’) factors particular to that regime[42] A combination of the exogenous and endogenous factors impact the regime’s state and outlook at any given time. Additionally, a regime may be in one state in one point in time and in another at a different point in time, depending on this combination of external and internal factors.[43] This is an important point as a regime has the potential to change states, depending on the internal and external factors.

The thesis utilises Young’s endogenous-exogenous alignment thesis in its analysis of the extent to which the current legal regime shapes pension funds’ legal responses to subtleties of climate change risk. In analysing the current legal regime and the extent to which it accommodates consideration of climate change risk, the thesis finds that the current legal regime in the UK and Australia is in a state of ‘arrested development’. This may come as a polarising assessment, as pension funds are increasingly considering climate risk and the legal certainty to do so is also crystallising day by day to the point that virtually no one can doubt that pension funds legally can consider climate risks. However, the issue is not whether pension funds can legally take climate risks into account, but the extent to which they can do so in a holistic manner in line with the urgency of climate risk and the Paris Agreement goals. As mentioned, it is necessary to understand the extent of the legal licence in relation to climate risk consideration and then infer whether or not it is a holistic consideration of climate risk. It is found that the open-endedness of regulations, regulatory guidance and lack of guidance of duties of trustees and climate risk results in legal gaps that create uncertainty for pension trustees regarding the extent to which they can take climate risk into account. The uncertainty leads to prevalence of multiple strategies by pension funds that distracts from an urgent and holistic consideration of climate risk. Holisitc consideration of climate risk is needed to allow the pension industry to play their role in aligning with the goals of the Paris Agreement. Additionally while vital, soft law initiatives such as the PRI are not enough to fill the legal gaps on their own. The legal gaps can only be addressed by a precise regulatory response accompanied by clear regulatory guidance with minimum requirements such as those envisioned by the Paris Agreement and supplemented by soft law initiatives such as the PRI.

[42] Ibid 14.
[43] Ibid 16.

A holistic approach that encompasses physical, liability and transition risks (including subtleties, such as just transition risks) for pension funds is urgently needed, as highlighted by the IPCC, to align with the goals of the Paris Agreement. Thus, it is argued that the pension fund regime in relation to climate change risks needs a mixture of exogenous and endogenous factors to transform the state from arrested development to progressive development. The demarcation between these exogenous and endogenous factors is not the focus of the thesis but rather the focus is to propose a reform pathway that embeds the combination of these factors that can transform the regime from arrested development to progressive development. This will also allow the legal response of pension funds in the UK and Australia to become standardised and proportional to climate change risks in a holistic manner.[44]

1.3.3 Understanding soft law

Soft law mechanisms significantly inform the relationship between pension funds and climate change risk. So, the label of a legal regime, as opposed to a traditional legal framework, is appropriate. The legal regime that encompasses the relationship between pension funds and climate change risks, comprises both hard law and soft law elements. Specifically, the regime encompasses duties of trustees and disclosure obligations as shaped by hard law, regulatory guidance and soft law. All these elements of the regime work together to make up the pension fund regime. The duties of trustees have historically been perceived as being in conflict with non-financial considerations, including ESG investment.[45] Nonetheless, soft law mechanisms have emerged as the trend setters in this field and have pushed regulators and regulated institutions alike to treat climate risk as a legally pursuable investment.

The European Centre for Constitutional and Human Rights (‘ECCHR’) defines soft law as agreements, principles and declarations, most located internationally, that are not legally binding, while hard law has traditional legal roots and is binding and enforceable on the parties involved.[46] The OECD broadens this definition and states that the binding force of

[44] See generally ch 3, which details the regime in its historical and normative contexts. For the reform pathway see s 7.2.
[45] For a discussion of the historical understanding of the duties of trustees at English common law, see s 3.2.4.
[46] European Centre for Constitutional and Human Rights (‘ECCHR’), *Hard Law/Soft Law* (Web Page) <https://www.ecchr.eu/en/glossary/hard-law-soft-law/>.

soft law is weaker than hard law, rather than simply non-existent.[47] In essence, the definition of soft law is quite polarising in the legal and legal theoretical scholarship. The exercise of defining soft law has been deemed as ‘paradoxical’[48] and a ‘troublemaker’.[49] Due to its non-binding nature, legal positivists dismiss soft law as non-law.[50] The thesis affirms the view that soft law, though not law in the traditional sense, has the potential to fill gaps in hard law, as well as to inform the behaviour of entities and institutions regulated by hard law. Along this line of reasoning, the thesis views soft law as a legally relevant, evolving norm that sits between hard law and politics, with the potential to fill gaps in hard law and to direct future law reform and best practice.[51]

Historically, soft law norms gained prominence in international environmental law after the Stockholm Conference via the creation of the United Nations Environmental Programme (‘UNEP’). The UNEP initiated many soft law initiatives, such as the 1978 principles on conservation and utilisation of natural resources.[52] Many soft law initiatives influence pension fund behaviour in the UK and Australia. This thesis posits that, for the purposes of informing and influencing the legal regime that covers the relationship between pension funds and climate change risk, the most prominent soft law initiatives are the United Nations Principles for Responsible Investment (‘PRI’)[53] and the Task Force on Climate-related Financial Disclosures (‘TCFD’).[54] For this reason, the PRI’s impact on the practices of pension funds is assessed specifically to gauge whether the PRI fills legal gaps in the legal regime adequately in terms of consideration of climate risk.[55]

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[47] OECD, *Soft Law* (Web Page) <https://www.oecd.org/gov/regulatory-policy/irc10.htm>.

[48] Pierre-Marie Dupuy, ‘Soft Law and the International Law of the Environment’ (1990) 12(2) *Michigan Journal of International Law* 420.

[49] Ibid; Société Française Pour le Droit International, *L'Élaboration du Droit International Public* (A. Pedone, 1975); Arif Ahmed and Md. Jahid Mustofa, ‘Role of Soft Law in Environmental Protection: An Overview’ (2016) 4(2) *Global Journal of Politics and Law Research* 1.

[50] Christine M. Chinkin, ‘The Challenge of Soft Law: Development and Change in International Law’ (1989) 38(4) *International and Comparative Law Quarterly* 850.

[51] Daniel Thürer, ‘Soft Law’ in R. Bernhardt (ed), *Encyclopedia of Public International Law*, vol 4 (Elsevier, 2000) 452.

[52] Report on the Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States on the Work of its Fifth Session Held in Nairobi from January 23 to February 7, 1978 (D. Kinyanjui, rapporteur) [UNEP Governing Council decision 6/14 of May 19, 1978], reprinted in 17 ILM 1094, 1097 (1978) (‘UNEP Draft Principles of Conduct’); Dupuy (n 48) 423.

[53] *United Nations Principles for Responsible Investment* <https://www.unpri.org/>; United Nations Environment Programme Finance Initiative (UNEP FI), *The Principles* (Web Page) <https://www.unepfi.org/psi/the-principles/>.

[54] *Task Force on Climate-Related Financial Disclosures* (‘*TCFD*’) (Web Page) <https://www.fsb-tcfd.org/>.

[55] See s 1.4.

PRI and TCFD and numerous other soft law initiatives form the legal regime that govern the evolving relationship between pension funds and climate change risk. The label legal regime – used here in relation to the evolving legal relationship between pension funds and climate change risk – allows for an innovative assessment of the legal relationship via the lens of regime patterns to determine whether or not the current the current law allows for a proportionate response by pension funds in relation to climate change risk.

1.3.4 Understanding climate change risks for pension funds

1.3.4(a) Increasing mainstreaming and urgency of climate risk

Responsible investment is now a familiar term for institutional investors such as pension funds globally. Responsible investment can include socially responsible investing (SRI), thematic investing, impact investing and even ethical investing, although these terms are not interchangeable.[56] Consideration of ESG factors in investment decision-making is the most pronounced and mainstreamed terminology of responsible investment for pension funds.[57] Responsible investment in its 'mainstreamed' conception refers to the consideration of ESG factors in the investment decision-making process. The conception of responsible investment in terms of ESG risk factors has been mainstreamed across the global pension industry because of the adoption by, first, the PRI and then numerous other soft law initiatives.[58] Climate change risk is the most pronounced ESG risk.[59]

Risks associated with climate change are classified as climate change risks, climate-related risks and/or climate risks. Climate change risks drive responsible investment and ESG investing norms in global financial investment decision-making. This is because climate change is an imminent and urgent risk with systemic consequences.[60] These systemic

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[56] For an analysis of the historical roots of responsible investment and the existence of different labels, see s 3.2.

[57] See generally William Ransome and Charles Sampford, *Ethics and Socially Responsible Investment: A Philosophical Approach* (Routledge, 2016) 41; Responsible Investment Association Australasia ('RIAA'), *RI Explained* (Web Page) <https://responsibleinvestment.org/what-is-ri/ri-explained/>; 'AIST Walks the Talk on ESG Investment', *Investment Magazine* (Web Page, 1 February 2008) <https://www.investmentmagazine.com.au/2008/02/aist-walks-the-talk-on-esg-investment/>.

[58] See generally *TCFD* (n 54); RIAA <https://responsibleinvestment.org/>; United Nations Development Programme ('UNDP'), *Sustainable Development Goals* <https://sdgs.un.org/goals>; *CDP* (Web Page) <https://www.cdp.net/en>.

[59] Fiona Reynolds, 'Climate Change Tops List of ESG Concerns for Investors in 2019', *PRI* (Blog, 5 March 2019) <https://www.unpri.org/pri-blogs/climate-change-tops-the-list-of-esg-concerns-for-investors-in-2019/4163.article>.

[60] For a recent articulation, see Principles for Responsible Investment ('PRI'), *Climate Change for Asset Owners* (Web Page) <https://www.unpri.org/an-introduction-to-responsible-investment/an-introduction-to-responsible-investment-climate-change-for-asset-owners/5981.article>.

consequences will directly impact the global economy, including all sectors and asset classes. In other words, the portfolios of institutional investors (including pension funds) will be directly impacted by climate change risks.

The Paris Climate Agreement (Paris Agreement), signed in late 2015, evidences the urgency of global climate change risks.[61] In December 2015, countries around the world, including the UK and Australia, committed to the Paris Agreement with the goal of limiting carbon emissions and global temperature rise. The aim is stop global temperature rise this century by 2.0 degree Celsius above pre-industrial levels and in the future to limit this further by 1.5 degree Celsius. The meeting of these ambitious emissions and global warming goals requires countries to alter their financial and economic policies, develop new technologies and build capacity.[62] The Intergovernmental Panel on Climate Change ('IPCC') affirms the imminence and urgency of climate change risks and the need to combat it by national economies and institutions.

The IPCC is the most authentic body on climate change science and emissions globally. In October 2018, the IPCC published the *Special Report on Global Warming of 1.5 Degree Celsius* ('*SR1.5*').[63] The *SR1.5* finds that the target of 1.5 degree Celsius is a critical necessity and a starting point rather than an end in itself. The *SR1.5* highlights that further action is needed to meet the critical goal of 1.5 degree Celsius; actions include reducing governance impediments in combatting carbon emissions. At a national level, the reduction of these governance impediments requires a shift in investment patterns, innovation in finance mechanisms and capacity building of institutions. The *SR1.5* affirms that financial and institutional responses currently fall short for measures required to address climate change risks and carbon emission targets.[64] The *SR1.5* report confirms that it is highly probable that the 1.5 degree Celsius target will not be met in light of current actions by national and international stakeholders. The report concludes that it is likely global warming will remain between 2 and 3 degrees Celsius by 2030, given current state actions and the practices of institutional investors.[65]

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[61] UNFCCC (n 4).
[62] Ibid.
[63] IPCC (n 5).
[64] Ibid chs 4, 4.4.1, 4.4.2, 4.4.4, 4.4.5.
[65] Ibid ss 1.2, 2.3, 3.3, 3.4, 4.4; Will Steffen, Martin Rice, Lesley Hughes and Annika Dean, *The Good, the Bad and the Ugly: Limiting Temperature Rise to 1.5°C* (Climate Council of Australia Ltd 2018) 7 <https://www.climatecouncil.org.au/wp-content/uploads/2018/10/CC-IPCC-report-1.pdf>.

Additionally, the IPCC's *Fifth Assessment Report* ('*AR5*') finds that global carbon emissions need to be reduced by 40 per cent (at a minimum) to achieve a temperature increase of less than 2 degrees Celsius above pre-industrial levels. The *AR5* also highlights that carbon emissions need to be net zero by 2050 to limit the temperature rise to below 1.5 degree Celsius.[66] The IPCC recognises that slight portfolio shifts and small changes to current investment practices are not sufficient to counteract climate risk. Instead, what is required is the mainstreaming of climate finance in financial regulation and a dramatic portfolio shift towards long-term low emission assets.[67] In conclusion, institutional investors (such as pension funds) need to be considering climate-related risks aggressively, including risks that flow from an urgent shift of portfolios towards a low-carbon economy.

ESG risks in the form of climate change risks are urgent and imminent risks to the financial stability of pension funds and other financial institutions, rather than a long-term risk that may crystalise at some point in the future.[68]

1.3.4(b) Manifestation of the three-tiered conception of climate risk for pension funds

Climate change risk is best understood as comprising physical risks, legal risks and – quite importantly – transition risks. The three-tiered conception of climate change risks as physical, liability and transition risk gains affirmation from the TCFD, the PRI and the academia generally.[69] This is a broader and more inclusive conception of climate risks, as opposed to the conception that climate risks simply flow from environmental factors; that is, the 'E' is ESG. This is what is referred in this thesis as the holistic approach.

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[66] Intergovernmental Panel on Climate Change ('IPCC'), *Fifth Assessment Report* (IPCC, 2014) <https://www.ipcc.ch/assessment-report/ar5/> ('*AR.5*'); Bank of England, *Open Letter on Climate-Related Financial Risks* (17 April 2019) <https://www.bankofengland.co.uk/news/2019/april/open-letter-on-climate-related-financial-risks>.

[67] IPCC (n 66) s 4.4.5.

[68] Sarah Barker et al, 'Climate Change and the Fiduciary Duties of Pension Fund Trustees – Lessons from the Australian Law' (2016) 6(3) *Journal of Sustainable Finance & Investment* 211, 212-214.

[69] Financial Stability Board, *Recommendations of the Task Force on Climate-related Financial Disclosures* (Financial Stability Board, 2017) <https://www.fsb.org/wp-content/uploads/P290617-5.pdf>; PRI, *Climate Change for Asset Owners* (n 60); Hutley and Hartford-Davis (n 29n); Barker et al (n 68) 6.

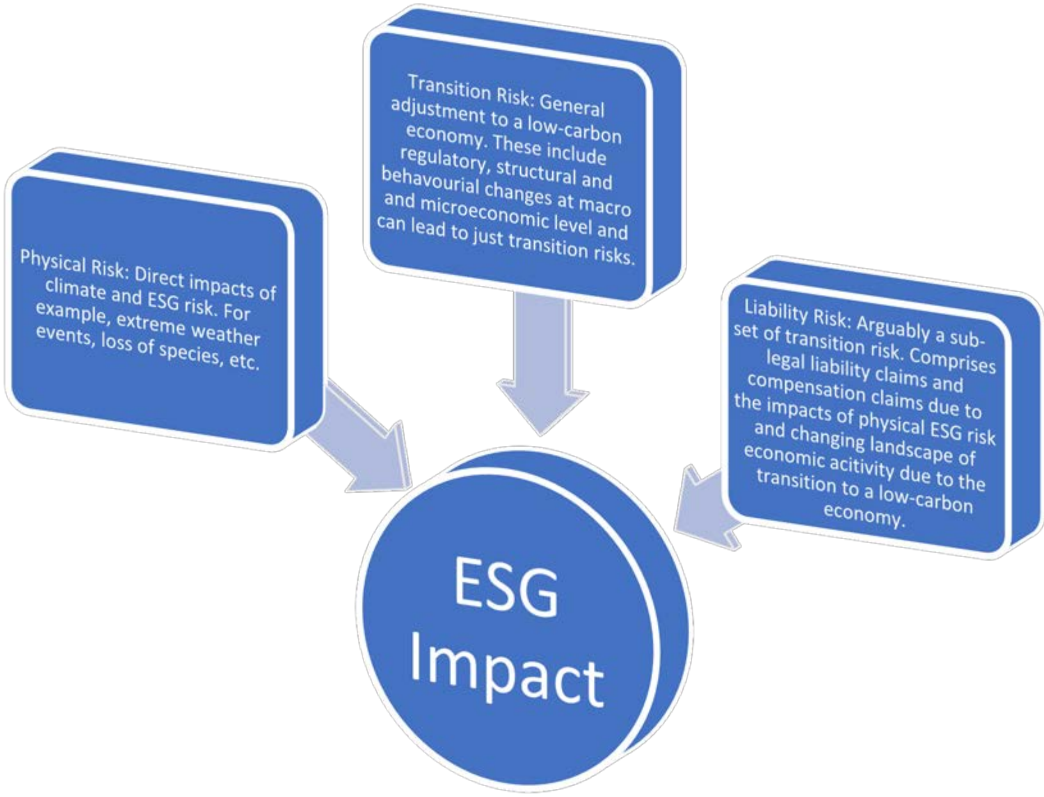

Figure 1.1: ESG risks. It must be noted that the thesis argues for a holistic approach to climate risk that encompasses all three elements and subtle aspects of climate risk such as just transition risks.

Climate risks pose environmental risks but also permeate social and governance concerns. Thus, the conception of incorporating climate risks in a holistic manner (physical, liability and transition) is the best way for pension funds to safeguard their portfolios in the long-term and address the warnings of the IPCC. Instead of treating ESG risk in a compartmentalised fashion, pension funds need to address risks such as climate change holistically as they encompass all three elements of ESG risk.[70] In practice, adopting a holistic approach would entail pension funds taking steps in relation to climate risk that are based on a long-term consideration of climate risk and that address subtleties of climate risk (such as just transition risks) and that consider physical, transition and legal risks of climate change. Having a policy on climate risk, taking member views into account, divesting from fossil fuels and utilising climate scenario analysis, for instance, would showcase a pension fund's long-term and holistic approach to climate risk.

[70] Robins, Brunsting and Wood (n 2) 10.

Physical risks of climate change are the most tangible and are easily identifiable. Physical risks embody tangible risks that directly impact the environment and, by extension, economic activity. Physical risks of climate change can manifest over the long-term and, increasingly, over the short-term. Examples of long-term physical risks include sea level rise, ocean acidification, loss of biodiversity and elements of the ecosystem, melting icecaps, and so on.[71] Short-term instances of physical climate risks of are increasingly common; for example, extreme weather events.[72] Recent examples include the South Asian heatwave of 2015, Tasmanian and Australian floods of 2018, Tropical Cyclone Maria and Australian bushfires of 2019 and 2020. In light of the long- and ever-increasing short-term physical risks of climate change, pension funds need to dramatically change their methodology of doing business, investments, and portfolios. The required change leads into the liability and transition risks of climate change.

Liability risks, like transition risks, flow from the imminent move towards a low-carbon economy. Liability risks refer to legal risks that may result from claims initiated 'by those who suffered loss and damage arising from climate change'.[73] They should be understood as a subset of transition risk as both liability and transition climate risks directly result from the urgent shift required towards a low-carbon economy. Pension funds, like other institutional investors and businesses, are increasingly vulnerable to potential liability risks that flow from the shift to a low-carbon economy. Since the Paris Agreement, not only have legal standards, policies and regulatory guidance evolved, but so awareness of climate change risks has increased. For example, in relation to pension funds in the UK and Australia, the duties of trustees and disclosure standards have benefited from increased regulatory guidance and scrutiny on climate change risks in recent times.[74] Increased regulatory guidance informs the

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[71] Douglas J. Arent et al, 'Key Economic Sectors and Services' in C. B. Field et al (eds), *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014) 659 <https://www.ipcc.ch/site/assets/uploads/2018/02/WGIIAR5-Chap10_FINAL.pdf>.

[72] Will Steffen, Martin Rice and David Alexander, *2017: Another Record-Breaking Year for Heat and Extreme Weather* (Climate Council of Australia Ltd 2018) <https://www.climatecouncil.org.au/uploads/8e9c2b91ce3c3ebb7d97e403a6fdf38e.pdf>; Will Steffen, Annika Dean and Martin Rice, *Weather Gone Wild: Climate Change-Fuelled Extreme Weather in 2018* (Climate Council of Australia Ltd 2019) <https://www.climatecouncil.org.au/wp-content/uploads/2019/02/Climate-council-extreme-weather-report.pdf>.

[73] Mark Carney, *Breaking the Tragedy of the Horizon – Climate Change and Financial Stability* (Speech, Lloyd's of London, 29 September 2015) <https://bit.ly/2KQ1gFG>.

[74] See generally Geoff Summerhayes, *Australia's New Horizon: Climate Change Challenges and Prudential Risk* (Speech, Insurance Council of Australia Annual Forum, 17 February 2017) <https://www.apra.gov.au/news-and-publications/australias-new-horizon-climate-change-challenges-and-prudential-risk>; APRA (n 12); HM Government, *Aligning your Pension Scheme with the TCFD*

regulatory expectation from pension trustees in relation to their obligations under the duties of trustees and disclosure obligations.

Recently, one of the largest pension funds in Australia, the Retail Employees Superannuation Trust (REST), was sued in relation to climate risks. The case started in 2017 as a claim that REST was failing to disclose on its actions in relation to addressing climate-related risks.[75] Even this claim at the time was a landmark proceeding with implications for the Australian pension industry as a whole. Since 2017, the case has increased in significance as a global test case for pension funds, with broader questions being the basis of the claim, such as whether or not REST was considering climate risks in its risk management and investment decision-making. The case alleged that REST was in breach of sections 52(b) and (c) of the *Superannuation Industry (Supervision) Act 1993* (Cth) ('*SIS Act*').[76] These statutory provisions govern the duties of loyalty and care of pension fund trustees owed to members. The member suing REST, Mr McVeigh, alleged that REST not only failed to provide adequate information in relation to consideration of physical and transition impacts of climate risks, but also that the trustees were not acting in the interests of members and did not act with care and skill.[77]

Before the case could go to hearing, REST settled the claim, acknowledging that climate change risk is a material risk with contemporary financial consequences. REST has vowed to not only take a long-term approach to climate risk, but also to align itself with the recommendations of the Task Force on Climate-related Disclosures ('TCFD'). Additionally, REST clearly expects its investee companies to disclose on climate risks actively.[78] The case could have been an excellent Australian and global test case with clear implications for the duties of trustee in relation to climate risks. Nonetheless, it is argued that the fact that one of the largest Australian pension funds settled a claim by only one member signifies the current

Recommendations: A Guide for Trustees on Integrating Climate-related Risk Assessment and Management into Decision Making and Reporting (HM Government, 2020) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877305/aligning-your-pension-scheme-with-the-TCFD-recommendations-consultation-guidance.pdf>.

[75] *McVeigh v Retail Employees Superannuation Trust* (NSD1333/2018) <http://climatecasechart.com/non-us-case/mcveigh-v-retail-employees-superannuation-trust/>.

[76] *Superannuation Industry (Supervision) Act 1993* (Cth) ('*SIS Act*') ss 52(b), (c).

[77] For a general summary, see Clayton Utz, 'No Rest for Superannuation Trustees on Climate Change Risk', *Lexology* (Web Page, 12 November 2020) <https://www.lexology.com/library/detail.aspx?g=d6642281-929a-4ff3-b49e-91ed1c3b860b>.

[78] Ibid.

perception that climate risks are increasingly material financial risks that need to be taken into account. This case is also relevant for illustrating the legal gap of a lack of test cases that equate duties of trustees with the contemporary understanding of climate risk. Indirectly, the case also highlights legal gaps in the form of regulatory gaps in relation to understanding of regulatory expectations in considering climate risks by pension fund trustee.[79]

Additionally, in July 2020, a law student sued the Australian Government for failing to disclose the financial risks of climate change in relation to investment in government bonds.[80] Companies, as well as individuals through their pension fund, invest in these bonds and the Australian Government has not disclosed climate change risks that impact the bond investments. This case, too, has potential ramifications for financial institutions such as pension funds as increasingly climate change disclosure is becoming the established norm. Pending the decision of the case, and in the light of the settlement of the REST case, pension funds in the UK and Australia would do well to display evidence of consideration of all aspects of climate change risks in the long-term (physical, liability and transition). It is also foreseen that such litigation will increase and start to penetrate subtle aspects of climate risks, such as the content of climate disclosures, standards required to meet the disclosure requirements, and so on. Pending a test case and clearer regulatory guidance on climate risks, a holistic approach to climate risk remains elusive as an industry response.

It is worth noting that in August 2017, before the proceedings against REST and the Australian Government, two shareholders of the Commonwealth Bank filed a case in the Federal Court against the bank for failing to disclose climate change risk in its annual reports. This case certainly paved the way for the two other proceedings. This was going to be the first case of its kind, and would have had significant repercussions for corporate and pension fund governance. However, the case was eventually withdrawn when the Bank acknowledged climate change risk in its subsequent annual report.[81] Increasing liability risks is one of the factors that points to the need for a holistic approach to climate risks by pension funds. Pension funds should not think they are insulated from liability risks, if they already disclose

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[79] For a detailed analysis, see s 4.4.
[80] *O'Donnell v Commonwealth of Australia* (VID482/2020) <http://climatecasechart.com/non-us-case/odonnell-v-commonwealth/>.
[81] *Abrahams v Commonwealth Bank of Australia* (VID879/2017) <http://climatecasechart.com/non-us-case/abrahams-v-commonwealth-bank-australia/>.

on climate risks. Rather, pension funds need to consider climate risks holistically and address subtle aspects of climate risks that manifest over the long-term, such as just transition risks.

Exact liability risks are uncertain because of the gaps in law and policy, in the form of regulatory guidance. The law and accompanying regulatory guidance end the legal uncertainty around whether pension funds can legally take climate risks into account, as per the duties of trustees and disclosure obligations. Nonetheless, the thesis argues that uncertainty persists in addressing climate risks holistically by pensions funds in terms of minimum actions required. For example, is a disclosure of a responsible investment policy adequate, or does a fund need to display evidence of active consideration of climate risks? To illustrate this uncertainty and the legal gaps (in the form of regulatory gaps and lack of test cases) in the current legal response of pension funds in the UK and Australia, the lens of just transition risk is applied to the current legal regime for pension funds.[82]

Transition risks are a direct by-product of a shift or 'transition' to a low-carbon economy.[83] In other words, transition risks manifest from the significant structural changes to the economy required by the transition to a low-carbon economy.[84] Given the urgency of reaching the 2030 and 2050 Paris Agreement goals, these transition risks are becoming more acute. The liability risks alone that flow from transition risks are earmarked to affect pension funds at an increasing rate. Apart from liability risks, transition risks include market, technological and financial risks.[85] Technology transition risks emerge from the shift from carbon-intensive to carbon-friendly technologies; for example, divestment from fossil fuel sources and a shift towards renewable energy sources and products. Increased productivity and competition in the hybrid and electric car industry provide a current example: even Formula One cars, the highest category of motor racing, have shifted to hybrid vehicles.[86] The technology risk emerges due to older technologies and assets becoming redundant; it also

[82] For an analysis of just transition risks and duties of trustees, see s 4.4.
[83] Financial Stability Board, *Recommendations of the Task Force* (n 58) 5.
[84] Bank of England, *The 2021 Biennial Exploratory Scenario on the Financial Risks from Climate Change* (Discussion Paper, December 2019) <https://www.bankofengland.co.uk/-/media/boe/files/paper/2019/the-2021-biennial-exploratory-scenario-on-the-financial-risks-from-climate-change.pdf>.
[85] Ibid.
[86] Caroline Delbert, 'Formula One's Path to Total Carbon Neutrality', *Popular Mechanics* (Web Page, 12 November 2019) <https://www.popularmechanics.com/cars/hybrid-electric/a29777576/formula-one-carbon-neutral/#:~:text=Since%202009%2C%20F1%20cars%20have,incentivized%20many%20more%20hybrid%20developments>; Mercedes AMG F1, *EQ Power in F1: A Decade of Hybrid Success* (Web Page, 2019) <https://www.mercedesamgf1.com/en/news/2019/08/eq-power-in-f1-a-decade-of-hybrid-success/>.

poses reputational risks for those who continue to own such assets. Reputational risks are increasingly financial risks for pension funds, and trustees need to be wary of holding assets and business practices that attract reputational climate risks.[87] Reputational risks also emerge from changing community perceptions and the perceived role of the organisation in increasing its exposure to a low-carbon economy.

Transition risks in the form of market and financial risks also flow from the shifts in demand for products, commodities and industries. For instance, transition to a low-carbon economy initiates a reassessment of asset risk, values and prices. In turn, a pension fund's portfolio can increase or reduce the fund's creditworthiness, perhaps due to a portfolio that invests in fossil fuels. In other words, all market participants and stakeholders are affected by transition risks in the form of market risks. Financial risks and opportunities that flow from transition risks entail that assets can go through extreme price variations due to the transition to a low-carbon economy. For instance, it is certain that a pension portfolio that invests in renewable and emerging clean energy technologies is more resilient than one that still invests heavily in coal and thermal energy. Additionally, the attached reputational risks to assets and asset classes can also increase financial risks for pension funds as reputational risks dissolve into brand image and stakeholder perceptions.[88]

1.3.5 The concept of just transition

The legal regime that governs pension funds' inclusion of climate risks still suffers from legal gaps and uncertainties. While the legal uncertainty of taking climate risks into account by pension funds has virtually dissipated due to regulatory guidance and soft law initiatives, the regime still needs to address legal gaps to enable a holistic approach by the pension funds industry. To illustrate the issues of legal gaps, uncertainty and lack of conformity in addressing climate risk by pension funds, this thesis focuses on just transition risks for pension funds. It also acknowledges that the concept of just transition has a wider meaning; a brief history is therefore provided.

[87] For reputational risks, see generally ch 7.

[88] See generally s 7.2.2; Megan Bowman, 'The Limitations of Business Case Logic for Societal Benefit & Implications for Corporate Law: A Case Study of "Climate Friendly" Banks' (29 August 2014) <https://ssrn.com/abstract=2489116> 9; '[O]ver 40,000 Australians wrote letters urging [ANZ bank] not to finance the mill; over 2000 shareholders wrote letters urging them not to finance the mill; over 1000 customers visited their branch to complain in person': The Wilderness Society, GetUp! and Bank Track, 'Gunns Pulp Mill, Tasmania: High Risk Investment?' (Full-page Advertisement in *The Australian*, 6 May 2009).

The preamble to the Paris Agreement increased the prominence of the concept of just transition when it signposted the need to safeguard 'decent work and quality jobs'.[89] The recent interest has, for the most part, been initiated by the labour and trade union movements.[90] The concept of just transition also has a wider social meaning, with roots that go back at least 30 years. First developed by North American unions in the 1990s,[91] the concept developed as a norm for mitigating job losses due to ongoing environmental protection policies. Just transition was a job-saving notion, mostly prevalent in the coal and mining industries.[92]

As time passed, unions, labour movements and other stakeholders developed a new meaning for just transition. It became a conscious and collective effort by unions as an initiative that plans and invests for a sustainable economy in order to transition towards a sustainable economy and jobs. The planning and investment for a more sustainable economy and workforce became more pronounced as awareness of climate change and climate change risks increased. Since then in the 2000s, unions have been successful in campaigning for the insertion just transition notions in international regimes, such as the International Trade Union Confederation (ITUC), International Labour Organization (ILO), United Nations Sustainable Development Goals (SDGs), and the Paris Agreement, amongst other.[93]

Just transition for institutional investors such as pension funds gains momentum from these international regimes and arguments for investors action are increasing. The increase in

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89 UNFCCC (n 4) 2.
90 See generally International Labour Organization, *Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All* (ILO, 2015) <http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf>; Just Transition Centre, *Just Transition: A Report for the OECD* (May, 2017) <https://www.oecd.org/environment/cc/g20-climate/collapsecontents/Just- transition-Centre-report-just-transition.pdf>; European Trade Union Confederation, *A Guide from Trade Unions: Involving Unions in Climate Actions to Build a Just Transition* (ETUC, 2018) <https://www.etuc.org/sites/default/files/publication/file/2018-09/Final%20FUPA%20Guide_EN.pdf>.
91 Béla Galgóczi, *Just Transition Towards Environmentally Sustainable Economies and Societies for All. ILO ACTRAV Policy Brief* (ILO, 2018) 5 <https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---actrav/documents/publication/wcms_647648.pdf>.
92 See generally ibid.
93 See generally International Trade Union Confederation, *Building Workers' Power. Congress Statement.3rd ITUC World Congress, 18-23 May 2014, Berlin* (ITUC, 2014) <https://www.ituc-csi.org/building-workers-power-congress>; ILO, *Guidelines for a Just Transition* (n 93); UNDP, *Sustainable Development Goals* (n 4); United Nations Framework Convention on Climate Change, *Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs. Technical Paper by the Secretariat, FCCC/TP/2016/7* (UNFCCC, 2016) <https://unfccc.int/sites/default/files/resource/Just%20transition.pdf>.

arguments is attributed to the fact that just transition risks are an element of climate risks and awareness of climate risks is increasing on a daily basis. Recent examples of events that have sparked just transition calls and actions in Australia and the UK include the closure of the Port Augusta coal mines and the effect on the Latrobe Valley community in Australia.[94] Meanwhile, Yorkshire and the Humber region serves as a UK example of the effect on communities and industries from a decline in coal production.[95]

1.3.5(a) Just transition risks for pension funds

The conception of just transition has broad implications for society as a whole; for example, ecological changes, macro- and micro-economic changes, worker implications and community implications. These broader implications notwithstanding, this thesis utilises just transition risks for pension funds as an exemplar for highlighting uncertainties in addressing climate risks by pension funds. Meaning, the just transition risk lens helps in understanding whether or not pension funds are addressing climate risks holistically because just transition risks are one of the subtle aspects of climate risk that permeates all three aspects of ESG risk. In simpler terms, just tranition risks act as an extension of ESG risks as a whole.[96] Since the just transition objective has been added to the Paris Agreement, calls for just transition risk management by institutional investors have increased exponentially and covers $30.7 trillion of assets under management.[97]

Climate risk analysis is quite prominent in other soft law initiatives, predominantly the TCFD. However, the TCFD climate analysis is similar but crucially different and the thesis views the just transition risk lens as an evolution of the more conventional climate risk analysis of the TCFD. This is because the TCFD climate risk analysis, treats climate risk in different silos of ESG risk and does not utilise a holistic climate risk lens that touches on all

[94] Environment Victoria, *A Just Transition for the Latrobe Valley* (Web Page, 27 May 2019) <https://environmentvictoria.org.au/just transition-latrobe-valley/>.
[95] See generally Grantham Research Institute on Climate Change and the Environment, *Policy Brief: Investing in a Just Transition in the UK* (February 2019) <http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2019/02/Investing-in-a-just-transition-in-the-UK_policy-brief_8pp-1.pdf>.
[96] Chris Briggs & Franziska May, *Just transition: Implications for the Corporate Sector and Financial Institutions in Australia* (Global Compact Network Australia and National Australia Bank, October 2020) < https://unglobalcompact.org.au/wp-content/uploads/2020/10/2020.10.28_Just-Transition-Report_Final.pdf> page 11
[97] Patrick Bolton, Morgan Despres, Luiz Awazu Pereira Da Silva, Frederic Samama & Romain Svartzman, *'The Green Swan: Central banking and financial stability in the age of climate change'* (Bank of France, January 2020) <https://www.bis.org/publ/othp31.pdf>.

three elements of ESG.[98] However, the TCFD does analyse risks that link with the shift to a low-carbon economy and talks about transition risks. The TCFD recommendations analyse transition risks in the form of policy and legal risks, technology risks, market risks and reputational risks.[99] Not to discount the fact that the TCFD along with the PRI has been instrumental in mainstreaming ESG risks,[100] nonetheless, climate risk analysis needs to take the next organic step from mainstreaming to implementation of holistic climate risk management that covers all three elements of ESG risk. The thesis affirms the view that lenses like the just transition risk lens, that coversall three elements of ESG risk are apt for a holistic analysis of climate risk. The thesis notes that the TCFD does not mention either just transition, stranded assets or social climate risks in its recommendations but only signposts the shift to a low-carbon economy in general terms.[101] Thus, the thesis chose the lens of just transition risks as an exemplar and tool to evaluate current approaches by the pension fund regime in the UK and Australia in relation to climate change risk.

The conceptualisation of just transition risks in this thesis primarily refers to the financial impact on members due to the necessary and inevitable shift to a low-carbon economy. The shift to a low-carbon economy impacts on the portfolios of pension funds and, by extension, on members who will be left with smaller pensions in the future due to the urgent transition required towards a low-carbon economy. The urgent transition can lead to financial impacts for pension portfolios and members, if certain asset classes and sectors suddenly go through extreme revaluations, meaning they either increase or decrease in value dramatically within a short time period. For instance, pension funds which are highly invested in fossil fuels and other carbon-intensive products may be left with stranded assets.[102] Additionally, pension funds which are late in investing in renewable energy and climate geoengineering solutions may find that prices have increased and they are left with smaller profit margins and pensions for their members.

Secondly, the thesis is also conscious of the social ramifications of just transition climate risks for pension fund members. Just transition particularly the social aspects of such risks

[98] TCFD (n 58) pages 9 – 10.
[99] Ibid page 5
[100] See ss 1.3.3 and 2.6
[101] TCFD (n 58)
[102] Robins, Brunsting and Wood (n 2).

have often been overlooked in mainstream climate risk analysis.[103] For pension funds, the thesis views social risks as indirect risks to pension fund portfolios and pension fund members for the inevitable transition to a low-carbon economy. The transition poses risks to members and the community they live in due to multiple reasons. Firstly, access to decent work may be limited in changing conditions and securing employment at previous community standards may be difficult. Closure of carbon-geared manufacturing sites, plants and factories will severely impact jobs and the economic welfare of these carbon-intensive communities and similarly aligned regional areas. Lastly, there may be inequity and lack of fairness in-terms of cost and benefits during the transition for these communities and regions. For example, these communities may bear higher costs due to being impacted directly such as higher energy costs, job losses may be more acute in these communities and these carbon-intensive communities may bear the brunt of environmental hazards, air, water and soil pollution.[104]

Lastly, while not taking into account just transition risks for pension funds could lead to a dire situation, an unorganised and disorderly transition would be equally problematic. A disorderly transition would lead to inequality, lessen economic efficiencies and increase overall social costs to the economies.[105] In the most extreme case, a disorderly transition may even destabilise economies and governments in the long-term. Simply a disorderly transition will aggravate the risk of less pension for members, stranded assets and increase social risks. Pension funds need to take account of just transition risks for their portfolios in order to protect the interests of their members in the long-term. Especially large pension funds, which are UIs and social actors, need to understand that a well-functioning future economy is imperative for the long-term financial interest of their portfolios and members, including the members's social interests.

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[103] Nick Robins, Sophia Tickel & William Irwin, Banking the Just Transition in the UK (Grantham Research Institute on Climate Change and the Environment, 2019) < https://www.lse.ac.uk/granthaminstitute/publication/banking-the-just-transition-in-the-uk/>; Nick Robins, Vonda Brunsting and David Wood, *Climate Change and the Just Transition: A Guide for Investor Action* (Grantham Research Institute on Climate Change and the Environment, 2018) <https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/11/IJT-guidance-for-investors_web-spreads.pdf>.

[104] Ibid

[105] Ibid 11.

Pension funds which do not adopt a holistic view of climate change risks will inevitably be faced with assets in their portfolios that either cannot be sold or must be sold at negligible prices. The term 'stranded assets' was arguably mainstreamed by the Carbon Tracker Initiative (CTI) as a by-product of not taking transition risks into account.[106] Stranded assets are not able to earn an economic return due to economic, physical and regulatory stranding. Climate change risks mean that pension funds could face stranded assets due to all three reasons.

While stranded assets usually refers to carbon-intensive asset classes (such as fossil fuels), this thesis takes the view that climate risks are pervasive and can encompass all sectors;[107] for example, sectors and industries that are reliant on fossil fuels, although they might not be releasing their own carbon emissions. Some technologies can also become stranded if more efficient technologies are introduced. Similarly, real estate can become stranded due to climate risks. A recent example is the collapse of houses on the New South Wales Central Coast due to beach erosion caused by extreme weather.[108] While fossil fuels are the 'hottest' case study in relation to stranded assets, pension funds need to be aware that investment in fossil fuels may not be the only determinant of stranded assets. Nonetheless, it is acknowledged that fossil fuels cannot be consumed if the goals of the Paris Agreement are to be fulfilled. For this reason, the focus remains on fossil fuels divestment as a minimum standard to address just transition risk by pension funds.

There are acute social risks as well to members, their jobs, their communities and the regions they live in from not only just transition risks but also from a mismanaged/disorderly transition. A disorderly transition implies that people and community impacts were not considered during the transition and this leads to stranded assets, lost jobs and negative impacts on livelihoods. A disorderly transition can be a result of inaction by governments and

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[106] Carbon Tracker, *Terms List: Stranded Assets* (Web Page) <https://carbontracker.org/resources/terms-list/#stranded-assets>.

[107] See generally European Commission, *Climate Action: Sectors Affected* (Web Page) <https://ec.europa.eu/clima/policies/adaptation/how/sectors_en>; Swenja Surminski et al, 'Assessing Climate Risks across Different Businesses and Industries: An Investigation of Methodological Challenges at National Scale for the UK' (2018) 376(2121) *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 20170307 <http://eprints.lse.ac.uk/87372/1/Surminski_Assessing%20Climate%20Risks_Accepted.pdf>.

[108] Callum Godde, 'Houses under Threat from NSW Beach Erosion', *Newcastle Star* (Newcastle, 18 July 2020) <https://www.newcastlestar.com.au/story/6838992/houses-under-threat-from-nsw-beach-erosion/>.

financial institutions but also rushed and uninformed decision making.[109] The thesis argues that governments and financial institutions do not manage climate risks adequately and ignore subtle aspects of climate risk such as just transition risks. Apart from direct impact on pension portfolios and future financial impacts on members in terms of less pensions, there are social risks to members as well. An unmanaged transition will distribute the costs of climate change risk unevenly and impact carbon-intensive regions and communities more directly. For example regional communities that live in areas of traditional fossil fuel production will get impacted due to loss of livelihoods, standards of living and ofcourse less pensions. Thus, the creation of alternative livelihood and reengagement of labour in such areas is crucial to avoid stranding of assets, workers and communities. Thus to avoid these social risks especially regional social risks, the phase-out of fossil fuels must be managed by governments through law reform and financial institutions such as pension funds through adequate and holistic climate risk management otherwise there will be stranded workers and communities in-addition to less pensions.[110] One of the actions pension funds and other financial institutions need to take as a minimum standard is to increase awareness and coordinate with their members on climate risk including subtle aspects such as just transition risk.[111] Pension funds need to indicate this standard and the law must enable them to do so with clear regulatory guidance. Thus, this is why the thesis views the accounting of members's views as a key indicator of gauging action on just transition risks.[112]

This thesis uses the specific conception of climate risk – just transition for pension funds – to highlight the uncertainties, disparity and legal gaps that still exist in the legal pension fund regime. It is imperative for pension funds to approach climate risk holistically. This means focusing on all implications of climate risk that embody environmental, social and governance factors of climate risk in the form of physical, liability and transition risks. Just transition risk for pension funds is an appropriate lens and exemplar that encompasses all

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[109] Global Compact Environment Report (n 96) page 5

[110] Robins, N. & Rydge, J. (2019) *'Why a just transition is crucial for effective climate action'* < https://www.unpri.org/why-a-just-transition- is-crucial-for-effective-climate-action/4785. article#:~:text=The%20concept%20of%20 a%20just,what'%20policies%20will%20be%20 used.&text=Managing%20the%20Process%20of%20 Change,economic%20costs%20of%20climate%20 disruption>

[111] Ajay Ghambhir, Fergus Green and Peter J G Gearson, *Towards a just and equitable low-carbon energy transition* (Imperial College London, 2018) < https://www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/26.-Towards-a-just-and-equitable-low-carbon-energy-transition.pdf>; Global Compact Environment Report (n 96) page 52

[112] See s 1.3.5(b)

aspects of ESG and reiterates the importance of a holistic approach to climate risk.[113] The lens promotes a holistic and urgent consideration of climate risk. Figure 1.2, below, illustrates where this lens sits within the conception of responsible investment.

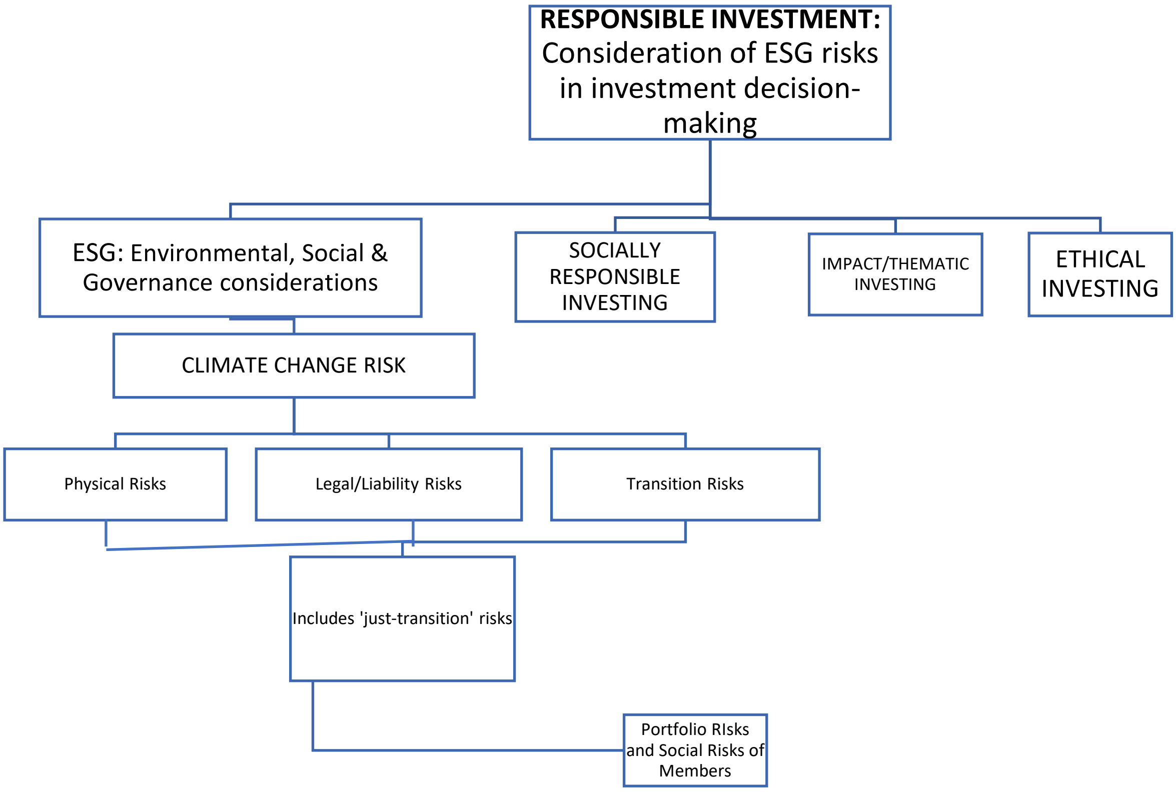

Figure 1.2: Details of umbrella concepts and how climate risks fits into those concepts.

1.3.5(b) Evidencing the just transition risk lens for pension funds

To be able to gauge whether or not the current legal regime allows pension funds to take subtleties of climate risk into account – in this case, just transition risks for pension funds – evidence of the presence of four indicators is required as a minimum standard to evaluate the presence of a holistic approach in the consideration of climate risk by pension funds. These indicators help to establish to what extent pension funds investment practices are aligning with the Paris Agreement i.e. pension funds are taking necessary steps to address climate risks holistically. As section 1.2.1 mentions, aligning with the Paris Agreement has its challenges and these are discussed for each indicator below. Ultimately, each indicator is

[113] Robins, Brunsting and Wood (n 2) 10.

justifiable as a minimum standard that pension funds need to adopt to align with the Paris Agreement and address climate risks holistically.[114] These indicators are:

1) **Disclosure - Policy on climate change and/or responsible investment:** Pension funds need to develop and implement a comprehensive responsible investment policy and/or a climate change policy that includes clear direction on physical, transition and liability risks of pension funds. As a given, pension funds should highlight their long-term investment objectives and disclose how they are taking climate risk into account holistically. To be able to indicate evidence of alignment with the Paris Agreement, disclosures need to be comparable,[115] linked to the Paris Agreement goals temperature goals[116] and contain a transparent climate action plan.[117] Comparability and assessment of disclosures is crucial in an ideal world so that disclosures can be assessed and utilised to embed real deviation of finance towards a low-carbon Paris-aligned economy.[118] Unfortunately, this situation of comparability is quite far-off due to the generalised and open-ended nature of regulatory guidance in the UK and Australia and also to an extent the flexible nature of soft law initiatives.[119] For instance arguably the most pertinent disclosure initiative, the TCFD's guidelines are quite flexible and do not alleviate the proliferation of methods and strategies available to institutional investors to disclose on climate risk.[120]

   Another main challenge to this indicator in relation to the Paris Alignment is alignment with the goals of the Paris Agreement itself. The Paris Agreement sets a net zero 2050 goal while setting temperature goals. Ideally disclosures should indicate how the pension funds are contributing to emission reductions towards net zero.[121] In actioning this last point, Paris alignment also requires a transparent climate action

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[114] To judge the limitations and opportunities associated with these indicators as part of the empirical method see s 1.4

[115] James Rydge, *Aligning finance with the Paris Agreement: An overview of concepts, approaches, progress and necessary action* (Grantham Research Institute on Climate Change and the Environment, December 2020) <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2020/12/Aligning-finance-with-the-Paris-Agreement-3.pdf> page 27

[116] Ibid page 14

[117] Paris Aligned Investment Initiative, *Net Zero Investment Framework Implementation Guide* (The Institutional Investors Group on Climate Change, March 2021) <https://www.parisalignedinvestment.org/media/2021/03/PAII-Net-Zero-Investment Framework_Implementation-Guide.pdf page 23>;

[118] Rydge (n 115) page 2

[119] See s 4.4.1 and 5.4.1

[120] TCFD (n 58) page 20

[121] This point about the temperature goals of the Paris Agreement is expanded further in 1.3.5(b)(4)

plan. While expecting a transparent climate action plan from pension funds is optimistic due to the open-endedness of regulatory guidance in the UK and Australia nonetheless, expecting disclosure of a distinct and separate policy on climate risk.[122] Given the current pension fund regime and the push to take climate risk into account via multiple methods rather than a holistic approach, however, it is acknowledged that such a comprehensive disclosure policy (that includes just transition risks and covers the idealisms of the Paris Alignment) is an optimistic expectation, as regulations have not assertively mapped out such a policy let alone connected it with the Paris alignment. With the existence of the open-ended regulatory guidance and soft law initiatives and lack of guidance on emission reductions, nonetheless, as a minimum best practice requirement, pension funds should have a separate policy on climate risk as a given. As a starting point in evidencing inclusion of just transition risks, pension funds must have in place a policy of responsible investment and/or climate change. At the very least, this indicates that pension funds are in their infancy in terms of this requirement of just transition risks.

2) **Taking members' views into account:** This second indicator links directly with the Paris alignment as a disorderly transition leads to stranding of assets and in turn less pensions for members. Members are impacted directly by just transition risk for pension funds: economically, due to potential risk to pensions due to repricing and stranded assets; and socially, as the transition affects communities and livelihoods, if it is not managed. Thus, it is imperative that beneficiaries be part of the process (at least in relation to just transition climate risk for pension funds) and be made aware of the steps their pension fund intends to take. This is because just transition risks are financial risks to the beneficiaries as they will reduce their pensions if the fund's investments become stuck in stranded assets. They need a seat at the table and their voice needs to be given credence.
   However, there is a primary challenge with aligning with indicator with the Paris agreement. The difficulty arises in gauging the consensus of the members as a whole with respect to accounting for climate risk. While gauging the consensus would be relatively easy when the issue at hand is something so drastically immoral that most members would be against it for example human right abuses, child trafficking and etc. However, the case for climate risk is not so clear-cut and can be quite polarising.

[122] Chapter 6 analyses the data in relation to a separate climate policy see s 6.3.

The difficutly can be alleviated by the utilisation of tools that aid in gauging the consensus of members. Surveys and questionnaires for instance can provide the general outlook to trustees in-terms of member views. Additionally, some pension funds have member representatives on the board and their views can be taken as views of the members.[123] While addressing these challenges, pension funds must consider the views of their members as they respond to climate risks holistically. This will indicate that pension funds are serious about aligning with the Paris agreement as members are severely impacted by climate change risks, disorderly transitions and stranded assets.

3) **Divestment from fossil fuels:** The third indicator is self-explanatory. Divestment from fossil fuels is key to a transition to a low-carbon economy and avoiding of stranded assets and pensions. It is acknowledged, however, that climate change risks can cause stranded assets in other industries and sectors. Fossil fuels are the most imminent determinant of stranded assets and carbon emissions and thus pension funds need to be able to display evidence of divestment from fossil fuels as an indication of taking just transition risks into account.[124] Aligning this key indicator with the Paris goals is particularly challenging. The primary reason is that the Paris Agreement does not set emission reduction targets but rather sets temperature goals towards a net zero target by 2050. While the net zero target is laudible, it is not practicable if not accompanied by emission reduction targets. While prescribing the 2 degrees Celsius (pre-industrial levels) goal, the Paris Agreement does not allocate emission reduction targets for signatory nations let alone financial institutions such as pension funds. Emissions need to be reduced globally to achieve net zero, and in light of lack of legal intervention and signposting, how this could be done enables multiple approaches. A legal response is required to tackle the net zero target and drastic changes must be made to financial flows by 2030 as per the warnings of the IPCC.[125] This thesis views divestment (from fossil fuels) over engagement to be the necessary minimum best practice standard for pension funds in relation to climate risk. The thesis understands the 'divestment vs engagment' debate. Even though detailed analysis of this debate is beyond the scope of the thesis, some observations and arguments are stated.

[123] This and related challenges are discussed in s 4.4.2
[124] For analysis of the fossil fuel divestment movement and how it has shaped the consideration of climate risk, see s 3.4.
[125] For indication about warnings of the IPCC see s 1.1, s 1.3.4(a)

Engagement refers to leveraging the ownership stake in an investee companee and talking about what matters most to the investor. Engagement does result in shareholder value when investors constructively engage with their investee companies's management teams.[126] Proponents of engagement highlight that divestment leads to loss of opportunities as it deprives investors from having lasting impact.[127] Lastly, critics of divestment also posit that divestment does not reduce emissions but simply transfers ownership of dirty assets such as fossil fuels as another private investor may pick up the divested asset and that divestment does not align with the Paris Agreement.[128]

The above arguments are noted, however, the thesis contends that divestment is an aggressive form of engagement where talking to the investee company results in little or slow climate action. Engagement and then getting the outcome investors want is a slow process that does not align with the Paris Agreement goals or warnings of the IPCC in-terms of 2030 and 2050. Engagement progresses over a number of years and mostly does not increase shareholder value. Most investors outsource engagement and it is also contended that engagement works with the threat of divestment in the background.[129] In the view of the thesis, hesitant engagement is similar to greenwashing where institutions are seemingly doing something about climate risk but in reality no real gains are being made.[130] Secondly, not only is engagement contrary to the urgency of climate risks but it has so far failed to work. Hostplus fund in Australia serves as an example where engagement on climate risk has not been successful and there is a push by members and climate activists for aggressive divestment of fossil fuels.[131] Generally, the fossil fuel industry, especially coal, oil and gas, is still thriving unfortunately and financial institutions as of August 2020

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[126] CFA Institute, 'Investing in the Age of Engagement' (Web Page, 15 May 2021) <https://blogs.cfainstitute.org/investor/2019/12/17/investing-in-the-age-of-engagement/>

[127] eInvest, 'Divestment vs Engagement' (Web Page, 30 July 2020) <https://einvest.com.au/insights/divestment-vs-engagement/>

[128] See for example The Conversation, 'Fossil fuel divestment will increase carbon emissions, not lower them – here's why' (Web Page, 26 November 2019) <https://theconversation.com/fossil-fuel-divestment-will-increase-carbon-emissions-not-lower-them-heres-why-126392#:~:text=In%20a%20nutshell%2C%20the%20divestment,to%20addressing%20the%20climate%20crisis>

[129] Fossil Free UK, 'Divestment vs Engagement – Combatting the Greenwash' (Web Page 25 November 2016) <https://gofossilfree.org/uk/divestment-vs-engagement-combatting-the-greenwash/>

[130] ibid

[131] Investor Daily, 'Engagement has failed: Hostplus urged to dump fossil fuels' (Web Page, 22 Kanuary 2021) <https://www.investordaily.com.au/superannuation/48570-engagement-has-failed-hostplus-urged-to-dump-fossil-fuels>

have invested $1.1 trillion towards the equities and bonds involved in the 12 biggest coal, oil and gas expansion projects around the world.[132] Thirdly, the thesis perceives divestment as an engagement tool rather than a different process that can walk hand in hand with engagement. Divestment is a sanction-based engagement mechanism and can worl alongside engagement.[133] Consequently, in the opinion of the thesis, given the Paris alignment, divesting as the ultimate expression of engagement is necessitated.

Concerning the point, that dirty assets being picked up by other institutions in the economy and thus leading to no decrease in emissions is an oversimplification. In some instances, divestment may result in the transfer of a dirty asset to another investor. However, there is a long-term effect of divestment that increases the cost of capital for that dirty asset, reduces access to capital and also harms the brand reputation of the manufacturer that also leads to financial harm. Divestment clearly makes it expensive for a company to complete projects which are the subject of divestment and investor opposition. Additionally, divestment negatively impacts the brand image of companies and pressurises them to comply with investor demands.[134] Not only does divestment reduce the financial flows to the dirty asset but also enables stranding of some assets that should be left stranded in light of the Paris alignment such as coal plants, fracking facilities and etc.[135]

Nonetheless, the thesis acknowledges that divestment alone is not sufficient to align pension fund risk management with the Paris Agreement. What is needed is more legal intervention in-terms of law reform and legal direction via regulatory guidance that curbs net-emissions in the economy for example carbon tax, elimination of fossil fuel subsidies or particularly emission limits on companies.[136] The thesis affirms that pension funds should be displaying some evidence of divestment from fossil fuels (in

[132] Reclaim Finance, *Five Years Lost: How Finance is Blowing the Paris Carbon Budget* (Reclaim Finance, 2020) <https://reclaimfinance.org/site/wp-content/uploads/2020/12/FiveYearsLostReport.pdf>

[133] For support of this viewpoint please see Green Century Funds, 'Shareholder Engagement and Divestment are Mutually Reinforcing' (Web Page, 18 Spetember 2020) <https://www.greencentury.com/shareholder-engagement-and-divestment-are-mutually-reinforcing/>; BMO Global Asset Management, *Divestment or engagement – is it really either or?* (Web Page, September 2020) <https://www.bmogam.com/gb-en/institutional/news-and-insights/divestment-or-engagement-is-it-really-either-or/>

[134] Green Century Funds (n 133).

[135] James Rydge, 'Aligning Finance with the Paris Agreement' (n 1150) Page 4; also see the Adani mine example in North Queensland QUT Business School, '*Climate Change and the Fossil Fuel Divestment Movement*' (QUT, accessed May 2021) <https://research.qut.edu.au/centre-for-decent-work-and-industry/projects/climate-change-and-the-fossil-fuel-divestment-movement/>

[136] James Rydge, 'Aligning Finance with the Paris Agreement' (n 115) page 28; The Conversation (n 128).

any shape or form as law/regulation is silent in the UK and Australia).

Acknowledging that divestment on its own is not enough to holisitially account for climate risk and align with the Paris Agreement, the thesis recommends law reform to flesh out better standards for these indicators. Law reform can set minimum standards of best practice for this indicator and other indicators and can link with the goals of the Paris Agreement in a better way. Law reform can address the arguments against divestment such as transferring of the dirty asset by placing carbon taxes, emission thresholds and mandatory divestment on the ownership of such assets. Via gradual divestment and legal intervention, fossil fuel ownership can be phased out in a timely manner.[137] The PAII's implementation guide of 2021 also affirms and recommends gradual divestment as well as policy and legal intervention to align portfolios with the Paris Agreement.[138]

Ideally, there should be a clear strategy and plan in place for gradual divestment to meet the goals of the Paris Agreement. However, in the absence of hard law and regulatory guidance on this, pension funds must at least showcase some evidence of divestment, even if it is partial divestmen till law reform and regulatory guidance provides a standard plan for institution investors. Unfortunately, the UK and Australia are not there yet.[139]

4) **Incorporation of climate scenario analysis:** Climate change risks generally, and in the form of subtle climate risks such as just transition risks, require a long-term term approach to risk. Otherwise, subtle aspects of climate risks (such as just transition risks) are not captured by current risk assessment procedures. Scenario analysis forces trustees to take a long-term approach; this is also in line with their duties in the UK and Australia. Ideally, scenarios must align with the temperature goals and scenarios in the Paris Agreement and the IPCC reports. Unfortunately, once again, the law is silent on this indicator on the actual form of scenario analysis. Ideally what is needed to align with the Paris Agreement is a convergence and standardization.

The TCFD disclosures should be mandatory for institutional investors such as pension funds and scenario analysis that is forward looking and tied to the temperature

[137] Law reform on this point is discussed in section 7.3(1).
[138] PAII implementation guide (n 117) page 19, 22; Jame Rydge, '*Aligning Finance with the Paris Agreement*' (n 115) page 28.
[139] See ss 4.4.3 and 5.4.3

scenarios of the Paris Agreement should be a standard of minimum best practice.[140] Pension funds must utilise advanced and comparable metrics to promote consensus and Paris Alignment. First and foremost is the recently developing temperature metric. The temperature metric can assess portfolios in relation to Paris climate scenarios (1.5 degrees Celsius, 2 degrees Celsius and etc) not only at one point in time but can also estimate future alignment of portfolios with the Paris scenarios.[141] The thesis views the achievement of this form of the indicator only through law reform and clear regulatory guidance.[142] In the absence of any regulation on specifics of scenarios, however, pension funds must at the very least employ some form of climate scenario analysis, climate modelling and/or stress testing. An absence of these would indicate that the response of pension funds to climate risks generally, and specifically to just transition risks, is inadequate and ignorant of the Paris alignment.

Meeting these four indicators even in general terms – though not enough – is a crucial starting point that indicates that pension funds are considering climate risks holistically. However, the analysis and the findings indicate that while pension funds are doing something in relation to climate risk and do consider it legal, the current approaches in the UK and Australia do not indicate a holistic response to climate risk. This holistic approach is required to meet the goals of the Paris Agreement and address subtle aspects of climate risk, such as just transition risks.

1.4 Research methods and design

In analysing the extent to which the current legal regime allows pension funds to address climate risks holistically, multiple research methods are utilised: the doctrinal method; empirical method; and the comparative approach. Following Chynoweth's argument, section 1.4 articulates the three methods, explains how they help answer the key research questions and justifies their use.[143] Murphy and McGee support this style of articulation of the research design and methods, as it allows for a clearer picture of the thesis approach in

[140] James Rydge, 'Aligning finance with the Paris Agreement' (n 130) page 28 ;PAII implementation guide (n 117) page 9
[141] PAII implementation guide (n 117) page 20
[142] See ss 7.3 and 7.4 for analysis of reform
[143] Paul Chynoweth, 'Legal Research' in Andrew Knight and Les Ruddock (eds), Advanced Research Methods in the Built Environment (Wiley-Blackwell, 2008) 37.

answering the research questions.[144] While the section uses a compartmentalised style to analyse each of the three methods for the purposes of clarity, it is, nonetheless important to understand that an 'interplay' exists between the methods over the course of the whole thesis.[145] The interplay across the doctrinal, empirical and comparative approaches provides the thesis with a multi-dimensional outlook in the face of distinct challenges presented by the research questions.[146]

1.4.1 Doctrinal method in the form of a law-in-context approach

The doctrinal method involves the analysis and understanding of the law as it exists in statutes, case law and other regulatory instruments, such as regulatory guidance and supplementals. The doctrinal method is a study of law 'in books' that comprises primary and secondary sources.[147] As the most 'legal' of all research methods, the doctrinal method has had modern analytical iterations.[148] Arguably, the most mainstreamed definition of the doctrinal method is contained in the Pearce report. According to Pearce, doctrinal method includes 'exposition' of all legal rules governing a particular area of law, followed by 'analysis' of the relationship between those legal rules, including nuances and grey areas and, finally, a 'prediction' of future legal trends and developments.[149] The doctrinal method is also viewed as a two-part process that includes the primary sources and analysis of the law.[150] It is affirmed that the two-part process is supplemented by contextual and theoretical underpinnings that add value to the doctrinal method.[151] The thesis contains some aspects of the pure doctrinal method, while mostly utilising a law-in-context approach as a subset of the

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[144] Brendon Murphy and Jeffrey McGee, 'Phronetic Legal Inquiry: An Effective Design for Law and Society Research?' (2015) 24(2) *Griffith Law Review* 288, 291.

[145] Chris Dent, 'Relationships Between Laws, Norms, Practices: The Case of Road Behaviour' (2012) 21(3) *Griffith Law Review* 708.

[146] Murphy and McGee (n 144) 292; Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings, 1972-1977* Colin Gordon (Harvester Press, 1980); Chris Dent, 'A Law Student-oriented Taxonomy for Research in Law' (2017) 48(2) *Victoria University of Wellington Law Review* 371, 380.

[147] Roscoe Pound, 'Law in Books and Law in Action' (1910) 44 *American Law Review* 12.

[148] See generally Terry Hutchinson and Nigel Duncan, 'Defining and Describing What We Do: Doctrinal Legal Research' (2012) 17 *Deakin Law Review* 83; Murphy and McGree (n 144); Ian Dobinson and Francis Johns, 'Qualitative Legal Research' in Mike McConville and Wing Hong Chui (eds), *Research Methods for Law* (Edinburgh University Press, 2007); Aulis Aarnio, *Reason and Authority: Treatise on the Dynamic Paradigm of Legal Dogmatics* (Dartmouth Publishing, 1997); Aulis Aarnio, *Essays on the Doctrinal Study of Law* (Springer, 2011).

[149] Dennis Pearce, Enid Campbell and Don Harding, *Australian Law Schools: A Discipline Assessment for the Commonwealth Tertiary Education Commission* (AGPS, 1987) 7; see also Hutchinson and Duncan (as at n 101)

[150] For instance, Hutchinson and Duncan (n 148); Terry Hutchinson, *Researching and Writing in Law* (Reuters Thomson, 3rd ed, 2010) 37; Murphy and McGee (n 144).

[151] Christopher McCrudden, 'Legal Research and the Social Sciences' (2006) *Law Quarterly Review* 632, 648; Murphy and McGee (n 144) 297.

doctrinal approach. There is consensus in the legal scholarship that comparative research, including comparative doctrinal research, cannot exist independently. Additionally, the law-in-context approach cannot exist independently either, but can only exist when interacting with other methods.[152] In summary, the law-in-context approach utilised in this work is a subset of doctrinal approach and the comparative approach.[153] The comparative approach is discussed in section 1.4.3.

Chapters 4 and 5 unpack the applicable laws to analyse the legal regime that informs the duties of trustees and disclosure obligations in the UK and Australia. Further inferences are drawn to analyse the relationship between the legal regime and climate change risks, utilising Law Commission enquiries, enactment consultations and other general regulatory guidance. Regulatory guidance includes official guiding instruments, reports, articles, and write-ups on the official regulatory websites, such as Australian Prudential Regulatory Authority (‘APRA’) website, the Department of Workplace and Pensions (‘DWP’) website and The Pensions Regulator (‘TPR’) website. To gain further insight, secondary sources in the form of textbooks, research handbooks, journal articles, soft law reports and publications and legal opinions are utilised. Chapter 2 provides contextual and theoretical underpinnings to the doctrine. Factual and theoretical underpinnings are utilised, such as the universal investor argument (‘UI’), fossil fuel divestment movement, rise of socially responsible investing (‘SRI’), the modern portfolio theory (‘MPT’) and the rise of disclosure norm, to draw further inferences on the context of the legal regime discussed in the thesis.

The doctrinal method and the law-in-context approach outlined above help us to understand whether or not pension funds can legally take a holistic approach to climate risks and address subtleties of climate risks, such as just transition risk for pension funds. As indications of pension fund investment can only be inferred from the requirements of pension trustees and disclosure obligations, it is imperative to understand the legal requirements of the duties of trustees and disclosure obligations via primary sources and further analysis and inferences via secondary sources. Soft law reports and publications are utilised as they fill the void left by the law and provide standards of best practice in terms of application of the duties of trustees and disclosure in relation to ESG risk, such as climate risks. The utilisation of soft law

[152] Mark Van Hoecke, ‘Methodology of Comparative Legal Research’ (2015) *Law and Method* 1, 16.
[153] The law-in-context approach is quite flexible; there are numerous opportunities for it to be used with other methods. See ibid 17.

sources such as codes of conduct and their reports and publications is important as a complete and accurate picture of the current pension fund legal regime in relation to climate risks cannot be presented without them. This is because much of the content of acceptable fiduciary and trustee practice in the law and regulatory guidance is informed by industry and market best practice, which embeds soft law within the corpus of hard law.[154]

The thesis gauges the extent to which the just transition climate risk lens can be considered by the pension fund legal regime as a an exemplar to evaluate the presence of a holistic approach to climate risk management by pension funds. Four key indicators are utilised to gauge whether the pension fund legal regime encourages a holistic consideration of climate risk. The contextual and theoretical underpinnings help in understanding some of the factors that have made ESG risk, in the form of climate change risk, a contemporary issue for pension funds. Additionally, the contextual underpinnings indicate how the law's focus is on addressing climate change risks via numerous general strategies. These general strategies increase the problem of not addressing climate risk holistically by taking into account the subtleties of climate risk, such as just transition risks. The understanding of the doctrinal legal regime and the theoretical and contextual underpinnings support the argument that the legal regime is in a state of arrested development.

1.4.2 Empirical method

Legal empirical research involves observing and analysing the surrounding social, factual and even historical parameters of the law. It is understood that the legal research method has two primary strands: the doctrinal method and the socio-legal method. [155] The empirical method is a form of the socio-legal method[156] and is best understood as the understanding of the law 'in action'[157] that is concerned with the operation of the law in practical terms as part of the society as a whole.[158] The term refers to the collection of data that can help explain the operation of the law in action.[159] The insight into the operation of the law allows us to gauge

[154] On this point, see generally ch 3 and, empirically, ch 6. Also see generally Anne Peters and Isabella Pagotto, 'Soft Law as a New Mode of Governance: A Legal Perspective' (2006) *NEWGOV: New Modes of Governance* <https://ssrn.com/abstract=1668531>.
[155] Murphy and McGee (n 144) 293.
[156] See generally H. Collins 'Law as Politics: Progressive American Perspectives' in James E. Penner, David Schiff and Richard Nobles (eds), *Introduction to Jurisprudence and Legal Theory: Commentary and Materials* (Oxford University Press, 2002) ch 7.
[157] Pound (n 147).
[158] Dent, 'Relationships between Laws, Norms, Practices' (n 98) 378.
[159] Ibid 383.

the impact of the law on society as a whole, as the empirical method provides practical context.[160] Prominent examples of empirical research, whether qualitative or quantitative, include interviews, surveys, analysis of databases, content analysis and the analysis of documents produced as a result of legal and regulatory processes; for example, compliance documents, submissions to regulators, annual reports, and so on.[161]

The thesis utilises the empirical method to understand the impact of soft law as soft law mechanisms form part of the pension fund legal regime in relation to climate risk. Chapter 6 illustrates the findings that flow from the analysis of pension funds' publicly available disclosures in relation to climate change risks. The thesis conducts an analysis of publicly available disclosure documents, policies and all online information publicly available from pension funds in the UK and Australia. The disclosure documents are sourced from a sample of sixty (60) pension funds. Half of those funds are UK pension funds; half are Australian pension funds. The funds are further divided equally into PRI signatories and non-PRI funds. The funds selected are based on their size in terms of asset holdings. Criteria are developed to collect and assess the data and make inferences.[162]

It is important to understand the impact of the PRI as it is the most prominent soft law mechanism that influences pension funds. Gauging its impact helps us to understand how the PRI influences the extent to which pension funds can address climate risks holistically in practice, by addressing subtleties of climate risks, such as just transition risks for pension funds. To gauge the holistic consideration of climate risks via the just transition risk lens, the disclosures are assessed to search for the presence of four indicators: incorporating a policy on climate change; divesting from fossil fuels; incorporating member views; and utilising climate scenario analysis. The four indicators help us to infer whether or not PRI signatories (as opposed to non-PRI funds) are in a better position to consider climate change risks holistically.

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[160] Simon Halliday and Patrick D. Schmidt, *Conducting Law and Society Research: Reflections on Methods and Practices* (Cambridge University Press, 2009).
[161] Dent, 'Relationships between Laws, Norms, Practices' (n 145) 383; Andrew F. Christie, Chris Dent and John Liddicoat, 'The Examination Effect: A Comparison of the Outcome of Patent Examination in the US, Europe and Australia' (2016) 16 *John Marshall Review of Intellectual Property Law* 21.
[162] For detailed operation of this method, see ch 6.

The findings indicate that PRI funds are, relatively, are in a better position, as PRI funds are ahead of the hard law in clarity pertaining to encouraging a policy on responsible investment, climate scenario analysis and disclosure generally.[163] The law's role is to prescribe a set of minimum standards/obligations and provide encouragement for pension funds to do more on climate risk at their discretion, over and above the minimum obligations of the law. Thus, the law's role is one of the aspects of embedding climate-friendly investment practices. Unfortunately, the issue in the UK and Australia is that the law is unclear in terms of the extent to which pension funds can invest in climate risk. The ambiguous regulatory guidance and lack of judicial test cases does not clearly provide a minimum standard for the pension fund industry. What is needed is a clear regulatory response supplemented by clear regulatory guidance that affirmed significant soft law initiatives such as the PRI to fill the legal gaps adequately. Additionally, the clear regulatory guidance needs to link the duties of trustee with climate risks precisely and indicate minimum best practice obligations. As a startng point, minimum best practice obligations can be linked with the Paris Agreement. As mentioned, the Paris Agreement goals, read together with the warnings of the IPCC, are the minimum standards that need to be embedded in pension fund investments practice by the law, either via regulatory guidance and/or judicial pronouncements in test cases. This is just the starting point and pension funds need to be able to do more at their discretion beyond the Paris Agreement goals and be proactive, positive investors in the green and eco-friendly economy.

The findings also allow for analysis and the proposal of a reform pathway. The reform pathway gains inspiration from contemporary environmental reform theory and also the findings of the empirical method. The reform pathway has the potential to enable pension funds to consider climate change risks holistically.[164] Additionally, the reform pathway can enable the pension fund legal regime to improve its status from being in a state of arrested development to one of progressive development.

1.4.3 Comparative approach

[163] Note that the PRI is mandating TCFD-styled disclosures for its signatories from 2020. PRI, 'TCFD-based Reporting to Become Mandatory for PRI Signatories in 2020' (Web Page, 19 February 2019) <https://www.unpri.org/news-and-press/tcfd-based-reporting-to-become-mandatory-for-pri-signatories-in-2020/4116.article>.

[164] See s 7.3.

The comparative approach involves comparing the law, its context, its doctrinal and empirical elements between at least two jurisdictions. The jurisdictions can be located locally, regionally or internationally.[165] The comparative approach adds value to a research enquiry by observing the law in books and action in another jurisdiction. Observation and analysis of the law in another jurisdiction provides a broader insight into the challenges of the research question(s) and also aids in the development of additional inferences regarding the findings.[166] Additionally, the comparative approach aids in recommending changes for law reform by studying the operation of the law in multiple jurisdictions.

The research compares the pension fund legal regime across the jurisdictions of Australia and the UK. Chapters 4, 5 and 6 analyse the extent to which the duties of trustees, disclosure obligations and soft law influence allow pension funds to consider climate change risks in a holistic manner by focusing on just transition risks for pension funds in both jurisdictions. The analysis of the duties of trustees and disclosure obligations in both jurisdictions provides for a comparison of the hard law requirements, including regulatory guides by APRA and the Australian Securities and Investments Commission ('AISC') in Australia and DWP and TPR in the UK. Additionally, the sample of the empirical method is divided equally between the two jurisdictions. The research compares and analyses the findings of the two jurisdictions across three layers: UK pension funds with Australian pension funds; UK PRI-signatory funds with Australian PRI-signatory funds; and UK non-PRI funds with Australian non-PRI funds.

1.4.3(a) The significance of utilising the comparative approach across UK and Australia

The implementation of the comparative approach, comprising the jurisdictions of the UK and Australia, provides a deeper understanding of the extent to which the pension fund legal regime can consider climate risks holistically. Comparing the duties of loyalty and care, disclosure obligations and soft law impacts in both jurisdictions provides in-depth insights into the extent to which the current pension funds legal regime can consider subtle aspects of climate risks, such as just transition risks of pension funds. The clarity of each jurisdiction with respect to the four indicators is also put to the test across the thesis. The four indicators

165 Dent, 'Relationships between Laws, Norms, Practices' (n 145) 384.
166 Geoffrey Wilson, 'Comparative Legal Scholarship' in Mike McConville and Wing Hong Chui (eds), *Research Methods for Law* (Edinburgh University Press, 2007) 87.

help gauge the consideration of holistic climate risk by pension funds in the UK and Australia and utilises the just transition risk lens as an exemplar. Specific reasons for comparing Australia and the UK in this research include the similar legal conceptual roots of the duties of pension trustees in both jurisdictions, similar legal trajectories in the form of law reform and regulatory guidance and influence of soft law mechanisms, the size of pension funds in both jurisdictions and the potential for influencing the economy due to equity investment. While similar, several key differences illustrate different approaches by regulators in both jurisdictions.[167] Additionally, the native regulatory set-up determines the extent of the impact of the PRI in the UK and Australia.[168]

First, in both countries, the duties of loyalty and care – the tenets of pension fund governance – share a common root in English common law and trust law principles. The commonality is particularly important as not only does each jurisdiction cite the other in support of legal principles and persuasive norms and precedents, but the commonality also allows for a cross-fertilisation of legal understanding.[169] The common roots allow for direct comparisons and inferences across both jurisdictions and impart a deeper understanding of the extent to which pension funds can legally consider subtleties of climate change risk in applying a holistic approach in the UK and Australia. Additionally, while it is acknowledged that both countries have specific differences (even with the common roots), both jurisdictions are in a primed position, where further guidance on climate risks will lead to implications for pension fund governance. The combined understanding of both these countries also makes the research more relevant for the global pension industry and the legal response to climate change risks.

Second, both the UK and Australia are in a similar situation in terms of the pension fund legal regime. Until very recently, both jurisdictions faced uncertainty in relation to the legality of considering climate by pension fund trustees. This is so longer the case as the regime in both countries now virtually accepts that pension funds can legally take climate risk. However, both countries are in a transformative state where they are attempting to

[167] These are detailed at ss 4.4, 5.4 and 6.3.
[168] The specific impact of the PRI is analysed at s 6.3.
[169] See for instance *Hospital Products Ltd v United States Surgical Corporation & Ors* (1984) 55 ALR 417 (at 431, 433 and 436) where the High court of Australia refers to authorities in the UK; see also *Phipps v Boardman* (1967) 2 AC 46 at 12; Law Commission, *Fiduciary Duties of Investment Intermediaries* (Law Com 350, 1 July 2014) 30, 34, 35, 37, 40, 42, 43, 44, 105, 171, 190, 191, 196) which report highlights the cross-fertilisation of the pension duties between the UK, Australia and other Anglo-American jurisdictions.

navigate the path forward in terms of addressing climate risks by institutional investors, including pension funds. Both jurisdictions have a similar make-up of the pension fund legal regime – hard law, regulatory guidance and soft law influence – which allows further ease in comparing the two jurisdictions.

Third, pension funds are one of the largest institutional investors in terms of the size of asset holdings. This, coupled with the fact that a sizeable portion of the asset held is invested in equities, makes pension funds' role vital in embedding climate risk mitigation practices across the whole economy. The size of the funds makes it imperative not only for the funds themselves to consider climate change risks, but also to embed the same in the whole economy, including the companies whose equity they hold (investee companies).

Recent data estimates that pension funds' asset holdings across the Organisation for Economic Co-operation and Development ('OECD') area totals between USD 32 trillion[170] and USD 47 trillion.[171] In terms of pension asset holdings, the UK is the second largest jurisdiction, with approximately USD 3.5 trillion, while Australia is the fourth largest jurisdiction in the world, with approximately USD 2 trillion in asset holdings.[172] Furthermore, the asset-to-gross domestic product ('GDP') ratio illustrates the significant size of UK and Australian pension funds. In 2009, the ratio of pension assets-to-GDP in the UK was 81 per cent, while in Australia it was 82 per cent.[173] By 2020, assets-to-GDP ratio had reached 122 per cent in the UK and 132 per cent in Australia.[174] Last, data from 2020 shows the prevalence of investment in equities by pension funds. This, in turn, highlights the importance for pension funds to mitigate climate risks themselves and across their investee companies. As of 2020, Australian funds hold approximately 50 per cent of their assets in equities, while UK funds hold approximately 35 per cent in equities.[175]

1.4.4 Summary

[170] OECD, *Pension Funds in Figures* (n 47).
[171] Thinking Ahead Institute, *Global Pension Assets Study 2020* (Willis Towers Watson, 2020) <https://www.thinkingaheadinstitute.org/research-papers/global-pension-assets-study-2020/>.
[172] Ibid.
[173] OECD, 'Financial Performance of Pension Funds in Selected OECD and Non-OECD Countries' (2010) 7 *Pension Markets in Focus* 13 <www.oecd.org/dataoecd/46/46/45637367.pdf>.
[174] OECD, *Funded Pension Indicators* (Web Page, 2008) <http://stats.oecd.org/Index.aspx?DatasetCode=PNNI_NEW>.
[175] Thinking Ahead Institute (n 171) 16.

Section 1.4 discusses the research methods used to answer the primary research question: the analysis of the extent to which pension funds in the UK and Australia can legally address climate risks holistically. To answer this question, the exemplar of just transition risks for pension funds is utilised across the regime – hard law, regulatory guidance and soft law influence. Combining the doctrinal, empirical and comparative approaches aids in comparing all aspects of the regime across UK and Australia. The doctrinal method aids in analysing hard law and the conceptual context, while the empirical method provides the necessary tools to judge the influence of soft law on pension funds in the UK and Australia in relation to just transition risks for pension funds. Table 1.1, below, provides a guide to the methods used across the chapters.

Table 1.1: Guide to methods used across the chapters

Chapter	**Empirical Method**	**Doctrinal Method**	**Comparative Approach**
Chapter Two: Literature review and contribution	-	-	-
Chapter Three: Contextual and conceptual underpinnings		✓	
Chapter Four: Analysis of duty of care and loyalty in the UK and Australia		✓	✓
Chapter Five: Analysis of disclosure obligations in the UK and Australia		✓	✓
Chapter Six: Impact of PRI on pension funds in relation to climate risks.	✓		✓
Chapter Seven: Synthesis of findings and pathways for reform	✓		
Chapter Eight: Conclusion	-	-	-

1.5 Structure of the thesis

The research questions are are reproduced for the ease of the reader as they also relate to the structure of the thesis.

1) Main research question: To what extent does the current legal regime allow pension funds to respond to climate change risks in a holistic manner?

2) To what extent can current laws in the UK and Australia accommodate consideration of the four key indicators of the just transition risk lens as part of the holistic consideration of climate risks for pension funds.

3) To what extent does soft law in the form of the PRI embed the four indicators of the just transition risk lens in the implementation of current laws in the UK and Australia?

4) What reform might promote holistic climate risk management among pension funds in the UK and Australia?

The thesis comprises eight chapters: seven substantial chapters with a conclusion contained in Chapter 8. The first chapter introduces the topic, key concepts, research questions, methods and thesis structure. Chapter 2 places the topic in the context of relevant literature, academic discourse, recent public and market reports, including soft law initiatives, to understand the contribution of the topic and its significance.

Chapter 3 identifies key contextual and conceptual underpinnings, including normative arguments and factorial phenomena that make ESG considerations such as climate change risk increasingly relevant for pension funds. Investment informed by ESG considerations such as climate change risk is the latest globally recognised iteration of responsible investment. This chapter outlines the conceptual and theoretical underpinnings that have made climate change risk a contemporary issue for pension funds in the UK and Australia. Additionally, Chapter 3 argues that some of these underpinnings have shaped the response to climate risk by pension funds and that they deviate from a holistic approach to climate risk. The underpinnings discussed include the UI argument, the rise of SRI, fossil fuel divestment, members' concern, increasing disclosure norms and the changing standards of the duties of trustees.

Chapters 4, 5 and 6 analyse the pension fund legal regime and the extent to which the regime accommodates taking a holistic approach to climate risk by pension funds. The exemplar used is the just transition risks for pension funds; this subtle risk is gauged by the presence of the four indicators. Chapters 4, 5 and 6 deal with the analysis of these four indicators in relation to the duties of pension trustees, disclosure norms and impact of soft law in the form of an empirical enquiry into the impact of the PRI. Chapter 4 analyses the duties of trustees in the UK and Australia in relation to their current capacity for addressing climate risks holistically via the lens of just transition risks for pension funds. Chapter 5 continues the analysis and focuses on disclosure norms in both jurisdictions. The disclosures are where the void in hard law is filled by soft law in a dominant manner and regulatory guidance consistently signposts soft law standards. Thus, disclosure standards are an example of where soft law comes withing the corpus of hard law. Both Chapters 4 and 5 apply the just transition climate risk lens across the four indicators to gauge the extent to which the pension fund legal regime in the UK and Australia is considering climate risk holistically.

Chapter 6 utilises the empirical method and contributes not only to our understanding of the current responses by pension funds in relation to just transition risks, but also allows for gauging of the impact of soft law on pension fund practice in relation to climate risk; specifically, the four indicators of holistic consideration of climate risk. The sample consists of pension funds who are PRI signatories and those who are not in both jurisdictions, based on size. This allows the chapter to explore how soft law fills the gaps in the legal responses of pension funds in addressing climate risk as well as the gaps it does not address in relation to subtleties of climate risk. The findings also highlight that PRI as a soft law mechanism – while enabling more instances of accommodation of just transition risks by pension funds – ultimately fails in providing an industry wide change and standardised response in a holistic manner. Though soft law is the strongest pillar of the pension fund legal regime, it falls short in terms of providing the clarity required to address climate risks holistically, as evidenced by the analysis of gauging just transition risks for pension funds.

Chapter 7 distils and synthesises the conclusions of Chapters 4, 5 and 6 and argues that the current pension fund legal regime is in a state of arrested development, even though legally pension funds can take climate risk into account in multiple ways. Lack of uniformity and legal gaps limit the ability of the pension industry to meet the goals of the Paris Agreement, as pension funds are not adopting a holistic response to climate change risk. Chapter 7 highlights a pathway for reform, in the form of a regulation that provides clarity and embeds a holistic response to climate change risk. In positing a pathway for reform, the chapter utilises conceptual underpinnings in the form of elements of environmental reform theory. The reform’s purpose is to embed a holistic response by the pension industry to respond proportionately to the urgent and imminent threat of climate risk.

Chapter 8 is a standalone conclusion to the thesis that emphasis the key contributions and key messages that flow from the doctrinal, empirical and comparative research methods. The conclusion highlights the urgency of the need for pension funds – and other financial institutions globally – to respond holistically to climate risk. Finally, the conclusion presents opportunities to extend the research to embed a holistic approach to climate risks globally by pension funds and other institutional investors.

Chapter 2 Significance of the topic in the context of relevant literature, debates and market developments

2.1 Introduction

Chapter 1 introduced the thesis topic and research questions. This chapter highlights the significance and contribution of the topic by placing the research in the context of relevant literature, debates and market developments in the form of soft law initiatives. The chapter discusses the importance of the lens – just transition of climate risks – for the pension fund regime and how this lens extends scholarship in this area. As will be recalled, the thesis aims to understand the extent to which the pension funds regime accommodates climate risk in the UK and Australia. It is vital that the pension fund industry, along with other institutional investors, consider climate risks holistically and address them urgently in line with the IPCC reports and Paris Agreement goals.[1] In order to gauge whether or not the current law in the UK and Australia allows pension funds to address climate risks in this manner, the lens of just transition risks is utilised. The lens is made up of four identified indicators: incorporation and disclosure of a policy on climate risk; incorporation and disclosure of member views; divestment from fossil fuels; and incorporation and disclosure of climate scenario analysis. Through these four indicators, the lens allows us to draw inferences about the extent to which pension funds can address climate risk holistically in the UK and Australia.

This chapter understands the relationship between the topic and the contextual interest, scholarship and market developments surrounding the topic-area thematically and highlights the contribution. Section 2.2 places the topic against the context of increased interest and attention to ESG risk in mainstream institutional investment. Section 2.3 recognises some of the normative arguments in relation to the relationship between pension fund investment and ESG risks such as climate risks, including reform of pension fund governance. Section 2.4 acknowledges academic interest surrounding pension systems in the UK and Australia in relation to the topic area. Section 2.5 analyses the interest and scholarship surrounding ESG risk and the duties of trustees, while section 2.6 analyses interest surrounding ESG risk and disclosures. Last, section 2.7 summaries the contributions and concludes the chapter.

[1] See s 1.3.4

2.2 Increasing mainstreaming of ESG risk in pension fund investment

The thesis acknowledges that the relationship and link between ESG risk, particularly climate change, and institutional investment, has increased significantly in academic discourse, including the market in the form of soft law interest. Most of the interest is limited to the relevance, encouragement and legality of considering climate risk in pension fund investment. By contrast, this thesis (while affirming the legality of considering climate risk) builds upon and extends this relationship, specifically by analysing the extent to which this interest influences the current regulatory approach in the UK and Australia. The current regulatory approach is tested to gauge to what extent climate risks can be accommodated in pension fund investment by looking at just transition risks as a lens.

This section identifies some of the main developments in the mainstreaming of ESG risk in pension fund investment. It concludes that the Paris Agreement has had the most impact in mainstreaming ESG risk, especially climate change in mainstream finance.[2] The Paris Agreement is an aggregation of global climate goals in relation to long-term temperature and carbon emissions.[3] Additionally, the Intergovernmental Panel on Climate Change ('IPCC') supplements the mainstreaming of climate risk in global investment. Of particular note is the IPCC's *Fourth Assessment Report*, known as *AR4 Climate Change 2007: Synthesis Report*.[4] The *Fourth Assessment Report* can be credited with raising widespread awareness of the effects of climate change, such as the increase in global temperatures. Additionally, the report directly links such changes with carbon emissions by institutional investors. The report posits that such institutional investors act as barriers to curtailing climate risk mitigation, while acknowledging the role the investors can play in off-setting climate risk. The IPCC has made awareness of climate change risk easier in risk management by pension funds and has increased the understanding of financial materiality not only of climate change risk, but also

[2] United Nations Framework Convention on Climate Change (UNFCCC), Conference of Parties, Twenty-First Session, Adoption of the Paris Agreement, UN Doc. FCCC/CP/2015/L.9/Rev.1 (12 December 2015) ('Paris Agreement'); Michael S. Fischer, 'Climate Change, Paris Accords Driving ESG Strategies: Report', *ThinkAdvisor* (Web Page, 21 September 2018) <https://www.thinkadvisor.com/2018/09/21/climate-change-paris-accords-driving-esg-strategie/>.
[3] See for instance UNFCCC (n 2) arts 2, 3.
[4] IPCC, *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, 2007) <https://www.ipcc.ch/report/ar4/syr/>.

other ESG risks. The IPCC's *Sixth Assessment Report* is underway and due to be released in 2022.[5]

Independent of the Paris Agreement and the IPCC, the beginning of interest in ESG risk and pension funds undoubtedly lies with the 2005 report titled, *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment* (the 'Freshfields report').[6] The report was sanctioned by the Asset Management Working Group of the United Nations Environment Programme Finance Initiative (UNEP FI). This report started the debate surrounding the legality of considering ESG risk by pension funds. It considered the law in multiple jurisdictions, including the UK and Australia, and concluded that legally there is no barrier in considering ESG risk by pension fund trustees, as long as it intersects with financial risk, and in some cases, consideration of such such risks are mandatory. A primary contribution of the report is the identification of certain scenarios where the pension fund trustees can take ESG risk into account and not breach the duties of trustees, even in cases devoid of financial due diligence.[7] The thesis affirms the pathways but, rather than analysing them in relation to the legality of considering ESG risk, the pathways are extended and inferences are drawn in relation to the current law in UK and Australia and whether or not the four indicators of a holistic approach to climate risk can be accommodated.

A sequel to the Freshfields report, titled *Fiduciary II*,[8] was published by the UNEP FI in 2009. This report builds upon the original Freshfields report and contains a continuation of the analysis that consideration of ESG risks is compatible with the duties of trustees. There are two essential contributions of the report. First, the report points to voluntary codes of conduct, standards and global organisations, such as the then newly formed United Nations Principles of Responsible Investment (PRI), as the future of innovation in the area. This is uncontested; the thesis gauges the impact of the PRI on pension fund signatories and whether or not they can accommodate just transition risks in a better way than non-signatory funds.

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[5] IPCC, *Sixth Assessment Report* (Web Page) <https://www.ipcc.ch/assessment-report/ar6/>.
[6] UNEP FI, *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment* (UNEP FI, 2005) <https://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf> ('Freshfields report').
[7] Ibid 100.
[8] UNEP FI, *Fiduciary Responsibility: Legal and Practical Aspects of Integrating Environmental, Social and Governance Issues into Institutional Investment* (UNEP FI, 2009) <https://www.unepfi.org/fileadmin/documents/fiduciaryII.pdf> ('*Fiduciary II*').

Second, the report highlights the confusion in the pension industry in relation to ESG risk. For instance, surveyed pension funds link ESG risk with ethical and moral investment.[9] This perception has permeated the pension fund industry ever since the advent of the Modern Portfolio Theory ('MPT').[10] However, this perception has been muted to a considerable extent as ESG risk is increasingly financially material in the short-term and almost always material in the long-term. This latter view is the default position for this thesis. The default position is not questioned; what is analysed is the extent to which the favourable ESG perception accommodates climate risk holistically as opposed to the prevalence of multiple strategies that enables a box-ticking approach. The *Fiduciary II* report highlights that the early 2010s were a starting point for this debate between conflicting perceptions of ESG. Arguably, the debate should evolve and be solely concerned with climate risk inclusion that meets the Paris Agreement goals. This is what is advocated in this thesis.

Independent of the Freshfields report but around the same time, the UN Principles for Responsible Investment ('PRI') were launched in April 2006.[11] The PRI is the single most influential global initiative that drives the global interest and link between pension fund investment and ESG risk. The PRI is an investor initiative that focuses on the integration of responsible investment by institutional investors such as pension funds for the long-term interests of the institutions, the environment and the global economy.[12] The PRI continues to impact the relationship between pension funds and responsible investment globally. The significance of the PRI is that of an entrenched soft law regulator due to its ever-increasing signatory base and academic and industry analysis in the form of reports, projects and web articles.[13]

The PRI was able to assimilate many signatories over the years, including pension funds, and signatories are bound by additional steps to address ESG risk.[14] The main impactful reporting

[9] Ibid 15.
[10] See s 3.2.4
[11] Principles of Responsible Investment ('PRI'), *About the PRI* (Web Page) <https://www.unpri.org/pri/about-the-pri>.
[12] Ibid.
[13] PRI, *Annual Report 2019: 2018/19 in Numbers* (Web Page) https://www.unpri.org/annual-report-2019/2018/19-in-numbers>.
[14] PRI, *Minimum Requirements for Investor Membership* (Web Page) <https://www.unpri.org/reporting-and-assessment/minimum-requirements-for-investor-membership/315.article#:~:text=To%20meet%20the%20policy%20requirement,more%20than%2050%25%20of%20AUM>.

was through the 2015 project, *Fiduciary Duty in the 21st Century*, which resulted in an initial report,[15] country-specific roadmaps (including those for the UK[16] and Australia[17]) and a final report in 2019.[18] The project considers itself a continuation of the Freshfields report of 2005. The aim of this four-year project was to clarify the legal obligations of fiduciaries, including pension trustees, in relation to ESG risk and end the debate on the legality of considering ESG risk for pension funds and other asset owners. Key elements of the findings are discussed later.[19] Due to the significance of the PRI, the thesis gauges its impact on signatory pension funds relative to non-signatory funds in the UK and Australia by analysing publicly available disclosures. Disclosures are utilised to evidence whether PRI funds accommodate the four indicators of a holistic approach to climate risk more adequately compared with non-signatory funds.

While the PRI and Freshfields report(s) continue to raise awareness and interest in terms of the relationship between ESG risk and pension fund investment globally, national soft law initiatives and research movements continue to drive awareness in the UK and Australia. For instance, in Australia, Mercer undertakes class-leading research, while the Australian Council of Superannuation Investors (ACSI) publishes regular governance guidelines on ESG investment for pension funds.[20] In 2011, Mercer, in collaboration with industry participants in the institutional investment space, published its first seminal report[21] on ESG risk such as climate change and its implications for the financial sectors; specifically, risk management and strategic asset allocation. Among other things, the report proposed that institutional investors adopt contemporary risk management and asset allocation processes that consider ESG risk such as climate change, instead of relying on traditional methods. Mercer has been very active in updating its reports to incorporate more clarity on this relationship. Mercer's

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15 UNEP FI, *Fiduciary Duty in the 21st Century* (UNEP FI, 2016) <https://www.unpri.org/download?ac=1378>.
16 UNEP FI, *Fiduciary Duty in the 21st Century. UK Road Map* (UNEP FI, 2016) <https://www.unpri.org/download?ac=4352>.
17 UNEP FI, *Fiduciary Duty in the 21st Century. Australia Road Map* (UNEP FI, 2016) <https://www.unpri.org/download?ac=1385>.
18 UNEP FI, *Fiduciary Duty in the 21st Century. Final Report* (UNEP FI, 2016) <https://www.unpri.org/download?ac=9792>.
19 See s 2.7.
20 Australian Council of Superannuation Investors ('ACSI'), *ACSI Governance Guidelines. A Guide to Investor Expectations of Listed Australian Companies* (ACSI, 2019) <https://acsi.org.au/wp-content/uploads/2020/01/ACSI-Governance-Guidelines-2019.pdf>; see also ACSI, *ESG Reporting by the ASX200* (ACSI, 2019) <https://acsi.org.au/wp-content/uploads/2020/02/2019-ACSI-ESG-Report-FINAL.pdf>.
21 Mercer, *Climate Change Scenarios – Implications for Strategic Asset Allocation* (Mercer, 2011) <http://www.mercer.com/content/dam/mercer/ attachments/global/investments/responsible-investment/Climate-change-scenarios-Implications-for-strategic-asset-allocation.pdf>.

follow-up reports, in 2012,[22] 2015[23] and more recently in 2019,[24] are examples of their proactive research and industrial insight in to the relationship.

The 2015 Mercer report affirms the approach of global soft law initiatives and advocates for ESG risks such as climate change risk to be part of the investment process for institutional investors such as pension funds, as such risks are potentially financial risks in the long-term. The recent 2019 Mercer report is more closely aligned with the Paris Agreement goals and IPCC temperature timelines. Consequently, the report refers to climate change risk as an urgent risk due to the 1 degree of average warming above pre-industrial levels[25] and physical risk manifestations of climate change in the form of extreme weather events.[26] The 2019 report builds on the 2015 report by providing a contemporary model for institutional investing that applies the sub-2-degree imperative of the Paris Agreement with the financially material understanding of ESG risk.

The take-away message is that institutional investors must strive for a sub-2-degree warming scenario and incorporate ESG risk in order to be financially better off in the short and long-term versus a greater-than-2-degree scenario. The report hypothesises the implications of a 3-degree scenario as well as a 4-degree scenario and the financial risks attached with each scenario relative to the optimal 2-degree scenario needed to achieve the Paris Agreement goals.[27] The Mercer climate scenario modelling highlighted in the 2019 report is a noteworthy tool that all institutional investors including pension funds must adopt and incorporate the physical and transition risks of climate change risk.

The 2019 Mercer report thus affirms the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and urges the incorporation of climate scenario analysis and

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[22] Mercer. *Through the Looking Glass: How Investors Are Applying the Results of the Climate Change Scenarios Study* (Mercer, 2012) <http://www.mercer.com/content/dam/mercer/attachments/global/investments/responsible-investment/Through-the-looking-glass-January-2012-Mercer.pdf>.
[23] Mercer, *Investing in a Time of Climate Change* (Mercer, 2015) <https://www.mercer.com/content/dam/mercer/attachments/global/investments/mercer-climate-change-report-2015.pdf>.
[24] Mercer, *Investing in a Time of Climate Change – The Sequel* (Mercer, 2019) <https://www.mercer.com/content/dam/mercer/attachments/private/nurture-cycle/gl-2019-wealth-climate-change-the-sequel-full-report.pdf>.
[25] Ed Hawkins, *Climate Lab Book* (Web Page) <https://www.climate-lab- book.ac.uk/2018/warming-stripes/>.
[26] Centre for Research on the Epidemiology of Disasters, *EM-DAT: The International Disaster Database* (Web Page) <https://emdat.be/>.
[27] Mercer, *Investing in a Time of Climate Change – The Sequel* (n 24) 19, 32–55.

standardised climate disclosures across the industry. Unfortunately, regulators in the UK and Australia have not adopted scenario analysis as the new normal. The thesis affirms the 2019 report's conclusions and extends them by testing scenario analysis as an indicator of the just transition risk lens. While climate scenario analysis is encouraged in both jurisdictions, regulators have not assertively aligned them with the Paris Agreement goals or IPCC temperature scenarios. This is a regulatory policy gap. The climate scenario analysis linked to the Paris Agreement goals is a necessary indicator not only for addressing climate risk holistically, but also to address subtleties of climate risk such as the just transition risk lens.

Like Mercer, the ACSI supplements the relationship between responsible investment and pension funds in Australia and the understanding of responsible investment reporting generally. For instance, in 2015[28] the ACSI released a report that informs ESG reporting guide for Australian companies. The 2015 report was released in light of the 2014 ASX Corporate Governance Council Principles and Recommendations.[29] The reports not only aid companies to adhere to the ASX principles in disclosing ESG risk, but foster a better understanding of responsible investment by Australian companies. This aid pension funds in Australia to invest in such companies and gauge their ESG sensitivities. The ACSI also routinely published reports on ESG reporting by the 200 most prominent companies on the Australian Stock Exchange and report on investor expectations of listed Australian companies. The two reports in these two streams were released in August 2019[30] and October 2019,[31] respectively.

In the UK context, the Freshfields report(s) and PRI continue to play a role in enhancing and embedding the relationship between responsible investment and institutional investors such as pension funds. Local enquiries and initiatives also inform this relationship. The starting point must be the *Myners Report* of 2001.[32] The report reviews institutional investment in the

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[28] ACSI, *ECG Reporting Guide. Final* (ASCI, 2015) <https://www.asx.com.au/documents/asx-compliance/acsi-fsc-esg-reporting-guide-final-2015.pdfACSI>.
[29] ASX Corporate Governance Council, *Corporate Governance Principles and Recommendations 3rd Edition* (ASX Corporate Governance Council, 2014) <https://www.asx.com.au/documents/asx-compliance/cgc-principles-and-recommendations-3rd-edn.pdf>.
[30] ACSI, *ESG Reporting by the ASX200* (n 20).
[31] ACSI, *2019 Annual Report. ACSI Annual Report for the 2018-2019 Financial Year* (ACSI, 2019) <https://acsi.org.au/wp-content/uploads/2020/02/19-ACSI-Annual-Report.pdf>.
[32] HM Treasury, *Institutional Investment in the United Kingdom: A Review* (HM Treasury, 2001) <https://webarchive.nationalarchives.gov.uk/20070506151732/http://www.hm-treasury.gov.uk/media/2F9/02/31.pdf>.

UK with a particular focus on pension funds and highlights problems with the pension fund industry and possible solutions. Almost 20 years, on the Myners report is still relevant and provokes responses from public bodies, the industry and other stakeholders; for example, the HM Treasury review of progress of 2004,[33] the National Association of Pension Funds' ('NAPF') six-year review of the Myners report of 2007[34] and the HM Treasury update of the Myners principles.[35]

The original Myners report did not directly talk about ESG risk but, rather, mentioned shortcomings of the pension industry and regulatory landscape that arguably inform the challenges of ESG investment by pension funds today. For instance, the Myners report highlights that pension fund trustees are not adequately educated or trained, and pension funds rely on traditional investment benchmarks that enable herding behaviour in the industry and curtail innovation. Additionally, the Myners report highlights that the short-termism present in the pension industry is exacerbated by the fact the pension trustees and fund managers are appraised on a quarterly basis.

The Myners report was followed by the *Kay Review of UK Equity Markets and Long-term Decision Making*, that released its final report in 2012.[36] The Kay review affirms key points of the Myners report, such as the prevalence of short-termism in the institutional investor space and the negligible engagement with investee companies by institutional investors.[37] Quite pertinently, the Kay review highlights uncertainty surrounding the duties of trustees and recommends updating to address the exact requirements of the duties of trustees and how they could aid in minimising the shortcomings of the UK institutional investor industry.[38]

[33] HM Treasury, *Myners Principles for Institutional Investment Decision-Making: Review of Progress* (HM Treasury, 2004) <https://uksif.org/wp-content/uploads/2012/12/MYNERS-P.-2004-Myners-principles-for-institutional-Investment-decision-making-review-of-progress.pdf>.
[34] NAPF, *Institutional Investment in the UK: Six Years On* (NAPF, 2007) <https://www.plsa.co.uk/Policy-and-Research/Document-library/Institutional-investment-in-the-UK-six-years-on-report-and-recommendations>.
[35] HM Treasury, *Updating the Myners Principles: A Consultation* (HM Treasury, 2008) <http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/d/consult_myner_310308.pdf>.
[36] HM Government, *The Kay Review of UK Equity Markets and Long-Term Decision Making. Final Report* (HM Government, 2012) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/253454/bis-12-917-kay-review-of-equity-markets-final-report.pdf>.
[37] Ibid 14–22.
[38] Ibid 65–70.

The Kay review resulted in the two Law Commission enquiries of 2014, *Fiduciary Duties of Investment Intermediaries* (the 2014 Law Commission report)[39] and *Pension Funds and Social Investment* (the 2017 Law Commission report).[40] The 2014 Law Commission report is a direct investigation of UK pension funds and whether or not the current law allows incorporation of ESG factors.[41] The other main theme of the 2014 Law Commission report is to address misunderstandings and uncertainties surrounding this relationship and how the duties apply to not only pension trustees, but also to investment intermediaries such as investment consultants. The 2014 Law Commission report concluded that law reform was not required, and trustees can take financially material ESG risk into account, as long as they do not lead to a financial detriment.[42]

However, the 2014 Law Commission report did not go so far as to say that ESG risk is almost always financial risk in the long-term and therefore always needs to be addressed. The report rightfully acknowledged the uncertainties and complexities surrounding the UK pension landscape but shied away from proposing any law reform or clarification; instead, the report relies on The Pensions Regulator (TPR) to provide guidance. While the 2014 Law Commission report can be credited with being a wake-up call for pension funds in relation to thinking about ESG risk as potential financial risk, the report did not detail the circumstances in which this could be done and to what extent.

Similarly, the 2017 Law Commission report[43] supplements the 2014 Law Commission report. The 2017 Law Commission report reaffirms to the pension industry that addressing ESG risk is in accordance with the law and is highly encouraged.[44] Nonetheless, the 2017 report also shied away from major law reform to the duties of trustees, but encouraged regulatory guidance in relation to a stewardship disclosure by UK pension funds.[45] Additionally, the 2017 Law Commission report recommended clear regulatory guidance in relation to long-term investment and ESG risk as ESG risks crystalise in the long-term.

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[39] Law Commission, *Fiduciary Duties of Investment Intermediaries* (Law Com No 350, 1 July 2014).
[40] Law Commission, *Pension Funds and Social Investment* (Law Com No 374, 23 June 2017).
[41] Law Commission, *Fiduciary Duties* (n 39) 97.
[42] Ibid 111–127.
[43] Law Commission, *Pension Funds* (n 40).
[44] Ibid 36–44.
[45] Ibid 124–127.

These two UK Law Commission reports, Australian soft law reports and even the global initiatives mentioned above recommend and encourage ESG incorporation and even recommend regulatory changes to clarify and entrench incorporation of ESG risk that intersects with financial risk. While most of the reports and initiatives are limited to understanding the legality of consideration of ESG risk in pension funds decision-making and disclosure, this research focuses on climate risks specifically in the form of just transition climate risks and the extent to which the current law and regulatory guidance can take climate risk into account. In other words, considering ESG risks such as climate risks is legal, but the extent of the legality of considering climate risks has not been sufficiently fleshed out by regulators in either country.

Coming back to the Paris Agreement and mainstreaming of climate risk in institutional investment, the thesis notes the recent scholarship on aligning the Paris Agreement goals with investments decision i.e. the 'Paris alignment' and also notes the importance of aligning the Paris goals with the key indicators that help gauge the presence of the just transition risk lens and by extension the holistic consideration of climate risk.[46] To standardise the understanding and implications of the meaning of aligning with the Paris Agreement goals, the Institutional Investors Group on Climate Change (IIGCC) created the Paris Aligned Investment Initiative (PAII).[47] At the time of inception, the PAII represented $16 trillion assets under management and as at March 2021 represents 110 investors globally holding $33 trillion in assets under management.[48] The key goal of the PAII is to develop consensus in the understanding of aligning portfolios with the goals of the Paris Agreement for institutional investors globally. The aim is for the PAII to have outputs going forward that allows for transparency and measurement of transitioning portfolios at various degrees of alignment with the Paris Agreement goals. The first substantive output of the PAII is the recent launch of the 'Net Zero Investment Framework' that is presented as an implementation guide for institutional investors.[49] The framework sets out a number of components in a broad sense that

[46] See sec 1.2.1
[47] *Institutional Investors Group on Climate Change Paris Aligned Investment Initiative* <https://www.parisalignedinvestment.org/>
[48] Ibid
[49] Paris Aligned Investment Initiative, *Net Zero Investment Framework Implementation Guide* (The Institutional Investors Group on Climate Change, March 2021) <https://www.parisalignedinvestment.org/media/2021/03/PAII-Net-Zero-Investment Framework_Implementation-Guide.pdf>

institutional investors can strive to adopt towards the net zero emission goal. While aimed at asset owners, the net zero investment framework envisages government intervention and law reform.[50] The thesis directly applies the Paris Alignment in not only the selection and development of its four key indicators but also in its overarching inquiry of the extent of the legality of accommodating the indicators through which pension funds consider climate risk holistically.[51]

The thesis uses the lens of just transition risks of climate change and links the findings with the urgency and goals of the Paris Agreement. By understanding the current regulatory approaches and guidelines in relation to the four indicators of a holistic climate risk approach, it extends the scholarship and finds that regulations in both jurisdictions suffer from legal gaps that distract from an adequate incorporation of climate risks in-line with the Paris Agreement goals and general urgency of climate risk. The PRI's *Fiduciary Duty in the 21st Century Final Report* – discussed later in the chapter – notes and affirms that most jurisdictions, including the UK and Australia, are limited by legal gaps in relation to incorporation of climate risks.[52] Apart from legal gaps, the other issue that still limits the effective and holistic incorporation of ESG risks such as climate change is the design of regulation that allows for the prevalence of multiple strategies in relation to climate change of varying degrees and forms. Multiple strategies, while good for flexibility from an industry perspective, ultimately distract the industry as a whole from incorporating climate risk holistically and from incorporating niche climate risks, such as just transition risks. Section 2.3 elucidates the conceptual underpinnings of the thesis's arguments and how these extend and contribute to the scholarship in this area.

2.3 Normative arguments that inform the relationship between ESG risk and pension fund investment and reform of pension fund governance

Section 2.3 analyses the main conceptual underpinnings analysed by the thesis.[53] In terms of conceptual underpinnings, the thesis extends the following: the global environmental governance regime framework, the socially responsible investment movement (SRI), universal investor thesis (UI) and the fossil fuel divestment movement.

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[50] Ibid page 6
[51] See s 1.3.5(b)
[52] UNEP FI (n 18) 22, 23.
[53] Normative and conceptual underpinnings are discussed in ch 3.

For the purposes of environmental governance regimes, the thesis gains inspiration from the work of Oran Young, especially in relation to understanding environmental regimes patterns. It develops an argument that stems from contemporary understanding of global environmental governance in relation to regimes and applies them to the duties of trustees and pension fund governance as a whole in the UK and Australia, particularly in reference to Young's 'endogenous-exogenous alignment' thesis.[54] Young proposes that environmental regimes are in one of five states of change; namely, progressive development, punctuated equilibrium, arrested development, diversion, and collapse. Chapter 1 outlines Young's argument and the five stages in detail.[55] It extends Young's endogenous-exogenous alignment thesis and applies them to the case of pension funds and their relationship with climate change risk, particularly a holistic approach to climate risk that address just transition risks of climate change. In envisioning pension funds governance – duties of trustees and disclosure norms – as a regime, the current pension fund regime is in a state of arrested development. While there is regulatory encouragement for pension funds to incorporate several aspects of climate risk, there are still gaps that distract from a holistic incorporation. Lack of a holistic incorporation leads to subtleties of climate risk such as just transition risks being ignored. Ultimately, the legal gaps in the law relating to the duties of trustees and disclosures and the accompanying regulatory guidance contribute to the state of the pension fund regimes in the UK and Australia being in a state of arrested development.[56]

The thesis also extends the understanding of the SRI movement and its main contribution as the precursor to responsible investment. The journey of traditional SRI to modern SRI is understood and it is argued that modern SRI and its new form responsible investment jointly contribute to the arrested development of the pension regimes in the UK and Australia. It is concluded that modern SRI and responsible investment, while beneficial in terms of linking ESG risk with financial materiality, nonetheless lead to a distraction from a holistic approach to climate risk. The distraction is because responsible investment allows for the prevalence of multiple strategies of incorporating climate risk to various degrees; these lead to a disjointed

[54] O. R. Young, *Institutional Dynamics: Emergent Patterns in International Environmental Governance* (MIT Press, 2010).
[55] See ss 1.3.2, 1.3.3.
[56] The analysis and conclusions in chs 4, 5 and 6 link the findings with the extended argument of Oran Young: see ss 4.4, 5.4, 6.3.

approach to climate risk which ignores just transition risks to pension funds.[57] The change of traditional SRI into modern SRI is analysed by international bodies, academics and the pension industry itself via industry reports and publications.

Th SRI movement is analysed extensively by many scholars; for instance, the works of Tessa Hebb[58] and Benjamin Richardson.[59] Hebb understands the subtleties of SRI and corporate engagement and how they are similar, but also different, in some ways. Hebb envisages that SRI and corporate engagement can gain strength through coalitions, including international coalitions such as the carbon disclosure project and the United Nations Environment Programme.[60] The thesis partially extends Hebb's contentions by focusing on the biggest pension fund coalition, the PRI. The thesis gauges whether the impact of the PRI as a global movement and coalition is adequate for pension trustees to address climate risks holistically by considering just transition risks of pension funds. It is concluded that, while the impact of the PRI is a clear step ahead of the law in terms of accommodating just transition risk, it is not sufficient to embed an industry-wide holistic response to climate risk. What is required are assertive regulations in the UK and Australia.

Richardson's work showcases SRI as a tool for the betterment of the environment, if institutional investors – 'the unseen polluters' – are strictly regulated to adopt SRI norms. Richardson contends that laws and policies are crucial for embedding of SRI adequately in institutional investment.[61] Ultimately, Richardson's work envisions reform of the duties of trustees. The thesis extends the view that a holistic approach to responsible investment specifically climate risk is required by the pension fund industry on an urgent basis.

However, the thesis does not recommend reform of fiduciary or trust law duties but, rather, a more assertive and clear regulatory approach as the duties of trustees are capable of accommodating climate risk. In terms of industry reports, the Allianz Global Investors paper of 2010 is an example that contains an insight into the understanding of modern SRI at the

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[57] See s 3.2.3.
[58] Tessa Hebb, *No Small Change: Pension Funds and Corporate Engagement* (Cornell University Press, 2008).
[59] Benjamin J. Richardson, *Socially Responsible Investment Law: Regulating the Unseen Polluters* (Oxford University Press, 2008).
[60] Hebb (n 58) 97.
[61] Richardson (n 59) page 7.

start of the last decade.[62] It is a forward-looking analysis that is pension focused. Global organisations such as the OECD also disseminate insight into modern SRI. For example, the 2007 OECD paper,[63] was critical of the increasing and sole use of disclosure norms by regulators in relation to SRI and called for more stringent regulation globally, including but not limited to mandatory disclosures.

In Chapter 5, it is concluded that while regulation and accompanying guidance has improved and increased in relation to climate risk, it is by no means adequate, clear or stringent.[64] Similarly, the OECD 2011 paper signposts very early on the inevitable transition to a low-carbon economy and the vital role that pension funds will need to play. The 2011 paper signposts that the main barriers to pension funds: environmental and legal gaps and less interference from the government.[65] The two OECD papers are quite relevant to pension funds and the implications for pension fund inclusion of SRI and, by extension, responsible investment and how pension funds can help shape SRI regulation. At present, the main obstacles to a holistic approach to climate risk and incorporating just transition climate risks by pension funds are gaps in regulations and regulatory guidance.[66]

One contribution of the SRI movement that needs to be mentioned is its contribution to responsible investment; that is, taking financially material ESG risk into account in investment decision-making. Modern SRI has been instrumental in shedding the ethical and moral connotations linked with ESG and portraying ESG in its own light as it is: potential financially material risks. The numerous reports, papers and articles found on the PRI website support this argument, but also there is academic support for this transformation of modern SRI into responsible investment and/or ESG investment. The *Routledge Handbook of Responsible Investment* of 2018[67] contains an excellent depiction of responsible investment globally. Of particular note for the purposes of this section are the contributions by

[62] Alexander Boersch, '"Doing Good by Investing Well" – Pension Funds and Socially Responsible Investment: Results of an Expert Survey' (2010) *Allianz Global Investors International Pension Paper No. 1/2010* <https://ssrn.com/abstract=1607730>.
[63] OECD, *The OECD Guidelines for Multinational Enterprises and the Financial Sector 2007: Recent Trends and Regulatory Implications in Socially Responsible Investment for Pension Funds* (OECD, 2007) <http://www.oecd.org/investment/mne/38550550.pdf>.
[64] This is particularly pronounced when analysing disclosure standards in the UK and Australia. See s 5.4.
[65] R. Della Croce, C. Kaminker and F. Stewart, *The Role of Pension Funds in Financing Green Growth Initiatives* (OECD Publishing, 2011) <http://www.oecd.org/pensions/private-pensions/49016671.pdf>.
[66] See chs 4, 5, 6.
[67] Tessa Hebb et al (eds), *The Routledge Handbook of Responsible Investment* (Routledge, 2018).

Hebb et al[68] and Hawley[69] which investigate this phenomenon and deem it to be the true birth of responsible investment. Additionally, the OECD papers of 2007 and 2011 highlight that the PRI was primarily responsible for mainstreaming responsible investment in the institutional investment industry on a global scale.

The thesis also extends the scholarship surrounding the Universal Investor thesis (UI) as it has been quite pervasive in institutional investment and still informs pension funds' relationship with responsible investment. The UI thesis refers to the argument that large owners, such as asset owners in the form of large institutional investors, own a portion of the whole economy and thus are exposed to all the positive and negative externalities of their investment decision making.[70] Thus, the financial and economic interest of universal investors is the betterment of the whole economy, rather than just their own portfolio. Consequently, the argument is that universal investors will, out of financial incentive, engage with their investee companies and take ESG risk which is financially material into account.

The theory was mainstreamed by Hawley and Williams in 2000 through their excellent work on fiduciary capitalism.[71] They envisioned that pension fund capitalism via the UI thesis would be the key for pension funds investing for the public good. The thesis applies and extends this argument and recognises that most large pension funds in the UK and Australia own large amounts of equity in their respective jurisdictions[72] and have a financial incentive to inform investee company behaviour. In other words, large pension funds in the UK and Australia, including those that form part of the empirical study in this thesis, do possess UI characteristics. The UI is one of the primary motivational factors for the empirical research sample consisting of the largest pension funds by asset holdings in the UK and Australia.[73]

As with the SRI movement, the UI has been quite pervasive in contributing to the ever-evolving entrenchment of responsible investment in mainstream institutional

[68] Hebb et al (eds) (n 67) ch 1.
[69] Ibid ch 2.
[70] For a detailed discussion, see s 3.3.
[71] James P. Hawley and Andrew T. Williams, *The Rise of Fiduciary Capitalism: How Institutional Investors Can Make Corporate America More Democratic* (University of Pennsylvania Press, 2000).
[72] For detail, see s 1.4.3
[73] For a discussion of UI, see s 3.2; for a sample table of a case study of pension funds in the UK and Australia, see s 6.2.

investment. The UI sees support from global bodies, contemporary fund disclosures and academic scholarship.

In terms of global support, the UI argument draws support throughout the last decade from many prominent international bodies. Even in 2020, the UI thesis is signposted by bodies such as TCFD, PRI, Responsible Investment Association Australasia ('RIAA') and so on. The link between responsible investment and institutional investment globally has prevailed since at least the last decade. For instance, this can be evidenced by one instance: the 2011 report jointly prepared by UNEP FI and the PRI, titled *Universal Ownership: Why Environmental Externalities Matter to Institutional Investors*.[74] The report tracked how funds were taking responsible investment into account and how some of the large pension funds adhered to the UI thesis and identified themselves as universal investors. Additionally, this report recommended steps these universal investors could take to not only improve the long-term interests of their members and other stakeholders, but also their own long-term financial position.[75]

This same line of argument is also contained in the Freshfields report.[76] There is a clear convergence between prominent soft law initiatives on the UI argument for institutional investors; for instance, the PRI emphasised that the fulfillment of the United Nations Sustainable Development Goals depends on the UI argument as one of the factors in its 2017 report, *The SDG Investment Case*. It is noteworthy that the UI thesis still permeates the relationship between large pension funds and responsible investment, as evidenced by the public disclosures of large pension funds analysed in Chapter 6. Fund examples include AustralianSuper and QSuper in Australia and USS and BT in the UK. These funds acknowledge that they are UIs and tend to showcase their policies and steps taken in relation to ESG risk especially climate change.

With reference to academic scholarship, the UI was arguably mainstreamed in international institutional investment by Hawley and Williams in their seminal 2000 book, *The Rise of*

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[74] PRI, *Universal Ownership. Why Environmental Externalities Matter to Institutional Investors* (PRI Association and UNEP Finance Initiative, 2011) <https://www.unepfi.org/fileadmin/documents/universal_ownership_full.pdf>.

[75] Ibid 5.

[76] UNEP FI, *A Legal Framework* (n 6).

Fiduciary Capitalism.[77] Not only did they label large institutional investors such as pension funds as universal owners but also deemed how they must insulate themselves from all negative externalities of the economy and engage with their investee companies to do the same. Their work gains support from Clark's work on pension fund capitalism that highlights the growth and other asset-holding characteristics of pension funds around the time of Hawley and Williams' seminal work.[78] This was the foundational notion that now calls for institutional investors to insulate themselves, and by extension the whole economy, from systemic risks such as climate change and other ESG risks. Additionally, Hawley has also linked the UI argument with the Global Financial Crisis of 2007/08. He states that it is even more imperative from a financial and moral standpoint for UIs to engage with the economy such as their investee companies.[79]

Specifically relevant to the thesis, the notion of engagement by asset owners in their companies that they have invested in – investee companies – increased with the rise of the UI argument, as evidenced by Hebb's seminal book of 2007.[80] Additionally, the notion has also been linked with the duties the trustees owe and how taking account of such negative externalities is in line with the trustees' duty of care in relation to notions of stewardship.[81] Scholars such as Lydenberg[82] accede to this line of argument, and argue for a more reasonable conception of fiduciary duties. Furthermore, Urwin[83] provides a succinct account for more general sustainability approaches by institutional investors linked with the UI argument.

The thesis does not advocate for embedding the UI argument in pension fund governance but, rather, analyses the role of the UI argument in shaping the current laws and regulation and the extent to which they allow pension funds to incorporate climate risk. Funds that identify

[77] PRI, *Universal Ownership* (n 74); Hawley and Williams (n 71).
[78] Gordon L. Clark, *Pension Fund Capitalism* (Oxford University Press, 2001).
[79] James P. Hawley, 'Corporate Governance, Risk Analysis, and the Financial Crisis: Did Universal Owners Contribute to the Crisis?' in James P. Hawley, Shyam J. Kamath and Andrew T. Williams (eds), *Corporate Governance Failures: The Role of Institutional Investors in the Global Financial Crisis* (University of Pennsylvania Press, 2011) 97.
[80] Hebb, *No Small Change* (n 58).
[81] See for instance s 5.4.4.
[82] Steve Lydenberg, 'Reason, Rationality and Fiduciary Duty' (2012) 119(3) *Journal of Business Ethics* 365.
[83] Roger Urwin, 'Pension Funds as Universal Owners: Opportunity Beckons and Leadership Calls' (2011) 4(1) *Rotman International Journal of Pension Management* 26.

themselves as universal and large asset owner do tend to be inclined towards incorporating and disclosing on their climate risk policies and activities.

However, ultimately the UI argument also embeds a culture of greenwashing as such funds showcase their pro-environmental approaches due to reputational and selfish financial concerns. This leads to surface-level and hollow incorporation of ESG risk in a box-ticking format, rather than a substantive long-term entrenchment in their investment decision-making. Additionally, the UI supplements a tangent from the incorporation of climate risks holistically and, by extension, incorporation of the indicators of a holistic climate risk approach. This is because the UI provides a licence to pension funds to do whatever they want at variable degrees to take account of climate risk. Multiple strategies at various degrees allow them to be on par with the law and regulatory guidance, but this approach deviates from the urgency of climate risks and the goals of the Paris Agreement.

In light of the issue of multiple strategies, the general licence by the UI argument and the open-endedness of regulations and regulators guidance concerning consideration of climate risk by pension funds, the thesis proposes a regulatory reform. The reform addresses the gaps in regulation and regulatory guidances, addresses the multiple strategies issue and embeds minimum standards of best practice that enable a holistic management of climate risk by pension funds.[84] The next section, 2.4, examines the academic disclosure in relation to the pension fund legal and regulatory frameworks in the UK and Australia.

2.4 Analysis of pension fund legal and regulatory systems in the UK and Australia

This analysis of the extent to which the pension fund regime in the UK and Australia can accommodate climate risks holistically extends our understanding of the pension fund legal and regulatory systems in the UK and Australia, as well as comparative analysis of the systems. Particularly, the pension systems are studied inclusive of recent law reforms and regulatory guidance to gauge their capacity in relation to the inclusion of just transition risks via the four indicators of the just transition lens as part of the holistic approach to climate risk. Thus, the thesis contributes and extends the understanding of pension systems in the UK

[84] See s 7.3

and Australia across Chapters 4, 5 and 6 in relation to the duties of trustees, disclosure obligations and niche expectations in current regulatory guidance.

Academic interest in the pension systems has mostly focused on descriptive analysis of pension systems with a keener focus on the duties of trustees for the past decade. This is because there had been uncertainty in relation to the duties of trustees and whether they could accommodate climate risk. The thesis does not linger on this but rather understands the extent to which the current legal and regulatory regimes accommodates climate risk holistically and uses just transition climate risk as an exemplar. For the most part, the best sources in relation to the pension systems in the UK and Australia are the relevant regulatory bodies. The website of the Australia Prudential Regulatory Authority (‘APRA’)[85] in Australia and Department of Workplace and Pensions (‘DWP’)[86] and The Pensions Regulator (‘TPR’)[87] serve as the first source of relevant information ono the legal framework of the pension systems in Australia and the UK.

In addition to official regulatory guidance, Law Commission and public enquiries into pension systems also contain elements of the pension systems and these have served as valuable secondary sources; for example, UK Law Commission reports of 2014 and 2017 and the House of Commons Environment, Audit and Risk committee report, *Greening Finance: Embedding Sustainability in Financial Decision Making*.[88] Nonetheless, the regulatory sources are most reliable. In terms of academic sources, two past dissertations on a related but tangential subject provide excellent reference points. Reference is made to the inspirational work of Backhouse[89] and Woods.[90]

Woods’s thesis, ‘The Environment, Intergenerational Equity and Long-Term Investment’ provides an excellent foundational knowledge of the legislation that governs superannuation funds in the UK, Australia, and the US as of 2011. Woods comments on the opportunities for climate change funding in pension fund decision-making and uses temporal aspects of

[85] *APRA* (Web Page) <https://apra.gov.au>.
[86] *DWP* (Web Page) <https://www.gov.uk/government/organisations/department-for-work-pensions>.
[87] *TPR* (Web Page) <https://www.thepensionsregulator.gov.uk/>.
[88] Environmental Audit Committee, *Greening Finance: Embedding Sustainability in Financial Decision Making* (House of Commons Paper No 1063, Seventh Report of Session 2017–19).
[89] Kim-Marie Backhouse, ‘An Exploration of Innovation and Governance in Australian Superannuation Organisations’ (PhD Thesis, University of Tasmania, 2014).
[90] Claire Woods, ‘The Environment, Intergenerational Equity and Long-Term Investment’ (PhD Thesis, University of Oxford, 2011).

environmental problems as a lens. Woods understands aspects of the regulatory regime in relation to fiduciary duties and how they inhibits short-termism and other legal gaps that discourage pension trustees from considering ESG risk. Woods' thesis also analyses the relationship between fiduciary duties of trustees and sustainability notions and even analyses SRI norms and the mainstreaming of responsible investment by the PRI. However, Woods' work focuses mainly on the regulatory setting surrounding the duties of trustees.

Similarly, Backhouse's thesis provides a comprehensive descriptive analysis of the Australian superannuation system.[91] It focuses on legislative aspects and is quite innovative in navigating the breadth of the history of the superannuation set-up in Australia. Additionally, Backhouse analyses the state of the law in relation to Australian pension funds and, quite importantly, analyses the investment standards governing the industry. She also explores the SIS legislation in detail as of 2014 and goes on to examine trends in the superannuation industry. Neither dissertation specifically explores the potential of ESG risk in the UK and Australia and steps for reform in these jurisdictions. Woods' thesis, particularly her sections III[92] and IV,[93] are closer to the current thesis, but even they are a snapshot in time as at 2011, and only consider how to alleviate uncertainty surrounding ESG risk for pension trustees and recognise cultural barriers such as short-termism.

The relationship between pension funds and responsible investment has garnered heavy attention in the past few years across multiple platforms. Most sources – including Woods and Backhouse – have tackled the legality of consideration of ESG risk in pension fund governance, while some talk about reforms required to better embed ESG risk. The thesis, on the other hand, not only extends the understanding of the pension systems in the UK and Australia (including comparative analysis) as at 2020 but, importantly, does not question the legality of considering ESG risk such as climate risk. Rather, it actively analyses the extent to which the regulatory framework allows climate risk inclusion and whether that is in line with the urgency of climate risk and the goals of the Paris Agreement. Additionally, being a study in 2020 allows for analysis of recent law reform and regulatory guidance in the area, which adds value to understanding the dynamic relationship between pension funds and climate risk and the lens of just transition risks is utilised as an exemplar. Furthermore, the thesis

[91] Backhouse (n 89).
[92] Woods (n 90) s III.
[93] Ibid s IV.

conducts an empirical inquiry into the impact of the PRI on this relationship to gauge the extent to which pension fund PRI signatories and non-signatories are considering the indicators of the just transition risk lens as part of the holistic approach to climate risk.

The next section, 2.5, explores the interest surrounding incorporation of ESG risk and pension fund governance, particularly the duties of trustees and disclosure norms.

2.5 Debates surrounding duties and inclusion of ESG risk in the UK and Australia

A good starting point for understanding the modern conception of fiduciary and trust law duties and related contemporary issues is the *Research Handbooks in Corporate Law and Governance* series.[94] The most relevant is the *Research Handbook on Fiduciary Law* of 2018.[95] Of particular relevance in understanding the conception and theories of fiduciary law in Anglo-American jurisdictions are Parts I, II and V.[96] These parts are generalised discussions and are mostly theoretical in nature. They provide a succinct starting point but do not directly explore the relationship between duties of trustees and responsible investment.

A much more insightful resource in terms of pension funds and nonfinancial investment is Hawley and colleagues' 2011 textbook, *Corporate Governance Failures: The Role of Institutional Investors in the Global Financial Crisis*.[97] This text, though not a direct enquiry into the relationship between pension funds and responsible investment, does explore social and non-financial purposes of corporations and institutional investors in light of the Global Financial Crisis (GFC). Additionally, the book aims to connect the UI thesis and other social arguments with the duties of institutional investors, but the analysis is limited to post-GFC analysis.[98] Of particular note are the chapters by Lydenberg (Chapter 2[99]), Hawley (Chapter

[94] Randall S. Thomas (series editor), *Research Handbooks in Corporate Law and Governance* series (Edward Elgar) <https://www.e-elgar.com/shop/usd/book-series/law-academic/research-handbooks-in-corporate-law-and-governance-series.html>.
[95] D. Gordon Smith and Andrew S. Gold, *Research Handbook on Fiduciary Law* (Edward Elgar, 2018) pts I, II and IV.
[96] Ibid.
[97] Hawley, Kamath and Williams (eds) (n 79).
[98] James P. Hawley, Shyam J. Kamath and Andrew T. Williams, 'Introduction' in James P. Hawley, Shyam J. Kamath and Andrew T. Williams (eds), *Corporate Governance Failures: The Role of Institutional Investors in the Global Financial Crisis* (University of Pennsylvania Press, 2011) 1.
[99] Steve Lydenberg, 'Beyond Risk: Notes Toward a Responsible Investment Theory' in James P. Hawley, Shyam J. Kamath and Andrew T. Williams (eds), *Corporate Governance Failures: The Role of Institutional Investors in the Global Financial Crisis* (University of Pennsylvania Press, 2011) 26.

5[100]) and Woods (Chapter 11[101]). Lydenberg contends that the Modern Portfolio Theory ('MPT') underpins global pension investment, and argues that the MPT fails to accommodate societal purposes and effects of investment decision-making. Lydenberg concludes that investors must pay heed to these social aspects of investment in order to safeguard and maximise long-term returns. The thesis extends Lydenberg's societal purposes analysis by assuming that ESG risks can be legally considered and understands the extent to which this could be done in the UK and Australia as at the time of writing.

Hawley (Chapter 5) concludes that large institutional investors that are also UIs have failed to establish appropriate governance and accountability mechanisms that could have not only allowed investors to take into account long-term responsible investment risk, but also safeguarded the economy. The concluding inference from Hawley's discussion is that institutional investors such as pension funds need to address ESG risk such as climate risk adequately and proper regulatory safeguards need to be in place. Similarly, Woods (Chapter 11) analyses perceived barriers, such as short-termism, that have impeded trustees from legally incorporating ESG risk into account. Woods highlights that uncertainty surrounding the relationship between the duties of trustees and ESG risk was nothing more than a collective action problem. The thesis adds value to these debates by understanding limits of incorporation of climate risk by pension funds and identifies the legal gaps that prevents a holistic approach to climate risk.

A more insightful and relevant text that discussed the evolving relationship between responsible investment and pension fund governance is the *Cambridge Handbook of Institutional Investment and Fiduciary Duty* ('*Cambridge Handbook 2014*').[102] It serves as an excellent introduction to the relationship between pension funds and responsible investment as at 2013/14. Not only does it contain all the debates surrounding this relationship, but also provides economic and statistical analysis along with a summation of relevant theories. Parts I, II, III and IV of the *Cambridge Handbook 2014* are all are relevant for the purposes of the thesis as they introduce the requirements of the duties of trustees and the changing

[100] Hawley, 'Corporate Governance, Risk Analysis, and the Financial Crisis' (n 79).
[101] Claire Woods, 'Funding Climate Change: How Pension Fund Fiduciary Duty Masks Trustee Inertia and Short-Termism' in James P. Hawley, Shyam J. Kamath and Andrew T. Williams (eds), *Corporate Governance Failures: The Role of Institutional Investors in the Global Financial Crisis* (University of Pennsylvania Press, 2011) 242.
[102] James P. Hawley et al (eds), *Cambridge Handbook of Institutional Investment and Fiduciary Duty* (Cambridge University Press, 2014).

perceptions of those duties in the light of rising awareness and conceptions of ESG risk, SRI, ethical investing and impact investing.

Apart from distilling the important concepts and systems that surround pension fund governance, chapters in the *Cambridge Handbook 2014* are important as they illustrate the older debate between duties of trustees and responsible investment; that is, can trustees legally take ESG risk into account and how they could do so? In terms of introducing the debate, Noble's chapter serves as an excellent introduction to the Australian context of the duties of trustees and the trends prevalent in the Australian landscape as at 2013/14.[103] Of particular note is the illustration of herding behaviour amongst pension funds. Molinari's (Claire Woods) chapter 13[104] is also contributory as it examines the outdated nature of the UK pension fiduciary obligation and its weaknesses in protecting beneficiaries especially DC schemes. Notably, Woods recommends that fiduciary obligations need to be extended by the courts in order to safeguard beneficiaries appropriately and also to address social investment.

Part IV[105] of the text is the most relevant for the purposes of the thesis as it investigates to an extent the relationship between pension funds and evolving notions of responsible investment. For instance, Clark's chapter 20[106] investigates how the UK could respond to the increasing awareness of sustainable investment via pension funds fiduciary duties. Clark concludes that fiduciary duties, while historically flexible, have proven inadequate in governing pension fund decision-making in relation to protection of beneficiaries and responsible investment. Clark recommends statutory reform of duties of trustees so as to embed a clear framework for pension trustees in the UK.

As noted at section 2.3, for the most part academic interest surrounding reform has been based on the uncertainty of whether or not pension funds can legally take ESG risk into account and what steps can be taken to better embed such practices by trustees. The

[103] Gordon Noble, 'Institutional Investment and Fiduciary Duty in Australia' in James P. Hawley et al (eds), *Cambridge Handbook of Institutional Investment and Fiduciary Duty* (Cambridge University Press, 2014) 46.
[104] Woods, 'The Environment, Intergenerational Equity and Long-Term Investment' (n 90).
[105] Hawley et al (eds), *Cambridge Handbook* (n 99) pt IV.
[106] Gordon L. Clark, 'Fiduciary Duty and the Search for a Shared Conception of Sustainable Investment' in James P. Hawley et al (eds), *Cambridge Handbook of Institutional Investment and Fiduciary Duty* (Cambridge University Press, 2014) 265.

following chapters of the Cambridge Handbook 2014 are relevant: Chapter 21[107] by Urwin, Chapter 22[108] by Lydenberg and Chapter 23[109] by Sandberg. Lydenberg's Chapter 22 explores the potential of the duties of trustees to acquire a new persona that strikes a balance between reason and rationality. He correctly argues that fiduciary duties have been an evolving concept capable of changing with times and that the current iteration is an entrenched result of the modern portfolio theory.[110] Lydenberg concludes by postulating a reconceptualisation of duties of trustees where trustees should not only pay heed to the financial interests of the members, but also to the world that beneficiaries would occupy in the future. The thesis acknowledges this and extends the argument by understanding that trustees can legally take climate risks into account. However, the extent to which pension funds can do so indicates that they are not addressing just transition climate risks adequately as the legal regime in both the UK and Australia is limited by legal gaps.

In chapter 23[111] of the text and his original article,[112] Sandberg acknowledges that the understanding of whether or not duties of trustees could incorporate SRI is mired by uncertainties and conflicting perceptions. In categorising these debates, Sandberg explores many reinterpretations of the duties. The most noteworthy is the idea that trustees could take SRI/responsible investment into account if that gives effect to the will of the members.[113] This will enable the trustees to include social and environmental investment and not breach their duties. This thesis extends this area of scholarship as the incorporation of the will of the members is posited as one of the indicators of the just transition risk lens and is analysed extensively. Chapters 4[114] and 5[115] of the thesis analyse the will of members argument in the context of the duties of trustees and disclosure norms. Furthermore, Chapter 6[116] extrapolates evidence of the presence of this indicator of the just transition risk lens in the industry by

[107] Roger Urwin, 'Pension Fund Fiduciary Duty and Its Impacts on Sustainable Investing' in James P. Hawley et al (eds), *Cambridge Handbook of Institutional Investment and Fiduciary Duty* (Cambridge University Press, 2014) 277.
[108] Steve Lydenberg, 'Reason, Rationality and Fiduciary Duty' in James P. Hawley et al (eds), *Cambridge Handbook of Institutional Investment and Fiduciary Duty* (Cambridge University Press, 2014) 287.
[109] Joackim Sandberg, 'Socially Responsible Investment and the Conceptual Limits of Fiduciary Duty' in James P. Hawley et al (eds), *Cambridge Handbook of Institutional Investment and Fiduciary Duty* (Cambridge University Press, 2014) 300.
[110] For an explanation of this phenomenon, see s 3.2.4.
[111] Sandberg, 'Socially Responsible Investment' (n 108).
[112] Joackim Sandberg, '(Re-)Interpreting Fiduciary Duty to Justify Socially Responsible Investment for Pension Funds' (2013) 21(5) *Corporate Governance: An International Review* 436
[113] Ibid.
[114] See s 4.4.2.
[115] See s 5.4.2.
[116] See s 6.4.

evaluating the public disclosures of funds in the UK and Australia that are PRI signatories and non-signatories.

Of greater importance is Urwin's chapter 21,[117] which explores the evolving understanding of duties of pension funds in the US and Europe with ESG risks. Urwin highlights the shortcomings of the current perceptions of fiduciary duties and how they suffer from short-termism and the misguided pursuance of sole financial interests. Additionally, Urwin argues for a need of a clear framework for all pension funds to follow and foreshadows the need for more monitoring of risk and disclosures in relation to ESG risk.

In their 2010 work,[118] Woods and Urwin touch on the main theme of the thesis; that is, inclusion pathways of responsible investment in pension fund governance. Woods and Urwin analyse UK and US pension funds and illustrate practical guidance for the implementation of responsible investing norm (these were newly developing in 2010). The authors do a macro analysis and provide practical steps that pension funds can adopt to incorporate the rising norms of responsible investment and not breach their duties of loyalty and care. They also aim to reduce the misguided short-termism prevalent in the industry and highlight the fact that pension funds need to act and invest in the long-term.

Additionally, the authors argue that regulation can serve as an enabling tool for the incorporation of responsible investment.[119] Woods and Urwin do not believe that responsible investment is illegal but, rather, that perceptive and cultural barriers exist that allow for the status quo to be upheld; that is, sole financial interests of the beneficiaries.[120] In allowing the duties to better accommodate responsible investment, Urwin and Woods argue for a reinvigoration of the duties of trustees via the often-sidelined duty of impartiality. This line of argument is affirmed by Hawley, Johnson and Waitzer in their 2011 paper,[121] which not only calls for a reinvigoration of fiduciary norms such as impartiality to enable long-term investment, but also regulatory intervention to alleviate uncertainty surrounding ESG investment.

[117] Urwin, 'Pension Fund Fiduciary Duty' (n 107).
[118] Claire Woods and Roger Urwin, 'Putting Sustainable Investing into Practice: A Governance Framework for Pension Funds' (2010) 92 *Journal of Business Ethics* 1.
[119] Ibid 14.
[120] Ibid 13.
[121] James P. Hawley, Keith L. Johnson and Edward J. Waitzer, 'Reclaiming Fiduciary Duty Balance' (2011) 4(2) *Rotman International Journal of Pension Management* 4.

It is worth noting that not only does the thesis add value to these reform debates and propositions but extends them as well. First, the thesis assumes that the debate surrounding the legality of considering ESG risk for pension funds is over. Second, the thesis takes a novel approach in understanding and comparing the extent to which climate risk can be considered by pension funds in UK and Australia. Given the urgency of climate risk, its subtle aspects and the goals of the Paris Agreement, the thesis utilises the lens of just transition risks. The regulatory reform proposed by the thesis are not predicated on clarifying the legality of considering climate risk but rather on solidifying and standardising the extent of climate risk in pension fund governance in the UK and Australia. Furthermore, the proposed reforms flow from the legal gaps identified by thesis in its analysis of just transition risks.

In terms of more recent interest in climate risk and pension fund governance, the recent work of Barker et al[122] explores and analyses the potential inclusion of climate change risk by pension funds in Australia. This is a nuanced analysis and deals with climate risk and responsible investment concepts, as developed by global bodies such as the PRI and TCFD. Of particular note is the constant theme of acknowledgement that some aspects of climate change are regarded (in 2016) as a non-financial issue by some stakeholders in the Australian pension fund landscape.

Additionally, the 2016 article also highlights the prevalent issues of short-termism and herding behaviour prevalent in the industry. Quite importantly, the authors explore the requirements of the *Superannuation Industry (Supervision) Act 1993* (Cth) ('SIS Act') with a new and arguably correct understanding of climate change risk; that is, a potentially financially material risk in the long-term. In this context, the 2016 article illustrates examples of trustee behaviour and attitudes towards climate change risk and, by extension, other ESG risk and makes inferences as to what is acceptable and what may be a breach of the duties of trustees, especially the duty of care.

[122] Sarah Barker et al, 'Climate Change and the Fiduciary Duties of Pension Fund Trustees – Lessons from the Australian Law' (2016) 6(3) *Journal of Sustainable Finance & Investment* 211.

Interest surrounding the duties of trustees and the potential for them to include ESG risk such as climate change has also been analysed by the Law Commission of England and Wales in the reports of 2014[123] and 2017,[124] and more recently by the Environment Audit Committee ('EAC')[125] and the government response to the EAC report.[126] The Law Commission reports have already been discussed in this section and the thesis analyses their contribution in Chapter 4. The EAC inquiry and the government response led to the recent UK reform that came into effect in October of 2019.

Additionally, legal opinions analyse the legality of considering ESG risk for pension funds in the UK and Australia. These opinions deal with the core subject of the duties of pension funds and ESG risk as well as the related topic of duties of directors and ESG risk. The opinions are analysed extensively in Chapters 4 and 5 and include the October 2016 opinion,[127] the November 2016 opinion,[128] the June 2017 opinion[129] and the 2019 update to the October opinion.[130] Inferences and generalisations are drawn in relation to the regulatory framework in the UK and Australia and the extent to which they can accommodate the four indicators of the just transition risk lens for pension funds.

2.6 Prominent soft law disclosure norms that informs pension fund practice in the UK and Australia

The thesis explores the current disclosure regime in the UK and Australia and its capacity in accommodating the four indicators of the just transition risk lens. Additionally, an empirical

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[123] Law Commission, *Fiduciary Duties* (n 39).
[124] Law Commission, *Pension Funds* (n 40).
[125] Environmental Audit Committee (n 88).
[126] Environmental Audit Committee, *Greening Finance: Embedding Sustainability in Financial Decision Making: Government Response to the Committee's Seventh Report.* Eleventh Special Report of Session 2017-19. HC 1763 (1 November 2019) <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1673/1673.pdf>.
[127] Noel Hutley and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties' (Memorandum of Opinion, Centre for Policy Development and Future Business Council, 7 October 2016) <http://cpd.org.au/2016/10/directorsduties>.
[128] Keith Bryant and James Rickards 'The Legal Duties of Pension Fund Trustees in Relation to Climate Change' (Abridged Joint Opinion, 25 November 2016) <www.documents.clientearth.org/wp-content/uploads/library/2016-12-02-the-legal-duties-of-pension-fund-trustees-abridged-opinion-ext-en.pdf>.
[129] Noel Hutley and James Mack, 'Superannuation Fund Trustee Duties and Climate Change Risk' (Memorandum of Opinion, Market Forces, 15 June 2017) <https://envirojustice.org.au/sites/default/files/files/20170615%20Superannuation%20Trustee%20Duties%20and%20Climate%20Change%20(Hutley%20%26%20Mack).pdf>.
[130] Noel Hutley and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties' (Supplementary Memorandum of Opinion, Centre for Policy Development, 26 March 2019) <https://cpd.org.au/wp-content/uploads/2019/03/Noel-Hutley-SC-and-Sebastian-Hartford-Davis-Opinion-2019-and-2016_pdf.pdf>.

lens is also utilised to compare the public disclosures of PRI signatory funds with those of non-signatory funds to gauge the actual impact of the PRI in relation to the incorporation of the four indicators of the just transition risk lens. Consequently, this section analyses the prominent sources that informs disclosure laws, regulations and industry practice in the UK and Australia.

The PRI is the most significant source that influences pension fund practices in relation to disclosure norms. In 2020, the PRI has approximately 3000 asset owner signatories globally, holding USD 110 trillion under management.[131] PRI asset owners are mandated to disclose a transparency report annually at the risk of being blacklisted; thus the PRI informs pension fund disclosure practices the most.[132] The second most pronounced source is the 2017 80 report,[133] which documents that recommendations of the Task Force on Climate-related Financial Disclosures. Since 2017, the TCFD has released yearly status reports, with the latest released in 2019.[134] The TCFD reports and supplementals are the single most authentic and extensive resources that give practical advice on how to incorporate disclosure best practice in relation to ESG risk such as climate change. These guidelines apply to institutional investors such as pension funds, as well as the investee companies, and are the most prominent, mainstreamed soft law mechanism on ESG disclosures.[135]

Notably, the PRI has now assimilated TCFD-style disclosures into the reporting frameworks for its signatories. Future PRI transparency reports – beyond 2020 – will require signatories to report on TCFD requirements on a voluntary basis.[136] Additionally, the PRI assimilates

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[131] PRI, *Principles for Responsible Investment* (PRI, 2020) 5 <https://www.unpri.org/download?ac=10948>.
[132] PRI, *Reporting & Assessment* (Web Page) <https://www.unpri.org/signatories/reporting-and-assessment-resources>.
[133] Financial Stability Board, *Recommendations of the Task Force on Climate-related Financial Disclosures* (Financial Stability Board, 2017) <https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Report-062817.pdf>.
[134] Financial Stability Board, *2019 Status Report. Recommendations of the Task Force on Climate-related Financial Disclosures* (Financial Stability Board, 2019) <https://www.fsb-tcfd.org/publications/tcfd-2019-status-report/>.
[135] This point is made as the thesis focusses primarily on the jurisdictions of the UK and Australia only. It is acknowledged that in North America and Europe the Sustainability Accounting Standards Board (SASB) is quite prominent as well. For the prominence in the US and other jurisdictions see The Sustainability Accounting Standards Board *Global Use of SASB* Standards (Web Page) < https://www.sasb.org/about/global-use/>; For the SASB framework The Sustainability Accounting Standards Board, *SASB Conceptual Framework* (SASB, February 2017) <https://www.sasb.org/wp-content/uploads/2019/05/SASB-Conceptual-Framework.pdf>
[136] PRI, ‘TCFD-based reporting to become mandatory for PRI signatories in 2020’ (Web Page, 19 February 2019) <https://www.unpri.org/news-and-press/tcfd-based-reporting-to-become-mandatory-for-pri-signatories-in-2020/4116.article>.

many other prominent soft law initiatives, while the transparency report asks whether or not an asset owner engages/partners with them in any capacity. These include the Ceres, CDP. SDGS, RIAA, GCC and so on.[137] Consequently, the PRI is and will be for many years to come the most pronounced determinant of pension fund practices in relation to disclosures. The thesis understands the impact of the PRI on the current regulatory approaches in the UK and Australia in relation to the four indicators of the just transition risk lens as part of the holistic approach to climate risk. This is done by comparing public disclosures of PRI signatory funds with non-PRI funds across both jurisdictions.

Another relevant example of a source includes the report by industry-leading institutional investor and asset manager Schroders,[138] which provides a snapshot of what institutional investors are doing in terms of ESG disclosure best practice. For example, it highlights that disclosures should include evidence of negative screening, thematic/impact investing, engagement with investee companies, and engagement with soft law mechanisms such as the PRI, GRESB for real estate, and so on. Similarly, in the UK, the influential Sackers reports of 2019[139] and 2020[140] guide trustees on the necessity of climate related financial disclosures and emphasise engagement and influence over investee companies based on TCFD criteria. Other elements of disclosure best practice centres around the highly evolving subfield of measuring climate risk, climate impacts and carbon footprints.

In addition to the TCFD, soft law mechanisms such as the Montreal Pledge[141] and the Portfolio Decarbonization Coalition[142] encourage institutional investors such as pension funds to develop data, metrics, targets and indicators. These developing tools can be used to measure carbon impact and climate risk and lead to a better understanding of ESG risk in relation to the duty of trustees. The MSCI is undoubtedly the industry leader on the front of

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[137] See for example the transparency report of AustralianSuper: PRI, *Australian Super: SG 09-11* (Web Page) <https://reporting.unpri.org/surveys/PRI-reporting-framework-2020/34BF5EFA-9686-409A-A983-FB14D5136704/57749b1a39a14fe6942aabb90698b3c1/html/2/?lang=en&a=1>.

[138] Schroders, *ESG Best Practice: A Look at How Some of the World's Largest Asset Owners Approach Sustainable Investment* (November 2017) <https://www.schroders.com/en/sysglobalassets/digital/insights/2018/sustainability/2017-11-esg-best-practice.pdf>.

[139] Sackers, *ESG and Climate Change for Pension Funds: Putting the Law into Practice* (2019) <https://www.sackers.com/app/uploads/2019/05/Sackers_ESG_climate_change_guide_May_2019.pdf>.

[140] Sackers, *ESG and Climate Change for Pension Funds: Your Agenda for 2020* (2020) <https://www.sackers.com/app/uploads/2020/03/ESG-and-climate-change-for-pension-funds-2020.pdf>.

[141] *Montreal Carbon Pledge* (Web Page) <https://montrealpledge.org/>.

[142] *Portfolio Decarbonization Coalition* (Web Page) <https://unepfi.org/pdc/>.

measurement of ESG risk such as climate change and carbon impacts. Their multiple studies, guides and reports[143] not only disseminate awareness of best practice in relation to ESG inclusion and disclosure for institutional investors such as pension funds, but the MSCI also leads in developing of ESG ratings. These ratings cover investment projects, as well as asset managers and investment consultants. Pension funds can make use of MSCI to understand ESG risk, selection of investments, selection of asset managers, and the vetting and review of investee companies.

Another prominent example of supra-national bodies that recommend precepts of ESG disclosure best practice is the guidance from the OECD. The guidance is prominent and drives ESG best practice throughout the pension industry. In particular, the OECD has shed light on screening as an investment tool and a sanction for investee companies.[144]

While these sources supplement understanding of climate-related disclosures, they do not specifically argue for uniformity in the UK and Australia in relation to climate risks and the urgency of meeting the Paris Agreement goals. The lenses adopted by these reports and even the PRI transparency reports are too broad, and do not cover subtle aspects of climate risks such as just transition risks.

Thus, the thesis extends the understanding of climate-related disclosure by utilising a unique and subtle lens of just transitions risk via the four indicators of the lens as part of the holistic approach to climate risk – incorporating a policy on climate risks, divesting from fossil fuels, incorporating member views, and utilising climate scenario analysis. Additionally, the extension is a comparative approach between the UK and Australia as at 2020; it enhances the understanding of climate disclosure norms across the two jurisdictions and globally as

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[143] See generally MSCI, *The State of Climate Change Risk Management by Institutional Investors: Current Status and Future Trends* (MSCI, 2017) <https://www.msci.com/documents/1296102/1825551/The+State+of+Climate+Change+Risk+Management+by+Institutional+Investors.pdf/64da9b4a-0014-4cf9-8d6b-507f7413083c>; Manish Shakdwipee, 'How Institutional Investors Are Responding to Climate Change (MSCI Blog, 14 September 2017) <https://www.msci.com/www/blog-posts/how-institutional-investors-are/0734772568>; Brendan Baker, *TCFD-Based Reporting: A Practical ESG Guide for Institutional Investors* (MSCI, 2019) <https://www.msci.com/documents/10199/e9a55ef5-e119-c477-4f05-a8a526946c8d>.

[144] See generally OECD, *Integrating Climate Change-related Factors in Institutional Investment. Background Paper for the 36th Round Table on Sustainable Development 8-9 February 2018* (OECD, 2018); OECD, *Investment Governance and the Integration of Environmental, Social and Governance Factors* (OECD, 2017) <https://www.oecd.org/investment/Investment-Governance-Integration-ESG-Factors.pdf>.

well. This includes understanding and analyses of recent laws and regulatory guidance in this area and comparing them with the impact of the PRI on the same sample of funds.[145]

2.7 Conclusion

Sections 2.2–2.6 above reviewed the prevailing academic scholarship, and debates surrounding the prominence of ESG consideration such as climate risk in pension fund governance. Additionally, debates surrounding duties of trustees were also highlighted, including the impact of soft law on pension fund disclosures in practice. The thesis extends the understanding of the relationship between climate risk governance and pension funds by assuming the legality of consideration of climate risks at the outset and focusing on the extent to which the current legal regime can consider them. Additionally, the understanding of climate risk is linked with the Paris Agreement goals and a just transition climate risk lens is utilised across not only the understanding of the relationship between pension funds and climate risk, but also the understanding of climate risks as per the current law. Academic discourse for the most part has focused on the duties of trustees and whether they could accommodate climate risks, with some recent work focusing on the legality of considering climate risks generally.[146]

This thesis assumes that considering climate risks are legal and that the debate surrounding the legality of considering them has virtually ended; this has been affirmed by the final report of the PRI in 2019 at the end of its long-term global study of fiduciary duties.[147] However, the same report did highlight policy and regulatory gaps that hinder consideration of climate risk. The thesis extends this conclusion and considers the extent to which pension funds in the UK and Australia can accommodate climate risks in a holistic manner in line with the Paris Agreement goals and the urgency of climate risks. To understand the extent and identify the legal gaps, the thesis utilises the lens of just transition climate risks for pension funds as these aspects of climate risk need to be addressed to meet the Paris Agreement goals.

Additionally, this lens provides a unique insight into the current regulatory approaches in the UK and Australia. Such an enquiry is limited in the current academic and market discourse.

[145] For the impact of the PRI, see ch 6.
[146] Barker et al (n 119); Hutley and Hartford-Davis (n 127); Bryant and Rickards (n 128); Hutley and Mack (n 129); Hutley and Hartford-Davis (n 130).
[147] UNEP FI, *Fiduciary Duty in the 21st Century. Final Report* (n 18) 22.

However, it is worth mentioning the Grantham Research Institute's guide for investors in relation to just transition risk.[148] The guide espouses the need for all asset owners that owe fiduciary duties to incorporate a long-term lens and take into account just transition risks for long-term financial resilience and the interests of members.[149] The guide even envisages universal investors as the leaders of such norms.[150] The thesis extends the argument of the guide in specific terms by developing a lens of just transition risks that incorporate the four indicators of the lens as part of the holistic approach to climate risk: incorporating a policy on climate risk; divesting from fossil fuels; incorporating member views; and utilising climate scenario analysis.

In using this lens, the thesis compares the jurisdictions of the UK and Australia in terms of the duties of trustees and disclosure norms as well as the impact of the PRI on pension fund practices. This allows the thesis to accomplish a unique study of the current regulatory approach in the UK and Australia in relation to climate risk and whether or not the response is a holistic one that incorporates subtle aspects of climate risk such as just transition risks. The next chapter examines the contextual and theoretical underpinnings that inform the relationship between pension funds and climate risk and the current approaches in the UK and Australia in relation to climate risk.

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[148] Nick Robins, Vonda Brunsting and David Wood, *Climate Change and the Just Transition: A Guide for Investor Action* (Grantham Research Institute on Climate Change and the Environment, 2018) <https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/11/IJT-guidance-for-investors_web-spreads.pdf>.
[149] Ibid 10.
[150] Ibid.

Chapter 3 Contextual and normative underpinnings surrounding the relationship between climate risks and pension funds and how they contribute to the current response to climate risk by pension funds in the UK and Australia

3.1 Introduction

Pension funds are not addressing climate risk holistically and the state of the current pension fund legal regime identifies closely with arrested development.[1] The purpose of chapter 3 is to establish key context to the analysis that the thesis conducts across chapters 4.5 and 6 concerning the extent to which pension funds can legally consider climate risks holistically via the four indicators of the just transition risk lens. Chapter 3 contextualises these findings by analysing theoretical and factual phenomena that have shaped the current approach of pension funds to environmental, social and governance (ESG) risk generally, and climate change risk specifically. The theoretical arguments and factual phenomena highlighted in this chapter supplement the context of the current approach of pension funds, and have underpin ESG risk such as climate change risks as a contemporary issue for pension funds. Collectively, the theoretical arguments and factual phenomena are referred to as factors. These interrelated factors include the history of responsible investment, the changing context of duties of pension trustees, the universal investor thesis (UI), the fossil fuel divestment movement, inconsequential signposting of beneficiary acquiescence and long-termism and, finally, the rise of disclosure of climate risk.

While these factors are laudable for mainstreaming the consideration of climate risk by pension funds, they have, unfortunately, also contributed to the current compartmentalised – and, in some cases, greenwashed – approach of pension funds to climate risk. This limits consideration of a holistic approach to climate change and of the subtleties of climate change risks such as just transition risks. Eventually, these factors also contribute to the state of the current pension fund legal regime as one of arrested development. The analysis of these factors is important as they underpin, contextually and conceptually, the relationship between pension funds and climate risk. The chapters 4, 5 and 6 analyse the extent to which the

[1] See O. R. Young, *Institutional Dynamics: Emergent Patterns in International Environmental Governance* (MIT Press, 2010); see also ss 1.3.2, 1.3.3; Law Commission, *Pension Funds and Social Investment* (Law Comm No 374, 23 June 2017).

pension fund legal regime in the UK and Australia accommodates a holistic consideration of climate change risk via the four indicators of the just transition risk lens.

Chapter 3 outlines and analyses these factors, while highlighting their contribution to the current compartmentalised approach to climate risk by pension funds and the state of arrested development of the current pension fund legal regime. Section 3.2 provides an analysis of two interconnected factors: (i) the history of responsible investment, including the influence of ethical investment and socially responsible investment (SRI); and (ii) the historical context of the duties of trustees. After the analysis of the first two factors, section 3.3 analyses the contribution of the UI thesis in making ESG risk a contemporary issue for pension funds and to the current compartmentalised as opposed to a holistic approach to climate risk.
Section 3.4 continues this argument and analyses the fossil fuel divestment movement.
Section 3.5 analyses members' growing concerns in relation to climate risk and the rise of disclosure norms as a response. Section 3.6 concludes the chapter.

3.2 The history of responsible investment and its contribution to a compartmentalised approach to climate risk

Before analysing the history of responsible investment and its contribution to the mainstreaming of ESG risks for pension funds and to the current compartmentalised approach to climate risk by pension funds, it is important to understand the meaning of environmental, social and governance considerations (ESG). ESG considerations are linked to the investment decision-making processes of companies and institutional investors such as pension funds and encapsulate a broad range of factors. The term ESG was first devised by the United Nations Global Compact in its 2005 report, *Who Cares Wins*,[2] which argued that incorporation of ESG factors by investment decision-makers, including securities brokerages, leads to sustainable economies and markets, while maintaining a positive business case.

At the time of the Global Compact report, the United Nations Environment Programme Finance Initiative (UNEP FI) released the landmark Freshfields report. One of the key highlights of the Freshfields report was its illustration that ESG issues have the potential to be

[2] The Global Compact, *Who Cares Wins: Connecting Financial Markets to a Changing World* (Swiss Federal Department of Foreign Affairs/United Nations, 2004) <https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_global_compact_2004.pdf>.

financially material.[3] Shortly after the two reports, and under their inspiration, the Principles for Responsible Investment ('PRI') were launched in 2006. The PRI has mainstreamed responsible investment – the consideration of ESG risk globally – as the dominant investment method.[4] By 2020, the PRI signatories number 3000 and hold USD 110 Trillion.[5] ESG investment has become shorthand for investment methodologies of institutional investors such as pension funds and hedge funds that embrace ESG considerations as a means of helping to identify investee companies with superior business models.[6] It is apt to use the widely endorsed definition:

> that the term ESG has emerged globally to describe the environmental, social and corporate governance issues that investors are considering in the context of corporate behaviour. No definitive list of ESG issues exists, but they typically display one or more of characteristics such as issues that have been conventionally regarded as non-financial, a medium to long-term time horizon, social externalities, a public concern focus etc.[7]

ESG has become synonymous with responsible investment and multiple strategies that keep expanding the non-exhaustive list of ESG factors.[8]

The 'E' in ESG refers to environmental considerations. These considerations include, but are not limited to, the scarcity of natural resources, climate change and carbon emissions, air and water pollution, biodiversity, deforestation, energy efficiency and waste management. The 'S' refers to social considerations that encompass social trends and attitudes prevalent in society. Social considerations also include dominant moral principles and social behaviours prevalent in society, human rights, labour standards and community relations. Social

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[3] UNEP FI, *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment* (UNEP FI, 2005) <https://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf>; see also s 2.2.
[4] See for example Katie Gilbert, 'Principles for Responsible Investment Drives ESG Into the Mainstream' *Institutional Investor* (4 February 2011) <https://www.institutionalinvestor.com/article/b150xy4j453p59/principles-for-responsible-investment-drives-esg-into-the-mainstream>; UBS, 'Is Sustainable Investing Moving into the Mainstream?' *Harvard Business Review* (15 November 2019) <https://hbr.org/sponsored/2019/11/is-sustainable-investing-moving-into-the-mainstream>; George Kell, 'The Remarkable Rise of ESG', *Forbes* (11 June 2018) <https://www.forbes.com/sites/georgkell/2018/07/11/the-remarkable-rise-of-esg/#5e98484d1695>.
[5] PRI, *Annual Report* (2020) 67 <https://www.unpri.org/annual-report-2020/how-we-work/building-our-effectiveness/enhance-our-global-footprint>.
[6] Impax Asset Management, *Environmental, Social & Governance Risk* (Web Page) <https://impaxam.com/investment-philosophy/environmental-social-and-governance-risk-management/>; Pax World Funds, *Spotlight on ESG Criteria* (Impax Asset Management LLC, 2019) <https://impaxam.com/assets/pdfs/sustainability/spotlight_on_esg_criteria.pdf>.
[7] UNEP FI/Mercer, *Demystifying Responsible Investment Performance* (UNEP FI/Mercer, 2007) <https://www.unepfi.org/fileadmin/documents/Demystifying_Responsible_Investment_Performance_01.pdf>; MSCI, *ESG 101: What is ESG?* (Web Page) <https://www.msci.com/what-is-esg>.
[8] See s 3.2.1.

considerations are also measured by gauging the robustness of investee companies to sufficiently adapt policies in the light of prevalent social changes and attitudes.[9] Pertinently, the social risks include elements of worker rights and access to decent living that form part of the just transition risks of climate change. Last, the 'G' refers to governance considerations of the institutional investor as well as those that measure the quality and robustness of an investee company's internal governance structure and policy. At a micro level, governance considerations include shareholder rights, board composition, political contributions, accountability, and the wider transparency framework of the investee company. At a macro level, governance considerations also cater for the legal and regulatory framework that governs institutional investors and companies.[10]

It is important to note that investors tend to focus on the 'E' in ESG in the form of climate change risks. While it is necessary to take climate risks into account to meet the Paris Agreement goals, thinking about climate risk as environmental risks only is not the correct approach and limits the holistic consideration of climate risks. Climate risks manifest in physical, transition and liability risks across all three elements of ESG, not just the 'E'.[11] Unfortunately, the lack of an authoritative definition of ESG has not only given way to multiple strategies of taking climate risks into account, but also embedded a compartmentalised approach to climate risks.

The next sections focus on the historical context of responsible investment, particularly how it has become the latest iteration of ESG investing, after ethical investment and socially responsible investment. Uncertainty of what ESG means and how is perceived is also highlighted. Cumulatively, the history of responsible investment shapes the current compartmentalised approach to climate risks where the subtleties of climate risk such as just transition risks of pension funds are ignored. The compartmentalised approach is at odds with the holistic approach required to combat climate risks and meet the goals of the Paris Agreement.

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[9] Schroders, *Understanding Sustainable Investment and ESG Terms* (24 May 2017) <https://www.schroders.com/en/us/institutional/thought-leadership/sustainability/understanding-sustainable-investment-and-esg-investment-terms/>.
[10] PRI, *Environmental, Social and Governance Issues* (Web Page) <https://www.unpri.org/esg-issues>; OECD, *Investment Governance and the Integration of Environmental, Social and Governance Factors* (OECD, 2017) <https://www.oecd.org/finance/Investment-Governance-Integration-ESG-Factors.pdf>.
[11] See generally PRI, *Implementing the Task Force on Climate-related Financial Disclosures (TFCD) Recommendations: A Guide for Asset Owners* (PRI, 2018) <https://www.unpri.org/download?ac=4652>; see also s 1.3.4.

3.2.1 The historical context

ESG investment is not new. ESG integration has been linked with investment decision-making for several hundred years, albeit under different labels. Historically, the literature has referenced the vast landscape of investment decision-making that takes account of ESG considerations. The major names that encapsulate ESG investment decision-making are Socially Responsible Investment (SRI),[12] ethical investment[13] and social investment[14] – and the overarching macro term, Responsible Investment, the foremost referenced term for the incorporation of ESG consideration.[15] Consequently, the terms SRI, ethical investment, social investment, impact investing, thematic investing, and so on, can be grouped under the umbrella term, Responsible Investment. While each term has its own tangential meaning, the terms do intersect with Responsible Investment in a broad sense; that is, consideration of ESG risk.

There is a rampant conceptual confusion and overlap when it comes to terms and labels pertaining to investment that considers ESG considerations. While the thesis affirms the view that the existing conceptual confusion, overlap and ambiguity generally may be an advantage when it comes to dynamism and progression of the research and awareness of responsible investment across institutions,[16] the multiple terms also make the concepts of ESG and climate risk ambiguous, which further distracts from a holistic and uniform approach to climate risk. The thesis has already established a working definition of ESG. A working definition of Responsible Investment is: 'The integration of ESG considerations into investment management processes and ownership practices in the belief that these factors can

[12] B. N. Rosen and D.M. Sandler, 'Social Issues and Socially Responsible Investment Behavior: A Preliminary Empirical Investigation' (1991) 25(2) *Journal of Consumer Affairs* 221; L. Abramson and D. Chung, 'Socially Responsible Investing: Viable for Value Investors?' 2000 9(3) *Journal of Investing* 73; M. Statman, 'Quiet Conversations: The Expressive Nature of Socially Responsible Investors' 2008 21(2) *Journal of Financial Planning* 40.
[13] W. B. Irvine, 'The Ethics of Investing' (1987) 6 *Journal of Business Ethics* 233; M. S. Schwartz, M. Tamari and D. Schwab, 'Ethical Investing from a Jewish Perspective' (2007) 112(1) *Business and Society Review* 137.
[14] Dunfee, T. W., 'Social Investing: Mainstream or Backwater?' (2003) 43(3) *Journal of Business Ethics* 247; Cox, P., S. Brammer and A. Millington, 'Pension Fund Manager Tournaments and Attitudes Towards Corporate Characteristics' (2007) 34(7) *Journal of Business Finance and Accounting* 1307.
[15] PRI, *What is Responsible Investment?* (Web Page) <https://www.unpri.org/an-introduction-to-responsible-investment/what-is-responsible-investment/4780.article>.
[16] Neil S. Eccles and S. Viviers, 'The Origins and Meanings of Names Describing Investment Practices that Integrate a Consideration of ESG Issues in the Academic Literature' (2011) 104(3) *Journal of Business Ethics* 389; Leona Van Vaerenbergh, 'Polysemy and Synonymy: Their Management in Translation Studies Dictionaries and in Translator Training. A Case Study', (2007) 19(2) *Target* 235, 236.

have an impact on financial performance, in particular over the medium to longer-term'.[17] This point will be analysed further as we trace the historical context of ESG.

3.2.2 The history of ESG

ESG considerations today under the umbrella term of responsible investment are still the subject of much confusion and divergence in terminologies and perception. This leads to a very flexible and subjective approach to climate change risk in a compartmentalised fashion rather than a holistic fashion. This is because uncertainty of terms leads to subjective notions of addressing climate change risks and leads to multiples strategies of addressing climate risks. The multiple strategies and the uncertainty in terms have let a compartmentalised approach of climate change risk to flourish that leads to ignorance of subtleties of climate change risk.

For centuries, there have been various iterations of Responsible Investment that incorporate ESG considerations by varying degrees. The first such occurrence is known as ethical investing, which later also formed the basis of early-SRI. Ethical investing originated from religious beliefs in the 1400–1500s, when practising Christians, Jews and Muslims wished to synchronise their investments with their religious principles.[18] For instance, in the 1400s, with the emergence of Islam, the early Muslims began to avoid business practices and investments that involved usury and alcohol.[19] Similarly, in the early 17th century, the religious Society of Friends (Quakers) started to dissuade its members from engaging in slave trading and/or human trafficking.[20] Another recent example of religiously motivated ethical investment is the strong prohibition against alcohol, gambling and tobacco by the Protestant church in the 1920s. In 1921, The Pioneer Group was the first mutual fund to screen out investments in alcohol, gambling and tobacco.[21] This religiously motivated ethical

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[17] UNEP FI/Mercer (n 7) 9; DB Climate Change Advisers, *Sustainable Investing* (Deutsche Bank Group, 2012) <https://www.db.com/cr/en/docs/Sustainable_Investing_2012.pdf>.
[18] See generally William Donovan, 'The Origins of Socially Responsible Investing', *The Balance* (23 April 2020) <https://www.thebalance.com/a-short-history-of-socially-responsible-investing-3025578#the-roots-of-socially-responsible-investing>.
[19] On alcohol, see *Sahih al-Bukhari*, vol 6, no 66 <http://sahih-bukhari.com/Pages/Bukhari_6_60.php>; on usury, see *Sahih al-Bukhari*, vol 3, no 382 <http://sahih-bukhari.com/Pages/Bukhari_3_34.php>.
[20] Molly Oshatz, *Slavery and Sin: The Fight Against Slavery and the Rise of Liberal Protestantism* (Oxford University Press, 2012) 24.
[21] See for example Michael Schweibinz, 'The Rise of the Responsible Investor: A Comprehensive Analysis of the SRI Industry', *LinkedIn* (24 November 2015) <https://www.linkedin.com/pulse/rise-responsible-investor-comprehensive-analysis-sri-schweibinz>.

investment, based on avoiding certain types of investments is commonly known as a negative screening approach.

Additionally, in the United States,[22] ethical was broadened to include factual realities of the Civil Rights movement and Vietnam War protest movement. An epitome in the history of responsible investment was the establishment of the Pax World Fund in 1971 as the first ethical mutual fund.[23] This was an important milestone in the history of responsible investment as it arguably began the movement of ethically motivated negative screening. This movement was given traction by two contemporary realities: the Vietnam War and Apartheid rule in South Africa. Global disapproval of the Vietnam War was timely, as it allowed the Pax World Fund to gain momentum by investing away from weapons and military industries.

Apartheid rule in South Africa, on the other hand, instigated a global effort to divest from South Africa, marked by the 'Sullivan Principles'.[24] The first iteration of the Sullivan Principles in 1977 was specifically engineered for divestment from Apartheid South Africa. They would later become the backbone of the second iteration of the Sullivan Principles in 1999 that would seek to address human rights and social justice at a global level. In a nutshell, ethical investment, while rooted in religious ethical investment, evolved to include non-religious ethical and social concerns, such as wartime issues, human rights (e.g., Apartheid), and so on. Additionally, negative screening of tobacco, military goods and gambling has evolved from religious inclinations to health concerns and the general distaste of society. Non-religious ethical investment formed the basis of early SRI, which is rooted in social and business-case approaches, rather than religious and moral principles.

As mentioned, ethical investment was the first iteration of Responsible Investment and went on to form the basis of early SRI, which also made use of negative investment screening for a mixture of social and moral reasons. In the 1960s, however, SRI emerged as a stand-alone concept and the most recognised, broad term for all forms of ethically oriented investing rooted in a social and business-case approach, as opposed to religious screening. This early

[22] Churchill Ethical Investment, *History of Ethical Investing* (Web Page) https://www.churchillethicalinvestment.com/ethical-investing/history-of-ethical-investing/>.
[23] Impax Asset Management, *History* (Web Page) <https://impaxam.com/about-us/our-history/>.
[24] University of Minnesota Human Right Library, *The Global Sullivan Principles* (Web Page) <http://hrlibrary.umn.edu/links/sullivanprinciples.html>.

form of SRI, until the 1990s, made use of a negative screening approach. This approach specifically took account of investee companies' environmental and social behaviour with a view to gauging the sustainable sensitivity of investee companies. This approach became more environmentally focused and pronounced after the 1987 Brundtland report[25] that called for institutions to be sustainably oriented. SRI gained further traction following the UN's conference on Environment and Development (UNCED) held in Brazil in 1992.[26] It is apt to analyse the first factor that has allowed ESG to thrive here, which is the influence of SRI. The next section analyses the influence of SRI while also tracing the history of ESG from 1990 to the present. Along with the rise of a socially motivated and business-case SRI, the rise of non-religious investors (for example, universities) increasingly invest socially and responsibly and take ESG risk into account.[27]

3.2.3 The influence of SRI and Responsible Investing

This section argues that the history of ESG has led to uncertainty of terminologies and multiple strategies in consideration of climate risk by institutional investors such as pension funds, which has led to a compartmentalised approach to climate risk. This limits the holistic view of climate risks across physical, transition and liability spheres and, at the same time, limits the incorporation of subtle aspects of climate risk such as just transition risks.

From the 1990s to the present (2020), SRI emerged as the dominant form of ESG investing, before being subsumed by the mainstream term of Responsible Investment. The growth can be judged by the fact[28] that, in the US alone, there were nearly 60 SRI mutual funds, and SRI assets under management, totalling about USD 640 billion by the mid-1990s. The 21st century saw a change in the concern of investors from specific factual occurrences, like Apartheid, to a more general global concern for issues, such as climate change, corporate

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[25] World Commission on Environment and Development, *Our Common Future* (Oxford University Press, 1987) 43 ('Brundtland Report').
[26] United Nations, *United Nations Conference on Environment and Development (UNCED), Earth Summit* (Web Page) <https://sustainabledevelopment.un.org/milestones/unced>.
[27] See for instance Janet Kiholm Smith and Richard L. Smith, 'Socially Responsible Investing by Universities and Colleges' 45(4) *Financial Management* 877; Declan Harty and Rachel Stone, 'More Universities Looking to Put ESG Stamp on Billion-Dollar Endowment Funds', *S&P Global* (6 November 2018) <https://www.spglobal.com/marketintelligence/en/news-insights/trending/q0ww2aae7sa4vvn5zrqu4g2>.
[28] See generally Touchstone Investments, *What is Sustainability and Impact Investing?* (Web Page, 18 February 2020) <https://www.westernsouthern.com/touchstone/insights/what-is-sustainability-and-impact-investing>; Schweibinz (n 21).

scandals, and human rights violations. The SRI approach marginalised ethics and value-based investing and moved towards the incorporation of ESG factors into investment decisions.

Eventually, SRI became an investment approach that emphasised financial returns as purpose. Thus, the modern SRI approach became less concerned with religious morality and ethics and more concerned with being a financially viable alternative investment form with a care for ESG considerations. Modern SRI evolved into the contemporary Responsible Investment approach, which is simply a consideration of ESG risk in investment decision-making based on financial materiality and risk rather than ethical/non-financial concerns. In the context of pension funds, the shift in thinking from ethical to a business-case SRI approach can be attributed to the duties of trustees and the requirement to promote the best financial interests of beneficiaries. SRI's contextual underpinning changed from one of doing good to doing good and simultaneously maximising profits.[29]

Modern SRI utilises an array of negative screening and positive screening methods that are financially and socially motivated, rather than purely ethically and morally motivated. The screening approach is a widely used method by pension funds engaging in responsible investment, but their motivations are rooted in financial and reputation risk and pension funds routinely screen out tobacco, cluster munitions, fossil fuels, pornography, and so on.[30] As modern SRI transitioned to Responsible Investment and ESG investment, major investment techniques became the norm. These include financial negative screening, positive screening, community and social investing, impact investing, thematic investing, best-in-class, financially-weighted best-in-class, constructive engagement, shareholder activism, integrated analysis, and social negative screening (reputational risk).[31] As can be observed, the sum of the difference between early-SRI and modern SRI has been financial materiality. It allows investors to be socially responsible without being financially worse off. This was the formal

[29] Benjamin J. Richardson, 'Can Socially Responsible Investment Provide a Means of Environmental Regulation?' (2009) 35(2) *Monash University Law Review* 262; Christophe Revelli, 'Socially Responsible Investing (SRI): From Mainstream to Margin?' (2017) 39(B) *Research in International Business and Finance* 711.

[30] RIAA, *Responsible Investment Benchmark Report 2020* (RIAA, 2020) 23 <https://responsibleinvestment.org/wp-content/uploads/2020/10/RIAA-RI-Benchmark-Report-Australia-2020.pdf>.

[31] C. Krosinsky and N. Robins, *After the Crunch: The Future of Sustainable Investing and Carbon Finance* (Speech, Yale Carbon Finance Speaker Series, 7 April 2009).

birth of the 'Triple Bottom Line'.[32] In simple terms, modern SRI merged traditional economic investment valuation with social valuation.

Modern SRI evolved into the current iteration of Responsible Investment known as Responsible Investing. Post-2000, there was a surge in the interest for a more pronounced SRI impact and for all varying SRI activities to have a stable definition. This was partly for SRI to explicitly include corporate governance,[33] in addition to financial and ESG factors. This was coupled with the passage of *Sarbanes-Oxley Act (2002)* in the United States,[34] in the wake of the corporate scandals of Enron and WorldCom. The Act increased corporate scrutiny, reporting and accountability standards, and also enhanced the thresholds of transparency and disclosures.[35] Incorporation of corporate governance and the affirmation provided by the *Sarbanes-Oxley Act* was also underpinned by an interest of large institutional investors. These large investment banks, pension funds, hedge funds, and so on, were increasingly aware of the implications of the Universal Investor argument (UI) and thus were interested in the risks and opportunities presented by the extra-financial performance of investee companies. Universal investors are large investors who due to their large and diversified holdings cannot simply dump equity. Their large ownership stakes across the economy entails that UIs virtually own a slice of the entire economy and will be impacted if the economy is prone to risk. Consequently, universal investors need to safeguard their financial interest and improve risk assessment across the companies they invest in and, by doing so, make the economy more resilient to risk. The UI thesis is analysed in section 3.3.

Responsible investing is envisioned as a step ahead of modern SRI in terms of financial performance and viability and encapsulates modern SRI. The affirmation of this interest and attitude culminated in the UNEP Finance Initiative (UNEP FI), in 2003 which formed an Asset Management Working Group to research the financial materiality of ESG

[32] The term was coined by John Elkington. See John Elkington, *Cannibals with Forks: The Triple Bottom Line of 21st Century Business* (New Society Publishers, 1998).
[33] For Moskowitz's classic analysis see, Robert Levering and Milton Moskowitz, *100 Best Companies to Work for in America* (New American Library, 1987).
[34] *Sarbanes–Oxley Act (2002)* (US) (Pub.L. 107–204, 116 Stat. 745, enacted July 30, 2002; "H.R. 3763 — 107th Congress: Sarbanes-Oxley Act of 2002." <www.GovTrack.us. 2002. January 4, 2018 <https://www.govtrack.us/congress/bills/107/hr3763>.
[35] Scott Green, 'A Look at the Causes, Impact and Future of the Sarbanes-Oxley Act' (2004) 3(1) *Journal of International Business and Law* 2 <http://scholarlycommons.law.hofstra.edu/jibl/vol3/iss1/2>.

considerations.[36] A key finding of this endeavour was that ESG considerations affect long-term shareholder value and financial performance.[37] This culmination led to the launch of the UN-backed Principles for Responsible Investment ('PRI').[38] The PRI mainstreamed modern SRI and ESG investing, rebranding it as responsible investing. Additionally, a new definition was affirmed not only by the PRI itself, but also by the ever-increasing signatories of the PRI. Responsible investing as coined and affirmed by the PRI is the incorporation of ESG considerations by investors into their investment processes.[39]

Responsible investing, it must be noted, is not just a rebranded version of SRI, but is envisioned[40] as a more sophisticated approach where institutional investors such as pension funds and their investee companies integrate ESG into their traditional investment processes. In other words, consideration of ESG risk management should be mandatory due to the intersection of ESG risk with financial risk in the short and long-term. Early-SRI, and even modern SRI to an extent, were driven by social concerns and, in the late stages, financial concerns, and relied on a negative screening approach. Responsible investment was meant to be a default investment approach where institutional investors engage with ESG risk by default and influence their investee companies to do the same. Unfortunately, due to legal gaps in the pension fund legal regime, responsible investment has not been treated as it should have been, and pension funds address climate change via multiple strategies; negative screening is still a dominant strategy. Negative screening is easy for investors who wish to be seen to be responsible but negative screening itself is a passive approach that is still prevalent, especially in relation to fossil fuels.[41] It is reiterated that the thesis views divestment from fossil fuels as one of the key indicators and a first step needed by pension funds as a minimum standard of best practice concerning holistic consideration of climate risk. While negative screening alone is not enough to promote holistic consideration of

[36] UNEP FI, *Asset Management Working Group* (Web Page) <https://www.unepfi.org/publications/investment-publications/the-asset-management-working-group-what-why-who/>.
[37] UNEP FI, *The Materiality of Social, Environmental and Corporate Governance Issues to Equity Pricing* (UNEP FI, 2004). Two other key findings were: (i) there exist difficulties in comparative analysis due to the range of reporting practices for ESG; and (ii) clear government positions (i.e., policy) greatly aids financial research into ESG issues.
[38] PRI, *About the PRI* (Web Page) <https://www.unpri.org/pri/about-the-pri>.
[39] PRI, *An Introduction to Responsible Investment* (Web Wage) <https://www.unpri.org/an-introduction-to-responsible-investment/what-is-responsible-investment/4780.article>.
[40] Ibid.
[41] See generally Schroders, *Demystifying Negative Screens: The Full Implications of ESG Exclusions* (Schroders, 2018) <https://www.schroders.com/en/sysglobalassets/digital/hong-kong/institutional/201801_demystifying_negative_screens.pdf>.

climate risk, it is key in promoting divestment from fossil fuels which the thesis views as a form of engagement.[42]

Due to the marginalisation of investing based on ethics, and also the prevalence of screening approaches, responsible investment became the dominant term in relation to incorporation of ESG considerations. Modern SRI became muted due its perceived affiliation with ethics and social considerations and perhaps an over-reliance on negative screening rather than the financial imperative. Even though very little differentiates modern business-case SRI and responsible investment, the term responsible investment had much more influence and growth due to soft law, especially the PRI.[43]

Responsible investing is a broader approach that involves an examination of ESG considerations and whether they are financially material to an investee company's performance and, therefore, to the performance of the entire long-term investment portfolio.[44] As mentioned, the PRI affirmed the broader approach of responsible investing. The PRI encourages investors to take into account ESG consideration simultaneously with conventional considerations of risk. It also expects investors to become more responsible owners, by improving their own governance structure and actively participating in the governance of investee companies to exploit potential ESG opportunities.[45]

It must be understood that the shift from traditional modern-SRI has allowed for the emergence of a purer ESG-focused investment approach, known as responsible investing. The decline of SRI due to its association with negative screening has allowed the more broader concept of responsible investment to prosper. Other reasons include SRI's perceived relationship with ethical investing, which does not sit well with all investors. Investors and other stakeholders like the term responsible investing and its meaning of broader ESG inclusion via a wide variety of mechanisms which are not limited to negative screenings. Affirmation for this is the fast-paced acceptance of PRI. Responsible investment allows a

[42] Analysis of the fossil fuel divestment indicator see s 1.3.5(b)
[43] See for example Udayan Gupta, 'Principles of Responsible Investment Gets More Traction', *Institutional Investor* (24 January 2011) <https://www.institutionalinvestor.com/article/b150xxk1w1xxbs/principles-of-responsible-investment-gets-more-traction>; Riikka Sievänen et al, 'From Struggle in Responsible Investment to Potential to Improve Global Environmental Governance Through UN PRI' (2012) 13 *International Environmental Agreements: Politics, Law & Economics.*
[44] Commonfund Institute, *From SRI to ESG: The Changing World of Responsible Investing* (September 2013) 2.
[45] Ibid 8.

broader range of strategies to address climate change risk and, even though the SRI label has declined, investors still engage in screening approaches under the umbrella term of responsible investment.

Even though responsible investment is now the main term that refers to incorporating ESG considerations in the investment decision-making process, it cannot be said that it has had a dramatic influence on investment practices of pension funds in relation to climate risk. More pension funds are definitely signing soft law mechanisms and committing themselves to tackling ESG risk such as climate risk; however, the data shows that pension funds currently utilise multiple strategies for addressing climate change risk, with screening one of the dominant strategies. There is no doubt that responsible investment has made incorporating ESG risk a contemporary notion for pension funds.[46] Nonetheless, the responsible investment movement allows many approaches to satisfy the need to incorporate climate risk easily. Multiple strategies digress from the requirement of an urgent standardised and holistic approach to climate risk by taking into account subtleties of climate risk such as just transition risks.

Multiple approaches and strategies include: varying degrees of ESG disclosure; varying degrees of implementation of responsible investment policies; varying degrees of divestment from fossil fuels, tobacco, cluster munitions and so on; appointing ESG fund managers on ESG criteria; developing in-house ESG research and data; and utilising market ESG data, indices and metrics. A holistic approach is necessary to meet the Paris Agreement goals and avoid a disjointed transition to a low-carbon economy, which may be inevitable if an economy-wide holistic approach to climate risk is not adopted.

The history of ESG and responsible investment has increased the use of multiple strategies that are more or less left to the subjective choice of each pension fund. Such a prevalence of multiple strategies may have been a good sign a decade ago but unfortunately, given the current urgency of climate risk, multiple strategies are not enough and deviate from a broader understanding of climate change; that is, physical, transition and liability risk of climate change across environmental, social and governance considerations rather than just the

[46] As evidenced by the growth of the PRI network and signatories: see PRI, *Annual Report 2020: Enhance our Footprint* (Web Page) <https://www.unpri.org/annual-report-2020/how-we-work/building-our-effectiveness/enhance-our-global-footprint>.

environmental focus. The responsible investment movement, like the pension fund legal regime, suffers from legal gaps that contribute to the state of the pension fund legal regime being in 'arrested development';[47] that is, not able to address climate change adequately by adapting progressively as the climate change risks evolve.

Similar to multiple strategies, the history of ESG and responsible investment has led to many acronyms and perceived confusion in relation to the terms ESG and responsible investment. While this confusion is not as pronounced as it was at the start of the decade,[48] there are still lingering confusions in the pension fund industry between SRI, responsible investment, ESG investing, impact investing and so on.[49] The PRI, TCFD and other soft law mechanisms have mainstreamed ESG and responsible investment as standard terms but, like multiple strategies, the uncertainty of terms distracts from the adoption of a holistic approach to climate risk by addressing subtleties of climate risk such as just transition risks.

3.2.4 The historical context of the law and the Modern Portfolio Theory ('MPT')

The historical legal context of the duties of pension trustees also plays a role in the shift from ethical investment to modern SRI and, ultimately, to responsible investment. Section 3.2.4 navigates the historical context of the duties of trustees as they apply in the UK and Australia. The historical legal context contributes to the shift from ethical investment to multiple approaches allowed by the modern SRI and responsible investment. Consequently, by extension, the legal context provides credence for the multiple strategies prevailing in combatting climate risk in a compartmentalised fashion, rather than the necessary holistic fashion. The extent to which the duties of pension trustees allow the UK and Australia to take into account climate risk holistically is analysed in Chapter 4, the current sub-section is a general historical legal analysis of the duties of trustees and their contribution to the divergence from the holistic approach to climate change risks.

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[47] See Young (n 1); ch 1.

[48] Nina Hall, 'What is Adaptation to Climate Change? Epistemic Ambiguity in the Climate Finance System' (2017) 17 *International Environmental Agreements* 37.

[49] IPCC, 'Integrated Risk and Uncertainty Assessment of Climate Change Response Policies' in *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, 2014); Avery Ellfeldt, 'As Investors Try to be More Ethical, Some Find No Escape From Businesses They Detest', *NPR* (26 October 2019) <https://www.npr.org/2019/10/26/771323268/as-investors-try-to-be-more-ethical-some-find-no-escape-from-businesses-they-det>.

In the UK, Australia and most common law jurisdictions, pension funds are typically set up as trusts.[50] The trust is managed by trustees, either individual trustees, boards of trustees or by a trustee company. Regardless, the duties that a pension trustee owes are derived from the classic trust mechanism and supplemented by specific statutes that regulate the behaviour of pension funds. Primarily, the trustees owe a duty of loyalty to the beneficiaries, as they are the principals of the trust, which is a fiduciary duty.[51] This principal duty informs the duty to avoid conflicts and to act solely for the interest of the beneficiaries. The other major duty of pension trustees is the duty of care.

The main duties of loyalty and care of pension trustees have survived many iterations of evolution in their contextual underpinnings. In the UK, the main legislative instruments of pension statutes in relation to the role and duties of a trustee are the *Pensions Act 1995* (UK),[52] *Trustee Act 2000* (UK)[53] and the *Pensions Act 2004* (UK)[54] and the *Pensions Act 2008* (UK),[55] and the regulations made under them. In Australia, the *Superannuation Industry (Supervision) Act 1993* (Cth)[56] (‘*SIS Act*’) and the *Superannuation Industry (Supervision) Regulations 1994* (Cth) (‘*SIS Regulations*’). In Australia, the SIS Act and the SIS regulations give statutory footing to the duties of pension trustees. Specifically, section 52A 2(b)[57] enshrines the duty of care, skill and diligence, while section 52A 2(c)[58] encapsulates the duty of loyalty to the beneficiaries.

While rooted in Anglo-American trust law, the duties of trustees are informed by the economic, social and financial market norms of their times.[59] Initially, trust mechanisms were simply a legal form to overcome feudal restrictions and land disputes; essentially, trustees simply guarded trust properties on behalf of beneficiaries with negligible management

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50 F. Stewart and J. Yermo, ‘Pension Fund Governance: Challenges and Potential Solutions’ *OECD Working Papers on Insurance and Private Pensions No. 18* (OECD Publishing, 2008) 6.
51 John L. Langbein, ‘Questioning the Trust Law Duty of Loyalty: Sole Interest or Best Interest?’ (2005) 114 *Yale Law Journal* 929; A. Hudson, *The Law on Investment Entities* (Sweet and Maxwell, 2000) 85–86.
52 *Pensions Act 1995* (UK) c 26.
53 *Trustee Act 2000* (UK) c 29.
54 *Pensions Act 2004* (UK) c 35.
55 *Pensions Act 2008* (UK).
56 *Superannuation Industry (Supervision) Act 1993* (Cth).
57 Ibid 52A 2(b).
58 Ibid 52B 2(c).
59 James P. Hawley, Keith L. Johnson and Edward J. Waitzer, ‘Reclaiming Fiduciary Duty Balance’ (2011) 4(2) *Rotman International Journal of Pension Management* 4.

functions.[60] Following the collapse of the South Sea Bubble, in the late 17th and early 18th centuries, UK courts required trustees to invest only in government debt, bonds, government-backed mortgages and so on. In other words, trustees could only choose to invest in prescribed investments.[61] Investment in equities were considered unacceptable and too risky for pension funds. The case was similar in the US, where corporate equity was shunned, and only certain state investment and some mortgage investments were allowed.[62] As recently as the 1960s and 1970s, corporate equity was considered an inappropriate and risky investment option for pension funds.[63]

This trend of an exhaustive list of permissible investments gradually transformed to one of a prudent person rule by the mid-twentieth century.[64] The prudent person rule allowed trustees more managerial and investment powers under the duty of care as long as their actions and decisions were within what a reasonable person would do in the trustee's circumstances. The shift towards the prudent person rule was also accompanied by an acceptance of alternative investment such as equities and more risky mortgages due to their profitability. In short, the once-exhaustive list of permanent investment options was increased to accommodate alternative and profitable investment options such as equities and reflected the changing nature of economic circumstance and market practices.[65]

The last major change to the standards of the duty of care was the shift to a prudent investor rule amid the mainstreaming of the modern portfolio theory ('MPT').[66] The MPT is an investment theory that gained prominence in the 1970s and entails that investors invest on a portfolio-basis rather than a single commodity basis and spread the risk of investment across the entire portfolio. The MPT allows investors to invest in a catalogue of different investment products and classes, including high risk investments, so long as the net risk to the whole portfolio is within acceptable parameters. The MPT, in part, drove the shift from the prudent person rule to the prudent investor rule. The prudent investor rule, in line with the MPT,

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[60] John L. Langbein, 'The Secret Life of the Trust: The Trust as an Instrument of Commerce' (1997) 107(1) *Yale Law Journal* 165.
[61] G. W. Keeton, *Modern Developments in the Law of Trusts* (Faculty of Law Queens University Belfast Northern Ireland Legal Quarterly, 1971) 46–62.
[62] *King v Talbot* (1869) NY Ct App.
[63] Hawley, Johnson and Waitzer (n 58) 6.
[64] Lawrence M. Friedman, 'The Dynamic Trust' (1964) 73(4) *Yale Law Journal* 547.
[65] OECD, '"Prudent Person Rule" Standard for the Investment of Pension Fund Assets' <https://www.oecd.org/finance/private-pensions/2763540.pdf>.
[66] Harry Markowitz, 'Portfolio Selection' (1952) 7(1) *Journal of Finance* 77.

requires the standard of the duty of care should be measured across the entire portfolio, rather than the isolated assessment of each investment.

Legislative instruments in the UK and Australia reflect this shift from the prudent person rule to the MPT-influenced prudent investor standard. In the UK, both the *Pensions Act 1995* (UK)[67] and *Trustees Act 2000* (UK)[68] uphold the new standard under MPT. In Australia, section 52 (2)(f)(ii) of the *SIS Act* unambiguously allows for MPT-influenced diversified portfolios. In July 2013, the *SIS Act* was amended to require a heightened standard of care from pension trustees equivalent to that of a prudent professional trustee.[69]

The MPT influences the current contextual underpinning of the duties of trustees, particularly the duty of care. Before the MPT informed investment practices, trustees by law were required to adhere to selective permissible investment options and judge each investment on its merits. However, with the advent of MPT and the diversified portfolio, trustees now assess the entire portfolio rather than each investment. The MPT influence on standards of duty of care not only contributes to the compartmentalised approach to climate risk, but also contributes directly to the pension fund regime being in a state of 'arrested development'.

3.2.5 Combined effect of uncertainty of terms, multiple strategies & MPT influence

'Arrested development' refers to the state of the regime where the regime starts in a promising fashion but after some time runs into hinderances and obstructions that block further development and disable the regime's ability to address its purpose. The plight of the duties of trustees and the influence of MPT is two factors that have contributed to the pension fund legal regime being in a state of 'arrested development'. The investment practices of trustees were flexible and connected with the economic and social context of the times. Trustees were previously limited to certain state investment, then this approach became more flexible.

Thereafter, due to the impact of MPT, trustees invest on a portfolio basis and spread the risk across the entire portfolio. Unfortunately, the pension regime still adopts the portfolio-basis

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[67] *Pensions Act 1995 (UK)* ss 36(2)(a), (b).
[68] *Trustee Act 2000 (UK)* ss 4(1), 3(a)–(b).
[69] *Superannuation Industry (Supervision) Act 1993* (Cth) 52A.

of investment and judges the financial materiality of its investment. While the view that ESG risk such as climate change are legal and appropriate for pension fund investment has gained prominence in recent times and pension funds do consider climate risk, the duties of trustees are still oriented around the MPT. This fact limits the ability of the pension fund legal regime to consider of climate risk holistically, as some elements of climate risk are long-term in nature and not captured by current investment assessment practices. Additionally, while regulatory guidance is present in the UK and Australia in relation to climate change and long-term investment, it is not sufficient to unlock the next iteration of duties of trustees beyond the MPT.

In addition to the MPT, responsible investment and how regulators in the UK and Australia are shaping the response of pension funds to climate change risk result in the prevalence of multiple strategies and approaches. Individually, these multiple strategies and approaches are sufficient to satisfy pension funds' consideration of climate change risk norms. Multiple strategies, coupled with the lingering uncertainty and confusion of terms, limit the regimes' ability to address climate change holistically and results in an inevitable disjointed and compartmentalised approach to climate risk.

The effect of the three highlighted issues in this section – MPT influence, prevalence of multiple strategies, and uncertainty in terms surrounding ESG and responsible investment – is that pension funds are addressing climate risk partially in a compartmentalised manner. This current approach ignores subtleties of climate risk such as just transition risks and bolsters their inevitable impact on pension funds and the global economy. Elements of climate risks such as just transition risks manifest in the long-term and require a long-term view of risk, coupled with a holistic approach to climate risks. The combined effect of the three issues digresses from the required holistic approach and highlights the legal gaps in the contemporary pension funds regime in the UK and Australia. The next section analyses the contribution of the Universal Investor (UI) argument not only to embedding ESG risk as a contemporary issue for pension funds, but also to the compartmentalised approach to climate risk.

3.3 The Universal Investor (UI) argument and its contribution to a compartmentalised approach to climate risk

Climate change risks manifest in physical, transition and liability risks over the short and long-term. It is increasingly important for large investors such as pension funds, whose holding size identifies with the Universal Investor (UI) thesis, to safeguard their long-term financial interests by considering just transition risks for pension funds. Otherwise, pension funds will be left with stranded pension assets and beneficiaries with smaller pensions. Additionally, the future economic make-up may be too volatile to generate profits due to ignorance of just transition risks.[70]

The Universal Investor thesis (UI) emerged in 2000s in the wake of a change in ownership structures in corporations and institutional investors. It is one of the factors that contribute to the contemporary consideration of ESG risk by pension funds. The period from the 1970s onwards marked an era of custodial ownership by fiduciaries and pension trustees, who managed unprecedented funds on behalf of millions of investors and beneficiaries.[71] The MPT also supplements the holdings of pension funds from the 1970s onwards. In this era, institutional investors such as pension funds, mutual funds and investment banks, became majority holders of corporate equity, as well as bonds, hedge funds, real estate and so on.[72] These large institutional investors and pension funds are deemed 'Universal Investors'. The argument, first coined by Monks and Minow[73] and subsequently developed by Hawley and Williams,[74] states that, due to their sheer size and investment holdings, such UIs own a cross-section of the economy as a whole and that the well-being of the entire economy is in their interest. This is the case because UIs will inevitably be the recipients of all positive and negative effects of economic activity because they essentially own the entire economy.

Thus, UIs must act responsibly and prevent social externalities that will inevitably affect them, such as climate change, long-term effects of climate change (such as just transition risks), labour standards, sustainability of societies, poverty, scarcity of essential resources

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[70] Nick Robins, Vonda Brunsting and David Wood, *Climate Change and the Just Transition: A Guide for Investor Action* (Grantham Research Institute on Climate Change and the Environment, 2018) 11 <https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/11/IJT-guidance-for-investors_web-spreads.pdf>.
[71] Benjamin J. Richardson and Maziar Peihani, 'Universal Investors and Socially Responsible Finance: A Critique of a Premature Theory' (2015) 30 *Banking and Finance Law Review* 405, 410.
[72] See generally Gordon L. Clark, Pension Fund Capitalism (Oxford University Press, 2001).
[73] See Robert A. G. Monks and Nell Minow, *Corporate Governance* (Blackwell, 1995).
[74] James P. Hawley and Andrew T. Williams, *The Rise of Fiduciary Capitalism: How Institutional Investors Can Make Corporate America More Democratic* (University of Pennsylvania Press, 2000).

like clean water and so on.[75] Practically, this entails that pension funds will ultimately suffer financial repercussions, if the pension funds themselves and their investee companies continue to externalise their ESG costs. This is because those costs may be borne by other investee companies in the pension funds' portfolios. Thus, the UI thesis prescribes that universal investors inherently possess the motivation and incentive to take ESG considerations into account when investing and, additionally, will actively engage with investee companies so that they are more responsible in terms of ESG.

The theory holds a lot of sway and resonates well with the characteristics of pension funds and other major institutional investors. The size of pension funds in terms of assets-to-GDP ratio has already been discussed in Chapter 1. The UK and Australian pension funds comprise the second- and fourth-largest pension systems in the world, in terms of assets held, and invest substantially in equities.[76] Pension funds as institutions also inherently resemble qualities of a universal investor. As pension trustees are obligated by fiduciary responsibilities to safeguard the financial interests of their beneficiaries, these obligations may also be interpreted to consider ESG costs on the whole economy because their portfolio is a cross-section of the whole economy. This is pertinent as pension funds need to ensure their investee companies are also incorporating ESG risk.

Second, and ideally, pension funds should be managed as intergenerational institutions to safeguard long-term beneficiary prosperity. This cannot be accomplished without catering for the long-term society which beneficiaries will one day occupy. Just transition risks of pension funds are key to unlocking long-term consideration of beneficiary interests and pensions. Additionally, the fact that investment of pension funds in the UK and Australia relies heavily on equities also aligns with the UI thesis, as it points to the potential of pension fund influence on investee companies. Similarly, UIs' tacit acknowledgement of fiduciary capitalism has also been affirmed by others who contend that pension funds have aggregated the capital, rights and will of dispersed shareholders and beneficiaries. This gives pension funds huge opportunities to leverage this aggregated ownership capital and influence investee companies.[77]

[75] Commonfund Institute (n 43) 412; M. J. Kiernan, *Investing in a Sustainable World* (AMACOM, 2009).
[76] See s 1.4.3(a).
[77] G. Clark and T. Hebb, 'Pension Fund Corporate Engagement. The Fifth Stage of Capitalism' (2004) 59(1) *Industrial Relations* 142.

UIs need to be mindful of the impact of climate change on society as a whole in the long-term, as it directly links with the best interests of the beneficiaries. In the past, the law has been a barrier to UIs considering ESG risk such as climate change; previously, the pension fund legal regime (especially the hard law and regulatory guidance) was not clear about the potential of consideration of ESG risk by pension funds.[78] As will be analysed in detail in Chapters 4 and 5, the obstacle does not stem from the inherent duties but how the courts and market practice perceive the duties.

Traditional English trust law, which forms the basis of the duties in Australia as well, held that the short-term financial interests of members must be pursued over and above other factors, including ESG concerns.[79] Another barrier has been the financial materiality issue of ESG risk. Previously, ESG risks including climate change risk were considered as non-financial risk and were not considered because gauging their financial materiality was difficult. However, now ESG risks such as climate risk are not only financially material in the long-term but also the short-term. The emergence of awareness of ESG risk and its financial materiality has alleviated the uncertainty surrounding ESG risk for pension funds, especially large pension funds with UI characteristics. Recent regulatory guidance and soft law has played a substantial role in alleviating the uncertainty surrounding legal consideration of ESG risk such as climate change.

The last major barrier for UI argument has been the mobilisation of a universal investor coalition. Universal investors as per the UI thesis (or hypothesis) must work together for the economy as a whole and bring sustained well-being to the society. However, if the effect of investment decision-making is the well-being of external investee companies and the economy as a whole, then this will entail a flourishing of free riders who will benefit without incurring any costs. The free rider theory was articulated in 1965. It holds that individual

[78] Richardson and Maziar Peihani (n 70) 432; Doug Tennent, 'Ethical Investment in Superannuation Funds: Can it Occur Without Breaching Traditional Trust Principles?' (2008) 17 *Waikato Law Review* 98; O. McIntyre, 'Fiduciary Duties and Sustainable Investment' (2010) 17(3) *Irish Planning and Environmental Law Journal* 142.
[79] *Cowan v Scargill* (1984), [1985] Ch 270 (Eng Ch Div); *Martin v City of Edinburgh District Council* [1988] SLT 329; *Harries v Church Commissioners for England* (1991), [1992] 1 WLR 1241 (Eng Ch Div).

investors will not have much incentive to act, if they are already in receipt of public goods and societal benefits on account of actions of others.[80]

Thus, the free rider argument leads to investors avoiding costly actions that yield positive social externalities, unless they can themselves reap the entire financial benefits. Actions to promote ESG often take time and resources, while the benefits generated from those activities (such as slowing down of the effects of climate change) may benefit all investors and society as a whole, not just those taking the initiating investor. Arguably, the individual investor incurs all the costs and receives only a partial benefit.

Consequently, there is little incentive for any large pension fund to act like a universal investor; that is, to take any action that will benefit the society and economy as a whole. When a coalition of pension funds is engaged in corporate activism, they can divide the cost of effective monitoring and influencing of investee companies, and at the same time act as a deterrent to the free rider problem, as a coalition itself will be a cross-section of the society through beneficiaries and shareholders in aggregate.[81] As the PRI has been successful in mobilising a coalition via its signatories, there is hope. The UNEP FI is also a prime example of a global economic collaboration. Again, the primary shortcoming of such collaborations is the prerequisite of voluntary will, rather than legal prescription.[82]

The UI argument is one of the primary reasons the largest pension funds have been chosen for the empirical data collection in this thesis.[83] Unfortunately, the PRI's impact on universal investor action has not resulted in a coalition of pension funds in the UK and Australia to date. The empirical data does not indicate a more pronounced and consistent consideration of climate change risk by signatory pension funds.

Some PRI signatories in the UK and Australia do identify themselves as universal investors via their public disclosures.[84] This identification as a UI does not indicate that these pension

[80] Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups.* Harvard Economic Studies Volume 124 (Harvard University Press, 1971).
[81] Avinash Dixit and Mancur Olsen, 'Does Voluntary Participation Undermine the Coase Theorem?' (2000) 76(3) *Journal of Public Economics* 309.
[82] See M. R. MacLeod, 'Mobilizing SRI Through Investor Governance Networks: The Politics of Collective Investor Action' in C. Louche and T. Hebb (eds), *Critical Studies on Corporate Responsibility, Governance and Sustainability* (Emerald Group Publishing, 2014) 23.
[83] For details on the sample and analysi, see ss 6.2 and 6.3.
[84] For example First state super, Hesta, BT superwrap, Sunsuper

funds in the sample consistently accommodate climate change risks holistically across the physical, transition and liability risks. It is argued that funds which identify themselves as UIs do display their commitment to ESG risk such as climate change, but this gives them a perceived licence to adopt any of the prevailing multiple strategies.

Additionally, it is argued that UIs are more prone to being seen as ESG-inclined funds due to their interest in preserving their reputation. In other words, they engage in greenwashing, where the UIs are more concerned with being seen to consider climate risk, rather than substantially addressing subtleties of climate risk such as just transition risks of pension funds.[85] One would expect large pension funds with UI characteristics to be at the forefront of a holistic approach to climate risk. Unfortunately, this is not the case due to the prevalence of multiple strategies and the ease of greenwashing.

3.4 The fossil fuel divestment movement

Divestment is simply the antonym of investment. When money that has been invested is removed from that investment, then one can say that the individual company or fund has divested from that investment.[86] The fossil fuel divestment movement contributes to the embedding of ESG risk such as climate risk as a contemporary issue for pension funds, while at the same time compartmentalising the response of the pension fund industry to climate risks. It is safe to argue that numerous instances of consideration of climate risk by institutional investors stem from the fossil fuel divestment movement.[87]

The surge of interest in fossil fuel divestment must rightfully be attributed to movements such as 350.org Fossil Free movement. 350.org was established in 2008 by university students.[88] They issued a call for action to address climate change. By 2012, the Fossil Free campaign was initiated and has grown dramatically in size and influence since then. As of 2020, 1244 institutions, totalling a staggering USD 14.61 trillion, have joined the 350.org

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85 See for example Elizabeth McArthur, ‘Fifty Shades of Green’, *Financial Standard* (8 October 2019) <http://www.ethicaladviserscoop.org/uploads/1/1/4/6/11462046/vol17n19_7_october_featurette_ethical_investing-copy.pdf>; Australian Ethical, ‘How You Can Cut Through the Greenwash’ (Blog, 9 November 2018) <https://www.australianethical.com.au/blog/how-you-can-cut-through-the-greenwash/>.
86 Market Forces, *Divestment* (Web Page) <https://www.marketforces.org.au/info/key-issues/divestment/>.
87 Morgan Stanley, *Climate Change and Fossil Fuel Aware Investing: Risk, Opportunities and a Roadmap for Investors* (2016) <https://www.morganstanley.com/pub/content/dam/msdotcom/articles/fossil-fuels/Climate-Change-Fossil-Fuel-Aware-Investing_Primer.pdf>.
88 350, *About 350* (Web Page) <https://350.org/about/>.

Fossil Free movement.[89] Other movements that supplement the Fossil Free movement include the Fossil Fuel Divestment Student Network and specific platforms, such as Fossil Free UNSW.[90]

The prominence of fossil fuel divestment and its contribution to embedding ESG risk as a contemporary issue for pension funds is because fossil fuel consumption leads to carbon risk, which links directly with climate change, including just transition risks of climate change. Fossil fuels present a carbon risk in the form of carbon emissions that contribute directly to climate change risk. The Paris Agreement has set the target of holding global average temperature to less than 2 degrees Celsius above pre-industrial levels, to be reduced even further by 2030.[91]

The nature of climate risks has essentially created a carbon bubble, meaning that fossil fuel assets are potentially assets that will become stranded in the future due to the need and urgency of transition to alternative and renewable energy.[92] Its estimated that investment in the carbon bubble is between USD 20 trillion and USD 100 trillion.[93] This bubble will burst in time, which will have severe consequences for pension funds that invest in fossil fuels.[94] It is simply not viable to meet the obligations of the Paris Agreement (the 2 degree Celsius target) and utilise all the identified petroleum and coal reserves at the same time.[95] Undoubtedly, this will result in stranded assets that will translate to stranded pensions for

[89] Fossil Free, *1200+ Divestment Commitments* (Web Page) <https://gofossilfree.org/divestment/commitments/>.
[90] Fossil Free, *Fossil Free Universities Australia* (Web Page) <https://campaigns.gofossilfree.org/efforts/fossil-free-universities-australia>; Benjamin J. Richardson, 'Universities Unloading on Fossil Fuels: The Legality of Divesting' (2016) 10(1) *Carbon and Climate Law Review* 62.
[91] United Nations Framework Convention on Climate Change Conference of Parties, Twenty-First Session, Adoption of the Paris Agreement, UN Doc. FCCC/CP/2015/L.9/Rev.1 (12 December 2015) ('Paris Agreement') <http://unfccc.int/resource/docs/2015/cop21/eng/l09.pdf>.
[92] Citi GPS, 'Energy Darwinism II: Why a Low Carbon Future Doesn't have to cost the Earth', *Citi GPS: Global Perspectives and Solutions* (August 2015) <https://ir.citi.com/E8%2B83ZXr1vd%2Fqyim0DizLrUxw2FvuAQ2jOlmkGzr4ffw4YJCK8s0q2W58AkV%2FypGoKD74zHfji8%3D>.
[93] Larry Coble and Joe Antoun, *The Fiscal Case for Fossil Fuel Divestment* (Web Page) <https://world.350.org/chicago/the-fiscal-case-for-fossil-fuel-divestment/>; Vladimir Stenek, 'Carbon Bubbles and Stranded Assets' (World Bank Blog, 3 June 2014) <https://blogs.worldbank.org/climatechange/carbon-bubbles-stranded-assets>.
[94] See generally World Economic Forum, *Renewable Infrastructure Investment Handbook: A Guide for Institutional Investors* (December 2016) <http://www3.weforum.org/docs/WEF_Renewable_Infrastructure_Investment_Handbook.pdf>.
[95] ASCI, *Fossil Fuel Investments: Fossil Fuel Investments and the Broader Issue of Transitioning to a Low-carbon Economy* (March 2016) <https://acsi.org.au/wp-content/uploads/2020/03/16FossilFuelInvestments.pdf>.

beneficiaries, if pension funds do not address their involvement in carbon-intensive assets such as fossil fuels.

However, pension funds are divesting from fossil fuels, undoubtedly due to the fossil fuel divestment movement and reputational concerns. Pension funds – albeit in low numbers – are disclosing their divestment strategies as well in light of regulatory silence; this is indicated by the empirical evidence collected by the thesis.[96] It must be kept in mind, however, that just transition risks for pension funds encompass more indicators than simply divesting from fossil fuels. The thesis's four indicator-based test comprises a disclosure of a policy on responsible investment/climate change, divestment from fossil fuels, incorporation of member views and employment of climate scenario analyses, such as climate modelling and stress testing.

While the fossil fuel divestment movement has become a driver of embedding ESG risk such as climate change as a contemporary issue for pension funds, the movement unfortunately distracts from a holistic approach to climate risk by taking account of subtleties of climate risk such as just transition risks. This is because the fossil fuel divestment movement has provided an easy strategy for funds to divest partially or wholly from certain fossil fuel investments and claim the ESG-friendly, climate-friendly badge. Fossil fuel divestment is not the end goal of addressing climate risks holistically, but only part of it. While the fossil fuel movement has increased activity in the divestment space for investors, it has also accidentally provided another strategy for investors to adopt and indicate their contribution to addressing climate risks. Fossil fuel divestment presents another issue, exactly what assets/industries should be divested and at what degree. Questions exist such as, should divestment occur when the target companies are directly involved in fossil fuels, or is it perhaps equally applicable to indirect fossil fuel contributors?[97]Such notions are beyond the scope of the thesis but the thesis does view that regulators should set a minimum requirement of divestment for pension funds, the exact form can be left to the regulators.[98]

[96] For the data, see s 6.3.
[97] See generally MSCI, *Fossil Fuel Divestment: A Practical Introduction* (September 2016) <https://www.msci.com/documents/10199/759575ba-929f-4d7b-b9f3-fa7cfec7e9d2>.
[98] For examples of minimum regulatory requirements see s 7.3

Consequently, the argument is made that the fossil fuel divestment movement contributes to the contemporary compartmentalised approached to climate risk where investors and even regulators are satisfied with any degree of divestment from fossil fuels as a climate mitigation strategy. Divestment from fossil fuels alone is not addressing climate risks holistically across the physical, transition and liability risks. Rather, divestment from fossil fuels is one of the indicators of addressing climate risks holistically and must be accompanied by other indicators as necessary minimum standards of best practice. For the purposes of just transition risks for pension funds, divestment must be accompanied by the climate policy, incorporating member views and utilising climate scenario analysis. Chapters 4 and 5 analyse the extent to which the pension fund legal regime accommodates these four indicators to address climate change risk holistically such as just transition risks for pension funds, including the divestment from fossil fuels. As indicated, the regime does suffer from legal gaps.[99]

3.5 Members' growing climate concerns and disclosure norms

The contemporary climate for institutional investors such as pension funds is one of increasing attention to ESG risk, particularly climate change. Pension funds are increasingly aware that reputational risks walk hand in hand with financial risks and that latter is the determinant of investment decisions for pension funds. Increasingly, pension funds need to be acutely aware of the will of their members (i.e., beneficiaries) in a rapidly changing context of increasing climate action in the form of declarations of climate emergencies, climate protests, movements such as the fossil fuel divestment movement, and extreme weather events.

Declarations of climate emergencies are taking place by bodies, parliaments, and quasi-public bodies around the globe.[100] As of August 2020, almost 1765 jurisdictions covering 820 million people have declared climate emergencies. In the UK, 57 million people are covered

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[99] For analysis of fossil fuel divestment in relation to the duties of trustees and disclosures, see ss 4.4.3, 5.4.3.
[100] Ciara Nugent, 'A Revolution's Evolution: Inside Extinction Rebellion's Attempt to Reforms Its Climate Activism', *Time* (9 July 2020) <https://time.com/5864702/extinction-rebellion-climate-activism/>; Elyse Popplewell, 'Extinction Rebellion: Who Are They and What Do They Want?', *Australian* (14 October 2019) <https://www.theaustralian.com.au/nation/extinction-rebellion-who-are-they-and-what-do-they-want/news-story/706eb849eeeb60fd2115a2a963262515>.

by the emergencies, whereas in Australia 8.5 million people are covered.[101] Declarations of climate emergencies have also been supplemented by the global protest network known as Extinction Rebellion ('XR').[102] XR has been very active the last two years, conducting non-violent protest and disruptions across the globe, including the UK and Australia.[103] The Sunrise Movement is a similar youth climate activist group that has gained global prominence.[104] Last, but not least, Greta Thunberg's role in the increase in global declarations of climate emergencies, instances of climate protests and awareness of climate risk generally in the last two years cannot be discounted.[105]

In addition to climate emergencies, protests and movements, the fossil fuel divestment movement[106] and increasing instances of extreme weather events[107] all contribute to a climate where the will of beneficiaries is changing and so are the reputational risks. Pension funds need to be aware of the inclinations and sensitivities of their beneficiaries with respect to climate change risks. Reference is also made to the recent potentially landmark court proceedings against REST, the Australian Government and the Commonwealth Bank in relation to climate change risks.[108]

It is thus reasonably arguable that beneficiaries are increasingly aware of climate-related risks and may want more information in-relation to what their fund is doing about climate risks. This awareness in part may be attributed to increasing climate litigation and the climate emergencies, movements, protests, and extreme weather events. Pension funds need to demonstrate that they are taking steps to consider the views of their members in terms of ESG risk such as climate change. However, the thesis is aware that the REST case and XR are examples of activism on behalf of NGO's and informaed protestors and may not be indicative of members as a whole. This is true especially in Australia where the compulsory nature of superannuation enables a passive member culture. Member views can be legally

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[101] *Climate Emergency Declaration* (Web Page, 17 December 2020) <https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/>.
[102] Extinction Rebellion UK, *About Us* (Web Page) <https://extinctionrebellion.uk/the-truth/about-us/>.
[103] Ibid.
[104] Sunrise Movement, *About the Sunrise Movement* (Web Page) <https://www.sunrisemovement.org/about>.
[105] Charlotte Alter, Suyin Haynes and Justin Worland, 'Time 2019 Person of the Year: Greta Thunberg' *Time* (Web Page) <https://time.com/person-of-the-year-2019-greta-thunberg/>.
[106] See s 3.4.
[107] See s 2.3.4.
[108] Ibid.

taken into account by pension funds in the UK and Australia; Chapters 4 and 5 analyse the extent to which the regime allows for members' views to be taken into account.[109]

It must be noted that the lack of a mandatory requirement to incorporate members views with respect to climate risk also contributes to the compartmentalised approach to climate risk. This is because of the increase in disclosure norms with respect to climate risk in the last decade. The PRI, TCFD, other soft law initiatives and other aspects of the regime such as hard law and regulatory guidance have embedded a disclosure norm in relation to climate risk. The increase in disclosure norms enables a strategy for institutional investors such as pension funds to disclose their consideration of climate risk. However, the data shows that, while pension funds are disclosing their policies in relation to climate change risks, the disclosures themselves do not consistently contain evidence of implementation of climate risks.[110]

Put simply, the disclosure norms have increased the numerous strategies for addressing climate risks that prevail in the pension industry. In terms of member views, the data indicates that some pension funds disclose on taking member views into account.[111] However, the disclosures do not contain any indication of exactly how the views of the members are being taken into account and whether or not they are being implemented.[112] Additionally, the increased awareness of members in terms of climate risk has had the effect of some pension funds simply providing an ESG investment option/investment product for their beneficiaries.[113]

Unfortunately, this outcome is anti-climactic. Merely disclosing intent in relation to taking the views of members into account is, again, an example of displaying a climate-friendly outlook without disclosing actual implementation. Furthermore, disclosing and making available an ESG-friendly option for members has additional consequences. First, the ESG-friendly investment option provides an easy way out for pension funds to placate stakeholders, such as members and regulators, and avoid taking members' views into

[109] See ss 4.4.2, 5.4.2.
[110] See ch 6 for detailed analysis of the difference between PRI and Non-PRI groups from Criterion B to C.
[111] See s 4.4.2.
[112] See ss 5.3, 5.4; for limitations of the empirical method utilised, see s 6.2.1.
[113] Having an ESG product in place is more prominent that disclosing evidence of member views. See s 6.3.1 for actual numbers of Criterion F.

account. Second, the ESG-friendly option also leads to a compartmentalised approach to climate risk, as having an option in place is another strategy that avoids addressing climate risk holistically. Taking the views of members into account and even having an ESG-friendly investment option are positive steps, but only if they are part of addressing climate risks holistically rather than being the endgame. Otherwise, these strategies on their own allow pension funds to appear climate friendly while distracting from the required holistic approach.

Taking members' views into account is one key indicator of addressing subtleties of climate risk such as the just transition risks lens. Unfortunately, alone, it does not do anything but supplement the already prevalent compartmentalised approach to climate risk. As part of addressing just transition risks, pension funds need to take beneficiary views into account, disclose a climate risk policy, disclose divestment from fossil fuels, and incorporate some form of climate scenario analysis. Accomodating only one of these indicators illustrates the contemporary compartmentalised approach of the pension fund industry to climate risk; unfortunately, the current data points to disclosure of intention of taking member views into account and/or disclosure of an ESG-friendly investment option.[114] The extent to which the legal regime allows pension funds to take members' views into account in relation to climate risk is addressed in Chapters 4 and 5.[115]

3.6 Conclusion

This chapter has analysed the major contextual and theoretical underpinnings of the ever-evolving relationship between pension funds and climate risk. It began with the historical context of ESG, the influence of SRI, MPT and the evolving conception of the duties of trustees and understood that they contribute to the contemporary compartmentalised approach to climate risk. Additional underpinnings that contribute to the relationship between climate risk and pension fund governance, as well the current compartmentalised approach, include the UI argument, fossil fuel divestment movement, increasing member concerns and the rise of disclosure norms.

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[114] For detailed analysis of the difference between PRI and non-PRI groups from Criteria B to C, s ss 6.3.1–6.3.4

[115] See ss 4.4.2, 5.4.2.

The analysis of these factors illustrates that these factors individually and collectively drive consideration of climate risk in mainstream pension fund governance but do so in a compartmentalised fashion, as they allow for the prevalence of multiple strategies at various degrees. These multiple strategies embed a disjointed and compartmentalised approach to climate risk that is at odds with the urgent, holistic approach required to meet the goals of the Paris Agreement.

These factors need to be coupled with clear and precise regulations that allow them to lead to a holistic approach to climate risk, rather than the current subjective and compartmentalised approach as a result of open-ended regulatory guidance. Precise regulation can be a conduit for the effects of these factors in the best way; for instance, a regulation that contains minimum obligations in relation to fossil fuel divestment will ensure multiple strategies at various degrees are avoided. Without precise and clear regulations, these factors are considered as exogenous/endogenous factors as per Young's argument that limit the state of the pension fund legal regime to one of 'arrested development'. This may not be obvious because, one can argue, these factors are embedding climate risk; unchecked, however, these factors are also embedding a disorderly transition to a low-carbon economy.

Accompanied by precise regulations, however, these very same factors and underpinnings can become exogenous factors that elevate the pension fund regime to one of 'progressive development'. Chapter 4 analysis the extent to which pension funds are taking climate risk into account as per the duties of trustees in the UK and Australia. The lens of just transition risk is utilised to understand this extent and the shortcomings.

Chapter 4 The extent to which the duties of trustees can accommodate climate risks

4.1 Introduction: multiple levels of uncertainty regarding ESG

This chapter analyses the extent to which the pension fund regime surrounding the duties of pension trustees enables a holistic consideration of climate risk by accommodating the just transition risk lens via the four indicators. Chapter 3 highlighted some of the contextual underpinnings of the current pension fund legal regime. This chapter analyses the legislative requirements of the primary duties of pension funds trustees – care and loyalty – and gauges their capacity for accommodating the just transition risk lens. As explained in Chapter 1, in order to evidence the just transition risk lens as part of the holistic approach to climate risk, the duties need to be able to accommodate four indicators: disclosure of a responsible investment and/or climate policy; divestment from fossil fuels; incorporation of member views; and utilisation of climate scenario analysis.[1] The presence of these four indicators in the pension fund legal regime would indicate that pension funds are well placed to take into account just transition risks for pension funds and, by extension, address climate risk holistically, rather than in a compartmentalised fashion. Chapter 4 supplements the conclusion that the legislative requirements in relation to the duty of care and loyalty in the UK and Australia suffer from legal gaps that ultimately hinder the ability of the regime to address climate risk holistically.

Just transition risks for pension funds are used as a lens as this encapsulates the elements of a long-term approach to climate risks as opposed to a short-term compartmentalised approach to climate risk. This is particularly important because there is a prevailing uncertainty in the pension fund industry in terms of climate risks that manifest over the long-term. While it is clear that the pension fund regime can legally accommodate climate risks, climate risks that do not pose financial risks in the short-term are problematic. This is because, after the advent of the modern portfolio theory ('MPT'), pension funds manage risk over the short-term rather than the long-term. Short-termism is entrenched not only in the economy, but also in the service contracts of pension trustees and outsourced investment managers. Zadek accurately

[1] See s 1.3.5.

observes that pension funds are not long-term investors but short-term investors over a long-term period.[2] The argument exists that the emergence of the MPT transformed the context surrounding the duty of care.[3] As analysed in Chapter 3,[4] the context surrounding the duty of care has transformed overtime. Before diversification and MPT, trustees were required to reasonably assess each investment option. However, post-MPT, trustees can spread risk across the entire investment portfolio and assess the whole portfolio. In other words, the MPT made the exercise of the duty of care a rational and dogmatic endeavour that focuses only on the short-term financial interests of the beneficiaries.[5]

Just transition risks for pension funds as a lens address the short sightedness of some pension funds as such risks require a long-term holistic approach to climate risk. Consequently, in light of this lingering uncertainty surrounding climate risk in the short-term, just transition climate risk for pension funds as a lens bridges the gap between short-term and long-term climate risks. Climate risks such as just transition risks for pension funds require a long-term approach to climate risk, rather than the MPT-influenced short-term approach.[6] While just transition risk may not manifest over the short-term, certain causes and risk factors for just transition risks can be assessed in the short-term and transform the pension fund approach to one that has a long-term outlooks. Thus, the extent to which the current pension fund regime accommodates the four indicators of the just transition risk lens is vital for the pension industry to have to have a longer-term outlook and align with the goals of the Paris Agreement.[7]

Section 4.2 begins by signposting the recent developments and changing perceptions surrounding the relationship between climate risk and pensions fund investment. These recent developments have shaped the current response of the pension fund regime to climate risk in the UK and Australia. Section 4.3 analyses the relevant case law and statutory requirements

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[2] Simon Zadek, Presentation at World Economic Forum, 2005.
[3] Edward J. Waitzer, ‘Defeating Short-Termism: Why Pension Funds Must Lead’ (2009) 2(2) *Rotman International Journal of Pension Management* 4; James P. Hawley, Keith L. Johnson and Edward J. Waitzer, ‘Reclaiming Fiduciary Duty Balance’ (2011) 4(2) *Rotman International Journal of Pension Management* 4; Steve Lydenberg, ‘Reason, Rationality and Fiduciary Duty’ (2014) 365 *Journal of Business Ethics* 374.
[4] See s 3.2.4.
[5] Ibid.
[6] Nick Robins, Vonda Brunsting and David Wood, *Climate Change and the Just Transition: A Guide for Investor Action* (Grantham Research Institute on Climate Change and the Environment, 2018) 12 <https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/11/IJT-guidance-for-investors_web-spreads.pdf>.
[7] See s 1.3.5.

that govern the duties of care and loyalty in the UK and Australia. Section 4.4 analyses the requirements of the current pension fund legal regime in relation to climate risk while applying it to the just transition risk lens for pension funds, specifically the four indicators. Section 4.5 concludes the chapter and analyses the findings.

4.2 Changing perceptions

Chapter 2 analysed some of the contextual underpinnings that inform the relationship between ESG risk such as climate change and the pension fund legal regime. Chapter 3 generally and the incumbent section 4.2 signposts some of the recent developments in the form of soft law reports, commissioned enquiries, recent litigation, and legal opinions that shape the contemporary response to climate risk by pension funds. ESG risks in the form of climate change risks have been regarded as a non-financial issue for pension fund governance.[8] However, now it is well settled that climate risks pose financial risks to pension funds and can be legally taken into account.[9] The end to the debate surrounding climate risk and pension funds was brought about over time due to many factors, including aspects of hard law, soft law, contextual underpinnings, and recent manifestations of climate risk in the form of extreme weather events, for example. This section focuses on some of the specific recent developments that have shaped the contemporary legal requirements for the pension fund industry in the UK and Australia pertaining to the duties of trustees.[10]

In October 2016, Mr Noel Hutley SC and Mr Sebastian Hartford-Davis presented an opinion to a prominent Australian roundtable comprised of business, investment and regulatory

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[8] Joakim Sandberg, ‘Socially Responsible Investment and Fiduciary Duty: Putting the Freshfields Report into Perspective’ (2011) 101 *Journal of Business Ethics* 143, 146; Paul Ali and Kanako Yano, *Eco-Finance: The Legal Design and Regulation of Market-Based Environmental Instruments* (Kluwer Law International, 2004); Jane Whitfield, ‘Trustees’ Investment Duties’ in Charles Scanlan (ed), *Socially Responsible Investment: A Guide for Pension Schemes and Charities* (Key Haven, 2005); A. Hesse, *Long-Term and Sustainable Pension Investments: A Study of Leading European Pension Funds*. Report Prepared for Asset4 and the German Federal Environment Ministry (2008); M. J. Kiernan, *Investing in a Sustainable World* (AMACOM, 2009).
[9] For recent case filings and the urgency of climate risk already discussed, see s 1.3.4; also see generally Letter from Geoff Summerhayes to All APRA-Regulated Entities, 24 February 2020 <https://www.apra.gov.au/sites/default/files/2020-02/Understanding%20and%20managing%20the%20financial%20risks%20of%20climate%20change.pdf>; Anita Foerster and Jacqueline Peel, ‘US Fossil Fuel Companies Facing Legal Action for Misleading Disclosure of Climate Risks: Could it Happen in Australia? (2017) *Australian Environment Review* 56;Gilbert + Tobin, ‘Climate Change Risk – Why is it Heating up the Boardroom?’, *Lexology* (Web Page) <https://www.lexology.com/library/detail.aspx?g=b18079e3-0654-45a1-be7e-e0f0b478b882>; Jacqueline Peel, Hari Osofsky and Anita Foerster, ‘Shaping the “Next Generation” of Climate Change Litigation in Australia’ (2017) 41(2) *Melbourne University Law Review* 793.
[10] For a more extensive coverage of reports, enquiries and recent developments, refer generally to ch 2.

leaders, and representatives of public bodies such as ASIC and APRA (‘the October 2016 opinion’).[11] The opinion concerns the extent to which the duties of corporate directors in Australia permit or mandate the incorporation of climate change risk. It is generally understood and accepted that the requirement of duties of pension trustees in relation to duties of loyalty and care are of a more stringent and higher standard than their corporate counterparts.[12] Thus, inferences from the October 2016 opinion are applicable to pension trustees. Similarly, in November 2016, two prominent UK barristers, Keith Bryant QC and James Rickards, were instructed by ClientEarth, a strong UK-based environmental law NGO and charity, to furnish a legal opinion (‘the November 2016 opinion’) on the extent to which UK pension trustees could take climate change risk into account in their investment decisions.[13] Even more recently, in June 2017, Noel Hutley SC and James Mack, on the instructions of Market Forces, specifically furnished a legal opinion that explores the possibility of Australian pension trustees to take ESG risk such as climate change into account (‘the June 2017 opinion’).[14] The July 2017 opinion plays a key part in clarifying the requirements of the law in the Australian context. These have been supplemented by regulatory guidance from APRA, most pertinently the 2019 climate change guidance[15] and the 2020 preliminary plans.[16]

The UK context serves as an excellent example in terms of recent inquiries and reports. The UK Law Commission released a report in 2014 which includes a detailed analysis of trustee obligations and duties in the ESG context.[17] In response to this report, the UK initiated a consultation in February 2015 with the aim of amending the *Occupational Pension Schemes*

[11] Noel Hutley and Sebastian Hartford-Davis, ‘Climate Change and Directors’ Duties’ (Memorandum of Opinion, Centre for Policy Development and Future Business Council, 7 October 2016).
[12] Hawley, Johnson and Waitzer (n 3) 7; see generally Matthew Turnour, ‘Trustee and Directors’ Duties – Ensuring Compliance 24/7’ (Conference Paper, Not for Profits and Charities Regulatory Conference, 11–12 May 2017) <https://www.ntlawyers.com.au/wp-content/uploads/2017/09/Trustees-and-Directors-Duties-Directors-and-Duties-Ensuring-Compliance-10.5.2017.pdf>.
[13] Keith Bryant and James Rickards ‘The Legal Duties of Pension Fund Trustees in Relation to Climate Change’ (Abridged Joint Opinion, 25 November 2016) <www.documents.clientearth.org/wp-content/uploads/library/2016-12-02-the-legal-duties-of-pension-fund-trustees-abridged-opinion-ext-en.pdf>.
[14] Noel Hutley and James Mack, ‘Superannuation Fund Trustee Duties and Climate Change Risk’ (Memorandum of Opinion, Market Forces, 15 June 2017) <https://envirojustice.org.au/sites/default/files/files/20170615%20Superannuation%20Trustee%20Duties%20and%20Climate%20Change%20(Hutley%20%26%20Mack).pdf>.
[15] APRA, *Climate Change: Awareness to Action* (APRA, 2019) <https://www.apra.gov.au/sites/default/files/climate_change_awareness_to_action_march_2019.pdf>
[16] APRA, *Understanding and Managing the Financial Risks of Climate Change* (24 February 2020) <https://www.apra.gov.au/understanding-and-managing-financial-risks-of-climate-change>.
[17] Law Commission, *Fiduciary Duties of Investment Intermediaries* (Law Com 350, 1 July 2014) <https://www.lawcom.gov.uk/project/fiduciary-duties-of-investment-intermediaries/>.

(Investment) Regulations 2005 ('the UK regulations') for achieving clarity in relation to the distinction between financial and non-financial factors.[18] The UK Government's response to the consultation was published on November 2015, and concluded that no amendment to the UK regulations was required for the time being as there was no agreement as to the best way forward for embedding clarity in the distinction of financial and non-financial factors.

Additionally, it was concluded that the law was flexible enough to accommodate ESG risk such as climate risks. In 2017, the Law Commission released another report, as a follow-up to the 2014 report, that analysed the UK laws ability to allow pension funds to invest towards social impacts and risk.[19] The report concluded that the pension fund industry suffers from legal gaps in relation to the understanding of financial risk and non-financial risk. Additional legal gaps exist surrounding the needs for disclosure of stewardship policies, members' views, and the need for a long-term approach to investment by pension funds. These reports ultimately led to a major law reform via the *Pension Protection Fund (Pensionable Service) and Occupational Pension Schemes (Investment and Disclosure) (Amendment and Modification) Regulations 2018* ('the amendment regulations 2018') and slightly extended by the *Pension Protection Fund (Pensionable Service) and Occupational Pension Schemes (Investment and Disclosure) (Amendment and Modification) Regulations 2019* ('the amendment regulations 2019'). The UK reform is geared towards disclosure and is assessed more fully in Chapter 5, though relevant inferences for the context of the duties are made in this chapter.

Similar to the Australian context, regulatory guidance helps shape the requirements of the contemporary law in the UK, such as The Pension Regulator's recent publication on investment governance[20] and the Department of Workplace and Pensions ('DWP') current consultation on climate change disclosures,[21] and the DWP's *Quick Start Guide* for

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[18] *Occupational Pension Schemes (Investment) Regulations 2005* (UK).
[19] Law Commission, *Pension Funds and Social Investment* (Law Comm No 374, 23 June 2017). <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2017/06/Final-report-Pension-funds-and-socia....pdf>.
[20] The Pensions Regulator, *A Guide to Investment Governance* (June 2019) <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/dc-investment-guide.ashx>.
[21] HM Government, *Aligning Your Pension Scheme with the TCFD Recommendations: A Guide for Trustees on Integrating Climate-related Risk Assessment and Management into Decision Making and Reporting* (HM Government, 2020) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877305/aligning-your-pension-scheme-with-the-TCFD-recommendations-consultation-guidance.pdf>

trustees,[22] in conjunction with the current Pension Schemes Bill.[23] Relevant elements of these recent law reforms and regulatory guidance are analysed through this chapter and in Chapter 5.

Recent litigation[24] and examples of climate risk manifestations[25] have already been discussed; they, too, shape the recent legal response by pension funds in the UK and Australia. It is worth mentioning the importance of soft law reports that supplement the end of the debate around whether or not pension trustees could take ESG risk such as climate risk into account. The main soft law reports targeted towards clarifying and ending the debate have come from the United Nations Environment Programme Finance Initiative (UNEP FI) and United Nations Principles for Responsible Investment (PRI).

The Freshfields report[26] was a 2005 project sanctioned by the Asset Management Working Group of the UNEP FI and carried out by the UK-based law firm Freshfields Bruckhaus Deringer. The Freshfields report can be credited with not only mainstreaming ESG risk for institutional investors such as pension funds, but also virtually starting the global debate in relation to the legal case for consideration of ESG risk.[27] The Freshfields report systematically reviewed institutional investment in many jurisdictions including UK and Australia and, astonishingly, questioned the traditional view that considering ESG risks are incompatible with the duties of pension trustees. The report went so far as to say that not only are ESG considerations compatible in most situations with the duties of trustees, but that sometimes it is mandatory to consider ESG risks.[28] The sequel Freshfields report extended the impact of the original Freshfields report.[29]

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[22] Department for Work & Pensions, *Closed Consultation: TCFD for Trustees of Pensions Schemes: Quick Start Guide* (Web Page) <https://www.gov.uk/government/consultations/aligning-your-pension-scheme-with-the-tcfd-recommendations/tcfd-for-trustees-of-pension-schemes-quick-start-guide>.
[23] Pensions Schemes Bill [HL] (2019–21) (UK) <https://services.parliament.uk/Bills/2019-21/pensionschemes.html>.
[24] See s 1.3.4.
[25] Ibid.
[26] See also s 2.2; UNEP FI, *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment* (UNEP FI, 200) <https://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf>.
[27] See for example Sandberg (n 8).
[28] UNEP FI, *A Legal Framework for the Integration of Environmental, Social and Governance Issues into Institutional Investment* (UNEP FI, 2005) 7 <https://www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf>
[29] See s 2.2; UNEP FI, *Fiduciary Responsibility: Legal and Practical Aspects of Integrating Environmental, Social and Governance Issues into Institutional Investment* (UNEP FI, 2009) <https://www.unepfi.org/fileadmin/documents/fiduciaryII.pdf>.

Post the Freshfields reports of 2005 and 2009, the debate continued and was virtually laid to rest by the PRI's *Fiduciary Duty in the 21st Century* project, which began in 2015 with a report[30] and a plan to do country-specific analysis. Roadmaps for the UK[31] and Australia[32] have been released, along with the final report ('final PRI report').[33] These contribute significantly to the current legal approach in the UK and Australia in relation to consideration of climate risk. It is apt to remember that, while the final PRI highlights the end of the debate in relation to ESG risk such as climate risk, it still identifies legal gaps that hinder the pension industry from addressing climate risks adequately in the UK and Australia.[34] The final PRI report's findings are in line with the argument of this thesis that, while pension funds are considering climate risk, they are doing so in a compartmentalised manner that hinders the holistic approach needed to meet the Paris Agreement goals. The next section illustrates the primary legislation and case law in relation to the duties of trustees in the UK and Australia.

4.3 Illustration of the statute and common law

The UK and Australia are based on English common law. However, there are subtle differences to be found in the statutory regime and policy guidance by the respective regulators in the two jurisdictions. The differences will be highlighted throughout this chapter and Chapter 5. Section 4.3.1 provides the relevant case law and principles in relation to ESG risk, while section 4.3.2 discusses the relevant statutory provisions.

4.3.1 The longstanding common law that allows ESG but has been perceived as hindering it

The starting point for the analysis of the duties of care and loyalty of trustees in relation to ESG considerations at common law is the infamous decision of *Cowan v Scargill*.[35] In *Cowan*, the judge Robert Megarry VC reaffirmed the principle from *In re Whitely*[36] that the

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[30] UNEP FI, *Fiduciary Duty in the 21st Century* (UNEP FI, 2016) <https://www.unpri.org/download?ac=1378>.
[31] UNEP FI, *Fiduciary Duty in the 21st Century. UK Road Map* (UNEP FI, 2016) <https://www.unpri.org/download?ac=4352>.
[32] UNEP FI, *Fiduciary Duty in the 21st Century. Australia Road Map* (UNEP FI, 2016) <https://www.unpri.org/download?ac=1385>.
[33] UNEP FI, *Fiduciary Duty in the 21st Century. Final Report* (UNEP FI, 2016) <https://www.unpri.org/download?ac=9792>.
[34] Ibid 22.
[35] *Cowan v Scargill* [1985] Ch 270 (Ch D).
[36] *In re Whitley* (1886) 33 Ch 347 (Ch D).

standard required for the duty of care is equivalent to an ordinary prudent person who exercises the power for the benefit of other people for whom the trustee is morally bound to provide.[37] This should be read with the learned judge's principle in *Cowan* that the best interests of beneficiaries are normally their financial interests when the purpose of the fund is to provide financial benefits.[38] Moreover, Megarry VC went on to state that trustees must set aside their personal and moral views because under trust for the interests of beneficiaries it is required of them to make their decisions based on financial reasons and they must not refrain from investments on purely moral grounds.[39] On a reading of this principle, it is clear that pension trustees must always make decisions for the best financial interests of the beneficiaries, as occupational pension trusts are usually set up as financial trusts for the provision of future retirement income.

It also implies that pension trustees should never take any ESG considerations, including personal moral motivations into account, if they undermine the financial interests of beneficiaries. The thesis does not disagree with this reading of the principle, but it takes the view that this is a very literal stance and arguably an isolated stance. It is conceded that Megarry VC stressed the paramount importance of the financial imperative; for example, he stated that the foremost duty of trustees is to provide the greatest financial benefit for current and future beneficiaries.[40] However, a reading of the whole judgment shows that this principle of financial imperative was not what the learned judge intended. In the judgment, the judge also stated that, as a proviso, he did not mean that the interest always inevitably and or solely means the financial interest of beneficiaries.[41] Moreover, he also enunciated that the trustees must be loyal to the beneficiaries, do the best they can to benefit them, over and above merely safeguarding them from harm.[42] It should also be noted that since the judgment, the judge has also stated extra-judicially that his judgment is *Cowan* was nothing novel and was reiterating the law at that time. More crucially, he said that his judgment should not be regarded as a blanket prohibition of ethical investment.[43] It is clear from the reading of the whole judgment and the post-judicial analysis by the learned judge that *Cowan*

[37] Ibid.
[38] *Cowan v Scargill* (n 36) para 286H.
[39] Ibid para 286G.
[40] Ibid para 289.
[41] Ibid para 288.
[42] Ibid para 295.
[43] Sir Robert Megarry, 'Investing Pension Funds: The Mineworkers Case' in T. G. Youdan (ed), *Equity, Fiduciaries and Trusts* (Carswell, 1989).

was not mandating the sole short-term financial imperative as being the best interests of the beneficiaries to the exclusion of everything else. Any risk that can cause financial detriment over the long-term, such as many nuances of climate risk, can be and should be taken into account, such as just transition risks for pension funds.

Alas, *Cowan* has been perceived and affirmed as the primary starting point for the view that the best interests of the beneficiaries are their short-term financial interests. Perhaps a complete reading of the case would entail that financial interests go a long way in safeguarding the best interests of the beneficiaries, but they still must be weighed against many other factors that include ESG considerations. This case and analytical tone shall be revisited again when we analyse recent reports and legal opinions in the ESG context.

In terms of understanding the current legal framework, *Cowan* stands for the principle that trustees are under an overriding obligation in the exercise of their duty of care and loyalty to uphold the best interests of beneficiaries. The best interest in the case of pension funds will be their financial interests. The perception flowing from *Cowan* was restated in a more assertive manner by Sir Donald Nicholls VC in the case of *Harries v Church Commissioners of England*.[44] His Lordship was of the view that, in an investment trust, the trustees would only be able to best serve the investment purpose of the trust by seeking to derive the maximum return consistent with commercial prudence.[45] At the time, this case was seen and perceived as reasserting *Cowan* and its financial imperative in seeking the best interests of the beneficiaries, albeit phrased in terms of fulfilling the proper purpose of the trust, rather than the best interests of the beneficiaries.

This 'best interest' principle has been analysed quite recently in the case of *Merchant Navy Ratings Pension Fund Trustees Limited v Stena Line Limited and others*.[46] In his judgment that considered the meaning of what is meant by best interests of the beneficiaries, Asplin J took an approach that reaffirmed the principles of *Cowan* and *Harries*. The judge contended that, to understand what the best interests of the beneficiaries are, it is important to place those interests in the context of the proper purpose of the trust, so as to better understand the

[44] *Harries v Church Commissioners of England* (1992) 1 WLR 1241 (Ch D).
[45] Ibid 1246D.
[46] *Merchant Navy Ratings Pension Fund Trustees Limited v Stena Line Limited and others* (2015) EWHC 448 (Ch)

intended benefit. He stated that the proper purpose of the trust and the best interests of the trustees are actually two sides of the same coin and work cumulatively.[47] In other words, this reaffirms the adopted principle of *Cowan* that, if the purpose of the trust is the provision of financial benefit and/or investment, then the best interests of the beneficiaries are their financial interests. It must also be noted that the notion that pension trustees cannot take ESG considerations into account is not found in the abovementioned traditional case law. It is conceded that the cases do mandate the best financial interests of the beneficiaries and the marginalisation of the ethical, moral and personal views of trustees. However, they leave the door open for inclusion of non-traditional investment pathways such as ESG considerations that are financially viable and do not violate the best financial interests of the beneficiaries over the long and short-term rather than just the short-term.

Notably, the Freshfields report also draws a distinction between the legal requirement of the duties of pension trustees and the perception of those duties. The report contends that the traditional view (i.e., trustees cannot take any ESG considerations into account) is the perception rather than the legal requirement. The Freshfields report observes that the traditional view is a mistaken perception that stems from the misinterpretation of a few early cases concerning ESG considerations. The main and the most prominent case in this area has been *Cowan*. The Freshfields report and the thesis questions the widespread implications of *Cowan*.

Following Megarry's own hindsight analysis of the case,[48] it is clear that *Cowan* was not mandating the entrenchment of the sole-financial interests view but merely cautioning the trustees not to supplant their own ethical views for the financial one. In other words, *Cowan* allows the inclusion of ESG considerations as long as they do not hinder the financial interests of beneficiaries. As we know, ESG risk such as climate risk are financially material over the short-term and the long-term.[49] Alas, a selective reading of *Cowan*'s ratio has contributed to the traditional view that consideration of ESG risks by pension trustees are incompatible with the duties of trustees.

[47] Ibid 228, 229.
[48] Megarry (n 44) i–xxix.
[49] See generally UNEP FI, *Fiduciary Duty in the 21st Century* (UNEP FI, 2016) <https://www.unpri.org/download?ac=1378>; Robins, Brunsting and Wood (n 6).

4.3.2 Relevant statutory provisions

The relevant statutes in this area for the UK are sections 33 and 35 of the *Pension and the Occupational Pension Schemes (Investment) Regulations 2005* (‘the regulations’). Section 33 prevents pension trustees from excluding their accountability flowing from the exercise of their duties and investment functions. Although section 34 allows pension trustees to delegate their duties relating to investment to a fund manager, section 36 keeps a check on this by making sure trustees do appropriate oversight and due diligence. For instance, section 36(3) obliges trustees to seek appropriate advice before any investment activity. The regulations enforceable via the *Pensions Act 1995* prescribe further obligations on pension trustees; these include preparation and compliance of the Statement of Investment Principles (‘SIP’). As already stated in Chapter 3, the SIP requires trustees to specify the extent to which ESG considerations are taken into account (if applicable). It is quite clear that the statutory regime in the UK mirrors the common law as set out in the cases above. The obligation of the trustees is to invest in the best financial interests of the beneficiaries. Additionally, the presence of the ‘if at all’ phrase in the regulation pertaining to ESG considerations means that the law sees them as voluntary and ancillary to the core duties of pension trustees.

In Australia, the *SIS Act* is the primary instrument in relation to the governance of occupational pension funds. The governing instrument of pension funds is subservient to the sole purpose test as enshrined in section 62 of the *SIS Act*. The sole purpose test prescribes that the pension fund should be maintained for the generation and provision of financial benefits to the beneficiaries at the time of their retirement. The mandatory covenants enshrined in the *SIS Act* section 52A are automatically incorporated into the governing rules and instrument of the pension fund. These covenants reassert the English common law duty of care and loyalty and give utmost importance to the development of an investment strategy based on not only risk and diversification, but also the circumstances of the entity and those surrounding the entity.[50] As mentioned in Chapter 3, section 52A implies covenants into the pension fund’s governing rules. Of particular note are section 52A(2)(b), which requires trustees to emulate the standard of a <u>prudent superannuation/pension entity director</u> who makes investments on behalf of others, and 52A(2)(c), which reinforces the primacy of the interest of the beneficiaries. In Australia, too, the best interests of the beneficiaries are

[50] *SIS Act* s 52.

considered to be financial in nature.[51] A superannuation/pension entity director is defined by the *SIS Act* since 1 July 2013 as a prudent professional trustee. The explanatory notes shed light on the purpose of this enactment: it is intended to heighten the standard of care owed by corporate trustees of superannuation funds in Australia. The modification of section 52A(2)(b) from 1 July 2013 is extremely important for pension funds. The point to note is that 52(2)(b), before 2013, required the trustee's standard of care to be that of an 'ordinary person' and this has now been tightened to the standard of a professional and prudent superannuation trustee.

While this stricter standard has not been tested, it is apt to note that the plaintiff in the REST case alleged that REST is breaching section 52(2)(b) by not disclosing on steps taken to address climate risks. The fact that the case was settled right before the hearing date and the fact that REST has committed to taking steps in relation to climate risk going forward showcases that courts potentially will recognise that the higher standard accommodates consideration of climate risks by pension fund trustees.[52] Further analysis of section 52(2)(b) is present in the analysis of the four indicators in chapters 4 and 5.[53]

4.4 The duties of pension trustees and just transition risks for pension funds

It is important to understand that the hard law is not apace with the nuances of climate change risks. The law does not reflect the holistic approach to climate risk needed that considers long-term environmental, governance and social climate risks such as just transition across physical, transition and liability risks. The transition to a low-carbon economy that is happening at an ever-increasing pace will leave pension funds with stranded assets, stranded pensions, and future beneficiaries with smaller pensions, if pension trustees do not take such risks into account.[54]

In such a scenario, it is in favour of the business case for pension funds to safeguard their future financial interests and those of their beneficiaries to take a long-term approach to

[51] Donald M. Scott, and Nicholas Taylor, 'Does "Sustainable" Investing Compromise the Obligations Owed by Superannuation Trustees?' (2008) 36 *Australian Business Law Review* 47; Doug Tennent, 'Ethical Investment in Superannuation Funds: Can it Occur Without Breaching Traditional Trust Principles? (2009) 17 *Waikato Law Review* 98.

[52] Analysis of section 52(2)(b) is discussed in ss 4.4.1 – 4.4.4, 5.4.1 – 5.4.4

[54] See ch 1; Robins, Brunsting and Wood (n 6) 6.

climate risk and address subtleties of climate risk such as just transition risks. As will be recalled from Chapter 3, the pension fund regime is enabled by various contextual factors to address climate change in a compartmentalised fashion by focusing just on the 'E' in ESG and utilising a 'pick and choose' approach from multiple climate strategies. This is because there are multiple strategies available that are adequate to showcase that pension funds are addressing climate risk.[55] Just transition risks of climate change and the goals of the Paris Agreement generally require pension funds to address climate change risks holistically. Unfortunately, in both jurisdictions, the hard law does not signpost just transition risks for pension funds explicitly as of 2020. Nonetheless, regulatory guidance is more accommodating in both jurisdictions.

In the UK, the recent TPR's joint statement on climate change[56] references the UK's Green Finance Strategy document[57] that does mention just transition risks at a very general level and also risks associated with the transition to a low-carbon economy.[58] Furthermore, the latest investment guidance[59] from the TPR provides some general guidance for taking risks flowing from the transition to a low-carbon economy into account.[60] The March 2020 DWP and The Pensions Climate Risk Industry Group's public consultation[61] does recommend that trustees think about how transition to a low-carbon economy impacts investment strategies.

However, even in this detailed document, risks from transition to a low-carbon economy feature at a general level and as one of the factors.[62] Similarly, regulatory guidance in Australia is also mostly general in terms of signposting just transition risks for pension funds. APRA's guidance on climate change[63] signposts risks that result from the transition to a low-carbon economy. However, it does so at a very basic and general level and even expects

[55] See generally ch 3.
[56] The Pensions Regulator, *Climate Change Joint Statement* (July 2019) <https://www.thepensionsregulator.gov.uk/en/document-library/statements/climate-change-joint-statement>.
[57] HM Government, *Green Finance Strategy: Transforming Finance for a Greener Future* (July 2019) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf>.
[58] Ibid 10, 67.
[59] The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (September 2019) <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/db-investment-guidance.ashx>.
[60] Ibid 26.
[61] HM Government, *Aligning Your Pension Scheme with the TCFD Recommendations* (n 22).
[62] Ibid 17, 34.
[63] APRA, *Climate Change: Awareness to Action* (n 15).

a slow improvement from investors in their approach to climate risk.[64] More recent guidance[65] that outlines APRA's intentions on climate change risks also mentions low-carbon economy risks, but does not go into detail.[66]

Overall, in terms of hard law and regulatory guidance in the UK and Australia, nuanced conception of climate risk such as just transition risks for pension funds are in their infancy. The hard law does not mention just transition risks for pension funds as at 2020. The recent regulatory guidance in both jurisdictions is much better in terms of signposting some of the nuanced climate risks including just transition risks, but they do not do so adequately relative to the urgency of climate risk impacts and goals of the Paris Agreement.[67] More adequate, fleshed-out and urgent guidance on just transition risks can be found in soft law and the regulators in both jurisdictions would do well to adopt similar more, urgent tones, clarifications and specific strategies, rather than the general level guidance currently in place.[68]

In conclusion, the contemporary regulatory guidance in both jurisdictions signposts that taking into account climate risk is lawful including nuances of climate risk and one of those nuances can be just transition of climate risks that result from the transition to a low-carbon economy. While this current view of the regulatory guidance is not a surprise as it allows for the prevalence of multiple strategies to satisfy the legal expectation of taking climate change into account, the view does allow the taking of just transition risks into account. The thesis has identified four indicators that can evidence that pension funds have taken first steps in addressing just transition risks for pension funds as part of the holistic approach to climate risks and avoid stranded pension assets and lower pension income for beneficiaries in the medium to long-term.

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[64] Ibid 25.
[65] Letter from Geoff Summerhayes to All APRA-Regulated Entities, 24 February 2020, <https://www.apra.gov.au/sites/default/files/2020-02/Understanding%20and%20managing%20the%20financial%20risks%20of%20climate%20change.pdf>.
[66] Ibid 2.
[67] Robins, Brunsting and Wood (n 6).
[68] See generally, Fiona Reynolds and Sharon Burrow, *Commentary: Why Financing a Just Transition is the Next Frontier in Responsible Investing* (Web Page, 10 December 2018) <https://www.lse.ac.uk/granthaminstitute/news/why-financing-a-just-transition-is-the-next-frontier-in-responsible-investing/>; Robins, Brunsting and Wood (n 6).

These four indicators – implementation and disclosure of a climate change/responsible investment policy, divestment from fossil fuels, incorporation of member views and utilisation of climate scenario analysis – are analysed in relation to the requirements of the duties of pension trustees in the UK and Australia, below, in sections 4.4.1–4.4.4.[69] At the outset, it needs to be understood that the extent to which disclosure obligations accommodate these four indicators is contained in Chapter 5.[70] Additionally, while each of the four indicators is discussed separately below, there is an overlap between them and the four sub-sections should be considered a collective whole.

4.4.1 Duties of trustees and a policy on climate change

This topic is dealt with in detail in Chapter 5 as the requirement pertains to a disclosure of a policy on climate change and responsible investment. For the purposes of the duties, the requirement of having a policy in place by pension funds can be toned down to pensions funds taking climate risk into account. The more sensitive the pension fund regime is to consideration of climate change risk, the more likely it is that the fund will disclose a policy on climate risk/responsible investment. As analysed above, the statutory obligations are clear that pension trustees must consider of the best financial interests of their members. It follows that the more legal and regulatory push there is in the pension fund regime in the UK and Australia, the more likely it is that pension trustees will be disclosing a policy on climate risk.

The starting point must be the Freshfields report as it informs the understanding of consideration of climate risk amongst pension trustees and regulators since 2005. The landmark contribution of the Freshfields report was the clear articulation of three situations where pension trustees can legally take ESG risk such as climate risk into account.[71] One of the situations highlighted by the Freshfields report is where trustees must take ESG risk such as climate risk into account as there is a positive correlation between climate change risk and financial value and performance.[72] This argument has been one of the most praised elements of the report, as it boldly argues for the existence of an obligation to take ESG considerations into account rather than a permissible option for trustees.[73] This argument by the report relies

[69] On the four indicators explained in chapter 1, see s 1.3.5(b).
[70] See s 5.4.
[71] UNEP FI (n 27) 10–12.
[72] Ibid 10–11.
[73] UNEP FI (n 27); C. Woods, ‘Funding Climate Change: How Pension Fund Fiduciary Duty Masks a Collective (In)Action Problem’, Working Paper, School of Geography and the Environment, Oxford University, 2009.

heavily on one ESG risk of climate change. Even in 2005, climate change was being equated with financial risk for institutional investors.[74]

It is noteworthy that the importance of climate change for institutional investors such as pension funds has only increased. Firms, corporations and investors with good ratings in terms of ESG risk and climate risk outperform those with less or no ratings in terms of ESG.[75] A link between financial performance and consideration of climate change risk is the key determinant for pension funds and other investors to take climate risk into account as part of their risk management processes.[76] Additionally, a recent global study by the PRI based on Morgan Stanley Capital International (MSCI) research concluded that ESG strategies globally outperformed default strategies.[77] From an investor's perspective, increasingly the research indicates that investors who take ESG risk into account are financially better off. A cumulative research concludes that 90 per cent of research studies find there are no financial detriments of ESG inclusion by investors, while the majority of the studies indicate a positive correlation.[78]

For pension funds, there is another tier of financial benefits: the financial performance of their investee companies. Since at least 2014, it has been found that there is a significant positive relationship between ESG risk consideration and the financial performance of companies.[79] Additionally, it is common sense that climate risk and just transition risks of climate change present untapped investment opportunities. For instance, it is estimated that by 2030 approximately USD 1.5 trillion is needed annually to achieve the goals of the Paris

[74] For example this paper showcases UNEP FI's and Mercer's collaboration around that time on climate change: see UNEP FI/Mercer, *Demystifying Responsible Investment Performance* (UNEP FI/Mercer, 2007) <https://www.unepfi.org/fileadmin/documents/Demystifying_Responsible_Investment_Performance_01.pdf>.

[75] M. Khan, G. Serafeim and A. Yoon, 'Corporate Sustainability: First Evidence on Materiality' (2016) 91(6) *The Accounting Review* 1697.

[76] See generally PRI, *The CFA Institute's ESG Survey* (Web Page, 2 March 2018) <https://www.unpri.org/investor-tools/the-cfa-institutes-esg-survey/2739.article>.

[77] K. Nguyen-Taylor and M. Martindale, *Financial Performance of ESG Integration in US Investing* (Principles for Responsible Investment, 2018) <https://www.unpri.org/download?ac=4218>.

[78] G. Friede, T. Busch and A. Bassen, 'ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies' (2015) 5(4) *Journal of Sustainable Finance & Investment* 210; UNEP FI, *Fiduciary Duty in the 21st Century. Final Report* (n 34) 18.

[79] R. Eccles, I. Ioannou and G. Serafeim, G., 'The Impact of Corporate Sustainability on Organizational Processes and Performance' (2014) 60(11) *Management Science* 2835; see also Gordon L. Clark, Andreas Feiner and Michael Viehs, *From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance* (University of Oxford and Arabesque Partners 2015) <https://arabesque.com/research/From_the_stockholder_to_the_stakeholder_web.pdf>.

Agreement.[80] Finally, pension funds can use climate risk including just transition risks of climate change as a forward-looking lens to identify short- and long-term investment opportunities. These transcend all asset classes and industry sectors and can make the financial interests of member resilient in the long-term.[81] Consequently, it can be concluded that pension trustees in 2020 and post-2020 should be taking climate risk into account as it provides financial benefits and preserves the financial interests of the fund over the long-term.

The November 2016 opinion contends that UK law unequivocally allows climate change risks that are financially material to be taken into account.[82] However, the November 2016 opinion also points out that it is up to the judgement and discretion of the trustees applying the 'prudent person' standard to deem any risks financially material.[83] Nonetheless, trustees cannot at the outset dismiss climate risk as a non-financial or ethical concern. They need to treat climate risk as a risk that may be financially material for their fund. Having a dismissive attitude to climate change can no longer safeguard trustees from liability risks.[84] Recent UK regulatory guidance also encourages the view that climate change risks are increasingly urgent and impact pension funds and that, if trustees deem climate risks as financially material for their fund, they should take them into account.[85] The March 2020 regulatory guidance in the UK affirms the increasingly financial impacts of climate risk on all pension funds in UK.[86] Unfortunately the March 2020 regulatory guidance falls short of saying that climate risks will always be financially material in the long-term. Like the November 2016 opinion, the guidance defaults to the prudent person standard that allows trustees discretion to identify which risks are financially material. This is an example of the UK pension fund duties suffering from a policy gap. Highlighting climate risks as a potential climate risk is a step below stating that climate risks will always be financially material for pension funds in the long-term. Such regulatory legal gaps distract from the required holistic approach to

[80] See United Nations, 'Bridging Climate Ambition and Finance Gaps' (UN Climate Press Release, 13 November 2017) <https://cop23.unfccc.int/news/bridging-climate-ambition-and-finance-gaps>.
[81] Robins, Brunsting and Wood (n 6) 12, 13.
[82] Keith Bryant and James Rickards, 'The Legal Duties of Pension Fund Trustees in Relation to Climate Change' (Abridged Joint Opinion, 25 November 2016) <www.documents.clientearth.org/wp-content/uploads/library/2016-12-02-the-legal-duties-of-pension-fund-trustees-abridged-opinion-ext-en.pdf> 55.
[83] Ibid 57; *In re Whitely* (1886) 33 Ch 347.
[84] Ibid 59–60.
[85] HM Government, *Aligning Your Pension Scheme with the TCFD Recommendations* (n 22) 20 para 33.
[86] Ibid para 14.

climate change risks and expects pensions funds to simply adopt any of the multiple strategies available to address climate change risks.

The Australian pension fund regime on the face of it must be doing better than the UK's in terms of addressing the financial risk of climate change, as the statutory requirement of section 52(2)(b) since July 2013 has been that of professional superannuation trustee director rather than the prudent man/person standard.[87] The July 2017 opinion confirms this higher standard of a professional trustee director as opposed to the prudent person. However, as of 2020 the exact parameters of this standard have not been established as there has not been any case law.[88] The July 2017 opinion concedes that whenever the financial interest intersects with climate change risk, whether physical climate risk or transition climate risk, trustees are under a duty to consider such climate risks as they are mandatory.

As far as the higher standard is concerned, trustees are under a duty to consider climate risks whenever making significant investment decisions.[89] Additionally, the July 2017 opinion posits that trustees are encouraged to record what risks they deemed as financially material for their fund.[90] In other words, the opinion can be taken to contend that trustees maintain a record of all risks they deemed financially material, including climate risks. APRA's recent regulatory guidance applauds the steps taken by regulated entities including pension funds and foreshadows a more co-ordinated approach to managing climate risks by pension funds.[91] While APRA, like the UK regulator, does not go so far as to say that climate risks are always financially material, APRA does concede that there are regulatory gaps in terms of industry practice in relation to climate risk and regulatory expectation.[92] This guidance is still forthcoming as at the time of writing. Nonetheless, the current regulatory guidance is more encouraging than the UK in terms of signposting the financial risks of climate change. For instance, APRA acknowledges climate risks manifest over the long-term and sometimes the materiality of such risks can be uncertain. Still, APRA recommends that inaction is the

[87] See s 4.3.2.
[88] Noel Hutley and James Mack, 'Superannuation Fund Trustee Duties and Climate Change Risk' (Memorandum of Opinion, Market Forces, 15 June 2017) 4 para 7 <https://www.marketforces.org.au/wp-content/uploads/2020/01/170615-Market-Forces-Memorandum-Superannuation-Trustee-Duties-and-Climate-Change-Risk-Hutley-Mack-.pdf>.
[89] Ibid 5 para 10.
[90] Ibid 7 para 14.
[91] Letter from Geoff Summerhayes to All APRA-Regulated Entities (n 66) 1.
[92] Ibid 2.

incorrect approach and encourages its regulated entities including pension funds to consider climate risks.[93]

The analysis in this section pertains to the likelihood of the duties of trustees accommodating an implementation and disclosure of a climate policy. As mentioned, this first indicator of the just transition risk lens is dealt with in terms of disclosure in the next chapter.[94] While the regulatory guidance in Australia is arguably more assertive than the UK in terms of linking climate risks with financial materiality, both regimes ultimately suffer from legal gaps that hinder pension funds from always equating climate risks with financial materiality. On the face of it, the pension funds in Australia are more likely to disclose a policy on climate risk as the regulation is more assertive about taking climate risk into account as far as the duties are concerned.

Nonetheless, in both jurisdictions there is no guarantee that pension funds will implement and disclose a policy on climate change risks. In Australia, the July 2017 opinion does posit that trustees should record their action towards financially material risk including climate risks, but this does not translate into regulatory guidance as of 2020. The duties of trustees are clear in legally allowing pension trustee to consider all risk that is financially material including climate risks. Regulators in both jurisdictions encourage, to varying degrees, pension funds to consider climate risks and even signpost the link between climate risks and financial materiality. However, the regulators do not use the same urgency or assertive tones required relative to the warnings of the IPCC and the goals of the Paris Agreement. Regulators in both jurisdictions have not declared that climate risks are always financially material for pension funds, even though pension funds operate over a long-term horizon. This is a clear policy gap in both jurisdictions and does not translate to a guaranteed satisfaction of the first indicator of just transitions risks for pension funds in the form of an adoption of a policy on climate risk via the duties of pension trustees. In both jurisdictions, it is still legal for a pension trustee to assess risk and conclude that climate risks do not affect their particular portfolio.

4.4.2 Duties of trustees and incorporation of members' views

[93] APRA, *Climate Change: Awareness to Action* (n 15) 7.
[94] See s 5.4.1

The analysis of members' views is conducted first as the analysis crosses over with section 4.4.3 in relation to fossil fuel divestment. The incorporation of members' views in assessing financial risk is extremely important, as ultimately the members are the recipients of the investment decisions of trustees in the future. Incorporation of members' views is even more critical in relation to nuances of climate risk such as just transition risks of pension funds. Members need to be reassured that they will not end up with smaller pensions or pensions stuck in stranded assets as the result of a lack of consideration of just transition risks by beneficiaries or of a disorderly transition.[95]

While law in this area is increasingly accommodating this view in terms of beneficiary representation[96] and disclosure norm, unfortunately, in 2020 the duties of trustees in both the UK or Australia do not explicitly require incorporation of the views of members in investment decision-making. This claim is made in this section as it analyses this indicator of the just transition risk lens in terms of the requirement of the duties of trustees not disclosure expectations.[97]

There is a legal argument for incorporating members' ethical and non-financial views in relation to ESG risk such as climate change. The starting point is one of the scenarios posited by the Freshfields report. This scenario posits that a trustee can arguably take ESG considerations into account, if the members are in favour of such a decision. In other words, if there is a consensus amongst beneficiaries to take certain ESG considerations into account, then the trustees may permissibly take those considerations into account without breaching their duties of care and loyalty.[98] Thus, the argument is that trustees can take ESG considerations into account, if that is the consensus of the beneficiaries, without fear of breaching their duties of care and loyalty.[99] The report even goes so far as to indicate that not heeding the consensus of beneficiaries may amount to a breach of the duty of loyalty of

[95] See European Trade Union Confederation, 'Involving Trade Unions in Climate Action to Build a Just Transition' (Press Release, 15 May 2018) <https://www.etuc.org/en/pressrelease/involving-trade-unions-climate-actionbuild-just-transition>; Robins, Brunsting and Wood (n 6); see also ch 1.
[96] The *Superannuation Industry (Supervision) Act 1993* (Cth) pt 9 mandates 50 per cent member representation on trustee boards of employer-sponsored funds that have at least five members; for disclosure norms, see ch 5.
[97] For analysis, see s 5.4.2.
[98] UNEP FI (n 27) 12–13.
[99] Sandberg (n 8) 153

trustees.[100] However, this pathways of the Freshfields report prove problematic.[101] The first issue with this situation, which the report concedes, is that acquiring the consensus of the beneficiaries is a complex task, as beneficiaries will have varying degrees of sensitivities and moralities. However, the report argues that there are some ESG considerations where a consensus can be reached quite easily because they go against the moral notions of most people; for example, child labour, human trafficking, etc.[102]

The biggest drawback of this argument though lies in its oversimplification of the alignment of beneficiaries' will and interests. Sandberg has analysed many case studies and previous research on varying interests of social and ethical investors and concludes quite correctly that even ESG-focused investors can disagree about the investment options.[103] It is arguably correct to conclude that consensus on ESG issues amongst beneficiaries is going to be a truly rare scenario, unless the issue is so extreme that everyone is on the same side.

Moreover, it is the trustees' function to manage the trust fund and apply the duty of care that demands independent skill and diligence as trustees act independently and are not agents of the members.[104] It is the thesis's opinion that trustees cannot always adhere to the consensus (if one can exist) because that would undoubtedly lead to a breach of their duty of care and loyalty. However, it is conceded that taking the consensus into account in a situation where the investment option is not financially detrimental is permissible for the trustees to pursue. Arguably, a consensus can be found by implementing mechanisms to gauge the beneficiaries' collective will, such as surveys and questionnaires.[105] Additionally, some pension funds in the UK and Australia, are required to have member representatives on their boards. This is the case for mostly industry funds. Trustees of such fund can utilise the representatives views as a conduit for gauging the consensus of the members as a whole.[106] It must also be

[100] UNEP FI (n 27) 13.
[101] See generally Benjamin J. Richardson, 'Fossil Fuels Divestment: Is It Lawful?' (2016) 39 *UNSW Law Journal* 1686, 1697–1699.
[102] UNEP FI (n 27) 12.
[103] Sandberg (n 8) 153.
[104] Richardson, 'Fossil Fuels Divestment' (n 102) 1698.
[105] Patricia Lane, 'Ethical Investment: Towards the Best Interest of Everyone' (1987) 45 *The Advocate* 171, 176.
[106] M Scott Donald and Suzanne Le Mire, 'Independence in Practice: Superannuation Fund Governance through the Eyes of Fund Directors' (2019) 42(1) *UNSW Law Journal* 300; Bernard Mees, 'Employee representation and pension funds governance in Australia' (2018) 42(2) *Economic and Industrial Democracy* Paul G. Haskell, 'The Prudent Person Rule for Trustee Investment and Modern Portfolio Theory' (1990) 69 *North Carolina Law Review* 87, 110.

understood that the beneficiaries will need to be educated about ESG issues as they may be unaware of not only the ESG issues, but also the implications of incorporating them in the fund itself. This is where disclosure norms in relation to ESG risks are important. These are discussed in Chapter 5.[107] Again, even the incorporating consensus-gauging mechanisms and awareness of beneficiaries may not lead to a consensus in most circumstances. When it does, then it may be permissible for the trustees to implement the ESG path. The thesis is hesitant in using the word 'permissible' above as the law is still unclear on the matter and does not provide an absolutely certain answer. At best, the trustees will have a strong defence in pursuing ESG considerations backed by the will of the beneficiaries, in the case they are accused of breaching their duties of loyalty and care.

Recent regulatory guidance and legal opinions in Australia are unfortunately silent on the incorporation of members' views in investment decision-making in relation to ESG risk.[108] The regulatory guidance and recent opinions lend some support, however, for the incorporation of members' views in investment decision-making. The November 2016 opinion does support the notion that trustees could exercise power in line with the moral and ethical views of the beneficiaries. However, it was cautioned that in reality it is extremely difficult to implement and must not be to the financial detriment of the beneficiaries.[109]

Additionally, UK regulatory guidance encourages the incorporation of member views while at the same time saying that it is not necessary to do so around each investment decision.[110] Additional regulatory support – discussed in Chapter 5 – stems from the fact that regulators want pension funds to engage with their member while preparing the Statement of Investment Principles and had intended a separate disclosure on member views (this did not make the final regulation).[111] Nonetheless, pension trustees in the UK are expected to take the views of

[107] See s 5.4.2.
[108] For example Geoff Summerhayes, *Australia's New Horizon: Climate Change Challenges and Prudential Risk* (Speech, Insurance Council of Australia Annual Forum, 17 February 2017) <https://www.apra.gov.au/news-and-publications/australias-new-horizon-climate-change-challenges-and-prudential-risk>; Geoff Summerhayes, *The Weight of Money: A Business Case for Climate Risk Resilience* (Speech, Centre for Policy Development, 29 November 2017) <https://www.apra.gov.au/news-and-publications/weight-of-money-a-business-case-for-climate-risk-resilience>; Letter from Geoff Summerhayes to All APRA-Regulated Entities (n 66); APRA, *Climate Change: Awareness to Action* (n 15); Noel Hutley and James Mack, 'Superannuation Fund Trustee Duties and Climate Change Risk' (Memorandum of Opinion, Market Forces, 15 June 2017) <https://www.marketforces.org.au/wp-content/uploads/2020/01/170615-Market-Forces-Memorandum-Superannuation-Trustee-Duties-and-Climate-Change-Risk-Hutley-Mack-.pdf>.
[109] Bryant and Rickards (n 83) 7 para 21.
[110] The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (n 60) 32.
[111] See s 5.4.2

their members into account when making decision in relation to climate change risk though not every decision may need the incorporation. Still, it can be argued that UK funds should take the views of members into account when devising a broad strategy in relation to significant investment decisions and these can include climate risks.

Even more acute is the case of just transitions risks for pension funds. These directly impact the members in terms of smaller pensions and stranded pensions, so trustees in the UK would do well to consult with the members in devising a climate risk strategy. The Australian case on this is not clear-cut as there is silence on the incorporation of member views. This is a clear regulatory and policy gap that hinders this indicator of the just transition risk lens to be met in Australia. Perhaps this is because in Australia there is member representation on boards and thus that is seen as a workaround to not taking members' views into account. It is speculated that the higher standard of the duty of care would require trustees to take members' views into account, including the members who sit on boards (as proxies of all members), when making significant financial decisions in relation to climate risks.[112]

In relation to this second indicator of the just transition risk lens the UK pension regime is clearer than Australia, though both suffer from legal gaps. The UK, while signposting incorporation of member views across its regulatory guidance, does not do so assertively but leaves it open to the whim of trustees. A clear articulation of an expectation to always take members' views into account in relation to long-term climate risks is necessary to satisfy this indicator of the just transition risk lens and by extension the urgent goals of the Paris Agreement.

These legal gaps (to varying degrees in the UK and Australia) distract from a holistic approach to climate risk as they promote multiple strategies (to varying degrees) of incorporating members' views. For example, some funds in both jurisdictions will not consider member views, some may do so on a whimsical basis, while others would consider members' view. Additionally, they could do so by applying multiple strategies, ranging from differing forms of internally managed surveys, board meetings, testimonials, etc.

[112] See s 4.4.1.

4.4.3 Duties of trustees and divestment from fossil fuels

Divestment is the practice of ceasing involvement with certain investment classes. For pension funds, this entails selling corporate equity and bonds linked with those asset classes.[113] This third indicator of the just transition risk lens for pension funds requires pension funds to start divesting from fossil fuels as they are the predominant risk-factor for just transition risks for climate change. Divestment from fossil fuels can be legally pursued by pension trustees in certain circumstances. However, where divestment from fossil fuels leads to a financial detriment for the pension funds, then trustees cannot pursue it as it goes against their primary duty of pursuing the best interests of their members. The first, most simple way of divesting from fossil fuels is if dumping fossil fuel investment does not increase the financial risk to the portfolio. Since 1970s, trustees have been able to spread the risk across the entire portfolio in line with the tenets of MPT. Consequently, if divesting from fossil fuels does not lead to a financial detriment or increased financial risk to the whole portfolio, then there is no issue with divestment in this scenario.[114] This is because divestment is backed by financial due diligence as mandated by the primary duties of trustees.

Another scenario where divestment from fossil fuels may be legally possible is the ‘tie-breaker’ scenario. This, too, was one of the scenarios illustrated by the Freshfields report. The first situation is when trustees have applied adequate skill and diligence in terms of the financial viability of the investment options before them. If the trustees then come up with many alternatives that are financially at par with each other in terms of benefit and risk, then the report contends that trustees are permitted to consider an option that is also ESG sensitive. Thus, an ESG investment option in a ‘tie-breaker’ scenario with other neutral and non-investment options is arguably a permissible path for ESG inclusion as the ESG link serves as the ‘tie-breaker’.[115] This has been affirmed by the case of *Harries v Church Commissioners for England*.[116]

[113] See Fossil Free, *What is Fossil Free Divestment?* (Web Page) <http://gofossilfree.org/what-is-fossil-fuel-divestment>.
[114] Paul G. Haskell, ‘The Prudent Person Rule for Trustee Investment and Modern Portfolio Theory’ (1990) 69 *North Carolina Law Review* 87, 110.
[115] Sandberg (n 8) 148
[116] *Harries v Church Commissioners for England* [1992] 1 WLR 1241, 1247 (Nicholls VC).

However, this pathway is problematic for various reasons.[117] For instance, it would be an extremely rare occurrence for trustees to find themselves in a situation where they have identical alternative investments, with one being the ESG route. Financial implications of different investment options are usually never the same, and it may even be the case that the trustee board of occupational pension funds may interpret different options differently. For instance, trustees on the same board may have different opinions about the financial materiality of investment options.[118] Adding to this problem is the influence of the MPT and the prudent investor rule,[119] as the investments must be evaluated according to risk and return across the whole portfolio. Consequently, the trustees will not actually be faced with the consideration of two investment options in isolation from the whole portfolio and this will further hinder their ability to compare investment options. Still, it is conceded that the understanding and comparability of ESG investment with traditional investment is increasing day by day and it may be possible in some circumstances to compare investment options.[120] In conclusion, the 'tie-breaker' is a viable option pathway for divestment from fossil fuel, albeit one that is available in exceptional circumstances.

Arguably, the second pathway through which trustees can divest from fossil fuels and not breach their duties is if the collective will of the members' views and wishes – via surveys or board representative of members – are aligned with divestment from fossil fuels. Thus, trustees can remain reasonably assured in terms of potential liability risks if divestment from fossil fuels is in line with the views of its members. Again, as analysed in section 4.4.2, divestment from fossil fuels backed by the will of the members is more likely in the UK than Australia due to the encouragement derived from the regulatory guidance. Members are increasingly likely to be disenchanted by fossil fuel investment due to the global fossil fuel divestment movement.[121] The movement signposts not only the risk to future generations from fossil fuel emissions, but also impacts directly on the financial interests of the

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[117] Sandberg (n 8) 148; J. D. Hutchinson and C. G. Cole, 'Legal Standards Governing Investment of Pension Assets for Social and Political Goals' (1980) 128(4) *University of Pennsylvania Law Review* 1340; G. D. Miller and C. V. Calhoun, 'Analysis of Legal Issues Concerning Tobacco Divestment and Socially Screened Investments' in D. Cogan (ed), *Tobacco Divestment and Fiduciary Responsibility: A Legal and Financial Analysis* (Investor Responsibility Research Center, 2000).
[118] Ibid 149; Richardson, 'Fossil Fuels Divestment' (n 102) 1696.
[119] Benjamin J. Richardson, *Socially Responsible Investment Law: Regulating the Unseen Polluters* (Oxford University Press, 2008); R. Thornton, 'Ethical Investments: A Case of Disjointed Thinking' (2008) 67(2) *Cambridge Law Journal* 396; G. Watt, *Trusts and Equity* (2nd ed, Oxford University Press, New York, 2006).
[120] See s 5.4.2; PRI, *A Practical Guide to ESG Integration for Investing* (2016) <https://www.unpri.org/download?ac=10>.
[121] See s 3.4.

beneficiaries.[122] Consequently, beneficiaries are extremely likely to be easily persuaded from fossil fuel investment, and the UK provides more clear regulatory guidance in terms of members' views than Australia.

The third pathway for fossil fuel divestment – and arguably the strongest – is one that results directly from the financial risk element of fossil fuels for pension trustees. Fossil fuels are increasingly becoming risky investments due to three predominant factors. Firstly, the fossil fuel sector is not as profitable was it once was, and this trend will continue. Flowing from the first point, fossil fuels are at risk of becoming stranded investments and will lead to stranded investment and inevitably smaller pensions for the fund in the medium- to long-term future. Finally, investing in fossil fuels is a reputational risk that is increasingly a financial risk in of itself.

The fossil fuel industry for decades has been experiencing high growth. From the coal-based Industrial Revolution through to oil and gas, fossil fuel investments have been extremely lucrative and have led the stock market for decades.[123] However, in the last three to five years, the fossil fuel sector has been on a downward trend and investment returns have declined. For example, for the past five years – according to the MSCI index – portfolios without fossil fuels have performed, and are performing, better relative to portfolios still investing in fossil fuels.[124] This downward trend is visible in the specifically the coal-based and oil-based sectors. The coal sector is almost obsolete. Coal's market capital share is down by 90 per cent and it will not recover due to the rise in alternative energy such as wind and solar power and plant based on alternative energy.[125] Similarly, oil prices and demand will peak in the next two to three years and will extinguish 20 to 30 million barrels per day for the market by 2030.[126]

[122] Patrick Collinson, 'Boost for Fossil Fuel Divestment as UK Eases Pension Rules', *The Guardian* (London, 18 December 2017) 4 <https://www.theguardian.com/environment/2017/dec/18/boost -for-fossil-fuel-divestment-as-uk-eases-pension-rules>.
[123] Tom Sanzillo, Kathy Hipple and Clark Williams-Derry, *The Financial Case for Fossil Fuel Divestment* (Institute for Energy Economics and Financial Analysis, 2018) 7, 8 <http://ieefa.org/wpcontent/uploads/2018/07/Divestment-from-Fossil-Fuels_The-Financial-Case_July-2018.pdf>; S&P500, *Overview* (Web Page) <https://us.spindices.com/indices/equity/sp-500>.
[124] Sanzillo, Hipple and Williams-Derry (n 123) 8; MSCI ACWI ex Fossil Fuels Index (GBP). May, 2018.
[125] Goldman Sachs, *The Low Carbon Economy* (30 November 2015) 48 <http://www.goldmansachs.com/our-thinking/pages/new-energy-landscape-folder/report-the-low-carbon-economy/report.pdf>; Larry Coble and Joe Antoun, *The Fiscal Case for Fossil Fuel Divestment* (Web Page) <https://world.350.org/chicago/the-fiscal-case-for-fossil-fuel-divestment/>.
[126] Goldman Sachs (n 125).

The bleak future of the fossil fuel industry coupled with increasing climate risk regulation globally puts the entire fossil fuel sector on notice of being stranded in the short-to medium-term future and replaced completely by renewable energy in the long-term future. The fossil fuel sector essentially now is a carbon bubble and will need to be divested from by pension funds and other investors or inevitably become a stranded investment that will need to written off as losses.[127] It is recommended that investors hedge against the risk of stranding of fossil fuels by divesting from all oil, gas and coal-based assets.[128] Additionally, if alignment with the Paris Agreement goals is to be achieved and global temperatures maintained below 2 degree Celsius, it is posited that approximately 80 per cent of coal, gas and oil reserves must not be consumed.[129] This factor adds to the inevitable stranding of pensions invested in fossil fuels.

Last, investing in fossil fuels is a high-risk financial investment as it increases the reputational risks of the fund. Reputational risk dovetails into financial risk as brand image by pension funds is essential in maintaining the trust of their members and stakeholders. A bad reputation can lead to extra costs associated with marketing campaigns and in extreme cases loss of investments and increased chances of liability risks.[130] The global fossil fuel divestment movement and increase in climate risk awareness generally enables the argument to be made that pension funds still invested in fossil fuels incur an extra financial risk in the form of reputational risk. There is affirmation for reputational risk in the requirements of the corporate duty of care where the judge went so far as to indicate that reputational damage may arguably form part of one of the deliberating factors of the corporate duty of care.[131] The duties of loyalty and care owed by pension trustees in the UK and Australia are higher than the ones owed by corporate directors in both jurisdictions.[132]

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[127] See generally Carbon Tracker, *The $2 Trillion Stranded Assets Danger Zone: How Fossil Fuel Firms Risk Destroying Investor Returns* (Web Page, 24 November 2015) <http://www.carbontracker.org/report/stranded-assets-danger-zone/>.

[128] Citi GPS, 'Energy Darwinism II: Why a Low Carbon Future Doesn't have to cost the Earth', *Citi GPS: Global Perspectives and Solutions* (August 2015) <https://ir.citi.com/E8%2B83ZXr1vd%2Fqyim0DizLrUxw2FvuAQ2jOlmkGzr4ffw4YJCK8s0q2W58AkV%2FypGoKD74zHfji8%3D>.

[129] Coble and Antoun (n 125).

[130] See s 7.3.2; Willis Towers Watson, *Pensions and Savings Conference 2019: Overview* 5 <https://www.willistowerswatson.com/en-GB/Insights/2019/11/five-reasons-why-sustainability-should-matter-to-your-pension-scheme>.

[131] *ASIC v Cassimatis (No 8)* (2016) FCA 1023 at (481-483) per Edelman J.

[132] See generally Sarah Barker et al, 'Climate Change and the Fiduciary Duties of Pension Fund Trustees – Lessons from the Australian Law (2016) 6(3) *Journal of Sustainable Finance & Investment* 211.

Furthermore, in the backdrop of the above points exists the duty of impartiality that informs of the primary duties of loyalty and care. It has been argued that the duty of impartiality not only requires trustee treat all beneficiaries equally, but also includes the interests of future beneficiaries.[133] The duty of impartiality has this intergenerational element and can be used to argue that trustees cannot ignore the financial well-being of beneficiaries and must divest from assets such as fossil fuels that not only affect future pensions but also the world that the beneficiaries would occupy.[134]

Regulatory guidance (in terms of duties not disclosure norms) is very sparse in terms of divestment from fossil fuels in the UK and Australia. This point reaffirms the notion that the fossil fuel divestment movement is driving pension fund investment decisions in relation to fossil fuels and not regulatory guidance. In the UK, the Green Finance Strategy regulatory guide mentions fossil fuels and asserts in general terms the UK Government's commitment to make sure investment in fossil fuels aligns with the Paris Agreement goals.[135]

Additionally, the UK investment guide, while not explicitly mentioning fossil fuels, does support assessing a fund's carbon emissions as a relevant environmental factor.[136] The UK's The Pensions Climate Risk Industry Group (PCRIG) 2020 guidance is much more assertive and signposts funds invested in fossil fuels as more likely to be exposed to climate risks in the form of stranded assets. The guidance also highlights the decreasing competitiveness of fossil fuel investments and the increase in financial risk including reputations risks.[137] Similarly, the House of Common's recent report, that formed the basis of the current UK reform, mentions the liability and reputational risks attached with fossil fuel investors and the preference of young members to not invest in fossil fuels.[138]

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[133] *Withers v Teachers' Retirement System of City of New York* (1979) 447 F Supp 1248 (SD NY 1978), affirmed by *Withers v Teacher's Retirement System of City of New York* 595 F 2d 1210 (2nd Cir 1979).
[134] Richardson, 'Fossil Fuels Divestment' (n 102) 1699; Alastair Marke, 'Establishing the Legal Obligations of Pension Fund Trustees to Divest from Climate-Unfriendly Portfolios' (2018) 12(4) *Carbon and Climate Law Review* 297, 300.
[135] HM Government, *Green Finance Strategy* (n 58) 29.
[136] The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (n 60) 26.
[137] HM Government, *Aligning Your Pension Scheme with the TCFD Recommendations* (n 22) 52, 53.
[138] Environmental Audit Committee, *Greening Finance: Embedding Sustainability in Financial Decision Making* (House of Commons Paper No 1063, Seventh Report of Session 2017–19) 5, 17 <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1063/1063.pdf>.

The regulatory guidance in Australia is less assertive except two speeches from APRA in 2017. Even in the speeches, fossil fuels are not explicitly signposted. In the speech, mere mentions are made of the decreasing fossil fuel sector and increasing renewable energy sector only. There is no investment guidance in relation to divestment from fossil fuels.[139] Another APRA speech is much more assertive, and signposts risks from investing in high-carbon assets such as risks of stranding and devaluations due to re-pricing.

Additionally, it is hinted that funds and companies that are invested in high-carbon assets increase their risk of liability risk.[140] Australia's recent regulatory guidance, while not specifically mentioning fossil fuel divestment, does signpost multiple times the risk flowing from the move to a low-carbon economy.[141] This could be extended and taken to mean that divestment from fossil fuels is recommended by pension trustees to make their funds more resilient in the long-term to stranded asset risk. This point is affirmed by the July 2017 opinion, where it is recommended that the higher standard required in Australia under section 52A(2)(b) requires trustees to pay attention to risks that flow from a transition to a low carbon economy.[142]

Consequently, it is in the interests of pension funds, when acting for the best financial interests of pension funds, to divest from fossil fuels; there are numerous paths and justifications available within the context of the current pension fund duties of loyalty and care in the UK and Australia. However, as with the other indicators, the pension fund regime in the UK and Australia is limited by legal gaps especially in the form of clear regulations and regulatory guidance. In order to meet the Paris Agreement goals in a holistic manner, the pension fund industry in the UK and Australia as a whole need to divest from fossil fuels on an urgent basis. Additionally, as analysed earlier, divestment from fossil fuels is one of the key indicators that is not only mired by its own challenges in aligning with the Paris Agreement but also alone is not suffient for the achievement of net zero in the UK and Australia. However, divestment by the pension fund industry as a whole is necessary backed by clear regulations and regulatory guidance as one of the minimum standards of best practice to meet the Paris Agreement goals.[143]

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[139] Summerhayes, *The Weight of Money* (n 108).
[140] Summerhayes, *Australia's New Horizon* (108).
[141] APRA, *Climate Change: Awareness to Action* (n 15) 7, 11, 12, 21, 24, 25.
[142] Hutley and Mack (n 108) 5.
[143] See s 1.3.5(b)

The current legal regime in both countries at best encourages divestment from fossil fuels in general terms but does not specifically make this norm a requirement as part of the duties of trustees. The abovementioned paths are available in both jurisdictions but on paper it appears that the high standard of care in Australia makes Australian funds more amenable to divesting from fossil fuels when making significant financial decisions. Ultimately, the many strategies available to address fossil fuels and the infinite forms and degrees those strategies could take distract from a holistic approach to address this indicator of climate risk but reinforce the prevalent compartmentalised approach.

4.4.4 Duties of trustees and utilisation of climate scenario analysis

Refreshingly, the duties of trustees in the UK and Australia do allow for trustees to incorporate climate scenario analysis. As discussed in Chapter 1,[144] scenario analysis involves the identification and assessment of numerous outcomes in the future under different conditions. In terms of climate change risks, scenario analysis involves forecasting outcomes under different climate risk impacts, ideally across physical, transition and liability risks of climate change.[145] Scenario analysis can be considered as an extension of the duties of trustees to assess risk given the purpose of their fund. For pension funds it is the long-term impartial financial considerations of their members and this can include impact on future members as per the duty of impartiality.[146]

Incorporation of climate change scenarios can only happen if trustees adopt a long-term approach to climate risk; otherwise, a short-term approach will be a very watered-down, compartmentalised view that ignores most climate risk that manifests over the medium to long-term (i.e., over a few years rather than 3-monthly quarters), although this is rapidly changing due to increased awareness of climate risk and physical manifestations of climate risk in the form of extreme weather events.[147] There has been tension between the law and the perception of the law in the UK and Australia and other Anglo-American countries that are based on English trust law in relation to pension trustees taking account of only short-term financial risk, even though the law does not inhibit short-termism. As can be recalled,

[144] Ibid
[145] For an example of the definition, see Environmental Audit Committee (n 138) 25.
[146] Barket et al (n 132).
[147] See s 1.3.4.

the duty of care has been a historically evolving concept, with the current iteration influenced by the modern portfolio theory ('MPT').[148] It is affirmed that the emergence of the MPT transformed the functioning of the duty of care over time.[149] Before the MPT, trustees would reasonably assess each investment option; however, post-MPT trustees can spread the risk across the entire portfolio.

It is submitted that MPT led to a short-term approach to pension fund investment as opposed to a reasonably long-term approach that would ideally cater for current and future members.[150] The MPT-backed rational approach of the duty of care also suppresses the duty of impartiality that is the heart of long-termism as pension trustees are required to strike a balance between current and future generations of beneficiaries. While, increasingly, financially material climate change risks are viewed as compatible with the post-MPT version of the duties of trustees, it is clear that MPT did embed short-termism in pension funds' decision-making as pension funds invest over the short-term but over a long-term period.[151] Consequently, the historic perceptions of the duties of trustees have played a significant role in embedding short-termism in the pension industry, while suppressing the principle of impartiality across the duties of care and loyalty.

The more aligned the requirements of the current law are with long-term investment – as evidenced from regulatory guidance and legal opinions – the more accommodating the duties will be in relation to incorporation of scenario analysis. Scenario analysis can simply be viewed as a tool that aids in recognising long-term risk, including long-term climate change such as just transition risks. As explained, the Task Force on Climate-Related Disclosures (TCFD) can be credited with giving traction to linking scenario analysis with best practice in the global pension investment landscape.[152]

The UK is ahead of Australia in terms of regulatory guidance in this area. The UK is leading calls for embedding long-term risk strategies across its investment landscape in relation to

[148] See s 3.2.4.
[149] Lydenberg, 'Reason, Rationality and Fiduciary Duty' (n 3); Waitzer, 'Defeating Short-Termism' (n 3); Hawley, Johnson and Waitzer, 'Reclaiming Fiduciary Duty Balance' (n 3).
[150] Lydenberg, 'Reason, Rationality and Fiduciary Duty' (n 3) 390.
[151] Zadek (n 2).
[152] For instance, the UK affirmed the TCFD in 2017. See HM Government, *Guidance: Green Finance* (Web Page, 18 September 2017) <https://www.gov.uk/guidance/green-finance>.

climate risk.[153] There are very clear calls for pension funds to address short-term and long-term climate risk in their investment decision making with more recognition that some climate risk crystallises in the long-term. Quite importantly, the recent investment guidance strongly encourages pension funds to embed scenario analysis and explicitly states that scenario analysis is expected by the regulator.[154] Additionally, the recent UK PCRIG consultation also affirms the long-term approach needed to combat climate risk on an urgent basis.[155] Similarly, the consultation assertively recommends and details the incorporation of climate scenario analysis by UK funds.[156]

Additionally, signposting of climate scenario analysis is not done in general terms as with other indicators of the just transition risk lens; rather, scenario analysis and its operation is well fleshed out in the UK regulatory guidance.[157] Laudably, the PCRIG consultation is to be modelled after the Paris Agreement goals in line with the transition to a low-carbon economy. It includes impacts on the fund if this transition is orderly or not, and also if in the worst-case scenario the goals are not met.

These two sources of UK regulatory guidance are by far the most assertive iteration of climate scenario norms in regulatory guidance across the two jurisdictions and do not form legal gaps in relation to this indicator of the just transition risk lens; not only are they assertively recommending long-term and climate scenario norms, but alo linking the climate scenario with the urgent goals of the Paris Agreement. Perhaps the only policy gap would be the lack of recommendation to make climate scenario analysis mandatory in line with the Paris Agreement goals in the UK. The PCRIG comes extremely close to such an assertion but does not orient the encouragement of Paris-Agreement based climate scenario analysis as a requirement.

Initially, the regulatory guidance in Australia was ahead of most countries, including the UK, as the two pieces of guidance in 2017 flagged climate scenario analysis in line with the Paris Agreement goals as the recommended approach, albeit in general terms. The 2017 regulator guidance signposted scenario analysis in line with the Paris Agreement goals as the new

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[153] The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (n 60) 22, 26, 27, 30.
[154] Ibid 55, 58, 82.
[155] HM Government, *Aligning Your Pension Scheme with the TCFD Recommendations* (22) 18, 20, 45.
[156] Ibid 11, 34, 35.
[157] See for instance ibid 36, 39, 48.

normal.[158] This was accompanied by a disclaimer that it is the encouraged and recommended approach but regulated funds ultimately decide whether or not to incorporate climate scenario analysis.[159] Similarly, in the same year APRA flagged a more interventionist approach in the coming years and recommended that regulated entities such as superannuation funds conduct scenario analysis and test for key risks.[160] Unfortunately, as per the recent (2019) regulatory guide in Australia, the result of APRA's recent survey of 38 large entities across insurance, banks and superannuation funds illustrate that approximately 70 per cent of funds surveyed were incorporating some form of climate scenario analysis.[161]

Quite importantly, the entities that did not conduct climate scenario analysis, along with some entities who did, find climate-related risk as an immaterial risk.[162] The 2019 guidance also recommends scenario analysis in relation to climate change as it encapsulates long-term climate risks as well. Nonetheless, the 2018 guidance appears to be either more of the same or a step-back from the 2017 signposting by APRA in relation to scenario analysis. The guidance even recognises that scenario analysis in Australia has been influenced by the TCFD rather than efforts by regulators.[163] There is small hope in the latest APRA guidance, where APRA attempts to reinforce the notions of long-term climate risk and the need for a standardised approach to climate risk assessment including climate scenario analysis.

APRA's efforts pale relative to the regulatory guidance in the UK, where the guidance is just a step away from mandating standardised climate scenario analysis in line with the Paris Agreement goals. Additionally, UK guidance is much more assertive in tone and encouragement and outlines clearly that the regulators expect incorporation of scenario analysis. Australia suffers from severe legal gaps in relation to this indicator of the just transition risk lens and it is clear from the regulatory guidance that funds in Australia are utilising various degrees of scenario analysis and coming to subjective conclusions. This reinforces the compartmentalised approach to climate risk and distracts from a holistic coordinated approach that is needed. A disjointed approach to scenario analysis will not allow the pension industry to address climate risks in the long-term including just transition

[158] Summerhayes, *Australia's New Horizon* (n 108).
[159] Ibid.
[160] Summerhayes, *The Weight of Money* (n 108).
[161] APRA, *Climate Change: Awareness to Action* (n 15) 14.
[162] Ibid.
[163] Ibid 15.

risks and will lead to a failure in meeting the goals of the Paris Agreement. While the UK is ahead, it by no means has standardised the approach to scenario analysis, as clear guidance is needed that requires a standardised approach to scenario analysis in line with the Paris Agreement scenarios.

4.5 Conclusion

In the above sections 4.4.1–4.4.4, the extent to which the duties of trustees in the UK and Australia address climate risk has been analysed by utilising the lens of just transition risks via the four indicators. It is concluded that, while both jurisdictions have slightly different degrees of regulatory assertiveness in relation to the indicators, both jurisdictions suffer from legal gaps. These legal gaps, it is submitted, are endogenous/exogenous factors as per Young's argument, that contribute to the state of the pension fund legal regime being in a state of 'arrested development' as opposed to 'progressive development'.

This is because these gaps allow for the prevalence of multiple strategies at various degrees in both jurisdictions as a response to climate risk. Pension funds have a licence to employ a 'pick and choose' approach to climate risk at subjectively suitable degrees that allows them to be seen as taking into account climate risk when all they are doing is contributing to a compartmentalised approach to climate risk. This is at odds with the holistic and urgent approach required by the pension industry to climate risk that considers subtle aspects of climate risk as well such as just transition risks for pension funds.

The legal gaps though can be filled with a reformed regulatory approach that assertively signposts the incorporation of each of these indicators and indicates a list of minimum obligations in relation to each indicator. For instance, APRA or the TPR can mandate incorporating members' views and provide a list of risky asset investments where incorporating members' views is necessary; for example, fossil fuels, tobacco, cluster munitions, etc. Another example can be where climate scenario analysis that is already strongly encouraged in both jurisdictions can be mandated and must be linked with the temperature goals of the Paris Agreement and IPCC reports. Such clear and precise regulations styled as current regulations and accompanied by precise regulatory guidance can transform these endogenous/exogenous factors into one that can contribute to the state of the pension fund regime as one of 'progressive development'. The next chapter analyses the four indicators of the just transition risk lens in relation to disclosure norms and obligations in the UK and Australia.

Chapter 5 The extent to which disclosure norms in the UK and Australia can accommodate climate risk

5.1 Introduction: the other side of the coin

This chapter analyses the extent to which the pension fund regime surrounding disclosure obligations and norms of pension trustees accommodates the incorporation of subtleties of climate risk in the form of just transition risks. Chapter 4 started the analysis of the extent to which the current pension fund legal regime in the UK and Australia accommodates a holistic incorporation of climate risk by utilising the lens of just transition risks for pension funds. This chapter continues this analysis by analysing current disclosure norms and obligation in the UK and Australia and the extent to which they accommodate they evidence the incorporation of just transition risks for pension funds. As explained in Chapter 1, to evidence just transition risks amd a holistic approach to climate risks, the disclosures norms in both jurisdictions need to accommodate four indicators as minimum standards of best practice: disclosure of a responsible investment and/or climate policy; divestment from fossil fuels; incorporation of member views; and utilisation of climate scenario analysis.[1] In the previous chapter, we were analysing the primary duties of loyalty and care of pension trustees in the UK and Australia. Chapter 5 continues the legal analysis but focuses on the other side of the coin of pension fund governance; that is, disclosures.

The extent to which disclosure obligations and norms address just transition risks of climate change depends on the capacity of the contemporary disclosure norms and obligations in the UK and Australia to accommodate the four indictors. The extent to which these four indicators are addressed by the current disclosure norms will inform the extent to which disclosures in the UK and Australia accommodate a holistic approach to climate risk that is required on an urgent basis to meet the Paris Agreement goals.[2] As with the duties of trustees, the thesis finds that disclosure obligations and norms in the UK and Australia suffer from legal gaps that prevent a holistic approach to climate risk and reinforce the compartmentalised approach to climate risk. The compartmentalised approach to climate risk deviates from addressing the Paris Agreement goals. Ultimately, the legal gaps curtail the

[1] See s 1.3.5.
[2] Ibid.

pension regime in a state of ‘arrested development’ that is not able to reorient and adapt in a timely manner to address the urgent risks of climate change.

This chapter is divided into five sections. Section 5.2 briefly outlines underpinnings of climate risk disclosures. Section 5.3 examines the legal disclosure regime relevant to pension funds in the UK and Australia and illustrates the main regulatory sources of law along with relevant provisions. Section 5.4 analyses the extent to which disclosures in the UK and Australia accommodate the just transition risk lens by discussing the four indicators of just transition risks. Section 5.5 contains the chapter conclusion.

5.2 Summary of the underpinnings of climate risk disclosures: Awareness of climate risk and soft law initiatives

Climate change risk affects all financial institutions and this cannot be stressed enough for pension funds. Furthermore, the regulation in Australia and UK increasingly reflects this norm.[3] The perception is changing: climate risks are no longer merely ethical notions but financially material notions. Pension trustees, when making investment decisions that will be crucial for their funds, must account for exposure to climate change risk.[4] Yet, the practice in the pension fund industry has been to couch such ESG considerations in there generic disclosures and even offer ethical investment options and windows within their funds to pacify beneficiaries and the public. Such treatment does not imply that such pension funds view climate change as a serious material financial risk.

The consideration of climate change risk must be embedded at every step of the fund’s investment cycle.[5] Thus, having the availability of green or ethical investment options for window dressing purposes is not enough for trustees to address climate risks holistically and or meet the Paris Agreement goals. The law and regulatory guidance in relation to disclosures

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[3] Geoff Summerhayes, *Australia’s New Horizon: Climate Change Challenges and Prudential Risk* (Speech, Insurance Council of Australia Annual Forum, 17 February 2017) 4 <https://www.apra.gov.au/news-and-publications/australias-new-horizon-climate-change-challenges-and-prudential-risk>; Department of Work and Pensions, *Closed Consulation: Ministerial Foreword* (26 August 2020) <https://www.gov.uk/government/consultations/taking-action-on-climate-risk-improving-governance-and-reporting-by-occupational-pension-schemes/minsterial-foreword>.

[4] Noel Hutley and James Mack, ‘Superannuation Fund Trustee Duties and Climate Change Risk’ (Memorandum of Opinion, Market Forces, 15 June 2017) <https://envirojustice.org.au/sites/default/files/files/20170615%20Superannuation%20Trustee%20Duties%20and%20Climate%20Change%20(Hutley%20%26%20Mack).pdf>.

[5] Sarah Barker et al, ‘Climate Change and the Fiduciary Duties of Pension Fund Trustees – Lessons from the Australian Law’ (2016) 6(3) *Journal of Sustainable Finance & Investment* 211.

must be able to demonstrate that climate risks are being considered holistically and subtleties of climate risk are being addressed such as the just transition risk lens. To do that, disclosures norms and obligations must adequately incorporate the four indicators as minimum standards of best practice. As can be recalled from section 4.4.1, trustees must consider of all ESG risks that overlap with financial risk. Such an overlap will likely exist proportionate to the significance of the investment and the sector invested in.[6] Additionally, trustees need to embed ESG risks in every step of the investment cycle and constantly reassess current investment practices and policies.[7]

Apart from the changing perceptions in relation to the law and climate risk, another reason ESG risks such as climate change can no longer be discounted as peripheral risks or financially immaterial is due to the realisation of the effects of such risks on financial institutions. ESG risks in the form of climate change are a present risk to financial stability of pension funds and other financial institutions, rather than a long-term risk that may crystallise at some point in the future.[8] The risks resulting from climate change have been identified in the academic diaspora[9] and affirmed by the Task Force on Climate-related Disclosure (TFCD) as being physical risks, transition risks and liability risks.[10]

Awareness of climate risks and their relationship with disclosure obligations can, in part, be credited to the law and regulatory guidance. However, more influence for this awareness and prevalence of disclosures in relation to climate risk has been driven by soft law mechanisms, initiatives, movements, legal opinions, and reports, especially in relation to fossil fuel divestment and climate scenarios.[11]

The increasingly legal imperative to take ESG risk into account and the crystallisation of the physical, transition and liability risks that flow from entrenched ESG issues like climate

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[6] Hutley and Mack (n 4); see also ch 4.
[7] Barker et al (n 5).
[8] Ibid 3.
[9] Noel Hutley and Sebastian Hartford-Davis, ‘Climate Change and Directors’ Duties’ (Memorandum of Opinion, Centre for Policy Development and Future Business Council, 7 October 2016) <http://cpd.org.au/2016/10/directorsduties>; Barker et al (n 5); Financial Stability Board, *Recommendations of the Task Force on Climate-related Financial Disclosures* (Financial Stability Board, 2017) <https://www.fsb.org/wp-content/uploads/P290617-5.pdf>; Market Forces, *Risky Business* (August 2017) <https://www.marketforces.org.au/wp-content/uploads/2018/06/Market-Forces-Risky-Business-FINAL-1.pdf>.
[10] See s 1.3.4.
[11] See ss 5.4.3, 5.4.4.

change, driven by soft law, are two factors that have underpinned the importance of disclosure requirements. In one analysis of the July 2017 opinion, it was argued that superannuation trustees need to catalogue and record their investment process and assessment of ESG risk, even if they ultimately do not invest in it.[12] Arguably, the need is for them to share this record with the public and/or beneficiaries, should they choose to request such information. Trustees are not required to catalogue their thought processes and deliberations behind each investment but they may need to legally justify their procedures for due diligence for their entire investment portfolio.

Rather, the July 2017 opinion argues that what compels a trustee to invest in the best interests of the beneficiaries, notwithstanding the presence of risk, needs to be disclosed.[13] This is in line with the issue that there has been a gap of information including legal gaps to help stakeholders like pension funds, corporations and other institutional investors to incorporate climate risk holistically and disclose on it. Thus, some stakeholders do not know which risks require assessment and/or which strategies to apply; this has been an issue with ESG risk especially.

Nonetheless, even those who know which risks need to be assessed, cannot do so at a market level as there has been a shortage of tools to assess and compare ESG risk. Thus, information gathering, management and information dissemination (disclosure) has become the norm in recent years in an attempt to address this gap. Ultimately, the pension fund regimes in both jurisdictions still speak in generalities that allow multiple strategies to prevail by pension trustees to address climate risk. Multiples strategies allow pension trustees to utilise various forms of strategies to various degrees and this inevitably distracts from a holistic industry response to climate risk by the pension industry. The next section recognises important soft law mechanisms that have influenced current regulations in the UK and Australia and pension fund market practices.

The thesis argues that the current UK and Australian pension disclosure norms have been informed to a significant extent by emerging soft law mechanisms. The recognition of soft law mechanisms aids in the understanding of the law in this area. This is because soft law serves as the backdrop and drives current regulatory directions and best-practice norms in

[12] Hutley and Mack (n 4); see also ch 4.
[13] Ibid.

relation to climate risk disclosure. The soft law mechanisms include voluntary codes of conduct, legal opinions, opinions and declarations by prominent stakeholders, inquiries and best-practice initiatives and standards. Some of these have already been analysed in Chapter 4[14] with regards to the duties of trustees; a broader discussion of the soft law literature is contained in Chapter 2.[15] Some of them are mentioned here as they are particularly influential and embed best practice for climate related disclosures for institutional investors.

First and foremost, the era-defining moment for the awareness of ESG risk is arguably the Paris Climate Agreement of 2015 reached by the parties to the United Nations Framework Convention on Climate Change (UNFCCC).[16] The most important contribution is that the Agreement provides an ascertainable pathway, a template and scenario for combating global climate change. Pension fund regulators in the UK and Australia need to align their short-term regulatory strategies with the Paris Agreement goals so that the pension funds industry can address climate risk holistically in a standardised manner.

Specifically, in the case of pension funds, two soft law mechanisms drive disclosure best practice principles globally: the Principles of Responsible Investment and the Task Force on Climate-related Disclosures. The UN-backed Principles for Responsible Investment (‘PRI’) was officially launched in 2006 and has been supported by the UN Environment Programme Finance Initiative (UNEP FI) and the UN Global Compact.[17] For our purposes, the PRI is a global reporting initiative for asset owners as well as a research platform in its own right. The basis of the PRI are six principles illustrated in Figure 5.1, below.

[14] See ch 4.
[15] See ch 2.
[16] United Nations Climate Change, *The Paris Agreement* (Web Page) <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.
[17] PRI, *About the PRI* (Web Page) <https://www.unpri.org/pri/about-the-pri>.

Figure 5.1: The Six Principles of Responsible Investment

By 2020, the PRI has almost 3000 signatories with approximately USD 110 trillion of assets under their management.[18] The pension fund signatories to the PRI have to maintain their membership by adhering to these principles and applying them when carrying out their duties of loyalty and care and reporting on their investment practices. The fact cannot be emphasised enough that PRI signatories are obliged to disclose on ESG risk as part of their ongoing investment, or risk being delisted from the initiative.[19] Signatories to the PRI are obliged to report information on responsible investment via the PRI's reporting tool.[20] Additionally, the PRI has done considerable research and conjecture on the duties of trustees in prominent jurisdictions including Road Maps for the UK[21] and Australia[22] that were released at the end of 2016; the final report on its landmark fiduciary duty project was released in 2019.[23]

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[18] PRI, *Annual Report* (2020) 67 <https://www.unpri.org/annual-report-2020/how-we-work/building-our-effectiveness/enhance-our-global-footprint>.
[19] PRI, *Reporting & Assessment* (Web Page) <https://www.unpri.org/signatories/reporting-and-assessment-resources>.
[20] Ibid.
[21] UNEP FI, *Fiduciary Duty in the 21st Century. UK Road Map* (UNEP FI, 2016) <https://www.unpri.org/download?ac=4352>.
[22] UNEP FI, *Fiduciary Duty in the 21st Century. Australia Road Map* (UNEP FI, 2016) <https://www.unpri.org/download?ac=1385>.
[23] UNEP FI, *Fiduciary Duty in the 21st Century. Final Report* (UNEP FI, 2016) <https://www.unpri.org/download?ac=9792>.

The second significant soft law development is undoubtedly the G20-backed body the Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD).[24] In June 2017, TCFD published its final report,[25] which is essentially a framework of recommendations pertaining to financial risk disclosures for companies to adopt globally. The report helps companies to understand adequate disclosure measures required by financial markets to gauge and address climate risk and opportunities. The report provides a guide and encourages companies to include climate risk assessment in their disclosures. The essential prongs of the framework comprise of governance, strategy, risk management and metrics/targets.[26] It is noteworthy that, although the Financial Stability Board initially sponsored the TCFD, it is the private sector that has established the TCFD's continued growth. The private-sector membership consists of institutional investors, asset owners, banks, manufacturers, auditors, etc.

By 2020, the TCFD has more than 785 supporters, as compared to 100 at its inception. These supporters include 671 companies and 114 other bodies, such as governments, NGOs, and industry private associations. The combined market capital of the supporting companies is over USD 9.2 trillion. There are also 374 financial firms that support the TCFD and they are responsible for assets of nearly USD 118 trillion.[27] In addition to the 457 companies that support the TCFD, the 2018 TCFD status report identified another 104 companies that, in their disclosures stated they are already aligning their reporting with the TCFD or expressed their intention to implement the recommendations. The TCFD has also received support from governments – Belgium, France, Sweden, and the United Kingdom – as well as financial regulators around the world, including in Australia, Belgium, France, Hong Kong, Japan, the Netherlands, Singapore, South Africa, Sweden, and the United Kingdom.[28] Quite importantly

[24] TCFD, *Recommendations Overview* (Web Page) < https://www.tcfdhub.org/recommendations/>.
[25] TCFD, *Final Report. Recommendations of the Task Force on Climate-related Disclosures* (June 2017) <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>.
[26] Ibid 14.
[27] Financial Stability Board, *2019 Status Report. Recommendations of the Task Force on Climate-related Financial Disclosures* (Financial Stability Board, 2019) 110 <https://www.fsb-tcfd.org/publications/tcfd-2019-status-report/>.
[28] Ibid.

for PRI signatories, TCFD-style climate risk disclosure will be mandatory from 2020 onwards. The same is the regulatory intent in the UK as well.[29]

Another significant soft law development is the United Nations Sustainable Development Goals ('SDGs' or 'UNSDGS'). These are 17 long-term global humanitarian goals that launched in September 2015 and were adopted by 193 member states of the UN,[30] which amongst other agendas, seek to make private-sector institutions better global citizens. The SDGs set a policy framework at a global scale for companies, institutional investors, and nations to follow. Countries, by 2030, need to achieve these goals and the UN encourages the establishment of implementation plans that are reflected in national policies. To gauge progress, it is recommended that countries submit annual Voluntary National Reviews to the UN High-level Political Forum. Goals 7 and 13 directly address climate action, ESG risk and global emissions. Many funds like Cbus in Australia have started to address and link the SDGs with their investment practices. For example, investing towards a low-carbon economy by deviating fund away from fossil fuels allows Cbus to contribute to SDG 13 (i.e., Climate Action).[31] The SDGs are now closely aligned with the PRI and TCFD and provide a template for alignment of climate risk disclosures at a global scale.

The long-standing influence of the Global Reporting Initiative (GRI) on disclosures cannot be discounted either as it enables an atmosphere of understanding and measurement of ESG issues such as climate risk, governance, human rights, etc. Since 1997, the GRI has developed and released guidelines for disclosing on sustainability performance.[32] The guidelines contain principles of reporting, disclosure standards and a manual for the creation of sustainability reports by a catalogue of organisations. These organisations include public and private-sector organisations from all sizes and sectors. GRI's first guidelines, launched in 2000, were the first of their kind in sustainability reporting. The latest iteration of the

[29] Environmental Audit Committee, *Greening Finance: Embedding Sustainability in Financial Decision Making* (House of Commons Paper No 1063, Seventh Report of Session 2017–19) 4 <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1063/1063.pdf>.
[30] See United Nations, *The Sustainable Development Agenda* (Web Page, 2016) <http://www.un.org/sustainabledevelopment/development-agenda/>.
[31] Cbus, *United Nations Sustainable Development Goals and Responsible Investing* (Web Page) <https://www.cbussuper.com.au/about-us/news/investment-news/united-nations-sustainable-development-goals-and-responsible-investing>.
[32] GRI (Web Page) <https://www.globalreporting.org/>.

guidelines are the global standards for sustainability reporting (GRI standards) that were released in October 2016.[33]

Awareness of ESG risk and measurement has been a source of an added hurdle and uncertainty in incorporating climate risk, especially subtle risks of climate risk such as just transition risks in investment decision-making and disclosure by institutional investors. However, this is changing at an unprecedented pace with climate risk more measurable and financially material. For instance, Mercer has led the way on emphasising awareness of gauging responsible investment allocation impacts on the path to a low-carbon economy. Mercer published its landmark research in 2011,[34] followed by the 2015[35] report, *Investing in a Time of Climate Change*, and its sequel in 2019.[36] In a nutshell, Mercer has been instrumental in solidifying the need and procedure of climate risk scenarios and stress testing for institutional investors in 2019. Similarly, the Melbourne Mercer Global Pension Index (MMGPI) was launched in 2009 as a joint project of Monash's Australian Centre for Financial Studies, the State Government of Victoria and Mercer.[37] The MMGPI gauges the sustainability, adequacy and integrity of pension systems across prominent counties, including Australasia and Europe. It recommends a long-term approach to pension fund governance and disclosure for each country it assesses.

Another index worth mentioning is the ShareAction's Asset Owners Disclosure Project Global Climate Index (AODP Global Climate Index 2018).[38] The index ranks global pension funds on the basis of their approach and strategies in relation to tackling climate-related risks and opportunities. The AODP index report for pensions was published in 2018. Apart from identifying the approach by pension funds and market trends, the report also recommends changes to be adopted by regulators, pension trustees and beneficiaries. Last, the impact of

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[33] GRI, *Mission and History* (Web Page) <https://www.globalreporting.org/about-gri/mission-history/>.
[34] Mercer, *Climate Change Scenarios – Implications for Strategic Asset Allocation* (Mercer, 2011) <https://www.mercer.com/content/dam/mercer/attachments/global/investments/responsible-investment/Climate-change-scenarios-Implications-for-strategic-asset-allocation.pdf>.
[35] Mercer, *Investing in a Time of Climate Change* (Mercer, 2015) <https://www.mercer.com/content/dam/mercer/attachments/global/investments/mercer-climate-change-report-2015.pdf>.
[36] Mercer, *Investing in a Time of Climate Change – The Sequel* (Mercer, 2019) <https://www.mercer.com/content/dam/mercer/attachments/private/nurture-cycle/gl-2019-wealth-climate-change-the-sequel-full-report.pdf>.
[37] Monash University, *Australian Centre for Financial Studies* (Web Page) <https://australiancentre.com.au/projects/melbourne-mercer-global-pension-index/>.
[38] ShareAction, *Asset Owners Disclosure Project Global Climate Index* (2018) <https://aodproject.net/>.

recent legal opinions in the UK and Australia surrounding the relationship between ESG investment and institutional investors cannot be discounted. We have already analysed and discussed aspects of the October 2016 and its 2019 supplemental, the November 2016 and the June 2017 opinion.[39] As we analysed in Chapter 4, these opinions tackled the incorporation of ESG consideration in decision-making by institutional investors head on. Additionally, they go a long way in mainstreaming the prominence of ESG in investment decision-making and clarifying the duties of trustees and corporate directors.

Section 5.3 outlines the law, regulators and regulations that inform disclosure obligation in the UK and Australia. This allows for a seamless transition into section 5.4, which analysis the capacity of the pension fund regimes in the UK and Australia to incorporate the four indicators of the just transition risk lens as part of the holistic approach to climate risks.

5.3 Regulators (UK and Australia)

The current legal and regulatory framework of pension disclosure law in the UK and Australia is a mix of written law, regulatory guidance and soft law influence. This section illustrates the tenets of disclosure hard law and the regulators in both jurisdictions. There have been recent changes in this area in the UK and Australia in light of recent themes and debates surrounding ESG risk. What needs to be kept in mind is that the legal and regulatory framework in this area is a moving target, with changes taking place quite quickly in pension fund governance relative even to 20 years ago. Although the UK and Australia share the same legal and jurisprudential roots in English common law (as analysed in Chapters 3 and 4), the current legal approach in both jurisdictions is quite different. On the face of it, the UK has apparently taken a more robust approach to incorporating disclosure of ESG risk, whereas Australia's approach has been more subtle.

In Australia, the primary regulators in the context of pension funds/registrable superannuation entities ('RSEs') are the Australian Prudential Regulation Authority ('APRA') and the Australian Securities and Investments Commission ('ASIC'). Increasingly, there is a welcome overlap and coordination between these two regulatory bodies.[40]

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[39] See generally ch 4.

[40] See APRA, *The ASIC-APRA Relationship* (Web Page) <https://asic.gov.au/about-asic/what-we-do/our-role/other-regulators-and-organisations/the-asic-apra-relationship/>; APRA/ASIC,

However, traditionally APRA supervises the management of business operations by entities with a view to uphold the best interests of the members. On the other hand, ASIC is more closely aligned with adequate disclosure obligations and remedial processes for members. APRA ensures the implementation of the *SIS Act* and its regulations to promote and protect the beneficiaries of pension funds. ASIC also protects beneficiaries, other consumers, and the public by monitoring the flow of information from the pension industry to these stakeholders. ASIC does so via the *SIS Act*, the *Corporations Act* and the *Australian Securities and Investments Commission Act 2001* (Cth) ('*ASIC Act*'). In summary, APRA has been the prudential regulator, while ASIC has been the regulator for best practice, conduct and disclosure.[41] This two-tiered regulatory model was the result of the Wallis Inquiry of 1997,[42] five years after the Superannuation Guarantee of 1992.[43]

Additionally, APRA has a prudential mandate in place to ensure that pension funds promote the interests of their beneficiaries on a perpetual and live basis. As part of the Stronger Super Reforms, APRA was granted the power to issue prudential standards for superannuation. This has led to the development of minimum standards for pension funds in relation to their operational management. In terms of disclosure, ASIC has a more vital role. It supervises implementation by RSEs and other superannuation funds with regards to legal obligations pertaining to disclosure, marketing, and all other information that it disseminates to the public and/or beneficiaries. The ASIC also oversees the conduct of funds that provide licensed services for example pension funds that also provide financial advice.[44]

Last, it must be noted that both these regulators have a great deal of coordination between them and this provides efficiency and cogency in the industry. They have a considerable amount of information-sharing between them and they carry out research endeavours and industry review. The detailed partnership between the regulators can be found in a joint

Regulation of Superannuation Entities by APRA and ASIC <https://www.apra.gov.au/sites/default/files/regulation_of_superannuation_entities_by_apra_and_asic.pdf>.

41 APRA/ASIC, *Regulation of Superannuation Entites by APRA and ASIC* <https://www.apra.gov.au/sites/default/files/regulation_of_superannuation_entities_by_apra_and_asic.pdf>.

42 *The Wallis Report on the Australian Financial System: Summary and Critique* (Parliament of Australia, 1997) <https://www.aph.gov.au/about_parliament/parliamentary_departments/parliamentary_library/pubs/rp/rp9697/97rp16>.

43 *Superannuation Guarantee (Administration) Act 1992* (Cth).

44 ASIC, *ASIC's Role in Super* (Web Page) <https://asic.gov.au/regulatory-resources/superannuation-funds/asics-role-in-super/>.

relationship document.[45] Thus, to reiterate the main sources of financial disclosure in Australia are derived from the *SIS Act* and the *Corporations Act* and APRA and ASIC are the primary regulators. These two regulatory bodies also have authority to issue regulations, notifications and online content for the industry including thematic reviews and they are also sources of law as far as pension funds are concerned. The table below serves as a summary of relevant regulatory responsibilities of APRA and ASIC surrounding disclosure by Australian pension funds.

[45] APRA, *Memoranda of Understanding and Letters of Arrangement* (Web Page) <https://www.apra.gov.au/memoranda-understanding-and-letters-arrangement>; APRA, *The ASIC-APRA Relationship* (Web Page) <https://asic.gov.au/about-asic/what-we-do/our-role/other-regulators-and-organisations/the-asic-apra-relationship/>.

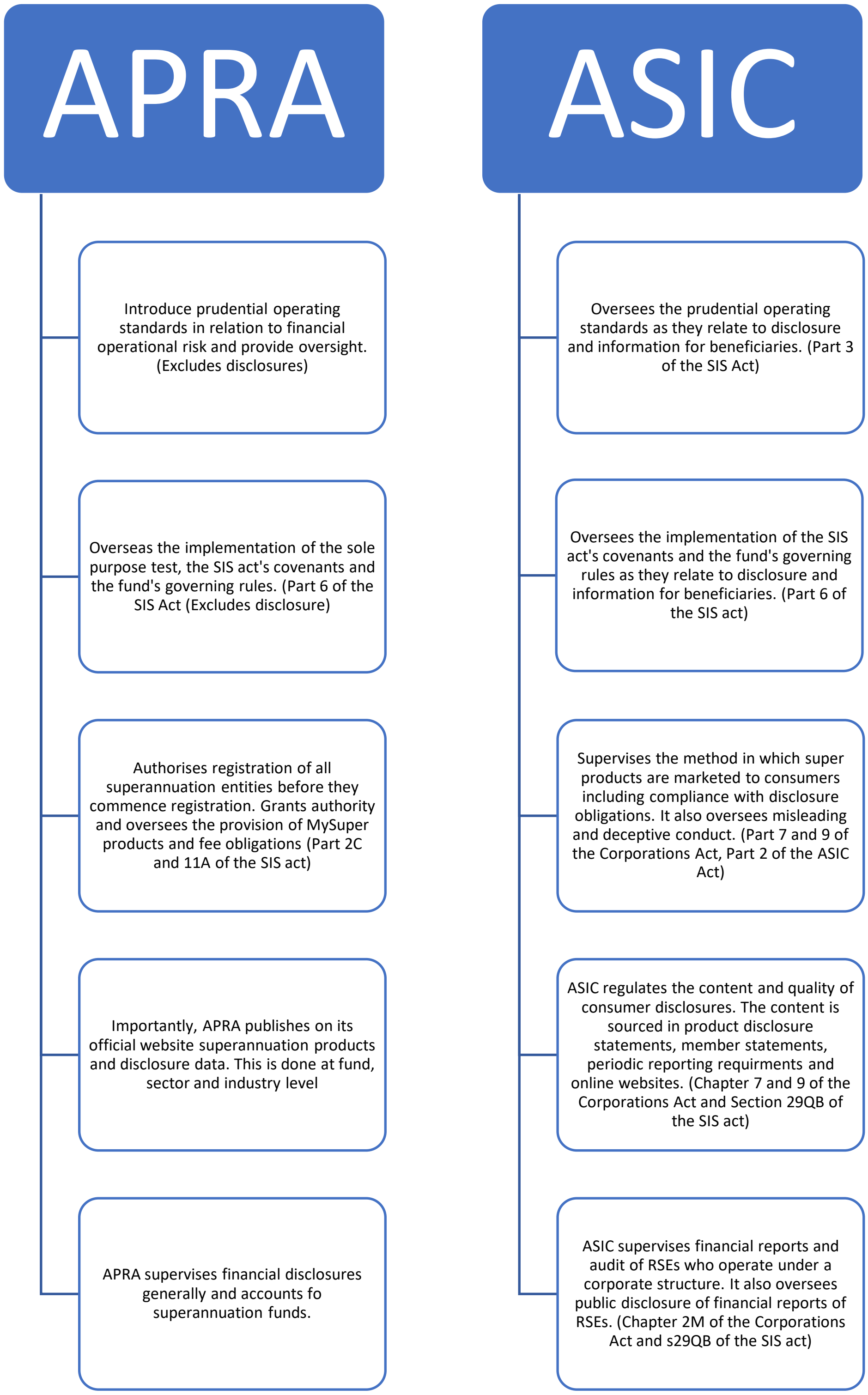

Figure 5.2: Main roles and responsibilities of APRA and ASIC

In addition to the relevant functions of ASIC and APRA as highlighted above, some disclosure provisions as applicable to Australian pension funds must be noted. This will enable a complete and coherent understanding of the requirements in this area. In summary, Australian pension fund disclosure must include pertinent operational information such as fees, costs, profits and rate of return. This must be done in non-technical language to allow beneficiaries and members of the public to understand products and investment options easily. All in all, disclosure is not meant to be a procedural box-ticking exercise but a true reflection of the fund's activities, operations and investments. The disclosure needs to be timely, clear, accurate and complete. This is stressed by the OECD Guidelines for Pension Fund Governance[46] and affirmed by ASIC's Regulatory Guide RG 168.4, known as the Good Disclosure Principles.[47] Figure 5.4, below, highlights the important provisions for Australian pension disclosures. The relevant provision in relation to each of the four indicators of the just transition risk lens is analysed in section 5.4.

[46] OECD, *OECD Guidelines for Pension Fund Governance* (OECD, 2009) <http://www.oecd.org/pensions/private-pensions/34799965.pdf>.

[47] ASIC, *RG 168 Disclosure: Product Disclosure Statements (and Other Disclosure Obligations)* (Web Page, 28 October 2011) <https://asic.gov.au/regulatory-resources/find-a-document/regulatory-guides/rg-168-disclosure-product-disclosure-statements-and-other-disclosure-obligations/>.

Figure 5.3: Main disclosure provisions applicable to pension funds in Australia

Figure 5.3, above, summarises the pertinent disclosure standards for pension funds in Australia. They can be sourced to the *SIS Act 1993, SIS Regulations 1994* and the *Corporations Act 2001*. The content requirements of the product disclosure statements by pension funds can be found in the Corporate Amendment Regulations (No. 5).[48] As mentioned earlier, ASIC releases regulatory guides and explanatory notes to supplement legal provisions. Thus, guidance on the preparation of the product disclosure statement can be

[48] Federal Register of Legislation, *Corporate Amendment Regulations (No. 5)* (Web Page) <https://www.legislation.gov.au/Details/F2011C00965>.

found in Regulatory Guide 168.[49] Regulatory Guide 97[50] provides detailed notes on fees, costs, indirect fees, and consumer advisory, including disclaimers. Apart from ASIC's regulatory guides, APRA also provides reporting standards for superannuation funds. These enable and aid pension funds to meet their legal requirements under the *SIS Act* and the *Corporations Act* and most of these are housed under the Reporting Practice Guide 700 (SRPG 700).[51] Last, APRAs other SRSs provide a detailed guidance for pension funds in terms of investment exposure (SRS 532), performance (SRS 330.1, SRS 702) and financial outlook (SRS 320).[52] I intentionally saved the most important prudential standards SPS 220[53] and CPS 220[54] for last. As will be analysed in section 5.3, APRA intends for ESG risk to be assessed using these standards, rather than creating new standards. The thought process indicates that SPS 220 and CPS 220 are capable enough to house an ESG-sensitive approach in the form of climate change.

To completely grasp the current disclosure backdrop and framework for UK pension funds is a more complicated exercise as the framework itself is in a state of change, with change expected at the end of 2019 with more change forthcoming until 2022. There are different regulators in the UK to oversee different pension schemes. There are also other public and quasi-public bodies that manage the policy and macroeconomics of the UK financial system. Figure 5.4, below, presents the important regulators for the purpose of UK pensions.

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[49] ASIC, *RG 168 Disclosure: Product Disclosure Statements (and Other Disclosure Obligations)* (Web Page, 28 October 2011) <https://asic.gov.au/regulatory-resources/find-a-document/regulatory-guides/rg-168-disclosure-product-disclosure-statements-and-other-disclosure-obligations/>.
[50] ASIC, *RG 97 Disclosing Fees and Costs in PDSs and Periodic Statements* (Web Page) <https://asic.gov.au/regulatory-resources/find-a-document/regulatory-guides/rg-97-disclosing-fees-and-costs-in-pdss-and-periodic-statements/>.
[51] APRA, *Prudential and Reporting Standards for Superannuation* (Web Page) <https://www.apra.gov.au/superannuation-standards-and-guidance>.
[52] Ibid.
[53] Australian Government, *Superannuation (Prudential Standard) Determination No 2 of 2012. Prudential Standard SPS 220 Prudential Management* <https://www.legislation.gov.au/Details/F2012L02222>.
[54] APRA, *Prudential Standard CPS 220 Risk Management* <https://www.apra.gov.au/sites/default/files/Prudential-Standard-CPS-220-Risk-Management-%28July-2017%29_0.pdf>.

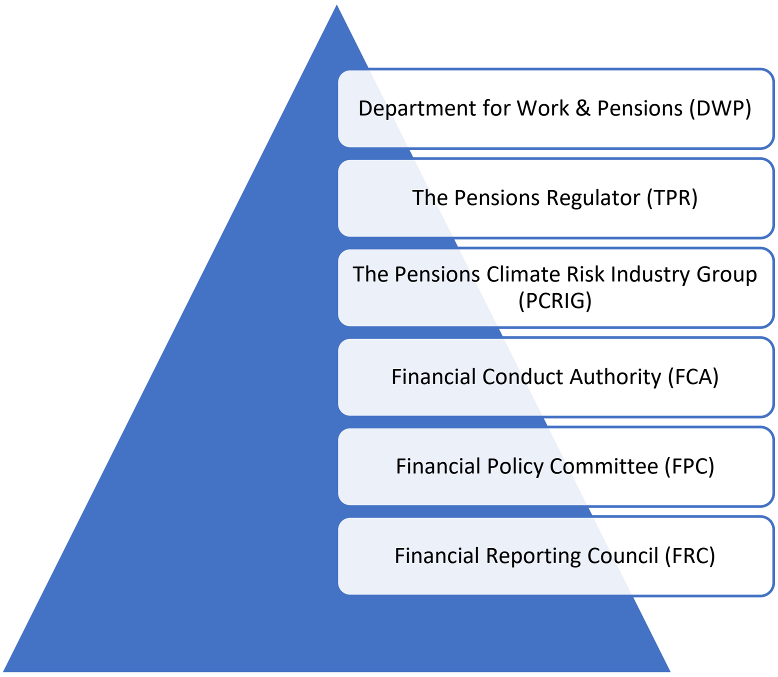

Figure 5.4: Regulators in the UK

For UK pension funds, the main bodies are the Department of Work & Pensions ('DWP') and the Pensions Regulator ('TPR'). We have also mentioned the Pensions Climate Risk Industry Group (PCRIG) as it is a newly formed steering group rather than a regulator. The PCRIG was created by the DWP and other government departments to develop industry wide climate risk guidance for pension funds.[55] The DWP publishes laws, rules and guidelines for all pension funds that have been set up as trusts.[56] The TPR is responsible for regulating and protecting pensioners in the UK. It regulates trustee and employer duties and responsibilities and additionally enforces the rules and regulations of the DWP.[57] The Financial Conduct Authority ('FCA'), in conjunction with HM Treasury, regulates the conduct of the financial market of the UK, with some prudential regulatory functions. Additionally, the FCA overseas the integrity and competitiveness of the financial system.[58] It specifically regulates pension funds' set-up as contracts. The Financial Policy Committee ('FPC') and the Financial

[55] Sackers, *PCRIG Launches Consultation on New Guide to Climate-Related Financial Risks for Pension Schemes* (23 March 2020) <https://www.sackers.com/pcrig-launches-consultation-on-new-guide-to-climate-related-financial-risks-for-pension-schemes/>.
[56] See generally Department of Work and Pensions (Web Page) <https://www.gov.uk/search/all?parent=department-for-work-pensions&keywords=guidelines&organisations%5B%5D=department-for-work-pensions&order=relevance>.
[57] The Pensions Regulator, Roles and Responsibilities (Web Page) <https://www.thepensionsregulator.gov.uk/en/public-service-pension-schemes/understanding-your-role/roles-and-responsibilities>.
[58] FCA, *About the FCA* (Web Page) <https://www.fca.org.uk/about/the-fca>.

Conduct Authority ('FCA') work integrally as part of the Bank of England and the Department for Business, Energy, and Industrial Strategy. The FPC monitors and reduces risks in the financial system with a view to protect its resilience. The FRC has the important responsibility of overseeing the UK's corporate governance and stewardship codes. As can be observed on a baer reading of these regulators and their function, the UK regulatory model of institutional investors is quite fragmented and perhaps inaccessible when compared with Australia's two-tier model. The fragmented nature of the UK model and some gaps have been highlighted by ClientEarth and the Carbon Tracer Initiative.[59] Notwithstanding the regulatory roster, Figure 5.5, below, highlights the important legal disclosure provisions and instruments for UK pension funds.

[59] See generally Track0.org, *ClientEarth Highlights the UK Government's Failures Under the Climate Change Act* (26 October 2016) <http://track0.org/2016/10/clientearth-highlights-the-uk-governments-failures-under-the-climate-change-act/>; ClientEarth, *The UK Climate Change Act 2008 – Lessons for National Climate Laws* (2009) <https://www.documents.clientearth.org/wp-content/uploads/library/2009-11-10-the-uk-climate-change-act-2008-xxx-lessons-for-national-climate-laws-ce-en.pdf>; Carbon Tracker, *Proposals to Enhance Climate-Related Disclosures by Listed Issuers and Clarification of Existing Disclosure Obligations (CP20/3)* <https://carbontracker.org/reports/proposals-to-enhance-climate-related-disclosures-by-listed-issuers-and-clarification-of-existing-disclosure-obligations-cp20-3/>.

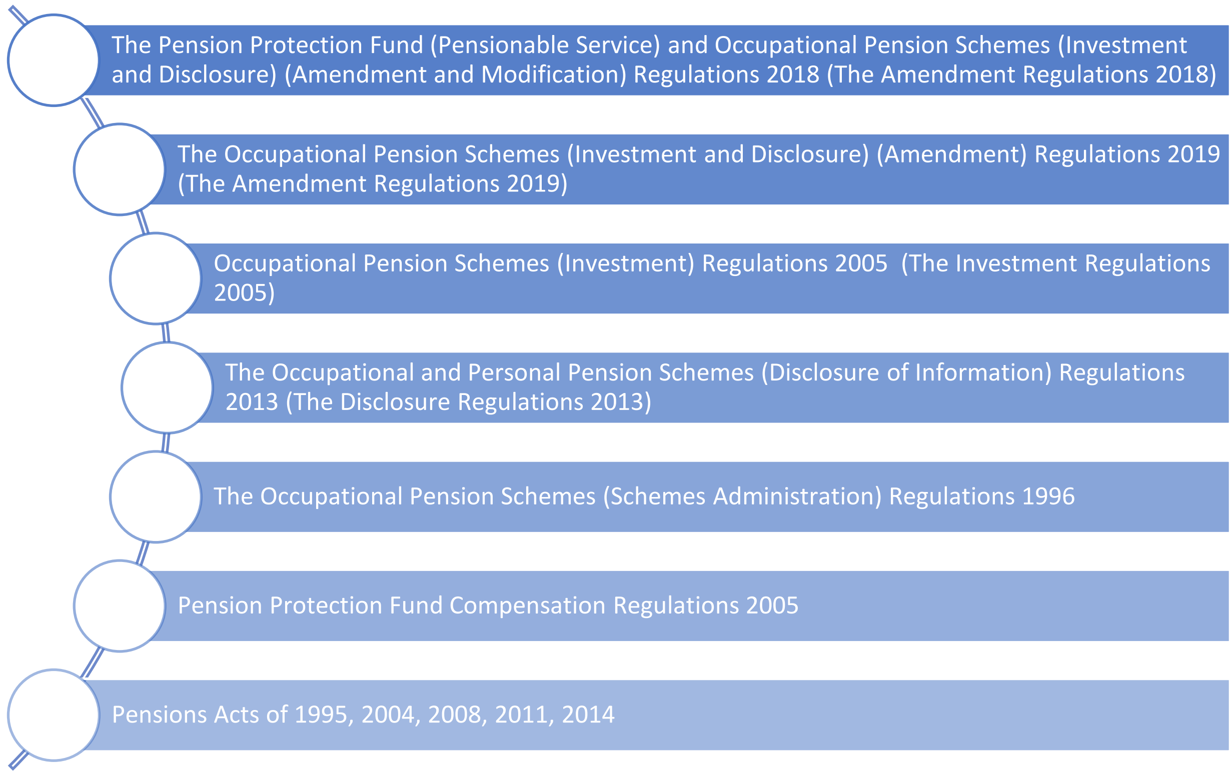

Figure 5.5: Main disclosure provisions in the UK

The UK Law Commission reported on the possibility of legally investing in ESG considerations on two occasions in 2014[60] and more recently in 2017.[61] It was proposed that the law should be clarified to enable more ESG investing; nonetheless, the government did not find a case for changing the law in 2015.[62] However, after the second Law Commission report of 2017, which included an updated pension fund lens, the government consulted on changes to the law in 2018. Since then, the government has introduced changes which we will flesh out in this section, while touching on the main disclosures at the same time.

Figure 5.5, above, details the relevant instruments that contain the disclosure requirements for pension funds. Historically, the UK has chosen to introduce details procedures and guidance via regulations. The Acts promulgated by parliament have been used to introduce

[60] Law Commission, *Fiduciary Duties of Investment Intermediaries* (Law Com 350, 1 July 2014).
[61] Law Commission, *Pension Funds and Social Investment* (Law Comm No 374, 23 June 2017).
[62] HM Government, *Better Workplace Pensions: Reducing Regulatory Burdens, Minor Regulation Changes, and Response to Consultation on the Investment Regulations* (12 November 2015) <https://www.gov.uk/government/consultations/occupational-pensions-reducing-regulatory-burdens-and-minor-regulation-changes>.

macroeconomic changes, or rather changes at the state level. For instance, the *Pensions Act 2004* (UK) created The Pensions Regulator ('TPR').[63] *The Pensions Act 2008* (UK) introduced the system of automatic enrolment for employees where they would have to opt out of a default employer pension rather than opt in.[64] Similarly, the *Pensions Act 2011* (UK) increased the pension age to 66.[65] Thus, it is the regulations, for the most part, that contain changes and disclosure provisions for pension funds.

The Pension Protection Fund (Pensionable Service) and Occupational Pension Schemes (Investment and Disclosure) (Amendment and Modification) Regulations 2018[66] (hereafter 'the 2018 Amendment regulations') was created as a reform package for ease of the parliament. It contains the most recent legal changes in this area to other regulations. First and foremost, UK pension trustees need to prepare a Statement of Investment Principles ('SIP') in line with section 35 of the *Pension Act 1995* and section 2 of the *Investment Regulations 2005*. The SIP is a pertinent disclosure about the kind and return of investments. Additionally, trustees must disclose the balance they struck between different kind of investments and what factors they took into account. The Investment Regulations 2005 and Disclosure Regulations 2013 have been amended by the Amendment Regulations 2018 in terms of the SIP and other disclosures. The Amendment Regulations 2018 adds more guidance about time horizons and non-financial criteria.[67] A supplemental regulation, The Pension Protection Fund (Pensionable Service) and Occupational Pension Schemes (Investment and Disclosure) (Amendment and Modification) Regulations 2019 (hereafter 'the Amendment Regulations 2019') also have been introduced. Their relevant contribution is to make disclosures contains in the 2018 regulations publicly available electronically.

Section 5.4 analyses the relevant disclosure provisions of the UK and Australia and the extent to which they accommodate the four indicators of the just transition risk lens. As can be recalled, these are incorporation of a policy on climate risk, divestment from fossil fuels, incorporation of member views and incorporation climate scenario analysis.

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[63] The Pensions Regulator, *About Us* (Web Page) <https://www.thepensionsregulator.gov.uk/en/about-us>.
[64] *Pensions Act 2008* (UK) s 1.
[65] *Pensions Act 2011* (UK).
[66] The Occupational Pension Schemes (Investment and Disclosure) (Amendment) Regulations 2018 (now the Pension Protection Fund (Pensionable Service) and Occupational Pension Schemes (Investment and Disclosure) (Amendment and Modification) Regulations (2018).
[67] Ibid.

5.4 Disclosures and just transition risks for pension funds

This section 5.4 continues the analysis from section 4.4 in the previous chapter in relation to the extent to which the current pension fund legal regime accommodates a holistic approach to climate risk. The holistic approach to climate risk involves the law being able to allow the pension industry to address subtle aspects of climate risk such as just transition risks using a mixture of short- to long-term risk assessment and investment practices. To be able to evidence incorporation of just transition risks of climate change, the disclosures in both jurisdictions must allow the pension industry as whole to incorporate the four identified indicators of the just transition risk lens as part of the holistic approach to climate risk: a disclosure of a policy on climate change, disclosure of divestment from fossil fuels, disclosure evidencing incorporation of member views and disclosure evidencing incorporation of climate scenario analysis.

As can be recalled, pension funds currently address climate risk in a compartmentalised manner. The law currently in both jurisdictions is open-ended in terms of what pension funds can do to address climate risk. This state of affairs has led to the prevalence of multiple strategies that pension funds can implement at subjective degrees and be able to demonstrate that they are taking climate risk into account. The thesis finds that the contemporary disclosure laws and regulatory guidance for the most part reinforces the use of multiple strategies and inevitably contributes to the compartmentalised approach to climate risk. The compartmentalised approach deviates from the holistic approach required by the pension industry as a whole to combat climate risk on an urgent basis and meet the Paris Agreement goals.

As mentioned in Chapter 4,[68] the hard law including the one related to disclosures in both jurisdictions does not mention just transition risks of climate change as of 2020. However, regulatory guidance does signpost nuances of climate risk in general terms and aligns them with the urgency of climate risks and the goals of the Paris Agreement. The more the disclosure norms in both jurisdictions accommodate the four indicators, the more conclusive it is that pension funds are incorporating just transition risks into their investment decision-making. Sections 5.4.1–5.4.4 address each of the four identified indicators of just transition

[68] See s 4.3.

risks of climate change in relation to disclosures. Analysis in sections 5.4.1–5.4.4 overlaps with 4.4.1–4.4.4 which focus on duties, as together they present a complete picture of the law surrounding pension fund duties and disclosure in relation to the four indicators of just transition risks.

5.4.1 Disclosing a policy on climate change risk

There is no statutory provision in the UK or Australia that 'mandates' pension funds to disclose a policy on climate change and/or responsible investment as at the time of writing. That said, there is a push by the TCFD and regulatory guidance in both jurisdictions (to varying degrees) to disclose on climate risk and how such risks were assessed in the decision-making process. Regulatory guidance and expectation in both jurisdictions in relation to incorporation and disclosure of climate risk is increasing at a fast pace. It is submitted that as of 2020 laudable progress has been made by regulators in both jurisdictions. However, Australia is noticeably behind the UK in terms of regulatory assertiveness and strictness.

In Australia, the expectations of disclosure of climate risk and by extension a policy on climate risk are not required by the current law. The most pertinent provisions are the Prudential Standard 220 (CPS 220)[69] and Prudential Practice guide 530 (SPG 530).[70] At the time of writing, APRA has indicated its intention to develop and consult on a climate change financial risk prudential guide ('PPG') but this has not yet progressed.[71] CPS 220 mandates disclosure of a risk management framework to APRA by pension funds that includes the risk appetite statement, business plan and risk management strategy ('RMS').[72] Additionally, the risk management framework needs to be reviewed at least annually to ensure that it is in line with the current business plan of the fund. [73]

[69] APRA, *Prudential Standard CPS 220: Risk Management* (July 2017) <https://www.apra.gov.au/sites/default/files/Prudential-Standard-CPS-220-Risk-Management-%28July-2017%29.pdf>.
[70] APRA, *Prudential Practice Guide: SPG 530 Investment Governance* (November 2013) <https://www.apra.gov.au/sites/default/files/prudential-practice-guide-spg-530-investment-governance.pdf>.
[71] Letter from Geoff Summerhayes to All APRA-Regulated Entities, 24 February 2020, <https://www.apra.gov.au/sites/default/files/2020-02/Understanding%20and%20managing%20the%20financial%20risks%20of%20climate%20change.pdf>.
[72] APRA, *Prudential Standard CPS 220* (n 20) 6.
[73] Ibid 10, 11.

Furthermore, the CPS 220 provides a list of what counts as a material risk for the fund in the development of the disclosures and these do not include climate risks.[74] The SPG 530 requires pension funds in Australia to have in place a sound investment governance framework and as part of that framework, formulate, implement and disclose on an investment strategy.[75] As part of the investment strategy, SPS 530, mandates that funds determine investment objectives for each investment option and document and disclose them.[76] The investment objectives must balance and describe risk exposures in relation to each investment option.[77] The SPG 530 signposts ESG risk but offers a dated view of ESG risk. The SPG 530 has not been updated since 2013 and understands ESG risk as ethical notions which sometimes maybe financially material.[78]

Prima facie, the disclosure obligations in Australia do not on paper support disclosure of a climate policy and SPG 530 even warns against incorporation of ESG risk unless they can be backed by sound financial due diligence. However, recent regulatory guidance has qualified the above disclosure obligations. In 2017, APRA placed importance on disclosure especially since the advent of the TCFD, as a means of providing better climate risk data and information on risk exposure and management for pension funds.[79] Additionally, in the same year another APRA regulatory speech highlighted that there would be greater regulatory emphasis on climate disclosures.[80] In 2019, APRA reported on an industry-wide survey of its regulated entities and reported on the actions they were taking in light of the increase in the understanding of climate risks as financially material.[81] In the survey, APRA once again affirmed the TCFD-based climate disclosure as a standardised voluntary disclosure framework.[82] APRA found that approximately 70 per cent of pension funds in Australia were incorporating some disclosure on climate risks.[83]

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[74] Ibid 7.
[75] APRA, *Prudential Practice Guide: SPG 530 Investment Governance* (n 72) 5.
[76] Ibid 6.
[77] Ibid.
[78] Ibid 8.
[79] Summerhayes, *Australia's New Horizon* (n 3).
[80] Geoff Summerhayes, *The Weight of Money: A Business Case for Climate Risk Resilience* (Speech, Centre for Policy Development, 29 November 2017) <https://www.apra.gov.au/news-and-publications/weight-of-money-a-business-case-for-climate-risk-resilience>.
[81] APRA, *Climate Change: Awareness to Action* (APRA, 2019) <https://www.apra.gov.au/sites/default/files/climate_change_awareness_to_action_march_2019.pdf>.
[82] Ibid 15.
[83] Ibid 16.

Unfortunately, APRA did not go beyond encouraging the use of climate disclosures as even the 2019 report included respondents who had not incorporated any form of climate disclosures.[84] Some funds even stated that climate disclosure are irrelevant for their business and are immaterial.[85] This is astonishing as funds in 2019 can still ignore climate disclosures and climate risks as immaterial to their business and APRA, rather than issuing a warning to them, simply seems to acknowledge the stance of such funds. This highlights that APRA's affirmation of climate disclosures and TCFD is a soft affirmation. In the recent guidance this year, APRA noted the gaps in climate disclosure by pension funds as a result of its 2019 survey report and reaffirmed the TCFD and need for increased climate disclosures. It indicated that APRA expects climate disclosures and intends to release a climate financial risk prudential guide ('PPG') that would supplement the CPS 220. Additionally, APRA intends to update SPG 530 so that there is clarity in relation to formulation and implementation of investment strategies in line with ESG risk.

As at the time of writing, the PPG and Update to SPG 530 have not been released. Notwithstanding the update, not much has changed in the regulatory landscape in Australia since 2013, except that APRA has signalled and encouraged increased scrutiny of climate disclosures. Though this expectation is a soft encouragement rather than a warning. The legal gaps in the Australian regulatory guidance space is a sad state of affairs. The progress is quite insignificant relative to the 2019 supplementary opinion to the October 2016 opinion, which posits that companies (and, by extension, pension funds) should disclose comprehensively on climate risk.[86] It even envisaged that the next step is to ensure that climate disclosures are comprehensive in nature rather than cursory or mere signposting.[87] APRA expects that same and mentioned that in its 2019 report.[88]

However, APRA's expectations seem like white noise in 2020 as there is no regulatory guidance that mandates comprehensive climate disclosures or warns against failure to disclose by pension funds. This is in stark contrast to the recent proceedings against REST

[84] Ibid 17.
[85] Ibid 17.
[86] Noel Hutley and Sebastian Hartford-Davis, 'Climate Change and Directors' Duties' (Supplementary Memorandum of Opinion, Centre for Policy Development, 26 March 2019) 8 <https://cpd.org.au/wp-content/uploads/2019/03/Noel-Hutley-SC-and-Sebastian-Hartford-Davis-Opinion-2019-and-2016_pdf.pdf>.
[87] Ibid.
[88] APRA, *Climate Change: Awareness to Action* (n 83) 17.

and the Federal Government for failing to disclose on climate risk.[89] In conclusion, pension funds in Australia can disclose on climate risk to varying degrees and even conclude that such disclosure is against their investment objectives or business plan and even immaterial to its fund. These multiple strategies across varying degrees and open-endedness in relation to disclosure requirements reinforces the compartmentalised approach to climate risk and does not guarantee that pension funds in Australia will disclose a policy on climate risk.

Arguably, analysis of regulatory guidance in relation to a policy on climate risk as far as the UK is concerned is not needed because, since 2019, a disclosure of a climate policy is arguably embedded in the regulations. The SIP, in UK pension disclosure law, has traditionally required trustees to disclose (if applicable) a financial policy on 'the extent (if at all) to which social, environmental or ethical considerations are taken into account in the selection, retention and realisation of investments'.[90] This has been modified by the Amendment Regulations 2018 which mandates that trustees disclose a policy on the 'evaluation of financial material considerations which includes but is not limited to environmental, social and governance considerations including climate change'.[91]

The changes to the investment regulations by the amendment regulations 2018 are significant for multiple reasons. First, this particular modification to the SIP recognises and alleviates a pervasive confusion surrounding ESG risk. As mentioned in Chapters 3 and 4, previously ESG considerations were considered as ethical and non-financial notions. The clear insertion of the above phrase to the SIP negates that fallacy and precisely states that ESG considerations are potential financial considerations that must be considered. Second, the Investment Regulations has not only mentioned climate change, but singled it out as an entrenched and urgent ESG issue that poses financial risk. This is laudable as it showcases the importance and regulatory expectations of reporting on climate risk via the SIP for UK pension funds.

Additionally, the latest The Pensions Climate Risk Industry Group guidance (PCRIG 2020) strongly affirms TCFD-style climate disclosures. The guidance states that failure to publish

[89] See s 1.3.4.
[90] HM Government, *The Occupational Pension Schemes (Investment) Regulations 2005* Regulation 2(3)(b)(vi) <http://www.legislation.gov.uk/uksi/2005/3378/regulation/2>.
[91] Ibid. Regulation 4(2)(a)(ii) and (b) inserts paragraphs (3)(b)(vi) and (4) into Regulation 2 the Investment Regulations.

in-line with the TCFD would not breach any of the current UK regulations but a failure to assess all material risk including climate risk would be.[92] The guidance contains a strong assertion to disclose comprehensively on climate risk, something that the Australian regulatory guidance lacks. Additionally, another general guidance from 2019 has already signposted that TCFD-style climate disclosures would become mandatory on companies and large asset owners such as pension funds by 2022.[93] There is enough regulatory expectation and guidance in the UK to conclude that pension funds would be disclosing on climate risk and those which will not be will come under increasing scrutiny and liability risk. With mandatory climate disclosures already flagged in the next two years, it would be wise for trustees to disclose a policy on climate risk. This may even overlap with their requirement under the SIP. Additionally, it must also be noted that there is a pension scheme bill currently in the legislative process in the UK.[94] Amongst other things, the bill, if passed, will mandate pension schemes to adopt and disclose on climate risks against the TCFD.[95]

It is clear that the UK is just shy of mandating disclosure of climate risk; these can be converted into a separate stand-alone policy or can be contained as part of the SIP. The Australian case in comparison to the UK suffers from regulatory gaps as not only are climate disclosures encouraged (not assertively), but also pension funds in Australia can easily get away with cursory/greenwashed disclosures. The first indicator of the just transition risk lens requires pension funds to incorporate a policy on climate risk. The policy should be comprehensive, capable of increasing standardisation and awareness of climate risk across the industry in line with the Paris Agreement goals and the urgency of climate risk.

While in strict terms both jurisdictions are not at par with the first indicator as pension funds in both jurisdictions in 2020 opt not to disclose (as long as there is financial justification) or disclose on climate risk to varying degrees (i.e., cursory to comprehensive), it is only when

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[92] HM Government, *Aligning Your Pension Scheme with the TCFD Recommendations: A Guide for Trustees on Integrating Climate-related Risk Assessment and Management into Decision Making and Reporting* (HM Government, 2020) 29 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877305/aligning-your-pension-scheme-with-the-TCFD-recommendations-consultation-guidance.pdf>.
[93] HM Government, *Green Finance Strategy: Transforming Finance for a Greener Future* (July 2019) 9, 23 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf>.
[94] Pension Schemes Bill [HL] (2019–21) (UK) <https://services.parliament.uk/bills/2019-21/pensionschemes.html>.
[95] Pension Schemes Bill [HL] (UK) <https://publications.parliament.uk/pa/bills/cbill/58-01/0165/200165.pdf> Draft bill 41B.

comprehensive climate disclosures are made mandatory that the first indicator of the just transitions risks will be met. Even the UK Environmental Audit Committee recommends mandatory disclosures.[96] In conclusion, the UK is closer to meeting the first indicator of the just transition risk lens and will be even closer come 2022. Australia, however, is behind and the regulatory guidance suffers from regulatory gaps in relation to the first indicator of the just transition risk lens for pension funds.

5.4.2 Disclosures and member views

Incorporating and disclosing based on member views is not popular amongst pension funds in the UK and Australia and there no provision in either jurisdiction that requires pension trustees to consider of their member views or disclose on them. The reasons have already been discussed in Chapter 4.[97] For both jurisdictions, there is the argument that if they disclose that they took climate risk into account because a survey of their members indicated that they were sensitive to climate risk, then such a disclosure would safeguard funds against liability risks. The liability risk is particularly acute in Australia due to the recent REST and Federal government litigation by members and affected stakeholders for failing to take climate risk into account.[98]

In Australia, there is no provision that deals with disclosure in relation to incorporation of member views. Even in the recent regulatory guidance, APRA has not signposted that pension trustees need to have regard to the views of the members. Perhaps the PPG and the updated SPG 530 (not released) might include some indication in relation to this head. Nonetheless, the current SPG 530 can be a taken to hint at incorporation of member views. The SPG 530 provides that pension trustees may take ‘additional factors’ into account when formulating an investment strategy as long as it is in the best interests of the members and does not conflict with the requirements of the *SIS Act*.[99] Read with 52(2)(b) of the *SIS Act* and the earlier analysis,[100] the argument could be made that when making significant financial decisions, trustees can take members’ views into account as ‘additional factors’ as per SPG 530 and disclose it and review and update such disclosure on a regular basis.

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[96] Environmental Audit Committee (n 31) 31 para 86.
[97] See s 4.4.2.
[98] See s 1.3.4.
[99] APRA, *Prudential Practice Guide: SPG 530 Investment Governance* (n 72) 8 para 34.
[100] See s 4.4.1.

Additionally, the SPG 530 provides affirmation for providing a separate investment option that aligns with non-traditional investment approach such as an 'ethical investment option'.[101] As mentioned, the SPG 530 has not been updated since 2013 and does not reflect accurate understanding of ESG risk. Nonetheless, read in 2020, the SPG 530 can be read to allow trustees to develop an ESG investment option in line with member views as long as it is not financially detrimental. It is clear that Australia suffers from a wide regulatory and policy gap in relation to this indicator of the just transition risk lens and the current regulatory guidance needs to be read quite purposively to accommodate this indicator.

The UK regulation and guidance is much more accommodating relative to Australia and the starting point is the recent modification by the Amendment regulations 2018 which provides for a disclosure of a separate 'optional' policy on non-financial factors.[102] Quite importantly, the non-financial factors may include if applicable the ethical concerns of the members, social and environmental impact matters and quality of life considerations.[103] Prima facie, the fact that this policy, that encourages incorporation of member views, is optional devalues this regulation. However, the mere fact that this optional disclosure exists and is recommended points to its value. The value of this amendment lies in the fact that the DWP is encouraging trustees to pay heed to general ESG considerations, members' ethical views and factors that may impact members when developing and implementing an investment policy.[104] This means that giving members a say in some circumstances, if permissible and encouraged, and that trustees will not be in breach of their duties if they opt to do so.

Consequently, this regulation is a clear message to trustees in the UK that considering member views and disclosing on them is encouraged and in line with their duties. Unfortunately, the downside of this amendment is the fact that taking account of the views of the beneficiaries is an option that is itself packed into the optional policy on non-financial factors. In other words, if the trustees opt to publish the optional statement on non-financial

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[101] Law Commission, *Fiduciary Duties* (n 62).
[102] Regulation 4(2)(a)(iii) and (b) of these final Regulations inserts paras (3)(b)(vii) and (4) into the Investment Regulations.
[103] Regulation 4(2)(a)(iii) and (b) of these final Regulations inserts paras (3)(b)(vii) and (4) into the Investment Regulations.
[104] DWP, *Clarifying and Strengthening Trustees' Investment Duties* (2018) para 46 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/716949/consultation-clarifying-and-strengthening-trustees-investment-duties.pdf>.

factors, then the views of the beneficiaries are only one consideration that can be considered. Last, even if trustees decide to publish this policy and also take beneficiary views into account, how exactly and to what extent they do so is also completely left to the whim of the trustees and the disclosure can take multiple forms, which may not even be linked with long-term climate risk such as just transition risks. This reinforces the multiple strategies problem in addressing climate risk as well as reducing the holistic appreciation of climate risk.

Now, it is important to note that the optional policy on non-financial factors is not reflective of the Law Commission's recommendations.[105] In fact, an argument can be made that the optional nature of a vague policy even puts the notion of beneficiary views into abeyance. At best, under the amended of the Amendment Regulations 2018, beneficiary views will only be considered due to a mixture of trustee arbitrariness and luck. It is even more shocking to note that the DWP had initially drafted the amendment much closer to the Law Commission's recommendations. The trustees during the consultation stage were required to prepare a separate mandatory statement on how trustees will take into account the views of beneficiaries in developing its investment policies and the SIP.[106] This was to be referred to as the 'statement on members' views'.

Of course, this does not entail that members' wishes should guide investments but, rather, that their wishes on both financial and non-financial factors would have been a mandatory factor that should have been considered. However, in the consultation phase there was a backlash from the pension funds involved; thus, the amendment was watered down to an optional requirement as part of an optional policy on non-financial factors. Although most stakeholders supported some form of incorporation of member views, they misconstrued what the DWP intended. They thought that DWP expected members to constantly survey and gauge the preference of the beneficiaries.[107] Others thought that the DWP wished for beneficiaries to be given equal importance as the sponsoring employers.[108] A minority was of the view that two-stage test proposed by the Law Commission was untested.[109]

[105] Law Commission, *Pension Funds* (n 63) paras 5.39–5.41.
[106] Regulation 2(2)(a), (b) and (c) of these draft Amendment Regulations amends paras (2)(a) and (b) of (and inserts para (2)(c) into) Regulation 2 of the Investment Regulations.
[107] DWP (n 104) para 33.
[108] Ibid para 39.
[109] Ibid para 35.

What is amazing is the fact that DWP was so quick to take back such a promising law that had been recommended since at least 2014.[110] All of the concerns mentioned above by the beneficiaries could have been alleviated by redrafting techniques instead of watering down the amendment, which arguably must have taken more time, effort and resources. The changing of the original law has negated the regulatory intent of giving voice to members in pension decision-making and allowing the beneficiary voice to safeguard the trustees from any potential breaches. The original law also could have addressed the second indicator of the just transition risk lens and addressed climate risk holistically by taking account of member views towards the urgent transition to a low-carbon economy.

The original amendment would have enabled a culture of ESG investment and disclosure and is the biggest missed opportunity of the Amendment Regulations 2018. Additionally, it shows that, despite the regulatory intent, the regulators are afraid of appearing as prescriptive. This is against the ‘smarter’ regulation and reform proposed in Chapter 7 and it is precisely for this reason why regulators need to be clearer and more assertive in relation to climate risk. This voluntary incorporation and disclosure of member views is also reflected in the recent UK regulatory guidance, where it is strongly encouraged that trustees try to take members’ views into account, even though it is not mandatory.[111] Additionally, the guidance provides examples of mechanisms that can be used to take members’ views can be taken into account including surveys.[112] However, the Amendment Regulations 2018 and the recent regulatory guidance[113]are contrary to the recommendation of the 2018 House of Commons Environmental Audit Committee (‘EAC’) report.[114] It is obvious that the backlash to the mandatory disclosure on member views caused the DWP to take another, softer direction in relation to disclosure of member views.

Nonetheless, it is clear that the UK is ahead of Australia in terms of this indicator of the just transition risk lens. Pension funds in the UK have a clear recommendation (not requirement) from the law and regulator to incorporate and disclose on member views. The UK does have

[110] See Law Commission (n 62).
[111] The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (September 2019) 32 <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/db-investment-guidance.ashx>.
[112] Ibid.
[113] Ibid.
[114] Environmental Audit Committee (n 29) 19.

a small policy gap, as this is not a requirement of disclosure but, rather, an encouraged approach. In Australia, the policy gap is quite extensive as one cannot even locate tacit encouragement of disclosure of member views. A purposive extension of current regulation is required to advocate for the incorporation of member views in Australia. Overall, the pension fund legal regime in terms of disclosure of this indicator of the just transition risk lens is markedly more accommodating in the UK relative to Australia and this is despite the recent litigation in Australia. If member views are not considered and disclosed, then it is arguable that members will not be aware of the implications for their pension as a result of the urgently needed transition to a low-carbon economy. This will then eventually lead to a disorderly transition to the low-carbon economy that will leave the beneficiaries with potential stranded assets and pensions.

5.4.3 Disclosures and divestment from fossil fuels

Following on from the analysis above in 5.4.2, we can expect UK and Australian funds to disclose on divestment from fossil fuels if they take members' views into account. This is because of the global fossil fuel divestment movement and increased awareness of risks associated with carbon-intensive investments.[115] It is reasonable to argue that members, when surveyed in relation to their views on investment in fossil fuels, will not reply in the affirmative. However, the thesis conceded the challenges of aligning member views with the Paris Agreement in relation to climate risk and that reaching a consensus amongst members can be quite challenging. Mechanisms such as embedded surveys, member representation and etc can be utilised to alleviate this challenge to an extent.[116] From a financial standpoint, members would not want to limit their future pensions due to the inevitable risk of stranding for fossil fuels. In addition, some member may respond on purely ethical grounds as the fossil fuel divestment movement has driven the notion globally that carbon investments are detrimental to the environment.

As mentioned, this argument will only work if pension funds robustly take members' views into account. From the analysis in 5.4.2, it is clear that neither jurisdiction requires pension funds to take the views of their members actively and extensively into account. The UK, however, is more accommodating in comparison to Australia, so the above argument is more

[115] See s 3.4.
[116] For analysis, please refer to s 1.3.5(b) and s 4.4.2

aligned with the UK regulatory framework. Australian pension funds may not have much regulatory encouragement to take members' views into account; nonetheless, they are encouraged to develop an ESG-friendly/climate-friendly investment option. Such an option is a workaround to actively seeking member views but can be tailored to what the trustees expect members views to be. For instance, the investment option/window and question may only be investing in companies that have divested from fossil fuels.

While the member view pathway for fossil fuel divestment may not be tenable in Australia from a regulatory standpoint, there are two other arguments that may drive Australian funds to disclose and divest from fossil fuels. First, there is encouragement, as analysed in 5.4.1, for Australian funds to disclose on material climate risks. The argument can be made that in line with the 'higher' standard of care stipulated in section 52(2)(b): trustees can only meet the higher standard if they robustly disclose on climate risks. This would also include divestment from fossil fuels as they are inevitable financial risks due to risk of stranding and aggressive devaluation. Consequently, trustees who do disclose on climate risk will do well to detail how they have started divesting from fossil fuels as they pose material financial risks.

Independently, as well as an extension of the 'financial material argument', investment in fossil fuels attract a considerable amount of reputational risk. As explained, reputational risks increasingly intersect with financial risks as they result in loss of business, investment opportunities, capital and brand image.[117] Thus, reputational risks are a financial risk in their own right and can also amount to significant financial risks. As per section 52(2)(b), pension trustees would be under an obligation to safeguard themselves from such financial risks by disclosing their divestment from fossil fuels. Additionally, there is support for the above two arguments in relation to divestment from fossil fuels in a recent regulatory guidance. Here, it is encouraged that being aware of carbon-related risks and managing carbon-related risks enables institutional investors to safeguard their portfolios from transition risks and additionally may even provide investors with a competitive advantage.[118] The same view is affirmed by the TCFD and APRA.[119]

[117] See ss 1.3.4, 7.3.2.
[118] APRA, *Climate Change: Awareness to Action* (n 81) 7, 11.
[119] Ibid 24; Financial Stability Board, *2018 Status Report. Task Force on Climate-related Financial Disclosures* (September 2018) <https://www.fsb-tcfd.org/publications/tcfd-2018-status-report/>.

The UK and Australia are both rooted in principles of English trust law. While the UK does not have an equivalent of the 'higher standard of care', it arguably makes up for it due to clearer and more robust regulatory guidance discussed in previous sections. Thus, the argument highlighted above for Australia in relation to disclosure of divestment from fossil fuels are applicable in the UK as well. Furthermore, the Amendment Regulations 2018 adds the disclosure of an 'implementation statement' that arguably strengthens the UK case in relation to this indicator of the just transition risk lens.[120] The implementation statement contains an explanation about how trustees have applied their investment policies and whether there have been any recent changes to the investment policies.

Previously, the law was that trustees must only disclose their investment policies if there had been a breach.[121] This has been modified and the regulatory intent is that trustees must proactively pay heed to their investment policies and its implementation. Additionally, trustees are now obliged to disclose on any changes in the given year and why those changes occurred. This report must be accessible by beneficiaries via a weblink in the annual report, including being made available online.[122] This will of course oblige and enable trustees to critically reflect on their investment policies and flesh out their implementation. In addition, it is intended that trustees think about the general long-term aim of their pension fund.

The majority consensus from stakeholders and pension funds during the consultation phase was that the requirement of an implementation statement was beneficial. The benefit lies in the fact that trustees would disclose a true explanation rather than generic, template-style explanations. This is also the regulatory intent and an argument can be made that the implementation statement not only increases the chance of climate risk disclosure by UK pension funds, but also the disclosure of divestment from fossil fuels. This is because an implementation statement warrants that the fund is seen as taking appropriate steps in managing financial risks. Due to the interest in the global divestment movement, trustees may feel obliged to disclose divestment via the implementation statement and explain that such changes occurred due to the risk of carbon intensive investments.

[120] Regulation 5(5)(c) of these final Regulations inserts para 30(f) of Schedule 3 into the Disclosure Regulations.
[121] DWP (n 104) para 80.
[122] Ibid.

Although the DWP has the intent of enabling a culture of long-term critical reflection of the investment policies and ideally incorporate ESG risk, the opposite has been legislated. This is because the content of the implementations statement has been left to the trustees without any minimum requirement. Flexibility or rather a non-interventionalist regulatory approach negates the original intention of the regulators in embedding long-term consideration of risk. A culture of long-term ESG risk assessment and disclosure cannot be promoted without bare-minimum obligations. There should at least be a starting point for the implementation statement on ESG risk and regulators should provide a list of non-exhaustive minimum best practice obligations. The rest can be left to trustees to flesh out. This would not decrease trustee flexibility in the opinion of the this.

It is clear that funds in both jurisdictions are displaying evidence of fossil fuel divestment. The regulatory guidance in the UK is much more accommodating and clearer compared to Australia, but Australia benefits from the 'higher standard of care'. Nonetheless, funds in both jurisdictions are disclosing on divestment from fossil fuels.[123] It is probably that this disclosure is the result of the funds' willingness to be seen to do something about climate risk and the fossil fuel divestment movement gives them the opportunity to do just that. It must also be noted that the laws in both jurisdictions do not flesh out the exact obligations in relation to climate risk and this is applicable to fossil fuels as well.

Pension trustees can easily disclose that they divest from fossil fuel regardless of whether the actual divestment is partial or complete. Multiple degrees and strategies are available to trustees in both jurisdictions and this reinforces the disorderly transition to a low-carbon economy problem, as well as the lack of a standardised and holistic approach to climate risk. Just transition risks of climate risk need to be addressed holistically on an urgent basis to meet the goals of the Paris Agreement. Multiple strategies do not mitigate this problem but exacerbate it, as the lack of a standard industry response increases just transition risk.

5.4.4 Disclosures and incorporation of climate scenario analysis

In terms of scenario analysis such as climate modelling and stress testing, there is a distinct regulatory push in both jurisdictions (no doubt due to the influence of the PRI and TCFD) to

[123] See s 6.3.1.

disclose on incorporation of scenario analysis. As explained, utilisation of climate scenario analysis is crucial for pension funds to assess climate risks in the long-run and address just transition risks for pension funds.

In Australia, the SPG 530 and the CPS 220 do lend support for scenario analysis in risk management and pension funds' decision-making, even though they do not mention climate scenario analysis specifically. The SPG 530 requires pension funds in Australia to develop a comprehensive stress testing program as part of developing the investment strategy.[124] Additionally, APRA encourages the use of stress testing as an investment tool that inhibits a forward-looking assessment of risk. The SPG 530 also indicates that the fund may conduct scenario analysis where appropriate, although they leave the exact scenario up to the determination of pension trustees.[125] The CPS 220 is more assertive and mandates the incorporation and disclosure of scenario analysis. Pension funds, when developing and disclosing a risk management framework, must include forward-looking scenario analysis such as stress testing relative to the fund's size, profile and context.[126] This scenario analysis as part of the risk management framework is worded as mandatory and must cover all material risk.[127] It must be noted that neither the CPS 220 nor the SPG 530 mentions the scenario analysis in relation to climate risk.

Nonetheless, a strong argument can be made that the CPS 220 and SPG 530 collectively require, or at the very least strongly encourage, some climate scenario analysis as climate risks are increasingly material risk in the short and long-term. When taking into account the 'higher standard of care' as per section 52(2)(b) of the *SIS Act*, pension trustees should take into account of material climate risk and incorporate some form of climate scenario analysis. This argument gains more weight due to recent regulatory guidance in Australia. Post the APRA's survey of regulated entities in 2019,[128] APRA realised that, while regulated entities including pension funds were taking steps to incorporate climate risk, there were still data deficits and a lack of a holistic approach to climate risk. APRA recommends that data deficits need to be addressed by regulated entities via scenario analysis and robust disclosures.[129]

[124] APRA, *Prudential Practice Guide: SPG 530 Investment Governance* (n 72) 132 para 140.
[125] Ibid 147–152.
[126] APRA, *Prudential Standard CPS 220* (n 20) 6 para 24.
[127] Ibid 6–7 para 25.
[128] APRA, *Climate Change: Awareness to Action* (n 83).
[129] Letter from Geoff Summerhayes to All APRA-Regulated Entities (n 73) 1.

One of the actions APRA is planning to take in addition to updating of CPS 220 and SPG 530, is the increased oversight of a standardised scenario analysis programme for its regulated entities.[130] The first entities are banks, and it is expected that pension funds will follow. While pension funds in Australia can expect increased regulatory expectation and scrutiny in relation to climate risk scenario analysis in the future, for now, it is sufficient to conclude that disclosure of climate scenario analysis is recommended but not mandatory. Additionally, climate scenarios are not linked with the Paris Agreement goals.

The UK regulatory guidance is at a similar level to Australia's, as climate scenario analysis are recommended but not mandatory. One argument for disclosure of climate scenario analysis is via the implementation statement discussed above in section 5.4.3. UK pension trustees could show their actions in relation to material climate risks by disclosing incorporation of climate scenario analysis. Again, this will only be possible if UK trustees consider climate risks as material in the first place. Additionally, the new requirement of a disclosure of a stewardship policy increases the possibility of disclosure of climate scenario analysis.

Until the introduction of the Amendment Regulations 2018, regulations pertaining to the stewardship of have been marginal and have formed part of the SIP only in applicable circumstances. These circumstances have mostly covered the exercise of voting rights by trustees.[131] However, the regulators have recognised that stewardship is an essential pension fund governance function that permeates a range of engagement activities with investee institutions and companies. These broader range of activities include investee engagement and monitoring functions in addition to voting. This is essential for the long-term financial interests of the pension investments.[132] The stewardship policy has been extended to all funds with 100 or more beneficiaries.[133]

Explicit reference has been made to direct and indirect engagement with investee companies and also with the disclosure documents of investee companies. Engagement with the ESG

[130] Ibid 2.
[131] Regulation 2(3)(c) of the Investment Regulations.
[132] DWP (n 104) 23 paras 58, 60.
[133] Regulation 4(2)(b) of these final Regulations inserts Regulation 2(4) into the Investment Regulations.

reporting of investee companies has also been designated as a relevant consideration as far as the stewardship policy is concerned.[134] Quite pertinently, the regulators have stated that an absence of such a policy will be a breach of the trustees' duties of loyalty and care.[135] The stewardship policy will form part of the SIP and the expectation is that pension funds will link this broader stewardship policy with their default investment strategy. As part of the stewardship policy, trustees need to demonstrate that they are taking a long-term approach to risk and looking for the same in their investee companies. Consequently, an argument can be made that regulators expect trustees to incorporate long-term investment strategies and adopt tools such as climate scenario analysis as part of their stewardship policy.

The thesis appreciates that UK regulators are trying to embed a culture of ESG governance and disclosure by UK pension funds and nudging them along while maintaining a non-prescriptive and interventionalist approach. The regulatory intent is evident and appreciated. Reference to a potential breach of fiduciary duties by trustees if they do not incorporate a stewardship policy is commendable as well. However, the issue is that it is left to the trustees to state a stewardship policy, without providing them with a template of minimum best practice obligations. This unfortunately is a lot opportunity to set minimum best practice obligations, including climate scenario analysis and even divestment from fossil fuels, as stewardship is essential for the long-term interests of the fund, management of ESG risk and embedding a long-term risk culture.

Yet, UK regulators are walking a very fine line by not providing a list of minimum best practice obligations that will be relevant to UK pension funds. For instance, the UK regulators could easily have listed that climate scenario analysis needs to be conducted in line with the Paris Agreement scenarios. For now, the amended law requires them to disclose only one instance of stewardship that may involve monitoring, voting or engagement. It is left to trustees to flesh out. Perhaps the only good thing about this current investment is the broadening of the stewardship requirement to a wider net of pension funds and explaining that stewardship includes voting but also monitoring and engagement.

[134] Ibid.
[135] DWP (n 104) 23 para 61.

The UK recent regulatory guidance also supplements our arguments in relation to embedding climate scenario analysis in the implementation statement and more importantly in the stewardship. The recent guidance states that UK regulators expect as a minimum some form of scenario analysis and stress numerous times that climate scenario analysis is a useful tool to incorporate long-term climate risks.[136] The UK case is at par with Australia in terms of this indicator of the just transition risk lens – disclosure of incorporation of climate scenario analysis. Both jurisdictions suffer from legal gaps in the form of regulatory guidance and to an extent the lack of modern test cases as climate scenario analysis is highly encouraged but not mandatory.

Not only does climate scenario analysis needs to be mandatory but explicitly linked with the Paris Agreement goals and scenarios as minimum obligations. Otherwise, the current approach of both jurisdictions will lead to a disorderly transition as pension trustees can either implement or not implement climate scenario analysis. Even when climate scenario analysis is implemented, trustees have full flexibility to choose the scenarios and the degrees to which they implement the analysis. Thus, the current regulatory approach in both jurisdictions deviates from a holistic industry response need to combat climate change urgently and address just transition risks.

5.5 Conclusion

Similar to the duties of trustees, this chapter analyses the extent to which disclosure norms in the UK and Australia accommodate climate risk by utilising just transition for climate risks as a lens. In analysing the four indicators, it is clear that both jurisdictions suffer from legal gaps in the form of open-ended regulatory guidance. These legal gaps lead to the pension fund regime being identified as one being in a state of ‘arrested development’ as per Young’s exogenous-endogenous alignment thesis.[137] It is acknowledged that both jurisdictions do increasingly disclose on climate risks and that is a positive step. However, lack of clear and precise regulatory guidance leads to the prevalence of multiple strategies in relation to the disclosures across various degrees that distracts from a holistic approach to climate risks and leans towards a compartmentalised and disorderly approach. A holistic approach is required to address climate risks urgently as per the goals of the Paris Agreement.

[136] For instance, The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (n 113) 58, 82.
[137] See ss 1.1.1, 1.3.3.

Clear regulatory guidance that links minimum obligations with the Paris Agreement is a key starting point, and regulators need to act swiftly. For instance, in relation to a climate policy, a template could be provided that contains minimum obligations in relation to what needs to be included and what strategies could be pursued at what degrees. Pension funds would still be able to exercise discretion but at least the industry response would have a holistic impact. Another example is that of disclosure of climate scenarios. These need to be linked with the temperature goals of the Paris Agreement and IPCC reports. Clear regulatory guidance is key to embedding a holistic approach to climate risk and address subtle aspects of climate risk such as just transition risks.

Clear regulations can elevate the endogenous/exogenous legal gaps into endogenous/exogenous factors that promote the state of the regime to one of ‘progressive development’. This will enable a holistic response to climate risk in the long-term and provide a realistic chance for the pension industry to contribute and allow the jurisdictions to meet the Paris Agreement goals. Chapter 6 understands in practice the extent to which pension funds are addressing just transition risks and whether or not the impact of soft law in the form of the PRI is adequate.

Chapter 6 Effectiveness of the pension fund legal regime in addressing the just transition risk lens: Evaluating PRI's Impact

6.1 Introduction

This chapter continues the analysis in relation to the extent to which the pension fund legal regime in the UK and Australia can address climate risk holistically by accommodating subtleties of climate risk in the form of just transition risks for pension funds. Chapters 4 and 5 analysed this question from the perspective of the duties of pension trustees and disclosure norms in the UK and Australia, respectively. The findings of Chapters 4 and 5 indicate that, while legally appropriate, climate risks are not being addressed holistically by most pension funds. This is because incorporation of subtleties of just transition risk is not adequately and clearly emphasised by the pension fund legal regime and the regime is affected by legal gaps that ultimately put the regime in a state of 'arrested development'. However, to gauge the complete picture, the role of soft law on pension fund behaviour and investment practices must be understood, as soft law is a vital part of the pension fund regime.[1]

Chapter 6 analyses the extent to which pension funds in both jurisdictions are addressing just transition risks in practice and to which the Principles for Responsible Investment ('PRI') impact these practices. As indicated earlier, the PRI are the most influential soft law initiative that informs the relationship between pension funds and responsible investment globally.[2] Additionally, the PRI is no longer a 'stand-alone' soft law initiative as it collaborates, partners and associates with various other soft law initiatives, such as the Task Force on Climate-related Disclosures ('TCFD'),[3] the UN Sustainable Development Goals ('SDGs'),[4] UN Global Compact,[5] and Responsible Investment Association Australasia ('RIAA').[6] A prime example of such a partnership is the fact that, beyond 2020, PRI signatories would be required to disclose on TCFD-style requirement on a voluntary basis.[7] Consequently, in order

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[1] See ch 1.
[2] PRI, *About the PRI* (Web Page) <https://www.unpri.org/pri/about-the-pri>; see also chs 1 and 2.
[3] Task Force on Climate-Related Financial Disclosures, *About* (Web Page) <https://www.fsb-tcfd.org/about/>.
[4] United Nations, *Sustainable Development Goals* (Web Page) <https://sdgs.un.org/goals>.
[5] United Nations Global Compact, *About the UN Global Compact* (Web Page) <https://www.unglobalcompact.org/about>.
[6] RIAA, *About Us* (Web Page) <https://responsibleinvestment.org/about-us/>.
[7] PRI, 'TCFD-based reporting to become mandatory for PRI signatories in 2020' (Web Page, 19 February 2019) <https://www.unpri.org/news-and-press/tcfd-based-reporting-to-become-mandatory-for-pri-signatories-in-2020/4116.article>.

to see whether pension funds are addressing the four indicators of just transition risks and to gauge the impact of the PRI on these practices, the chapter analyses publicly available disclosures of pension funds in the UK and Australia and compares PRI signatory funds with non-signatory funds. Understanding of the extent to which pension funds are addressing climate risk under the current pension fund regimes in the UK and Australia is crucial to meet the urgency of climate risk and the Paris Agreement goals.[8]

In Chapters 4 and 5, we found that the four indicators of just transition risks – implementation of a policy on climate risk, incorporation of member views, divestment from fossil fuels and incorporation of climate scenario analysis – are not emphasised by regulation that surrounds the duties of trustees and disclosure norms in the UK and Australia. There are numerous legal gaps in the form of gaps in regulatory guidance that inform the endogenous and exogenous factors affecting the regime. These gaps affect pension fund practices as well. The analysis in this chapter indicates that, while PRI-signatory funds disclose incorporation of just transition risks more consistently than non-PRI funds, the PRI by no means is sufficient to fill the legal gaps and embed a holistic climate risk approach in the pension fund industry.

While signing the PRI may not be the solution required to embed a standardised and holistic approach to climate risk by pension funds, signing them is, without doubt, a positive first step. Thus, this chapter illustrates those aspects of the PRI that can be incorporated into regulatory reform design by regulators in the UK and Australia. Nonetheless, for present purposes, while the PRI addresses some of the regulatory gaps that affect the pension fund regime, they are not enough to elevate the state of the pension fund regime from a state of 'arrested development' to 'progressive development'. The analysis also indicates that the official regulatory framework and guidance in the UK and Australia inform pension fund practices for both signatory funds and non-signatory funds and the results are not uniform. This means that the ultimate impact of the PRI is contingent on how it converses with the specific regulatory framework in each jurisdiction. Thus, it is vital that national regulatory frameworks need to be at the forefront of combatting ESG risk such as climate risk and the PRI though a positive step towards a holistic consideration of climate risk is not an all-in-one solution.

[8] See ch 1.

Section 6.1 introduces the chapter and outlines how the chapter contributes to the analysis of the extent to which pension funds can accommodate climate risk. Section 6.2 illustrates the sample, the rationale and approach for the sample, and the criteria utilised to infer evidence from the disclosures of the sample. Section 6.3 contains the discussion and analysis in relation to the findings from the data. Section 6.3.1 compares the finding of PRI funds with non-PRI funds across the whole sample. Section 6.3.2 analyses the impact of the PRI on the practice of UK pension funds, while section 6.3.3 analyses the same in the Australian context. Section 6.3.4 analyses the differences between the two jurisdictions in relation to PRI's impact. Section 6.4 serves as the chapter conclusion.

6.2 Rationale and approach to the collection and utilisation of the publicly available disclosures

Table 6.1, below, lists the entire sample of pension funds. The total sample size comprises sixty (60) pension funds, with thirty (30) from each jurisdiction. Additionally, the thirty (30) funds in each jurisdiction are split into two groups of fifteen (15): PRI signatory funds and non-PRI funds.

Table 6.1*: The sample of sixty (60)* Australian and UK *pension funds split evenly across the two jurisdictions and split further as PRI signatory funds and non-PRI funds.*

No.	**AUS PRI Signatories**	**AUS Non-Signatories**	**UK PRI Signatories**	**UK Non-Signatories**
1	Australian Super	QSsuper	USS	RBS Group Pension Fund
2	Colonial First state choice superannuation	MLC Super Fund	BT Pension Scheme	British Airways Pensions
3	First State Superannuation Scheme	CSS Fund	Lloyds Pension	BAE systems
4	UniSuper	OnePath Master Fund	UKRF (Barclays bank UK retirement fund)	GSK
5	Retirement Wrap (BT Superwrap)	IOOF Super	Railways Pension Scheme	West Yorkshire Pension Fund
6	Sunsuper	Asgard	BP Pension Fund	Rolls-Royce Pension Fund

7	AMP superannuation savings trust	Equip Super	National Grid UK Pension Scheme	British Coal Staff Superannuation Scheme (BCSSS)
8	REST	LGIA Super	Shell Contributory Pension Fund (SCPF)	AkzoNobel CPS Pension Scheme (the scheme)
9	HESTA	Commonwealth Bank Super	Strathclyde Pension Fund	Tesco Pension
10	CBUS	Mine Super	Greater Manchester Pension Fund (GMPF)	Santander (UK) Group Pension Scheme
11	Hostplus	Australian Meat Industry Superannuation Trust	Mineworkers Pension Scheme	Co-op pace pension scheme
12	VicSuper	Qantas Super	Aviva Pension Fund	IBM Pension
13	Telstra	Australia Post Superannuation Scheme	BBC Pension Scheme	RSA Pensions
14	CareSuper	Energy Super	West Midlands Pension Fund	Sainsbury’s Pension
15	MTAA super fund	Maritime Super	TFL Pension Fund	Tyne and Wear Pension Fund

The pension funds in the sample have been specifically selected based on size by asset holding; thus, the funds listed in Table 6.1 are the largest by asset holdings in the UK and Australia. The sample was compiled after careful perusal of a mix of state and market resources. Data for Australian pension funds in the sample is derived from official sources, including documents and reports published on the APRA website[9] and the Australian Bureau of Statistics website.[10] The reports[11] from these official sources contain sufficient data to derive a list of Australian superannuation funds by asset holdings. The list was then tallied and confirmed by acquiring data from the market as well.[12] Similarly, the chapter

[9] APRA, *Annual Fund-Level Superannuation Statistics* (16 December 2020) <https://www.apra.gov.au/annual-fund-level-superannuation-statistics>.

[10] Australian Bureau of Statistics, *5655.0 – Managed Funds Australia, March 2019* (Web Page) <https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5655.0Mar%202019?OpenDocument>.

[11] For example, Australian Bureau of Statistics, ‘Table 4. Superannuation funds, Unconsolidated Assets, Amounts Outstanding at End of Period’ (Time Series Spreadsheet) <https://www.abs.gov.au/AUSSTATS/ABS@Archive.nsf/log?openagent&565504.xls&5655.0&Time%20Series%20Spreadsheet&5CD1643298700047CA25841000124A20&0&Mar%202019&06.06.2019&Latest>; APRA, ‘Statistics. Annual Fund-Level Superannuation Statistics, June 2018’ (Spreadsheet) <https://www.apra.gov.au/sites/default/files/annual_fund_level_superannuation_statistics_june_2018.xlsx>.

[12] For instance, William Jolly, ‘Australia’s Largest Super Funds’, *CANSTAR* (16 February 2018) <https://www.canstar.com.au/superannuation/largest-super-funds/>.

extrapolates the UK pension fund sample from the mix of official government sources and market sources. The government sources includes the UK Parliament website.[13] Another official source was the Office for National Statistics website.[14] The data gathered from these official sources was tallied against data gathered from market sources,[15] then a consolidated list was compiled.

Size by asset holdings is the basis for selecting the sample and the reasons have already been outlined when discussing why pension funds were chosen for the purposes of the thesis.[16] Large pension funds possess characteristics of universal investors (UI) and their investment decisions impact a significant portion of the national economies, stakeholders, members and the companies the invest in (investee companies). Thus, it is logical for the largest pension funds to be taking the most steps in relation to climate risk as they affect the greatest number of beneficiaries, stakeholders, and the economy generally. Some pension funds in the sample even identify themselves as universal investors and consider themselves duty bound to showcase a responsible investment stance.

However, it is also in the interest of these large pension funds to preserve their reputation and display ESG adoption as a branding exercise, rather than out of concern for the holistic consideration of climate risk on an urgent basis. Finally, these large pension funds are the most well-resourced and best equipped to embed a response to climate risk and also influence the pension fund industry. For instance, small funds may not have the operational budget or human resources to conduct climate risk research in house. Thus, a study of the disclosure of the largest pension funds provides the highest chance of getting a snapshot of what pension funds practices are in relation to climate risk. Small funds may want to take certain steps but may be incapable of doing so, whereas the large pension funds in the sample have the capability; omission of climate risk disclosure cannot be blamed on a lack of budget.

[13] Commons Select Committee, 'UK's Top 25 Pension Funds Show Mixed Response to Climate Change' (25 May 2018) <https://www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/news-parliament-2017/top-25-pesion-funds-letters-17-19/>; Environmental Audit Committee, 'Pension Fund Responses' <https://www.parliament.uk/documents/commons-committees/environmental-audit/Pension%20fund%20letters/table-pension-fund-responses.pdf>.
[14] Office for National Statistics, *Search Our Website* (Web Page) <https://www.ons.gov.uk/searchdata?q=pension&sortBy=relevance&q=pension&size=10>.
[15] For instance, Neil Blain, 'The Top 100 Pension Schemes 2017', *Professional Pensions* (14 December 2017) <https://www.professionalpensions.com/analysis/3060952/-100-pension-schemes-2017>; Pension Funds Online, *PFO Research and Reports* (Web Page) <https://www.pensionfundsonline.co.uk/researchandreports/>.
[16] See ss 1.1, 3.2.

6.2.1 Justification in relation to gathering data from publicly available disclosures

That data utilised from the sample has its caveats. The foremost point to note is that the empirical data is sourced from publicly disclosed information from pension funds. These include the website of the fund and any reports/documents publicly available, either on the website itself or otherwise. These reports and documents include the product disclosure statements (‘PDS’), the annual reports and any other policies, such as responsible investment policies and corporate governance policies. In the case of PRI-signatory funds, the latest PRI transparency report of the fund in question is also a source of data. This arguably limits the analytical weight of the data as the actual practice of funds may be different from what the funds choose to publicly disclose. Additionally, it is acknowledged that the criteria used to test the case study of pension funds’ informs and structures my analysis in section 6.3. It is my own interpretation of the disclosed statements that is the basis of the analysis and findings rather than a questionnaire/survey completed by pension funds. Additionally, the methodology utilised does not allow one to gauge the cause and effect of pension funds signing the PRI and disclosing on climate change. There is a possibility that pension funds who were already disclosing on climate risk signed the PRI while those who were laggards did not sign the PRI. Lastly, the four indicators utilised to test the just transition risk lens and by extension a holistic consideration of climate risk. While the approach is key in evaluating the presence of the just transition risk lens and exposes the use and visibility of different tools used by pension funds, nonetheless, the approach is not intended to gauge substantive changes in decision-making by pension fund trustees.

However, the thesis submits some counter arguments. First, in the current legal and political climate surrounding the imperative of ESG incorporation by financial institutions, publicly disclosed documents are reflecting actual best practice. This is because the space occupied by pension fund disclosures is arguably under the greatest scrutiny. Pension funds not only need to take ESG risk seriously, but also need to be seen to be taking it seriously and paying heed to potential ESG risk through their publicly disseminated information and disclosures. In the current legal and regulatory climate surrounding incorporation of ESG risk (as discussed in Chapters 4 and 5), pension funds increasingly need to have a prima facie image in place that the general public, regulators, and beneficiaries can rely upon in terms of ESG risk.

Second, not publicly disclosing on ESG risk is an outdated standpoint that will only leave the door open for legal liability. In fact, this is already occurring, as evidenced by the legal proceeding against the Commonwealth Bank, the pension fund REST, and the Australian Government.[17] Third, for members of the public, regulators and beneficiaries, the primary source of information regarding the funds' operation and investment strategies, will undoubtedly be the funds' publicly disclosed information and documents. Thus, it is in the interests of the funds themselves to display in the public disclosures what happens in actual investment practice. The disclosures will insulate the funds from their reputational and eventually financial risk as it will be illogical for the funds to be taking actions in relation to ESG risk and not including them in their public disclosures.

Finally, as will be discussed in the next section, the criteria utilised to infer indicators of the just transition risk lens from the disclosures of the sample funds are framed in a way that allows for broader inferences to be drawn in relation to the funds' actual investment practices. For instance, Criterion C gauges whether or not the funds disclose evidence of implementation of their climate policy that they disclosed under Criterion B.[18] Thus, while Criterion B – which gauges whether a fund has a policy on climate risk/responsible investment – may be used to infer that a fund probably implements the climate policy in practice, Criterion C eliminates any doubt in relation the practice as it gauges actual implementation. It is submitted that these counter arguments are adequate to mitigate any limitation of deriving inferences from publicly available disclosures of the pension funds in the sample.

6.2.2 The criteria and it links with the four indicators of the just transition risk lens

Figure 6.2, below, contains the criteria utilised to gauge evidence of the four indicators of the just transition risk lens for pension funds. The criteria have been specifically developed around the four indicators of just transition risks: incorporating a policy on climate risk; divestment from fossil fuels; incorporating member views; and incorporating climate scenario analysis.

[17] See ss 1.1, 1.3.1, 1.4.3(a), 3.2.
[18] See Figure 6.2.

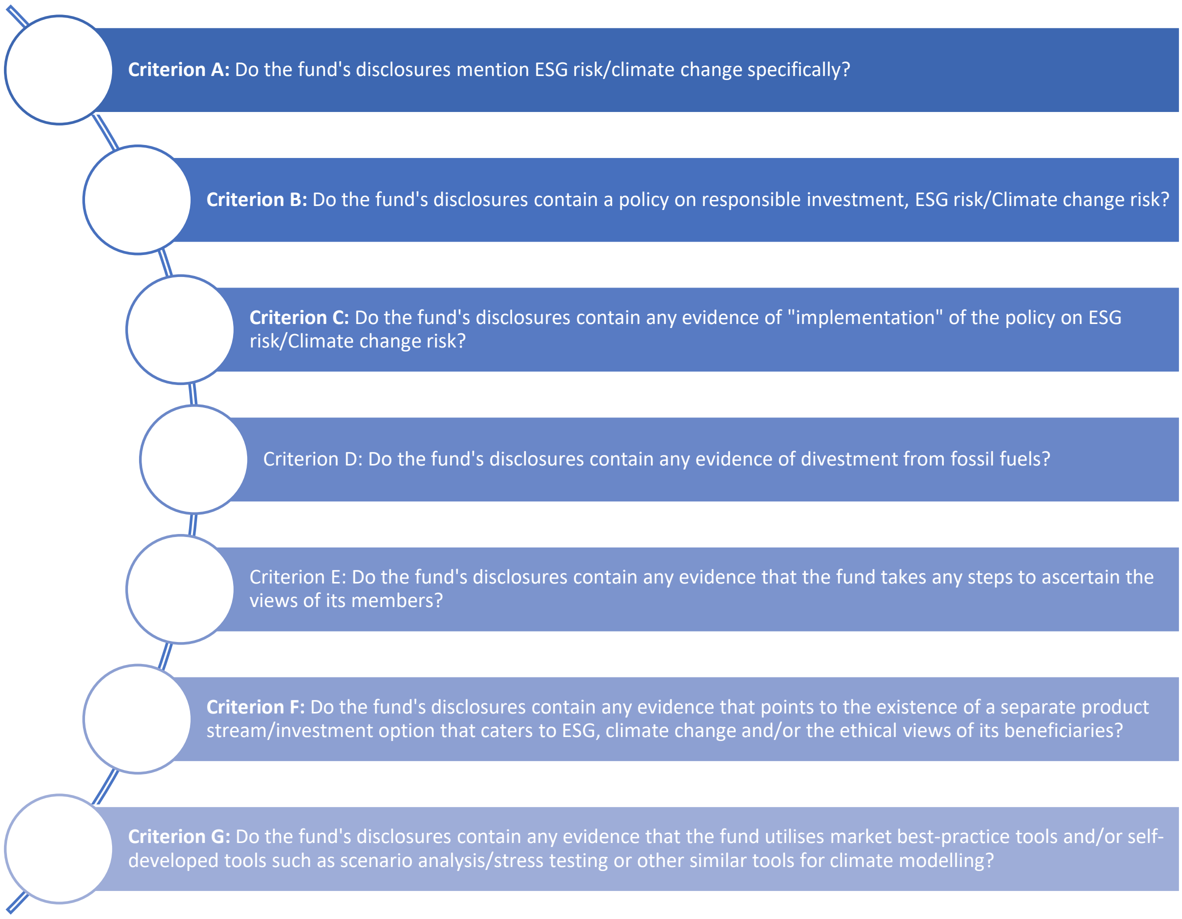

Figure 6.2: Self-developed criteria utilised to infer the presence of just transition risks in the public disclosures of pension funds. Criteria A, B and C are collectively used to gauge the incorporation of a policy on climate risk. Criterion D measures whether or not the fund is divesting from fossil fuels. Criteria E and F are utilised to gauge whether or not the fund incorporates the views of its members. Criterion G looks at whether or not the fund has in place some form of climate scenario analysis.

Criteria A, B and C are dependent on each other; collectively, they are utilised to infer the presence of the first indicator of the just transition risk lens: incorporating a policy on climate risk. Criterion A is inserted as there has been historic confusion and overlap between ESG, climate change, responsible investment, sustainability, SRI and ethical/moral investment.[19] Consequently, Criterion A aims to find the presence of specific mentions of ESG and/or climate change in the publicly disclosed documents of pension funds. If Criterion A is answered in the negative, then it entails that the fund either is ignorant of ESG factors such as climate change or that the fund is still confused about the jargon and all forms of

[19] See generally s 3.2.

non-financial investing. As will be recalled, responsible investing is the process by which institutional investors take ESG risk into account. Thus, omission of specific mentions of ESG risk and climate risk does not provide confidence at the outset in terms of the fund incorporating a holistic approach required to address climate risk of an urgent basis.

Criterion B gauges whether or not the fund in question has a separate policy on responsible investment, ESG and/or climate change risk. It can be titled anything such as a general governance policy or sustainability policy as long as the substance of the policy addresses ESG risk such as climate change. Criterion B is primarily geared towards public accessibility and form. ESG disclosure best practice entails that pension funds must have clear and accessible disclosures with regard to ESG risk such as climate change. So, if a fund satisfies Criterion B, this indicates that it has an accessible identifiable policy on climate risk.

Criterion C is crucial to understand the broader implications of the public disclosures on pension fund investment practice. Criterion C gauges whether the fund discloses any information that showcases implementation of its policy on ESG/climate risk under Criterion B. For instance, if a fund discloses that it takes ESG criteria into account in the selection and retention of its investment and provide examples such as investment in renewable energy, then it would satisfy Criterion C. Criteria A, B and Care used collectively to infer whether or not a fund discloses on and implements a policy on ESG risk/climate change. An absence of a policy would entail that the fund does not have a clear roadmap to address climate risks on a holistic and urgent basis in line with the goals of the Paris Agreement.

Criterion D refers to the second indicator of the just transition risk lens: divestment from fossil fuels. Put simply, if a fund's public disclosure contains any evidence that it has started to divest, even partially, from fossil fuels, then this criterion would be satisfied as the fund is divesting from fossil fuels. Ideally, all pension funds should divest fully from these inevitable stranded assets to display this indicator of the just transition risk lens, but in the absence of clear regulatory guidance on this point, Criterion D applies a broad definition.

Criteria E and F collectively pertain to the third indicator of the just transition risk lens: incorporating member views. Criterion E directly links with this indicator and gauges whether or not the fund discloses any evidence to indicate that members' views are considered by the fund in investment decision-making. This can include the fund explicitly mentioning that it does this or a reference to a strategy for incorporating members' views, such as surveys and polls.

Criterion F, on the other hand, indirectly links with this indicator of the just transition risk lens. Criterion F specifically questions whether the fund values its members' will and invests towards ESG criteria by providing a separate product, option and/or stream that is ESG-friendly and/or climate friendly. For example, green bonds or a thematic sub-portfolio would certainly satisfy this criterion.[20] While not interdependent, both criteria point to the capacity of the fund in heeding the view of its members. It may be argued that Criterion F can be satisfied even if the fund did not consider the views of its members. While that may be the case, trustees have still set up the investment option in anticipating the diverse needs of the fund's members and are thus more likely to take into account members' views in some form in the future, if they are not already doing so.

Last, Criterion G links directly with the last indicator of the just transition risk lens: incorporation of climate scenario analysis and/or stress testing or some other tool that can provide some form of climate modelling. Criterion G infers whether the fund is utilising one of these modelling tools, as it points to the fact that the fund is thinking about climate risk holistically in the long and short run. The next section analyses the findings from the data and infers the impact of the PRI on pension funds' investment practice in relation to the four indicators of the just transition risk lens.

6.3 Results and analysis

The data collected from the sixty (60) pension funds in the UK and Australia points quite clearly to the fact that the PRI does impact positively on whether funds incorporate just transition risks. However, the impact is negligible in relation to some indicators of the just transition risk lens; there are jurisdictional differences as well. It is clear that the ultimate incorporation of just transition risks by pension funds is not due solely to the PRI but, rather,

[20] UniSuper, *Global Environmental Opportunities* (Web Page) <https://www.unisuper.com.au/investments/our-investment-options/global-environmental-opportunities>; UniSuper, Responsible and Sustainable Investing (Web Page) <https://www.unisuper.com.au/investments/how-we-invest/responsible-and-sustainable-investing>.

the PRI's synergy with the national regulatory make-up of pension funds. Additionally, while the PRI addresses some of the legal gaps as contained in sections 4.4 and 5.4, it does not fill those gaps adequately. Nonetheless, it is a step in the right direction for incorporating just transition climate risks and, by extension, climate risks holistically. Section 6.3.1 analyses the findings of the whole sample, and the difference between PRI signatory funds and non-PRI funds cumulatively. Section 6.3.2 looks specifically at UK funds across both categories, while section 6.3.3 does the same for Australia. Section 6.3.4 goes deeper into the analysis and compares the two jurisdictions to gauge the specific jurisdictional differences. Graphics are used to present the data consistently. The funds' incorporation of any of the criteria are displayed as simple 'YES' and 'NO' values. If a fund displays any evidence of the presence of any of the criteria, then the value placed is a 'YES'. Similarly, if the public disclosures contain evidence to the contrary, including if the disclosures are silent, then the 'NO' value is ticked.

6.3.1 Snapshot of all funds in the sample and the global impact of PRI across the whole sample

Figure 6.3, below, illustrates the whole sample in relation to all seven (7) criteria to provide a snapshot of what large funds are doing across the UK and Australia, irrespective of their PRI status. Thus, Figure 6.3 provides a global snapshot of the extent to which pension funds are disclosing on the four indicators of the just transition risk lens.

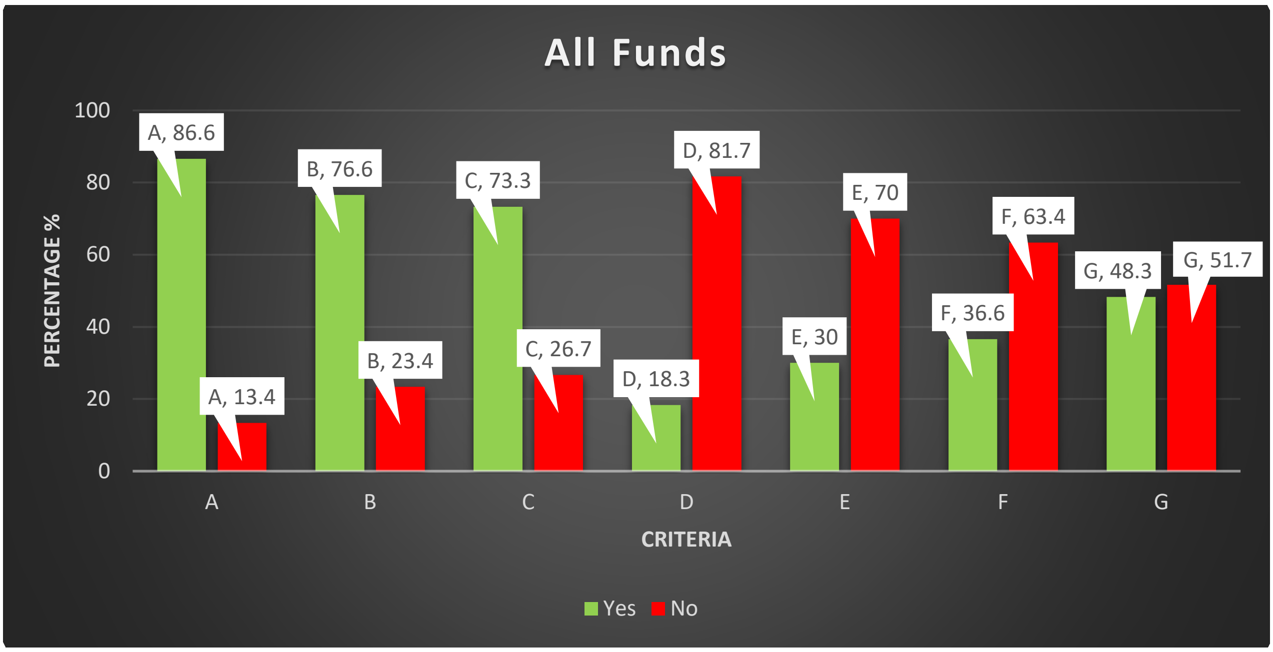

Figure 6.3: An illustration of the whole sample of 60 funds across both jurisdictions and both groups (PRI signatory and Non-PRI funds)

It is encouraging to note that most large funds not only mention ESG risk and/or climate change, but disclose a policy on climate risk. They also disclose on how they implement the policy on climate change. The data shows that 52 of the 60 (86.6%) pension funds recognise ESG risk such as climate change. Additionally, of these 52 funds, 46 (76.6%) disclose a policy on climate risk; of these 46 funds, 44 (73.3%) disclose evidence of implementation their climate risk policies. These percentages of the whole sample are positive in relation to the first indicator of the just transition risk lens for pension funds and show that, globally, pension funds are recognising ESG risks such as climate change, disclosing a policy on those risks and displaying some evidence of implementing that policy.

It must be noted, however, that broad and flexible definitions have been utilised in Criteria B and C. For Criterion B, funds can have generic to specific policies on ESG risk, responsible investment, sustainability, etc, and they will have met the criterion. The thesis has not utilised a 'bare-minimum obligations' approach to the disclosures as that is not required either under the regulatory frameworks in the UK and Australia or under the PRI reporting standards.[21] Furthermore, implementation of the policy as required by Criterion C can be easily satisfied, if the fund discloses any of the multiple strategies that are prevalent in the industry in relation to climate risk at variable degrees. Nonetheless, the numbers are encouraging as they showcase that most funds have taken a positive step in their willingness to satisfy Criteria A, B and C, even if they ultimately do not match up with the holistic approach required to address climate risk consistently across the industry.

In relation to Criterion D, the second indicator of the just transition risk lens (i.e., disclosure of divestment from fossil fuels), only 11 of 60 funds (18.3%) satisfy the criterion. This is unsatisfactory as it shows that funds are not considering of this indicator globally. The numbers are even more mediocre when considering the fact that a broad definition is utilised to satisfy this criterion. Funds will be able to satisfy this criterion, even if they partially divest from fossil fuels. Thus, the data for this indicator matches with the findings of Chapters 4 and

[21] See ss 4.4, 5.4.

5 that identifies the legal gaps in relation to divestment from fossil fuels.[22] It is argued that 18.3% of funds are divesting from fossil fuels due to the global fossil fuel divestment movement, reputational concerns and greenwashing factors, rather than regulatory concerns; otherwise, the numbers would not have been so low.

In terms of the third indicator of the just transition risk lens, Criterion E and F indicate that funds in the two jurisdictions and, by extension, globally are not doing enough to incorporate the views of their members. Only 18 of 60 funds (30%) disclose evidence of incorporating their members' views. This aligns with the conclusions in Chapters 4 and 5, as there is a policy and regulatory gap in relation to considering of member views. There is encouragement from regulators in both jurisdictions, but not assertiveness.[23] However, slightly better numbers are found for Criterion F: 22 of 60 funds (36.6%) have in place a separate investment product or stream that is pro-ESG and/or ethical that considers the preferences of the members. It must be remembered that Criterion F indirectly links with the fund considering the views of its members. Nonetheless, it is inferred that the fund has taken some steps to ascertain the preferences of its membership by making such a product stream available.

For the last indicator of the just transition risk lens – incorporating climate scenario analysis – 29 of 60 funds (48.3%) display some evidence. This entails that almost half of the funds in the UK and Australia and, by extension, globally incorporate some form of climate scenario analysis. This is a fair situation but not encouraging, as climate scenario analysis is crucial for addressing climate risks holistically in the short and long-term and meet the Paris Agreement goals. It must be noted that a broad definition has been utilised, rather than looking for only those scenarios that are envisaged by the Paris Agreement and the IPCC.

In looking at the data from the whole sample, it is clear that – apart from incorporating a climate policy – the other three indicators of the just transition risk lens are not adequately being incorporated by pension funds. This is the state of affairs with the broadly defined criteria. Thus, while the debate in relation to the legality of considering climate risk has ended, the extent to which climate risk is being addressed by the pension fund industry lacks

[22] See ss 4.4.3, 5.4.3.
[23] See ss 4.4.2, 5.4.2.

the clarity and consistency required to address climate risk holistically in line with the Paris Agreement goals.

Figures 6.4 and 6.5, below, illustrates the data of funds that are PRI signatories and those that are non-PRI funds across both jurisdictions. These two figures gauge the global impact of the PRI in-terms of the four indicators of the just transition risk lens for pension funds.

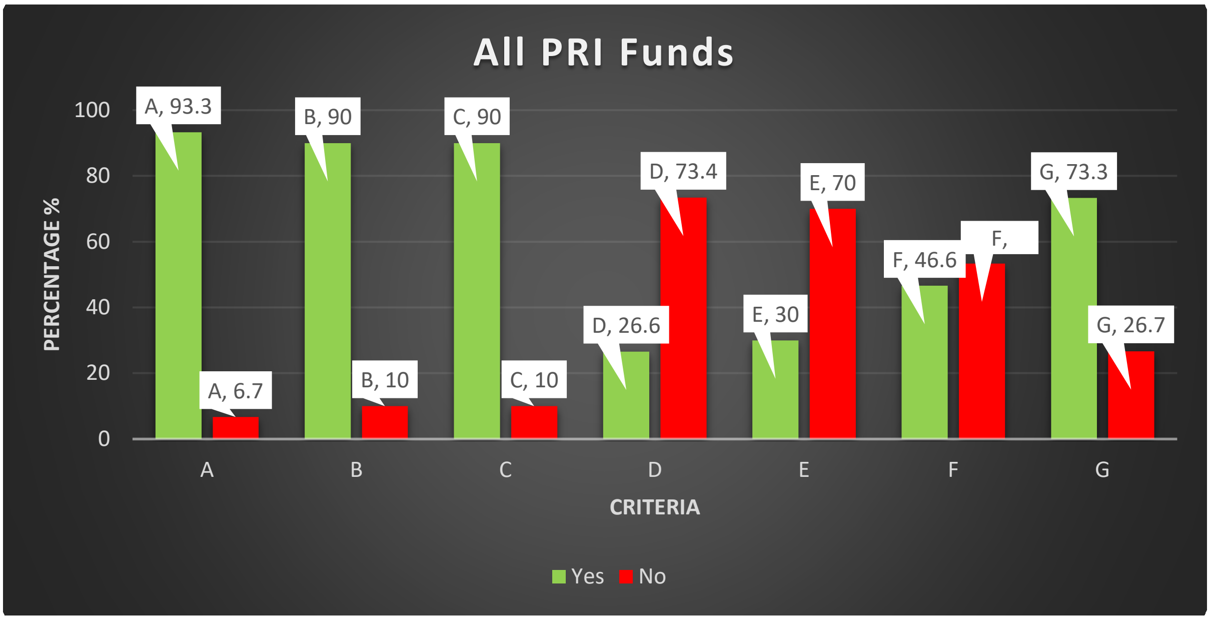

Figure 6.4: Data of all 30 PRI signatory funds from the sample across both jurisdictions. The data will be compared with Figure 6.5 below that contains the data from all 30 non-PRI funds.

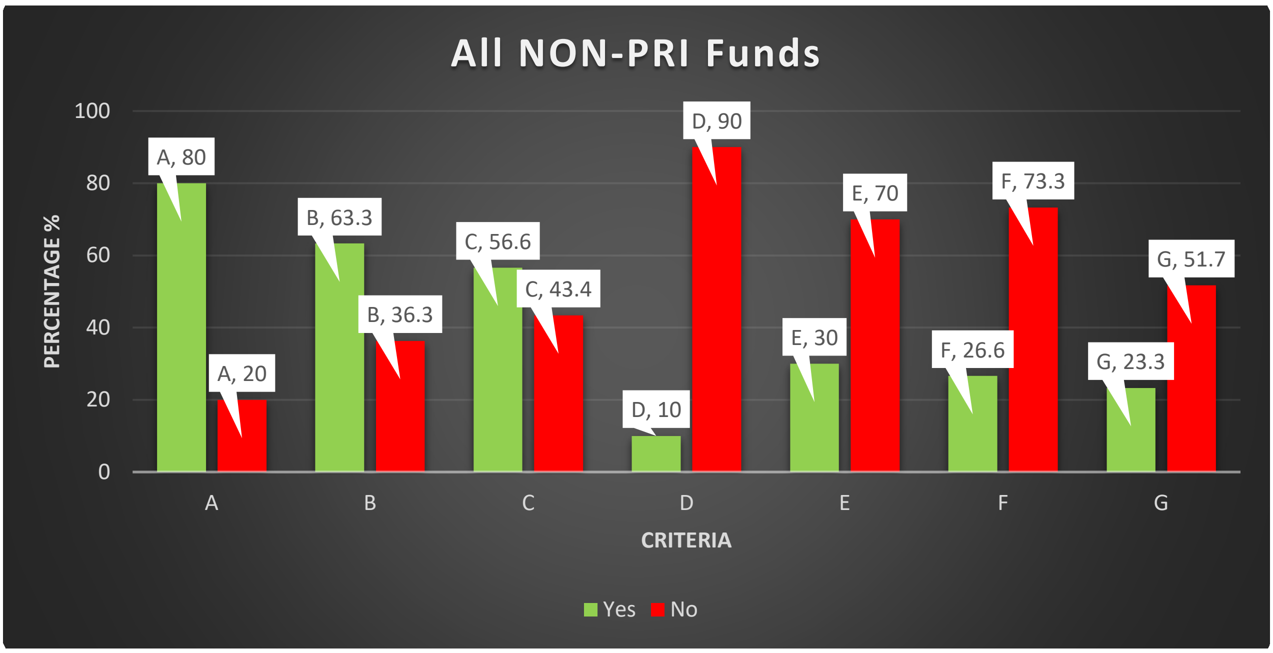

Figure 6.5: Data of all 30 non-PRI funds from the sample across both jurisdictions. The data will be compared with Figure 6.4, above, that contains the data from all 30 PRI funds.

The figures showcase quite evidently that PRI signatory funds incorporate each of the criteria at a better rate relative to non-PRI funds. Thus, we can conclude that PRI funds incorporate the four indicators of the just transition risk lens at a better rate when compared with non-PRI funds. When looking at the first indicator, not much difference is found with respect to Criterion A: 28 of 30 (93.3%) of PRI signatory funds and 24 of 30 (80%) of non-PRI funds mention ESG risk/climate risk in their disclosures. The PRI signatory funds respond 'YES' marginally better than non-PRI funds in relation to Criterion A. It is found that both classes actively recognise ESG risk/climate risk in their disclosures.

However, there is a dramatic difference in relation to disclosure and implementation of a policy on climate risk – Criteria B and C. In relation to Criteria B and C, 27 of the 28 (90%) signatory funds who mention ESG risk/climate risk also disclose a policy on climate risk and display evidence of implementation of their climate risk policies. Meanwhile, of the 24 non-PRI funds who mention ESG risk/climate risk, 19 (63.3%) disclose a policy on ESG risk/climate risk; only 17 (56.6%) display evidence of implementation of that policy. Consequently, it can be seen that, while both groups of funds globally mention ESG risk/climate risk, the PRI signatory funds disclose the policy on ESG risk/climate risk consistently. Non-PRI funds do not contain a policy on ESG risk/climate risk as consistently. It can be concluded that PRI funds, collectively across Criteria A, B and C, incorporate the first indicator of the just transition risk lens much more consistently than non-PRI funds. It is clear that the PRI has a significant impact in relation to this indicator of the just transition risk lens.

In relation to divestment from fossil fuels, both groups of funds display evidence of divestment at very low rates. Only 8 of 30 (26.6%) PRI signatory funds and only 3 of 30 (10%) non-PRI funds disclose any evidence of divestment from fossil fuels. While the number of PRI signatory funds is more than double the number of non-PRI funds that take into account this indicator of the just transition risk lens, the numbers are not encouraging in both cases. It is evident that PRI's impact is marginal at best. The numbers may be more than double in the PRI signatory group, but they total only 26.6% of the whole group. It is clear that the lack of regulations in relation to fossil fuel divestment has kept the numbers low across both classes.

The difference between both groups of funds is slightly more pronounced, albeit not significant, in terms of the third indicator of the just transition risk lens (i.e., considering members' views). Looking at Figures 6.5 and 6.6 in relation to Criteria E and F, the data shows that both groups are at par with regards to Criterion E, but PRI funds are ahead in terms of Criterion F. For Criterion E, exactly 9 of 30 (30%) funds in both groups disclose direct evidence of taking into account of the views of their members. The exactness entails that it is not the PRI that drives funds to take into account the views of their members but, rather, regulatory frameworks. Nonetheless, the numbers are not impressive as 30% is too little in relation to this indicator of the just transition risk lens. Coming to Criterion F, PRI's impact is present as 14 of 30 (46.6%) funds make available a pro-ESG investment option for their members as opposed to 8 of 30 (26.6%) signatory funds. The difference of 20% entails that being a PRI signatory has an impact on funds' indirectly taking into account this indicator by considering the preferences of their members. Nonetheless, the PRI's impact is not significant, as less than half of PRI signatory funds take into account Criterion F, while the numbers for Criterion E are equal across both groups.

The impact of the PRI is the most significant, however, when it comes to the fourth indicator of the just transition risk lens (i.e., incorporating some form of climate scenario analysis). In terms of Criterion G, 22 of 30 (73.3%) PRI signatory funds, as opposed to 7 of 30 (23.3%) non-PRI funds, disclose some evidence of incorporating some form of climate scenario analysis. This is a difference of 50% and is quite significant from a global standpoint. The difference entails that the PRI has a substantial impact in relation to this indicator and that a majority of PRI signatories can be expected to incorporate some form of climate scenario analysis.[24] This is because, as part of the transparency disclosure to the PRI, signatory funds are asked on a comply-or-explain basis their incorporation of climate scenario analysis.

Overall, we can conclude that PRI funds are better at displaying the four indicators of the just transition risk lens, except divestment from fossil fuel, where both groups of funds display evidence at an equally low rate. The next subsections, 6.3.2 and 6.3.3, analyse the PRI's

[24] For an understanding of climate scenario analysis, see s 1.3.5.

specific impact on the UK and Australia, before understanding the jurisdictional difference in section 6.3.4.

6.3.2 Impact of PRI in the UK

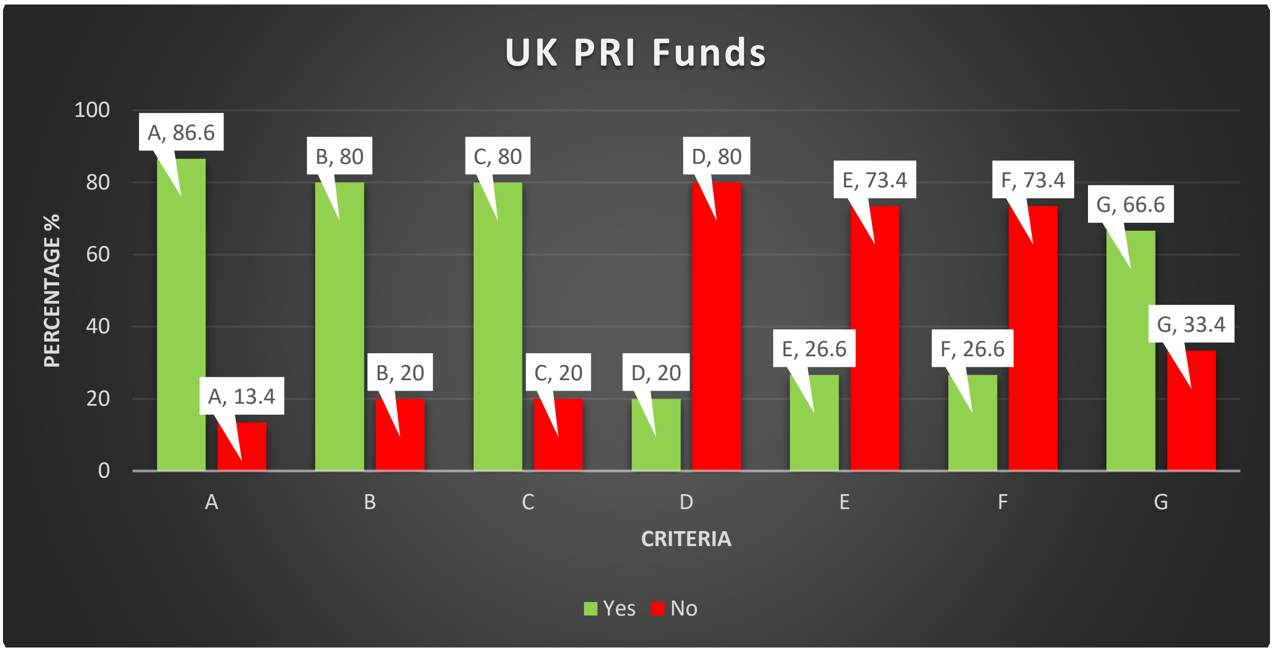

Figure 6.6: Data of 15 UK pension funds which are PRI signatories. This data is compared with Figure 6.7, below, that contains data of 15 UK pension funds which are non-PRI funds.

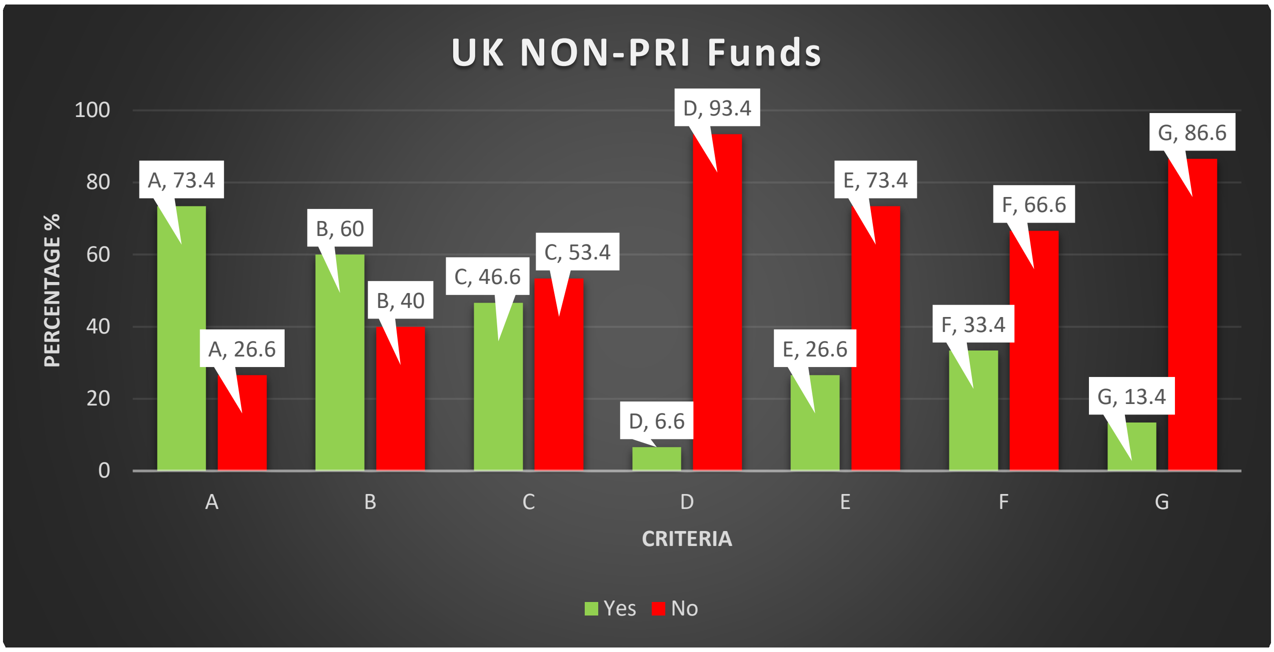

Figure 6.7: Data of 15 UK non-PRI pension funds. This data is compared with Figure 6.6, above, that contains data of 15 UK pension funds who are PRI-signatories.

Figures 6.6 and 6.7, above, contain data of all UK pension funds across the two groups (i.e., PRI signatory funds and non-PRI funds). Overall, it is evident that UK PRI signatory funds incorporate indicators of the just transition risk lens more consistently than non-PRI funds, except when it comes to the third indicator of considering member views. Here, the two groups are at par but non-PRI funds actually are marginally ahead.

With respect to the first indicator of the just transition risk lens (incorporating and implementing a policy on climate risk) across Criterion A, B and C, it is clear that PRI signatory funds are substantially ahead of their non-PRI counterparts. With respect to mentioning and recognising ESG risk/climate risk, both groups of funds are almost equal: 13 of 15 PRI signatory funds (86.6%) and 11 of 15 non-PRI funds (73.4%) take Criterion A into account and recognise ESG risk/climate risk. However, there is a substantial difference between both classes of funds when addressing Criteria B and C.

With respect to disclosing a policy on climate risk (Criteria B) and displaying evidence of implementation of that policy (Criteria C), 12 of 15 PRI signatory funds (80%) take both criteria into account. In other words, there is a drop of only 1 fund across the three criteria as far as PRI signatory funds are concerned. However, the drops are quite substantial across Criteria A, B and C when it comes to non-PRI funds. Of the 11 of 15 funds that address Criterion A, 9 (60%) address Criterion B; of this 9, only 7 (46.6%) address Criterion C. When comparing both groups there is a difference of 20% for Criterion B and 33.4% for Criterion C. Consequently, in the UK, one can expect a majority of all funds to mention ESG risk/climate risk, but PRI signatory funds will disclose a policy on climate risk more consistently than non-PRI funds. Thus, the PRI seems to have a significant impact in relation to the first indicator of the just transition risk lens.

However, the state of both groups of funds is unfortunate in relation to divestment of fossil fuels, the second indicator of the just transition risk lens. Only 3 of the 15 PRI signatory funds (20%) and 1 of the 15 non-PRI funds (6.6%) showcase any evidence of just transition risks for pension funds. While the PRI signatory funds in the UK are three times more likely to disclose evidence of just transition risks that non-PRI funds, both groups as a whole disclose this indicator of the just transition risk lens at a very mediocre rate. Still, PRI signatory funds relative to non-PRI funds in the UK will showcase more instances of divestment from fossil fuels. It is again reaffirmed that, in the absence of a regulatory push for divestment from fossil fuels and low numbers in the PRI signatory group in the UK, only the fossil fuel divestment movement, reputational risks and herding behaviour are driving divestment.[25]

The results are quite surprising when it comes to the third indicator of the just transition risk lens (i.e., incorporating member views). In terms of Criteria E and F, 4 of the 15 PRI signatory funds (26.6%) display evidence of taking member views into account and incorporating a pro-ESG product stream. The numbers for non-PRI funds are exactly the same for Criterion E, with 4 of the 15 non-PRI funds (26.6%) disclosing evidence of considering member views. However, non-PRI funds are slightly better at incorporating a pro-ESG product and/or investment option, with 5 of the 15 non-PRI funds (33.4%) displaying such evidence. Consequently, the PRI has had negligible impact in the UK in relation to this indicator of the just transition risk lens as both categories of funds are at par, with non-PRI funds slightly better at incorporating member views indirectly by incorporating a pro-ESG product stream.

However, in terms of Criterion G, the fourth indicator of the just transition risk lens, the PRI has the most substantial impact in the UK. The data indicates that 10 of the 15 PRI signatory funds (66.6%) – as opposed to a mere 2 of the 15 non-PRI funds (13.4%) – disclose on incorporating some form of climate scenario analysis. It is evident that, in the UK, PRI signatory funds are almost five times more likely to incorporate some form of climate scenario analysis. The situation in the UK is similar to the global impact of the PRI in terms of Criterion G. It is concluded that the impact of the PRI drives the difference between the two groups of funds, as the PRI transparency report mandates that signatory funds disclose on a 'comply-or-explain' basis the incorporation of climate scenario analysis.

With the exception of incorporating member views, it is evident that the PRI has a positive impact on pension funds in addressing just transition of climate risks. The impact is particularly significant in relation to the disclosure and implementation of a policy on climate risk and incorporating of climate scenario analysis. The next section, 6.3.3, analyses the impact of the PRI in Australia.

[25] See ss 4.4.3, 5.4.3.

6.3.3 Impact of PRI in Australia

Figures 6.8 and 6.9, below, illustrate the impact of the PRI in Australia. Figure 6.8 illustrates the results of the 15 Australian PRI signatory funds in relation to the criteria, while Figure 6.9 illustrates the results of the Australian 15 non-PRI funds in relation to the criteria.

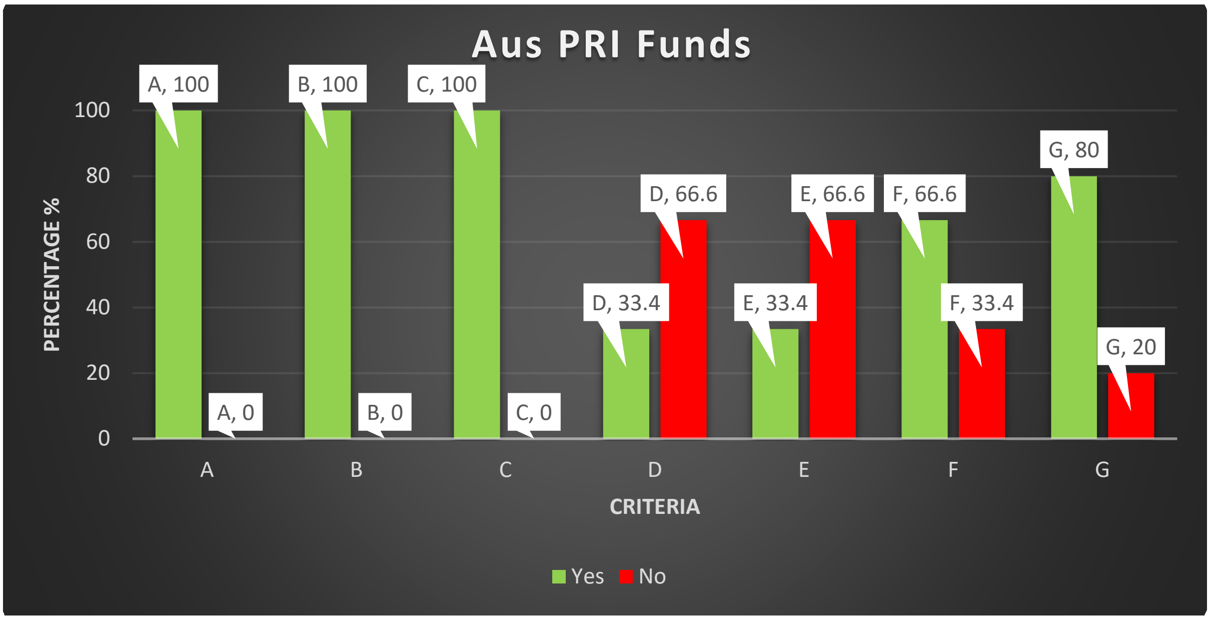

Figure 6.8: Data of 15 Australian funds who are PRI signatories. This data is compared with Figure 6.9, below, that contains data of 15 non-PRI Australian funds.

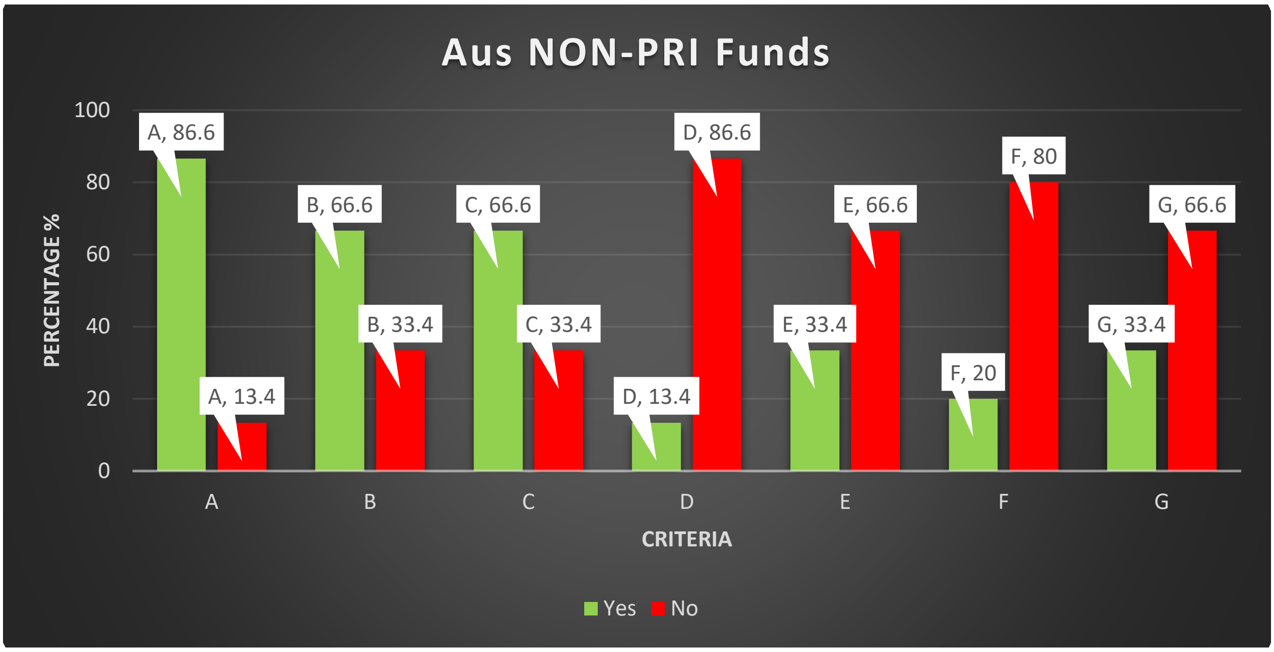

Figure 6.9: Data of 15 Australian non-PRI funds. This data is compared with Figure 6.9, below, that contains data of 15 PRI signatory funds.

In Australia, the PRI substantially impact the pension fund industry in terms of incorporating just transition risks. The impacts can be seen across the whole range of criteria; it can safely be concluded that Australian PRI funds will evidence more instances of the four indicators of the just transition risk lens relative to non-PRI Australian funds.

In terms of the first indicator of the just transition risk lens – incorporation and implementation of a policy on climate risk – across Criteria A, B and C, PRI funds are ahead of non-PRI funds at a marginal to significant rate. All 15 PRI signatory funds (100%) mention ESG risk/climate risk relative to 13 of 15 non-PRI funds (86.6%). The differences become wider between the two groups in relation to Criteria B and C (i.e., disclosing a policy on climate risk and disclosing implementation of that policy). Quite encouragingly, all 15 PRI signatory funds (100%) not only disclose a policy on climate risk (Criterion B), but also disclose some evidence indicating evidence of implementation of that policy (Criterion C). However, in the case of non-PRI funds 10 of 15 funds (66.6%) address Criteria B and C. While PRI's impact may be marginal in relation to Criterion A, the impact is quite significant in terms of Criteria B and C. Thus, overall, in relation to the first indicator of the just transition risk lens, the PRI has a significant impact and in Australia we can expect all PRI signatory funds to take disclose a policy on climate risk and disclose some evidence of implementation of that risk.

In relation to Criterion D, the second indicator of the just transition risk lens – divestment of fossil fuels – it is clear that PRI funds address this at a higher rate than non-PRI funds, albeit with neither group addressing Criterion D adequately, as numbers are low. Only 5 of the 15 PRI signatory funds (33.4%) and 2 of 15 the non-PRI funds (13.4%) disclose any evidence of divestment from fossil fuels. While PRI signatory funds in Australia are more than twice as likely to address Criterion D relative to non-PRI funds, it is concerning that numbers are quite low across both groups. Although PRI funds do address Criterion D more often than non-PRI funds, we can expect roughly 30% of PRI funds in Australia to disclose evidence of divestment from fossil fuel. For this criterion, the impact of the PRI is insignificant, similar to the global data in section 6.3.1 and the UK data in section 6.3.2. In the absence of regulatory guidance and the results of the data, we can infer that divestment from fossil is driven by other factors, such as the fossil fuel divestment movement and reputational risk, rather than the PRI.

In terms of the third indicator of the just transition risk lens – incorporating of member views – the PRI collectively across Criteria E and F has a significant impact. Specifically, in relation to disclosure of evidence of considering of member views (Criterion E) 5 of the 15 funds (33.4%) across both groups disclose some evidence. Thus, a third of Australian PRI signatory funds and non-PRI funds can be expected to disclose some evidence of considering the views of their members. However, in terms of indirectly considering the views of their members by disclosing on a pro-ESG investment option/product, the PRI has a significant impact: 10 of the 15 PRI signatory funds (66.6%) – as opposed to just 3 of the 15 non-PRI funds (20%) – disclose evidence of Criterion F (i.e., evidence of a pro-ESG product/investment option based on the preference of their members). In summary, we can expect PRI signatory funds to disclose on Criterion E more than three times more than non-PRI funds in Australia. Consequently, the PRI has a significant impact on Criteria E and F combined.

The PRI has a substantial impact on the fourth indicator of the just transition risk lens – disclosing evidence of incorporation of some form of climate scenario analysis: 12 of the 15 (80%) PRI signatory funds – relative to 5 of the 10 non-PRI funds (33.4%) – disclose evidence of some form of climate scenario analysis. Thus, most Australian PRI signatory funds can be expected to address this indicator of the just transition risk lens relative to only a third of non-PRI Australian funds. This is a remarkable finding and can be attributed to the PRI's impact because the PRI's transparency report disclosure requires signatories to disclose on a 'comply-or-explain' basis the incorporation of climate scenario analysis.

Overall, the PRI impacts the practices of Australian pension funds significantly across all four indicators of the just transition risk lens, and we can expect most Australian PRI signatory funds to be doing something about just transition risks. The next section, 6.3.4, analyses the jurisdictional differences and actual significance of PRI's impact.

6.3.4 Findings: comparison of the impact of the PRI in the UK and Australia

In understanding the exact impact of the PRI in practice in relation to incorporating the four indicators of the just transition risk lens, it is important to connect the numbers within the specific regulatory context of each jurisdiction. This is because how the PRI's requirements interact with the regulatory set-up in each jurisdiction ultimately defines the exact impact of the PRI. Placing the percentage difference between PRI funds and non-PRI funds in each jurisdiction in context allows us to gauge the exact impact of the PRI on pension fund investment practices in relation to the four indicators of the just transition risk lens. Table 6.2, below, summarises the percentage differences between PRI signatory funds and non-PRI funds in both jurisdictions as derived from Figures 6.6–6.9 above. The two columns in bold highlight the percentage differences in each jurisdiction and are utilised as the basis for our analysis of PRI's impact in each jurisdiction along with the comparative analysis.

Table 6.2: Percentage differences between PRI signatory funds and non-PRI funds in both jurisdictions

Criterion	UK PRI funds (%)	UK non-PRI funds (%)	**UK: Difference between two groups (not percentage change but only simple difference)**	AUS PRI funds (%)	AUS non-PRI funds (%)	**AUS: Difference between the two groups (not percentage change but only simple difference)**
A	86.6	73.4	**13.2**	100	86.6	**13.4**
B	80	60	**20**	100	66.6	**33.4**
C	80	46.6	**33.4**	100	66.6	**33.4**
D	20	6.6	**13.4**	33.4	13.4	**20**
E	26.6	26.6	**Nil**	33.4	33.4	**Nil**
F	26.6	33.4	**-6.8**	66.6	20	**46.6**
G	66.6	13.4	**53.2%**	80	33.4	**46.6**

In relation to Criterion A (i.e., mentioning and recognising ESG risk/climate risk), the difference in the two groups of funds across both countries is similar at 13.2% (UK) and

13.4% (Australia). This clearly entails that the PRI only marginally impacts pension funds addressing Criterion A in the UK and Australia. It is clear that the recent regulatory guidance in the UK and Australia drives the recognition of ESG risk such as climate risk. For instance, in the UK climate risk is signposted as an urgent and potentially a financial risk by recent regulatory guidance.[26] The situation is the same in Australia, as APRA's recent guidance indicates clearly to the pension industry that climate risks manifest over the long-term and encourages pension funds to take them into account.[27]

This clear regulatory signposting of climate risk in each jurisdiction makes the impact of the PRI moot as far as Criterion A is concerned. Additionally, neither the PRI nor regulatory guidance in both jurisdictions mandates the exact form or 'minimum obligations' in relation to recognising and/or mentioning climate risk. For instance, the regulatory push does not entail the importance and urgency of climate risk as contained in the Paris Agreement and IPCC goals. Thus, while regulatory guidance and marginally the PRI drives the embedding of Criterion A in practice in the pension funds industry in both jurisdiction, pension funds can address this criterion via multiple strategies to varying degrees. Consequently, the multiple strategies embed variances in understanding of climate risk that undoubtedly distract from the urgent and holistic approach required to address climate risk.

Coming to Criteria B and C, for Criterion B (i.e., disclosing a policy on climate risk), the impact of the PRI, though present and noticeable in both jurisdictions, is much more pronounced in Australia relative to the UK. The difference between the two groups is 20% (UK) and 33.4% (Australia). Certainly, the differences in both jurisdictions can be attributed to the fact that the regulatory guidance and assertiveness on climate risk disclosures is more pronounced in the UK relative to Australia.[28] Australia does softly encourage the importance of disclosing climate risk for pension funds in its regulatory guidance, as contained in

[26] See s 4.4.1; HM Government, *Aligning Your Pension Scheme with the TCFD Recommendations: A Guide for Trustees on Integrating Climate-related Risk Assessment and Management into Decision Making and Reporting* (HM Government, 2020) 14 para 14 <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877305/aligning-your-pension-scheme-with-the-TCFD-recommendations-consultation-guidance.pdf>.
[27] See s 4.4.1; APRA, *Climate Change: Awareness to Action* (APRA, 2019) 7 <https://www.apra.gov.au/sites/default/files/climate_change_awareness_to_action_march_2019.pdf>.
[28] For detailed analysis, see s 5.4.1.

APRA's 2017 guidance[29] and APRA's 2019 report.[30] As at the time of writing, APRA has not assertively published guidance on the climate risk disclosure and the situation is still one of soft encouragement.

The situation in Australia is in contrast to the UK, where the investment regulations as modified by the UK Amendment Regulations of 2018 require disclosure on climate risk and single out climate as one that is pertinent and poses financial risk. Furthermore, recent regulatory guidance in the UK strongly recommends TCFD-style disclosures and even forecasts mandatory climate disclosures by 2022.[31] Consequently, the difference between the two groups of funds 20% (UK) and 33% (Australia) can be attributed to regulatory differences. PRI's impact is less in the UK as compared to Australia in relation to Criterion A because the UK regulation does not suffer from as many legal gaps as Australia's. Australian guidance is one of soft encouragement, whereas UK's is markedly more assertive and foreshadows mandatory regulations in the near future.

However, when looking at Criterion C (i.e., disclosure of implementation of climate risks), there is no difference between the two groups in both jurisdictions, with 33.4% in both (UK and Australia). As will be recalled, a broad definition was applied in gauging evidence for the criteria across the sample; thus, the data includes evidence of multiple strategies of implementation. PRI's impact is equal in both jurisdictions because regulations in the UK and Australia are generally silent on exact 'minimum obligations' expected in relation to how exactly to implement climate risk, and by what specific strategies and degrees. Unfortunately, the regulations in both countries are silent and/or vague on this; thus, incorporation of climate risk while legal is treated as a very flexible and subjective tool by pension funds. This has allowed multiple strategies at various degrees to prevail in relation to climate risk. These multiple strategies at various degrees ultimately distract from an urgent and holistic approach to climate risk that not only addresses subtleties of climate risk such as just transition risks but meets the goals of the Paris Agreement.

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[29] See s 5.4.1; Geoff Summerhayes, *Australia's New Horizon: Climate Change Challenges and Prudential Risk* (Speech, Insurance Council of Australia Annual Forum, 17 February 2017) <https://www.apra.gov.au/news-and-publications/australias-new-horizon-climate-change-challenges-and-prudential-risk>.
[30] See s 5.4.1; APRA, *Climate Change: Awareness to Action* (n 27) 15.
[31] See s 5.4.1.

In terms of Criterion D (i.e., divestment from fossil fuels), the difference between the two groups is marginally similar at 13.4% (UK) and 20% (Australia), with actual numbers being very low. Regulatory guidance in both jurisdictions on actual divestment from fossil fuels is negligible as well. The UK investment guide does signpost that pension funds need to be aware of carbon emission.[32] The UK's Pensions Climate Risk Industry Group (PCRIG) 2020 guidance also links divestment of fossil fuels with direct financial risks in the form of stranded assets and reputational risks that are also financial risks.[33] By comparison, the regulatory guidance in Australia is not as assertive. Nonetheless, it is highlighted that funds invested in carbon-intensive assets face greater risks of asset stranding and liability risks.[34] It is worth remembering that neither jurisdiction explicitly signposts divestment from fossil fuels. Still, it is surprising that the UK, whose regulatory guidance is slightly more assertive than Australia on divestment from fossil fuels, has slightly lower numbers of funds who take Criterion D into account. This difference can also be due to the fact that funds in Australia invest more in equities compared to the UK.[35] This entails that funds will have more opportunities to divest from companies involved in fossil fuel in Australia than the UK.

The higher numbers in Australia are not attributed to the PRI but, rather, to two reasons specific to Australia: (i) the increased perception of climate liability risks[36] as supplemented by recent case filings;[37] and (ii) the higher standard of care contained in section 52(2)(b)[38] of the *SIS Act* arguably compels trustees to divest from fossil fuels and safeguard their funds and members from financial and reputation financial risks. In conclusion, it is Australia's legal and regulatory framework, rather than the PRI, that drives slightly higher numbers in Australia relative to the UK.

While the UK has slightly better regulatory guidance, Australia has better hard law in the *SIS Act*. Additionally, the fact that numbers are low in both groups across both jurisdictions

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[32] See 4.3.3; The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (September 2019) 26 <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/db-investment-guidance.ashx>.
[33] See s 4.3.3.
[34] See s 4.3.3; Summerhayes, *Australia's New Horizon* (n 29).
[35] See s 1.4.3
[36] See s 1.3.4; Willis Towers Watson, *Pensions and Savings Conference 2019: Overview* 5 <https://www.willistowerswatson.com/en-GB/Insights/2019/11/five-reasons-why-sustainability-should-matter-to-your-pension-scheme>.
[37] See s 1.3.4
[38] *Superannuation Industry (Supervision) Act 1993* (Cth).

points to the fact that PRI has a negligible impact and that regulatory guidance in both jurisdictions is severely lacking. Australia may have the higher standard in the *SIS Act*, but it is not accompanied by adequate regulatory guidance. Adequate regulatory guidance is required to flesh out minimum obligations in relation to divestment from fossil fuels; otherwise, fossil fuels will be addressed inadequately, as the numbers suggest. Additionally, the lack of clear regulatory guidance also leads to the pension industry addressing divestment from fossil fuels via multiple strategies and degrees. This leads to the lack of a holistic approach to climate risks by pension funds and will eventually lead to a disorderly transition.

Coming to Criterion E (i.e., disclosure of evidence of member views), the difference between the two groups across both jurisdictions is nil, at 0% (UK and Australia), with actual numbers being quite low in each group across both jurisdictions. This is because the PRI, as well as regulations in the UK and Australia, are for the most part silent on taking account of member views in relation to climate risk – although the UK does contain tacit encouragement.[39] Australia does not have any guidance on this criterion; nonetheless, there exist arguments on how pension trustees in Australia could take members' views into account in Australia.[40] In the UK, there is an optional policy on non-financial factors that pension funds may wish to disclose.[41] However, as analysed, this was a watered-down version because the intended law – a statement of member views – received pushback from the industry.[42]

Nonetheless, the hope is that even the optional statement on non-financial factors gives some impetus to UK funds taking account of member views in practice. However, in practice, the actual number of funds in the UK taking account of member views is lower than in Australia. Perhaps these differences are not due to regulatory and PRI impacts but, rather, the fact that Australian pension members have representation right via the board.[43] This representation may be driving incorporation of member views in Australia as a similar law does not exist in the UK. Otherwise, on the basis of regulatory guidance, one would expect the UK to have higher numbers. Nonetheless, it must be noted that considering views of members on climate risk is crucial to safeguard members' financial interests in the long-term and insulate them

[39] Please refer to analysis in ss 4.2.2, 5.4.2.
[40] See ss 4.4.2, 5.4.2.
[41] See Law Commission, *Pension Funds and Social Investment* (Law Comm No 374, 23 June 2017) paras 5.39–5.41 <https://www.lawcom.gov.uk/project/pension-funds-and-social-investment/>.
[42] See s 5.4.2.
[43] The *Superannuation Industry (Supervision) Act 1993* (Cth) pt 9 mandates 50 per cent member representation on trustee boards of employer-sponsored funds that have at least five members; see ch 5 for disclosure norms.

from stranded assets and stranded pension risks. Both jurisdictions are not taking the necessary steps in this regard and an open-ended regulatory framework is to blame. Taking members' views into account is legal but the situation is far from ideal.[44] There is no regulatory obligation to do so in either jurisdiction. It is submitted that considering members' views on some aspects of climate risk, especially in the long-term, is ideal to safeguard the long-term financial well-being of the members and address just transition climate risks.

However, the numbers from Criterion F (i.e., disclosure of a pro-ESG investment product/stream) are at odds in both jurisdictions. The difference between the two groups in the UK is -6.8% with non-PRI funds ahead than PRI signatory funds. While the difference between the two groups in Australia is 46.6%. Additionally, the number of PRI signatory funds meeting this criterion is significantly more in Australia relative to the UK. Based on the data one cannot with confidence argue that PRI impacts investment practices in relation to this criterion.

This is because, while the numbers indicate a huge difference in Australia between PRI and non-PRI funds, the converse is true for UK where the numbers are not only lower but non-PRI funds are ahead of PRI funds. This can certainly be attributed to how the PRI interacts with the specific regulatory framework in each jurisdiction rather than PRI's sole impact; otherwise, the UK would have had higher numbers too. Inevitably, the increasing understanding of reputational risks as financial risks, coupled with section 52(2)(b) of the *SIS Act* and member representation on Australian pension boards,[45] can be attributed to the higher numbers in Australia relative to the UK. UK regulatory guidance does signpost reputation risks but does not contain any equivalent provision similar to the higher standard of care under the *SIS Act* or board representation by members.

Criterion G (i.e., disclosure of some evidence of climate scenario analysis) is undoubtedly where the impact of the PRI is significant. The difference between the two groups of funds is 53.2% (UK) and 46.6% (Australia). Regulatory guidance in both jurisdictions is at par and there is a distinct regulatory push for pension funds in both jurisdictions to utilise scenario analysis.[46] In Australia, the CPS 220 and SPG 530 strongly encourage some form of scenario

[44] For ways of accommodating members' interests, see ss 4.4.2, 5.4.2.
[45] Above 42
[46] For detailed analysis, see ch 5 s 5.4.4.

analysis in relation to material risk. Additionally, recent regulatory guidance by APRA has signposted climate scenario analysis as a norm for its regulated entities going forward.[47] Similarly, UK regulators also expect some form of scenario analysis as a minimum from pension funds in relation to climate risks.[48] The reason for the low numbers of non-PRI funds in both jurisdictions can be attributed to the fact that the explicit signposting of climate scenario analysis by regulators is a fairly recent development. Perhaps data from future years will show a higher percentage of funds.

In sum, the PRI has had a significant impact on funds in relation to Criterion G and this undoubtedly stems from the mandatory transparency disclosure for PRI funds where they have to disclose on climate scenario analysis on a comply-or-explain basis.[49] The significance of the PRI, and hopefully the regulatory guidance in the future, is discounted by the fact that it is up to the pension funds, whether signatories or not, to flesh out the strategy, form and degree of their scenario analysis. This again leads to the prevalence of multiple strategies across various degrees that distract from the holistic approach required by pension funds. Additionally, the regulatory guidance in both jurisdictions does not mandate climate scenario analysis or link the required scenario with the temperature scenarios in the IPCC reports and/or the Paris Agreement.

6.4 Conclusion

It is clear that, overall, and in general terms, the PRI has a positive impact in relation to the consideration of the four indicators of the just transition risks lens as part of the holistic approach to climate risk by pension funds in the UK and Australia. However, closer analysis reveals that, although signing the PRI has a positive impact on the funds' disclosures in relation to the four indicators, the PRI is not the sole determinant of the positive impact. It is the PRI's intertwining with the national regulatory backdrop that determines the positive impact. Additionally, like the national regulations in the UK and Australia, the PRI also

[47] Letter from Geoff Summerhayes to All APRA-Regulated Entities, 24 February 2020, 1, 2 <https://www.apra.gov.au/sites/default/files/2020-02/Understanding%20and%20managing%20the%20financial%20risks%20of%20climate%20change.pdf>.
[48] The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (n 32) 58, 82.
[49] PRI, *The Reporting Process* (Web Page) <https://www.unpri.org/reporting-and-assessment-resources/reporting-for-signatories/3057.article>.

suffers from legal gaps due to being open-ended. It must be remembered that the thesis employs a broad definition in relation to the criteria being addressed by the sample.

Thus, the PRI's impact in practice is present but not as big a leap as to recommend a regulatory reform based solely on the PRI's model. Consequently, soft law is not enough to fill the gaps in national regulations to elevate the pension fund regime from a state of 'arrested development' to 'progressive development'. What is required is a precise regulatory response that embeds a holistic approach to climate risks and addresses subtle aspects of climate risk such as just transition risks. Additionally, the PRI's biggest contribution is to at least provide some uniformity in approaches by signatory funds. However, the uniformity is united in multiple strategies as the PRI, like national regulations, is not precise enough. The next chapter develops an environmental reform argument and proposes a regulation that is not only precise enough, but also embodies the positive characteristics espoused by environmental reform theorists. The regulation, while PRI-based, is a step ahead as it builds upon the PRI and fills in the legal gaps.

Chapter 7 The way forward for pension fund regulation in relation to climate risk

7.1 Introduction

Chapter 7 develops arguments from environmental reform theory in relation to the findings of previous three chapters pertaining to the extent to which pension funds can take climate risk into account. The thesis utilises the environmental reform arguments to propose and analyse a reform pathway that is immediately required in the UK and Australia in line with the findings that will allow a holistic approach to climate risk to be embedded across the pension fund industry and ultimately transform the state of the pension funds regime from arrested development to progressive development. In simpler terms, the reforms must allow the pension fund industry to align with the Paris Agreement goals. While it is acknowledged that regulation in the UK and Australia has taken positive steps in recent years in relation to consideration of climate risk, this has been limited by legal gaps that prevent this alignment i.e. holistic consideration of climate risk. These legal gaps are mostly in the form of precise and clear regulatory guidance regarding climate risk; this has been supplemented by a lack of contemporary judicial test cases. It is hoped that the reform pathway will not only address the legal gaps, but enable minimum standards of best practice that allows pension funds in the UK and Australia to align with the Paris Agreement goals.[1]

Additionally, the impact of soft law in the form of the Principles of Responsible Investment (PRI) – while impacting positively on the regulatory setup in the UK and Australia – is not sufficient to fill those gaps, as the PRI is also limited by gaps due to general and open-ended disclosure requirements. It does, however, provide a template for standardisation that can be developed and built upon. Thus, Chapter 7 proposes a PRI-style regulation for both countries that is precise in relation to the four indicators of the just transition risk lens and capable not only of embedding a holistic approach to climate risk, but also embodying the advantages of developed environmental reform arguments. PRI-style regulation also embodies regulatory expectation in terms of the duties of trustees to bridge the gap left by the lack of modern judicial precedents in the area. The recent cases in Australia have been settled and have not

[1] See s 1.2 and 1.3.5 discussion about the Paris Alignment for pension funds.

led to judicial rationale in relation to climate risk.[2] Thus, reform – in the form of regulatory guidance that incorporates modern environmental reform arguments and includes guidance that addresses the expectations from the duties of trustees in light of recent climate litigation – is expected to address the legal gaps. It is also hoped that such precise regulatory guidance will embed a standardised industry response where pension funds in the UK and Australia display best practice standards in terms of the subtle aspects of climate risk, including the four indicators of the just transition risk lens.

This chapter is divided into five sections. Section 7.1 serves as the introduction and illustrates the various purposes in addition to the chapter structure. Section 7.2 analyses those findings against a backdrop of current climate risk manifestations and environmental reform theory. Section 7.3 builds on the previous two sections and proposes law reform pathways and connects them with the principles of best practice of environmental reform identified in section 7.2. Section 7.4 serves as the conclusion.

7.2 Analysis of environmental reform discourse in developing a regulatory response

Any notion of reform/way forward for pension funds in the UK and Australia must be proposed that is in line with recent environmental reform discourse; that is, theoretical arguments. It should be noted that a critical appraisal of general environmental theory, environmental reform theory and generic legal reform theory is beyond the scope of this thesis. This section aims to highlight and analyse contemporary reform discourse relevant for financial institutions such as pension funds.

Reforms are necessary as the findings indicate that pension funds are not taking climate risk into account holistically or addressing subtle aspects of climate risk such as just transition risks. To reiterate, there are legal gaps in the UK and Australia in the form of open-ended regulatory guidance and lack of judicial test cases and soft law in the form of the PRI on its own is inadequate to address those gaps. This leads to uncertainty surrounding the extent to which climate risk can be considered and the law, while now deeming climate risk, legal does not signpost a clear path forward.[3]

[2] Cases against the Commonwealth Bank and REST have been settled, see s. 1.3.4
[3] See the Conclusion sections of chs 4 and 6.

Additionally, from the findings of the data in Chapter 6, it is evident that, although PRI-signatories are better in general terms at accommodating climate risks at a higher rate, the results are not unanimous.[4] The PRI platform is the step in the right direction, but not all major funds are signatories. Furthermore, some signatories do fall foul of greenwashing and variance in practices, as the PRI-like regulations promote multiple strategies that ultimately distract from the holistic approach required. This is not surprising, given that PRI is, ultimately, a pure soft law mechanism. Even previous hard law mechanisms have until now produced the same variable results for pension funds in terms of socially responsible/ethical investment.[5] A reasonable first step towards a holistic consideration of climate risk by pension funds necessitates uniformity and clear regulatory guidance. Unfortunately, this cannot be sourced solely from soft law mechanics or academic conjecture. Although soft law such as the PRI does fill some gaps, a clear regulatory response is needed in the UK and Australia that allows climate risks to be embedded holistically while still maintaining advantages of soft law.

7.2.1 The rise and elements of 'smart' regulation

Trends in regulatory norms in relation to environmental reform include the third way,[6] nudge regulation, responsive regulation[7] and smart regulation. Inspiration is gained from smart regulation and nudge regulation primarily for identifying elements of effective environmental reforms surrounding the relationship between pension funds and climate risk. The emergent regulatory norm since the 1990s has been 'smart' regulation. This solution came to light as a compromise between traditional command regulation and deregulation. In other words, smart regulation walks a fine line between government intervention and voluntarism/market regulation.[8] Smart regulation entails a mix of regulatory approaches that favour end results over procedures. It encompasses reporting and disclosure obligations, while at the same time

[4] See s 6.3.
[5] Benjamin J. Richardson, 'Sustainable Finance: Environmental Law and Financial Institutions' in Benjamin J. Richardson and Stepan Wood (eds), *Environmental Law for Sustainability* (Hart, 2006) 309 s E; D. Coles and D. Green, 'Do UK Pension Funds Invest Responsibly?', *Just Pensions* (July 2002) 1.
[6] Ota Šik,, *The Third Way: Marxist-Leninist Theory and Modern Industrial Society* (Wildwood House, 1976); Anthony Giddens, *The Third Way: The Renewal of Social Democracy* (Polity Press, 1998).
[7] See generally Philippe Nonet and Philip Selznick, *Law and Society in Transition: Toward Responsive Law* (Harper and Row, 1978); Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* (Oxford University Press 1992).
[8] Stepan Wood and Lynn Johannson, 'Six Principles for Integrating Non-Governmental Environmental Standards into Smart Regulation' (2008) 46 *Osgoode Hall Law Journal* 345; Richard B. Stewart, 'A New Generation of Environmental Regulation?' (2001) 29 *Capital University Law Review* 21.

encouraging public participation, debate and reflection.[9] Smart regulation avoids hard-line prescription in favour of the creating incentives that push entities to self-reflect and fulfil public goals.[10] The pertinent point is that smart regulation transfers regulation of an industry such as pension funds from the government to a joint regulatory regime between the government and the industry institutions. Even in this joint regime, the pension funds bear the brunt via self-regulation, while the government shares some burden in helping the industry to regulate itself.[11]

Before the advent of smart regulation in the 1990s, command regulation (i.e., government interventionist regulation) had been the norm for environment law since the 1970s.[12] The issues faced by the interventionist regulatory model stemmed from the changing nature of environmental risk in the 1980s: climate change, melting ice caps and water shortages were novel issues relative to environmental problems such as corporate dumping of toxic waste, water pollution, and so on.[13] These novel environmental risks coincided with the rise of Neoliberalism, which attacked command regulation regimes as too rigid and costly. The Neoliberal agenda was not wrong in criticising the government interventionist agenda as being costly and stagnant.[14]

Consequently, by the mid-1990s governments started to change their regulatory style in favour of a non-interventionist, market regulatory approach. This market regulatory approach involves revamping the regulatory outlook in terms of assessing an entity's behaviour and enforcing the regulation, which now is sourced from industry participants themselves. It saves costs to the government and harnesses technical innovations in self-regulation. This regime is more adaptable and capable of countering the onslaught of contemporary environment risk.

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[9] Julia Black, 'Proceduralizing Regulation: Part I' (2000) 20 *Oxford Journal of Legal Studies* 597; Julia Black, 'Proceduralizing Regulation: Part II' (2001) 21 *Oxford Journal of Legal Studies* 33; Julia Black, 'Regulatory Conversations' (2002) 29 *Journal of Law and Society* 163.
[10] Daniel J. Fiorino, 'Rethinking Environmental Regulation: Perspectives on Law and Governance' (1999) 23 *Harvard Environmental Law Review* 441, 447–48.
[11] Ayres and Braithwaite, *Responsive Regulation* (n 6).
[12] Cass R. Sunstein, 'Paradoxes of the Regulatory State' (1990) 57 *University of Chicago Law Review* 407; Neil Gunningham, Peter Grabosky and Darren Sinclair, *Smart Regulation: Designing Environmental Policy* (Clarendon Press, 1998) 4.
[13] Jaye Ellis and Stepan Wood, 'International Environmental Law' in Benjamin J. Richardson and Stepan Wood (eds), *Environmental Law for Sustainability* (Hart, 2006) 343, 361.
[14] Eric W. Orts, 'Reflexive Environmental Law' (1995) 89 *Northwestern University Law Review* 1227.

The basis for this approach was enunciated by Neil Gunningham, Peter Grabosky and Darren Sinclair.[15] Figure 7.2, below, illustrates the key elements of smart regulation as envisioned by the authors at its inception.

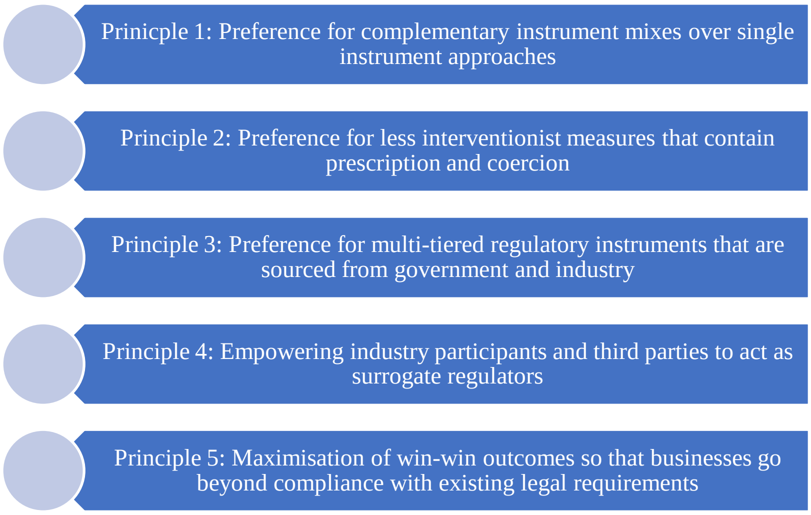

Figure 7.2: Gunningham, Grabosky and Sinclair's principles of smart regulation

It is beyond the scope of the thesis to analyse the elements of smart regulation in detail. The points to take away from this is that Gunningham, Grabosky and Sinclair's smart regulation has laudable aspects, while others have either waned in terms of contemporary notions of environmental risk. The crux of the elements is the change of regulatory style from prescription to participation by the regulated entities. Additionally, multi-regulatory instruments sourced from the state and primarily the industry itself were envisaged, rather than a single state-based regulatory instrument. Pertinently, smart regulation envisions empowering and enabling regulated entities so that they may act as surrogate regulators. It is acknowledged, however, that there are other dimensional aspects of smart regulation.[16]

[15] Neil Gunningham and Darren Sinclair, 'Designing Smart Regulation' in Bridget M. Hutter (ed), *Environmental Law* (Oxford University Press, 1999); Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy* (Clarendon Press, 1998).
[16] P. Van Gossum, B. Arts and K. Verheyen, 'From "Smart Regulation" to "Regulatory Arrangements"' (2010) 43 *Policy Sciences* 245.

7.2.2 Towards a 2020 'smarter' regulatory approach

Smart regulation, as conceived in the 1990s, has been criticised over the past two decades for being a tool to enable financial institutions such as banks, pension funds and insurance companies to pursue profits while enjoying marginal sanctions due to state non-intervention. Some even think this was a pure product of the Neoliberal agenda, rather than a middle ground between command approaches and pure deregulatory approaches.[17] In order to pave the way for reform pathways for pension funds, we must understand a more contemporary version of smart regulation, here referred to as 'smarter' regulation. The conception critically analyses expert contributions in the field and derives a discourse that can be applied to contemporary pension funds in the UK and Australia.

The sub-points below represent my understanding of a 2020 smarter regulatory approach. They are independent and not listed in chronological order. Collectively, these points are used to iterate a smarter regulatory approach and conceive a reform pathway for pension funds.

a) Stepan Wood's Six Principles: My reform proposal is based on a more contemporary embodiment of smart regulation. Other scholars have built on the original form of smart regulation; their work is analysed here. First and foremost, Stepan Wood[18] builds upon the original conception of smart regulation and gives it a more nuanced, contemporary basis. Specifically, he proposes six (6) principles that jurisdictions must use in the design of smart regulation. As Wood argues, the Canadian Government failed in designing smart regulation in relation to Ontario's environmental protection regulations.[19] The principles are illustrated in Figure 7.3, below.

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[17] Ellis and Wood (n 12) 362; Letter from the Canadian Environmental Law Association (CELA) to Prime Minister Paul Martin Regarding Report of the External Advisory Committee on Smart Regulation, 22 October 2004 <https://cela.ca/wp-content/uploads/2019/07/487_EACSR_ltr.pdf>.

[18] See generally Benjamin J. Richardson and Stepan Wood (eds), *Environmental Law for Sustainability* (Hart, 2006); Ellis and Wood (n 12); Stepan Wood and Lynn Johannson, 'How Not to Incorporate Voluntary Standards into Smart Regulation: ISO 14001 and Ontario's Environmental Penalties Regulation' (2008) CLPE Research Paper No. 07/2008; Stepan Wood, 'Environmental Management Systems and Public Authority in Canada: Rethinking Environmental Governance' (2003) *Buffalo Environmental Law Journal* 129.

[19] Ellis and Wood (n 12) 349.

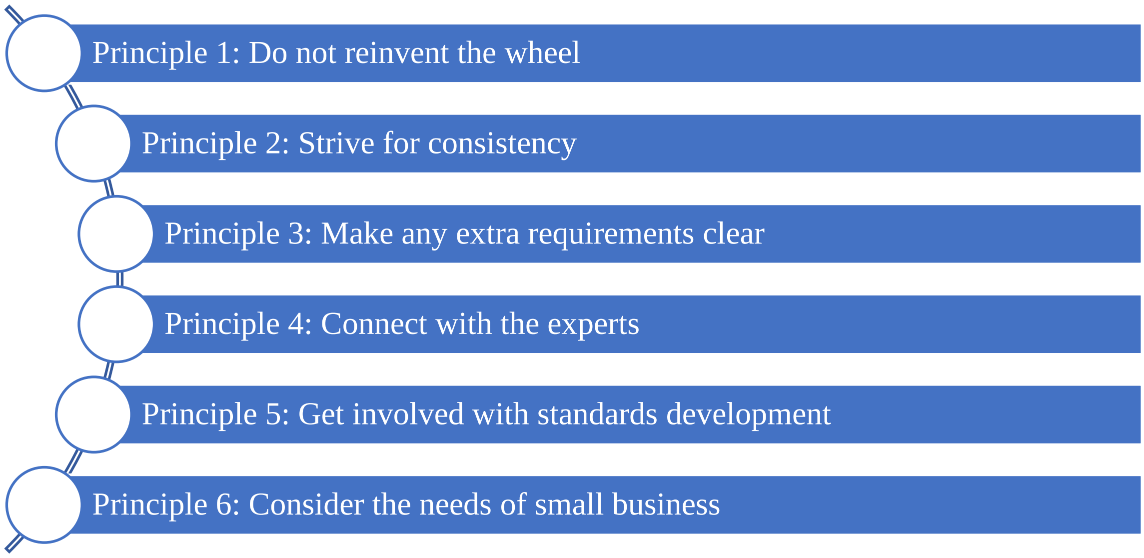

Figure 7.3: Stepan Wood’s six principles to enable states to implement smart regulation correctly

Wood’s principles are key not only to unlocking the true potential of smart regulation, but also for designing a reform pathway for pension funds that embodies the best attributes of modern environmental reform discourse. The take-away principle from Wood’s analysis is Principle 1: ‘Do not reinvent the wheel’. The importance of Principle 1 cannot be overstated. It stands for the recommendation that, instead of introducing a new regulation, regulators should aim to incorporate existing standards. These can be sourced from the market and, more importantly, from soft law mechanisms – so long as the market body or soft law body is recognised and has developed standards that provide evidence of wide acceptance.[20] As long as such soft law standards are based on consensus, regulators can achieve public policy goals by adopting them, rather than inventing new rules.

Principles 2 and 3 supplement Principle 1. Principle 2 recommends avoiding discrepancies between the standard to be adopted and the regulation adopting it, whereas Principle 3 implores regulators to make any modifications to the standards clear and unambiguous. Principle 5 is also important to note. Wood urges regulators to keep abreast of the relevant committees of the body whose standard(s) is going to be adopted. This not only allows for valuable insights, but also cross-fertilisation between the two regimes and add impetus to the reform itself. This will also give the reform perpetual standing and prevent it from going stale in subsequent years.

[20] Ibid 366.

b) Surrogate regulation, business-case goals and reputational risk: While not a direct reaffirmation of smart regulation, Megan Bowman's work[21] does add to the discourse in substance and her arguments warrant attention. First, she argues that institutional investors can be surrogate regulators. Second, she highlights the importance of business case logic for such institutional investors. Third, she points to the importance of reputational risk for these investors. Bowman focuses primarily on banks; she argues that they can be surrogate regulators and play a part in climate risk mitigation.[22] Banks are capital providers and investors and can focus on projects that mitigate climate risk, such as investing in renewable energy. Banks are also risk assessors in terms of investment and can predict investee company performance in an evolving world where climate change risk is increasing. Further, banks as shareholders of investee companies can participate in corporate governance and leverage their ownership stake. Richardson argues along similar lines, positing that financiers have the potential to act as surrogate regulators.[23] Bowman's proposals regarding the potential of banks as surrogate regulators would still stand if we were to replace 'banks' with 'pension funds'. Using her arguments for pension funds is something Bowman herself affirms, as she regards both banks and pension funds as financial intermediaries and critical institutions to the transition to a low-carbon economy.[24]

There is a growing pressure on banks and other institutional investors such as pension funds to alter their practices and take ESG risk such as climate risk into account. The post-GFC environment also supplements this pressure.[25] Bowman recognises that studies of changes in practices are limited and that, apart from a select few banks, the industry is

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[21] See generally Megan Bowman, 'The Role of the Banking Industry in Facilitating Climate Change Mitigation and the Transition to a Low-Carbon Global Economy' (2010) 27 *Environmental and Planning Law Journal* 448; Megan Bowman, 'The Limitations of Business Case Logic for Societal Benefit & Implications for Corporate Law: A Case Study of "Climate Friendly" Banks' (29 August 2014) <https://ssrn.com/abstract=2489116>; Megan Bowman, 'Corporate "Care" and Climate Change: Implications for Bank Practice and Government Policy in the United States and Australia' (2013) 19(1) *Stanford Journal of Law, Business and Finance, UNSW Law Research Paper No. 2013-48* <https://ssrn.com/abstract=2296860>.
[22] Bowman, 'The Role of the Banking Industry' (n 20) 3.
[23] See generally Benjamin J. Richardson, *Socially Responsible Investment Law: Regulating the Unseen Polluters* (Oxford University Press, 2008) ch 5; Benjamin J. Richardson, 'Can Socially Responsible Investment Provide a Means of Environmental Regulation?' (2009) 35(2) *Monash University Law Review* 262.
[24] Bowman, 'The Limitations of Business Case Logic' (n 20) 5.
[25] Andrew Dlugolecki and Sacha Lafeld, *Climate Change & the Financial Sector: An Agenda for Action* (Allianz/WWF, 2005); Paul Mudde and André Abadie, *From Principle to Action: An Analysis of the Financial Sector's Approach to Addressing Climate Change* (Sustainable Finance & Insurance and Sustainable Finance Ltd, 2008).

not acting ‘en masse’.[26] Thus, the thesis posits an addition to the environment reform discourse that a reform should have the potential to enable an industry to change collectively or, as Bowman puts it, ‘en masse’.

Bowman conducted a novel study[27] to gauge whether or not banks have changed their operations post-GFC in relation to voluntary calls for inclusion of climate change. More importantly, the study aimed to gauge the reason some banks changed their practices to include climate risk assessment. Bowman’s study reveals that banks which included climate change risk early on were driven by profits[28] – meaning that a bank’s business case was the main motivator, rather than what many at the time assumed to be altruistic motivations. In other words, banks are concerned with the competitive edge that responsible investment provides (as it is not mainstream); they also risk exposure in the case of non-action, specifically reputational risk. The business case argument is a central rationale of the thesis, and other scholars support this notion of profit-making as the driver for financial institutions as well.[29]

Thus, a pension fund’s aim of business case logic and, by extension, the importance placed on reputational risk, perceived brand image and social standing in an ever-changing climate, must be kept in mind when proposing any reform. This is not surprising, as the case law in this area for pension funds and legislation (as analysed in Chapter 4) points to the existence of ‘the best financial interest’ of the beneficiaries’ imperative. What is quite interesting is the importance of reputational climate risk as part of the physical, transition and legal risk that flows from climate change. For example, a financial institution’s reputation can be leveraged by NGOs, the public and watchdogs in naming and shaming campaigns. Additionally, in the age of social media, gaining the trust and goodwill of consumers and the public is paramount. Otherwise, switching products and services between funds takes a few minutes, if the customer is dissuaded by a fund’s business practices. An Australian example, also highlighted by Bowman, is the Tasmanian pulp mill proposed by Gunns Ltd. In 2010, the ANZ Bank announced that it

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[26] Bowman, ‘The Limitations of Business Case Logic’ (n 20) 5.
[27] Bowman, ‘Corporate “Care” and Climate Change’ (n 20) 7.
[28] Ibid 10.
[29] Andrew Hoffman, ‘Climate Change Strategy: The Business Logic Behind Voluntary Greenhouse Gas Reductions’ (2005) 47(3) *California Management Review* 21; Paul Hawken, Amory B. Lovins and L. Hunter Lovins, *Natural Capitalism: The Next Industrial Revolution* (Earthscan, 1999) 243.

would refuse to fund the proposed mill due to public pressure and reputational risk against companies cutting down forest trees.[30] While the financial institution in this example is a bank, it is reasonable to extend this to pension funds as well, if public perception and member perception are against a particular industry or investment pathway. This is even more pronounced if the pension fund in question is a signatory and supporter of soft law initiatives, such as the PRI, TCFD, RIAA, and so on. Consequently, maintaining a pension fund's social reputation and consumer trust is now part of the fund's bread and butter; that is, its business case. This point also needs to be kept in mind when proposing a legal/regulatory pathway forward.

c) Nudge-based climate design, delay-regulation, bundled regulation: In further developing the cutting-edge environmental reform discourse, Bowman's analysis should be read together with Thaler and Sunstein's pioneering nudge theory.[31] The theory's deep analysis is beyond the scope of this thesis. 'Nudge' stands for the concept behind the architecture of choice. A byproduct of behavioural science, psychology and economics, the theory proposes that choices can be manipulated by nudging the choice-maker towards a goal with the use of many strategies, including incentives. It must be noted that a 'nudge' is a choice of internalised free will in the face of a slightly changed environment that informs the choice.[32]

The thesis argues that any pension fund reform must aim to steer the industry towards internalised responsible investment; that is, pension funds must internally decide to consider subtle and long-term climate risk issues such as just transition risk. The next section revisits this point in relation to the role of state intervention. For example, if there is clear regulatory guidance on divestment from fossil fuels with minimum best practice obligations which also highlight how this enhances the business case and profitability of

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[30] Bowman, 'The Limitations of Business Case Logic' (n 20) 9; "[O]ver 40,000 Australians wrote letters urging [ANZ bank] not to finance the mill; over 2000 shareholders wrote letters urging them not to finance the mill; over 1000 customers visited their branch to complain in person.": The Wilderness Society, GetUp!, and Bank Track, "Gunns Pulp Mill, Tasmania: High Risk Investment?", full page advertisement in *The Australian* (6 May 2009).
[31] Richard H. Thaler and Cass R. Sunstein (eds), *Nudge: Improving Decisions About Health, Wealth, And Happiness* (Yale University Press, 2008); Megan Bowman, 'Nudging Effective Climate Policy Design' (2011) 35(2–4) *International Journal of Global Energy Issues* 242 <https://ssrn.com/abstract=1986456>; Bowman, 'Corporate "Care" and Climate Change' (n 20).
[32] Thaler and Sunstein (n 30) 5.

pension funds, then pension funds will go beyond the minimum best practice requirements of such a regulation because it is also in their financial interests.

Bowman also recognises the contribution of nudge theory and proposes more elements that can be included in 2020s smarter regulation. First, Bowman and other authors[33] allude to a 'policy-delay' approach. This entails that a future-threatened regulatory action or sanction will enable or nudge industry entities to prepare for it and come up with their own version of it. For instance, the UK is planning to make climate disclosure mandatory for pension funds by 2022.[34] This future regulation may ramp up climate disclosures at present, so that pension funds are on an inevitable trajectory. However, this has certain shortfalls. For instance, as Bowman correctly asserts, the urgency and dynamism of climate risk needs urgent solutions. So, delaying a policy, when results are needed in the short-term, is not efficient. Other shortcomings include the lack of nudging and incentivisation for the industries and a revamp of command strategies. However, it is posited that, in addition to providing clear regulatory guidance, mapping out future regulations and trajectories would have the effect of nudging and incentivising at the same time. That is, setting a minimum best practice obligation in a current regulation and signposting future obligations and timeframes would enable pension funds to prepare for and implement future obligations before they come into force. For example, if a current regulation sets a minimum best practice obligation of 30 per cent reductions to fossil fuel investment and signposts 40 per cent and 50 per cent reductions in 2023 and 2025, respectively, then pension funds in 2020 will not only reduce investment by 30 per cent, but also strategise away from fossil fuel investments altogether, given the regulatory trajectories.

Second, Bowman affirms a more sophisticated approach in line with nudge theory: bundling of regulation.[35] This entails that when policies are bundled together, the outlook of that policy and its perception by regulated entities changes. For instance, a regulation

[33] L. Shu and M. Bazerman, 'Cognitive Barriers to Environmental Action: Problems and Solutions' (2010) *Harvard Business School Working Paper 11-046*; T. Rogers and M. H. Bazerman, 'Future Lock-In: Future Implementation Increases Selection of "Should" Choices' (2008) 106(1) *Organizational Behavior and Human Decision Processes* 1; Bowman, 'Nudging Effective Climate Policy Design' (n 30) 246.
[34] See s 5.4
[35] Bowman, 'Nudging Effective Climate Policy Design' (n 30) 247; Katherine L. Milkman et al, 'Policy Bundling to Overcome Loss Aversion: A Method for Improving Legislative Outcomes' (2009) *Harvard Business School NOM Unit Working Paper No. 09-147*.

coupled with financial incentives will face less backlash, and regulated entities would be more willing to embrace such regulations.[36] Bowman is more assertive of this approach and provides an example of a bundled bill that cuts jobs in carbon-intensive industries while increasing jobs in renewable energy.[37]

Bundling is very important for clear regulatory guidance; prescribing minimum best practice obligations in terms of climate policies, member participation, divestment, climate scenarios and guidance on duties expectations will have clear incentives for pension funds. First, having clear minimum best practice obligations and guidance in relation to the above will allow pension funds to understand climate risk and how to address it, rather than allowing a free-for-all multiple-strategies approach. Pension fund trustees can be confident in their actions; their fear and uncertainties regarding liability risks will also be mitigated. Recent climate litigation has definitely created uncertainly in relation to the duties of trustees and climate risk. Trustees would gain incentive from knowing that their actions are addressing climate risks and insulating them from liability risks. Regulators can bundle additional incentives and benefits, such as increased tax benefits, for funds that are fully compliant with the regulations. The thesis prefers the second element but asserts that delaying policies may also provide certain advantages. Nonetheless, nudge theory tilts towards the bundling approach or, if not bundling in its pure form, then at least an approach that provides financial incentives and helps the business case of pension funds. Consequently, nudge theory goes in a long way towards designing a regulation that enables funds to address subtle aspects of climate risk, such as the four indicators of the just transition risk lens as part of the holistic approach to climate risk. Bowman's contribution to a smarter regulation is touched on further in the next section.

d) <u>Importance of voluntary framework and state intervention:</u> An offshoot phenomenon of smart regulation is the importance of voluntary frameworks. These have risen as command regulation has gone down, especially in Anglo-American economies. Smart regulation paves the way for voluntary mechanisms, soft law mechanisms and voluntary action by industry participants. This is extremely pertinent as smart regulation can be

[36] Thaler and Sunstein (n 30) 187.
[37] Bowman, 'Nudging Effective Climate Policy Design' (n 30) 247.

self-perpetuating and independent as it creates voluntary mechanisms to fill the void left by command regulation. Thus, it is not surprising that voluntary mechanisms are pervasive in numerous proposed regulations based on smart regulation.[38]

Another element that needs to be understood is that mild but potent state intervention is necessary to bring about a smarter regulator pathway for pension funds in relation to responsible investment. This is not an affirmation of command regulation. Rather, the thesis considers slight state intervention as key to smart regulation, rather than pure deregulation and reliance of soft law mechanisms. Soft law mechanisms have the potential to fill the void in the law, but the state must nudge pension funds on the path to adopting such mechanisms or replication of such mechanisms. It is beyond the scope of this thesis to examine the debate between command regulation and voluntary regulation. Suffice it to say that the thesis supports soft law mechanisms and hails the PRI and TCFD as its hallmarks. Nonetheless, the thesis does not see a legal reform pathway without at least some regulatory intervention by the state based on the elements discussed above. This is salient, given the urgency of climate risk and need to meet the Paris Agreement goals.[39] Using multiple strategies – the current prevalent phenomenon in relation to climate risk – is not efficient and distracts from the holistic approach required to address climate risk. Thus, subtle state intervention in the form of clear regulatory guidance in relation to the four indicators of the just transition risk lens as part of the holistic approach to climate risk, with minimum best practice obligations, is needed to nudge pension funds to address the subtle aspects of climate risk holistically.

Scholars also support smart regulation that includes some state intervention. For instance, Wood[40] rightly assert that codes may be voluntary in outlook but there is always external pressure on industry participants to take them into account. External pressure can come in the form of lobbying by NGOs and other stakeholders. It can also include cost-savings, maintaining social and reputational image and, more importantly, showing regulators that more stringent regulation would be superfluous. Additionally, sometimes business practices or the state can make signing up to a voluntary initiative a requirement. This last

[38] Ayres and Braithwaite, *Responsive Regulation* (n 6).
[39] See s 1.3.4.
[40] Stepan Wood, 'Voluntary Environmental Codes and Sustainability' in Benjamin J. Richardson and Stepan Wood (eds), *Environmental Law for Sustainability* (Hart, 2006) 229, 248.

point is particularly important as jurisdictions in the past have legislated via statute or judicial pronouncement in test cases to abide by soft law mechanisms.[41]

There is also academic support to suggest that voluntary codes need the guidance and support of traditional law to work effectively.[42] The thesis agrees with Wood's observations that voluntary regulation on its own will have only a surface-level effect on the industry as a whole. Smart regulation is finding the right mix between mandatory law and voluntary soft law mechanisms. Wood and many others vehemently support that smart regulation will only be possible where voluntary mechanisms are aided either by nudging regulation or the threat of future regulation.[43] Threats of regulation, though credible for giving traction to the spread of voluntary initiatives, are not enough in the long run: actual regulation needs to supplement voluntary initiatives.[44] Similarly, as Bowman also asserts, when speaking about financial institutions and climate change, the true contribution of the industry in question (pensions) will only be realised with a mixture of hard law and voluntary initiatives.[45] Bowman also asserts that nudge-based regulation is needed to ensure a perpetual contribution by financial institutions towards climate change risk. These regulations need to re-emphasise the business case perception for financial institutions but also steer them towards addressing climate change risk in the process.

Therefore, it is proposed that state intervention coupled with soft law initiatives will allow the soft law initiative to be embedded into the pension fund industry consistently and lead to a holistic response by the pension fund industry in addressing climate risks urgently.

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[41] K. Sissell, 'Autos and Electronics Drive Certification' (2000) 162 *Chemical Week* 42; *R v Prospec Chemicals* (1996) 19 Canadian ELR (New Series) 178 (Alberta Provincial Court); OECD, *Voluntary Approaches for Environmental Policy: An Assessment* (OECD, 1999) 134–135; United Nations Environment Programme Industry and Environment, *Voluntary Industry Codes of Conduct for the Environment, Technical Report No. 40* (UNEP IE, 1998) 8; R. B. Gibson, 'Questions About a Gift Horse' in R. B. Gibson (ed), *Voluntary Initiatives: The New Politics of Corporate Greening* (Broadview, 1999) 3, 6.
[42] OECD, *Voluntary Approaches for Environmental Policy* (n 40) 53.
[43] E. D. Elliott et al, 'Toward a Theory of Statutory Evolution: The Federalization of Environmental Law' (1985) 1 *Journal of Law, Economics & Organisation* 313; K. Segerson and T. J. Miceli, 'Voluntary Approaches to Environmental Protection: The Role of
Legislative Threats' in C. Carraro and F. Lévêque (eds), *Voluntary Approaches in Environmental Policy*. Fondazione Eni Enrico Mattei (FEEM) Series on Economics, Energy and Environment, vol 14 (Springer, 1999) 105.
[44] Wood, 'Voluntary Environmental Codes and Sustainability' (n 38) 271, 272.
[45] Bowman, 'The Role of the Banking Industry' (n 20) 20.

Section 7.2, above, distils the rise of smart regulation and discusses elements of a smarter regulatory conception. These elements of the smarter regulatory conception in relation to pension funds and climate risk can help address the legal gaps and allow soft law initiatives like the PRI to adequately fill the void. State intervention in the form of clear regulatory guidance is needed to address both the legal gaps and the gaps in the PRI framework.[46] These elements aid in regulatory design and allow for the proposal of a regulation that provides clear guidance to pension funds on climate risks, includes minimum best practice obligations on the four indicators of the just transition risk lens, and supplements clear regulatory expectations from the duties of trustees. The points above independently add to a more modern understanding of smart regulation; that is, a true balance between command and purely voluntary frameworks. Section 7.3 applies further analysis to this conception and proposes pathways for reform in line with the findings of Chapters 4, 5 and 6.

7.3 Pathway for reform and other sub-optimal reforms

This section proposes and analyses various pathways for legal reform in relation to a holistic consideration of climate risk by pension funds in the UK and Australia so as to allow pension funds to align their investment practices with the Paris Agreement goals. These reforms touch upon many arguments and features analysed throughout this thesis and link directly with the environmental reform discourse analysed in section 7.2.

The main aspect to understand about the contemporary times (i.e., 2020, the start of a new decade) is that climate change risk is more urgent and time-sensitive than ever. It is a risk in the long-term for pension funds, but more and more it poses a risk in the short-term. Increasingly, climate change risk intersects with financial risk for pension funds and when this occurs, consideration of climate risks are mandatory. In the last three chapters, we have already analysed the current circumstances in which climate risks, arguably subtle aspects of climate risk, can be legally considered by pension funds in the UK and Australia.

Climate change is a contemporary emergency – one which perhaps the Paris Agreement did not anticipate in terms of the speed of global warming. The world has seen so many weather

[46] PRI gaps are analysed at a 6.3.

records broken at an increasing rate in recent years, including 2019.[47] Extreme weather events such as heatwaves, floods, droughts, and bushfires can all be attributed to climate change. Events close to home – such as record summer temperatures,[48] the Hobart floods of 2018,[49] and Australian bushfires of 2019/2020[50] – paint a vivid image.

The aim is to see what part pension funds in the UK and Australia play in aligning with the Paris Agreement goals by 2030 or, to put it more generally, addressing climate risk holistically in line with the Paris Agreement goals. Additionally, are pension funds as an industry in the UK and Australia on the right track in terms of legal regulation to display a progressive attitude to climate risk? We must also understand the urgency of the situation. Apart from changing perceptions and urgency of climate change risks mentioned above, the fact is that countries are not doing enough to meet the goal of the Paris Agreement. At current rates, a reduction of 7.6 per cent in carbon emissions is required; if countries continue to underperform, this number will reach unrealistic levels.[51]

The thesis applauds and draws attention to the declarations of climate emergencies by bodies, parliaments, and quasi-public bodies around the globe.[52] As of mid-2020, almost 1500 jurisdictions covering 820 million people have declared climate emergencies. In the UK, 57 million people are covered by the emergencies, whereas in Australia, 8.5 million people are covered.[53] This is a signal to law-makers and financial institutions worldwide to treat climate risk as an emergency and act to address it. The situation is not only urgent, but desperate, and pension funds – as one of the gatekeepers of financial capital – have the opportunity to take immediate action. However, it must be kept in mind that some governments, while on the face of it signalling solidarity in relation to climate risk, are also lacklustre in dealing

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[47] See for example World Meteorological Organization, '2020 on Track to be One of the Three Warmest Years on Record' (Press Release No 02122020, 2 December 2020) <https://public.wmo.int/en/media/press-release/2020-track-be-one-of-three-warmest-years-record>.
[48] Kate Doyle, 'BOM Says Australia Just had its Hottest November on Record', *ABC News* (Web Page, 1 December 2020) <https://www.abc.net.au/news/2020-12-01/bom-says-hottest-november-and-spring-nights-on-record/12937620>.
[49] Australian Institute for Disaster Resilience, 'Hobart Flash Flooding, 2018' (Web Page) <https://knowledge.aidr.org.au/resources/2018-flood-tas-hobart-flash-flooding/>.
[50] Center for Disaster Philanthropy, '2019 Australian Wildfires' (Web Page, 9 September 2019) <https://disasterphilanthropy.org/disaster/2019-australian-wildfires/>.
[51] UNEP, *Facts About the Climate Emergency* (Web Page) <https://www.unenvironment.org/explore-topics/climate-change/facts-about-climate-emergency>.
[52] *Climate Emergency Declaration* (Web Page, 17 December 2020) <https://climateemergencydeclaration.org/climate-emergency-declarations-cover-15-million-citizens/>.
[53] Ibid.

substantively with climate change. Australia, unfortunately, is among them.[54] The lacklustre global response is in stark contrast to the global declarations of climate emergencies and increase in climate litigation.

Nonetheless, all these global weather events and declarations of climate emergencies have resulted in a wave of mass will to combat climate change. Regulators and law-makers must take advantage of this wave, otherwise it will die down and the opportunity to act will be lost. In order for climate risk reform for pension funds to work and actually embody responsible investment in the long-term, regulators in UK and Australia need to act as soon as possible and take advantage of the mass will otherwise it will start to diminish. Arguably, it already has started to diminish in light of the pandemic and shrinking economies.

In light of climate change events, declarations of climate emergencies and the need to turn the tide on carbon emissions, urgent action is required from the regulators in these two jurisdictions for pension funds to embed a holistic response to climate risk. The reform pathway is necessary to cover the various shortcomings and uncertainties surrounding climate risk and the relationship between climate risk and pension funds. Additionally, pension funds, as one of the most important financial institutions, can be brought in line with contemporary environmental reform discourse and embed climate risk across the chain that includes other financial institutions, such as banks, insurance companies and the investee companies of the pension funds. Given the disconnect between the global atmosphere of climate emergencies and the disinterestedness of governments, an assertive and clear regulation in the UK and Australia is timely to address the urgent and subtle aspects of climate risks such as the just transition risk lens. It is even more timely for the regulation to contain a precise guide on the expectation relating to the duties of trustees on behalf of regulators to enable an understanding of exactly what is required in relation to climate risk. There is ambiguity in judicial precedents in relation to climate risk and the recent climate litigation in Australia showcases the gaps in understanding. A precise regulation with clear guidance on the duties of trustees can result in new judicial precedents in the near future.

[54] Bec Strating, 'Australia's Shifting Mood on Climate Change', *The Interpreter* (24 June 2020) <https://www.lowyinstitute.org/the-interpreter/australia-s-shifting-mood-climate-change>; For a general global response see UNEP, *Emissions Gaps Report 2019* (UNEP, 2019) <https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y>.

As we have analysed across the last three chapters, there has been development and an increase in understanding of the relationship between climate change and pension funds in the UK and Australia in the last few years. Nonetheless, the law in both jurisdictions is still in a state Young calls 'arrested development'.[55] Unfortunately, the relevant case law is not far from a state I call 'stasis'. Yes, there have been sympathetic and modern interpretations (as analysed in Chapter 4)[56] but the case law has not made any progress in terms of explicit recognition of climate risks. Other issues that increase the need for law reform include the ongoing uncertainty surrounding the extent to which the now-legal notions of climate risk can be addressed in a holistic manner or rather to what extent can pension funds legally align with the Paris Agreement goals.

In light of the urgency of the situation, state of the current law and the legal gaps as a result of open-ended regulation surrounding climate risk consideration, the thesis proposes a reform pathway accompanied by alternative reforms. It attempts to explain the key features and descriptors of the proposed reform pathways, without specifically fleshing out the final substance as these are best left to the regulators and enhance the progressiveness of such reforms.

1. PRI-based 'benefit' pension funds

This reform takes inspiration from the 'benefit corporation structure', better known as the 'B-Corp' movement. This is a robust reform and requires regulators in the UK and Australia to rebrand pension funds as benefit pension funds similar to the style of benefit corporation. Such a regulation embodies all aspects of the contemporary environmental reform discourse, while putting the industry as a whole on the progressive track in terms of addressing climate change risk. Detailed analysis of benefit corporations is beyond the scope of this thesis. What follows is a brief illustration of the salient features of benefit corporations and the B-Corp certification. Additionally, the advantages will be linked with the envisioned benefit pension funds.

[55] See ss 1.3.2, 1.3.3.
[56] See s 4.3.1.

Benefit corporations and other hybrid corporations emerged as a solution to the traditional corporate form being at odds with wider stakeholder rights, such as the environment. In other words, maximising the shareholder primacy meant environmental interests and other stakeholder interests cannot be pursued. The thesis does not hold this opinion, as ESG risks pose financial detriments to companies and pension funds in the long-term and increasingly in the short-term. Nonetheless, benefit corporations emerged as a nuanced corporate form that balanced the need for shareholder primacy with wider public benefit goals.[57] Benefit corporations may become certified as B-Corps; together they constitute a significant portion of the B-economy. The US is the prime illustrative jurisdiction to understand the benefit corporations and the B-Corp movement. Benefit corporations' purpose lies in entrenching a 'public benefit goal' within the traditional corporate mandate. Benefit corporations arose in the US in the form of constituency statutes that permitted companies to pursue other stakeholder interests, such as the environment, in addition to financial interests for the benefit of the shareholders.[58] The B-Corp movement gained prominence immediately after the GFC and exploited these constituency companies by advocating for the placement of stakeholder rights in the governing documents of benefit corporations. This and other requirements allowed such benefit companies to gain the B-Corp certification.[59]

As of April 2020, there are 3500 B-corporations with an aim to create a unique corporate hybrid form that exploits company power in pursuit of environmental interests.[60] A further illustration of benefit corporation and B-Corps are beyond the scope of the thesis. The important point to note is that the B-Corp certification is now a prominent brand that assimilates likeminded companies and directors in pursuit of stakeholder interests. The certification is available to Australian and UK companies.[61] Initial uptake in Australia and the UK was low and B-Corps were predominantly located in the US. However, in recent

[57] Janine S. Hiller, 'The Benefit Corporation and Corporate Social Responsibility' (2013) 118 *Journal of Business Ethics* 287, 287; Carol Liao, 'A Critical Canadian Perspective on the Benefit Corporation' (2017) 40(2) *'The Benefit Corporation and the Firm Commitment Universe' Special Symposium Edition of the Seattle University Law Review* <https://ssrn.com/abstract=2927194>.
[58] Andrew R. Keay, 'Moving Towards Stakeholderism? Constituency Statutes, Enlightened Shareholder Value and All That: Much Ado About Little?' (2010) <https://ssrn.com/abstract=1530990>; Liao (n 53).
[59] Certified B Corporation, *Corporation Legal Roadmap* (Web Page) <https://perma.cc/JX3X-55B4>.
[60] Certified B Corporation, *Find a B Corp* (Web Page) <https://perma.cc/UR86-Q27B>.
[61] For Australia see How to Certify (Web Page) https://www.bcorporation.com.au/; For UK see The B Impact Assessment and B Corp certification (Web Page) <https://bcorporation.uk/certification?gclid=Cj0KCQiAlZH_BRCgARIsAAZHSBlsG-2vnV5MT_6gQdVK7eQ6oKwogzKiZS6uz_RZIEwGG5-tWcIqabEaAtZJEALw_wcB>

years and perhaps driven by the pandemic, the growth in B-Corps in Australia has increased by 58% since 2018 and is nearing 400 entities.[62] In the UK as well, there are now approximately 450 B-Corps. While growing, the numbers in the UK and Australia are still low as compared to the US however, the thesis assumes an on-going growth for B-Corps globally due to the increasing awareness of climate risk and its intersection with financial risk. Additionally, an added challenge in Australia in-relation to widespread adoption of the B-Corp model has been lack of statutory footing. The challenges to the reform were that existing law in Australia was considered as flexible enough to adopt the elements of the B-Corps model and that there was already a consideration of non-financial issues in director decision-making. However, it is submitted that these challenges have been extinguished in recent times with the actual advent of serious consideration of climate risk as a financial risk, increased risk of litigation for failure to consider climate risk and the increasing scrutiny of companies in this regard by Australian regulators.[63]

Consequently, regulators need to gain inspiration from the B-economy movement and design a regulation where pension funds can morph into benefit pension funds. Here, there are several points to note. First, we have understood that pursuance of ESG risk such as climate change can be financially risky and beneficial in the long-term and short-term for pension funds. This is already emerging as the new normal in terms of understanding but is not reflected in the law. The thesis does not assert that B-lab or B-Corp should regulate pension funds. Rather, it envisages regulators coming up with a package in one regulation where they use the already prevalent PRI as a basis for the branding of benefit pension funds. Nothing will change in terms of regulatory roles. For example, in Australia, ASIC and APRA would still be the regulators via this new regulation and the PRI could be a more entrenched co-regulator, akin to a surrogate regulator. This is already the case, more or less, for pension funds that are PRI signatories. The benefit corporation model for pension funds can internalise climate risk and other ESG issues into pension fund governance and can also attract reputational and financial benefit.

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[62] Bank of Australia, 'Good Business: Inside Australia's B Corp boom' (Web Page, August 2020) <https://www.bankaust.com.au/about-us/news/corporate/articles/theres-no-business-like-good-business-inside-australias-b-corp-boom>

[63] Further analysis of this point is beyond the scope of the thesis, for more discussion please see B Corporation, *The evolution of benefit company reform in Australia* (B Corporation, September 2020) <https://www.bcorporation.com.au/post/benefit-company-australia>

In designing the regulation, the UK and Australian regulators need to build upon the PRI and aim for precision in relation to climate risk by providing minimum obligations and a catalogue of strategies to prevent the infinite number and combinations of strategies already in place. The regulations must be mandatory for large funds, so that the herding behaviour already prevalent can take effect and embed a holistic approach to climate risk across the industry. A good starting point would be the 100-member rule, or perhaps funds with more than USD 10 million in assets. There is already precedent for this in Australian legislation.[64] Additionally, the regulation must utilise the B-economy or 'benefit' branding name. This is key, as will be analysed later in this section. This regulation must clearly state the climate goals for pension funds and these must attach to their governing documents. These goals must align with the Paris Agreement goals and clearly map out regulatory expectation. The materiality of ESG risk such as climate risk must be reinforced as financial risks and opportunities in the long and short-term.

As a start to such a reform, the four key indicators of the just transition risk lens must be incorporated in this reform. Pension funds must have a policy of climate risk that is perpetual and sets out the steps they are taking in-terms of addressing climate risks and aligning with the goals of the Paris Agreement. The PRI model provides cross-fertilisation with this model as it will mandate TCFD styled disclosures from 2022. Secondly, pension funds must be clearly mandated to have some form of divestment in place from fossil fuels and regulation needs to be clear in its requirement so that divestment acts as an aggressive form of engagement. Thirdly, pension funds need to take into account the views of their members as they are the primary stakeholders of the fund and the recipients of just transition risks. Lastly, the reform must enable funds to be forward looking and constantly evaluative in-relation to climate risk by conducting climate scenario analysis in line with best practice.[65]

ASIC, APRA and DWP will be Tier 1 regulators and the PRI will fill the void as Tier 2 regulator. For instance, the PRI requires TCFD-style disclosure requirements (from 2020

[64] Similar requirements still exist in Australia. See generally Australian Institute of Company Directors, *Director Tools: Meeting Effectiveness – General Meeting of Members* (Web Page) <https://aicd.companydirectors.com.au/-/media/cd2/resources/director-resources/director-tools/pdf/05446-4-6-director-tools-me-agms_a4_web.ashx>; Squire Patton Boggs, 'Shareholder Rights and Powers in Australia', *Lexology* (Web Page) <https://www.lexology.com/library/detail.aspx?g=9c574c99-ad09-406e-b7df-5c28e906dc67>; ASIC, 'Passing a Company Resolution' (Information Sheet 22, 2017) <https://asic.gov.au/for-business/changes-to-your-company/passing-a-company-resolution/>.
[65] Indicators have been identified and discussed see s 1.3.5(b)

onwards) and the annual transparency report already. Additionally, regulators must affirm the branding of 'benefit' pension funds and/or B-economy. This is crucial. A branding akin to being a benefit corporation is key for benefit pension funds as it is a prime example of a regulation in line with nudge theory and can enable isomorphism in the whole industry. Isomorphism is a phenomenon whereby entities in an industry copy each other to appear normal to all stakeholders.[66] The branding can easily be acquired by partnership with the B-Corp movement, which is eager to enhance its branding across the global economy. Moreover, the reform must also provide incentives to funds who are best in class in following these reforms as per the regulators' collected data and the PRI's data. Incentives can range from tax relief, subsidies on funds' public costs and insurance fees, and so on. The form is not as relevant – as long as it is an incentive in substance. Additionally, the regulation needs to contain sanctions over and above 'comply or explain'. Primarily, these can be suspension of the benefit brand for those funds, official naming and shaming on the APRA/ASIC website, or perhaps as a more nuanced solution could be to bar such funds from investing in certain responsible pro-ESG investee companies.

Finally, the regulation needs to be accompanied by a clear guidance on duties of trustees in relation to climate risk and the incorporation of the four indicators of the just transition risk lens. This is significant especially due to the legal gap that exists in relation to uncertainty regarding the extent to which pension trustees can address climate risk and the subtleties of climate risk such as the just transition risk lens. Particularly, the rise in climate litigation evidences the legal gaps.[67] It is vital that the guidance be clear and precise and contain a list of minimum regulatory expectations regarding climate risk from trustees when exercising their duties in relation to the four indicators. While the exact perimeters and the actual form of the minimum regulatory expectations is beyond the scope of the thesis, some examples below are presented as to what regulations could look like. For example regulations could provide a mandatory template for climate disclosures so that pension funds are forced to disclose on the mandatory sections such as provision of a separate policy on climate risk, fossil fuel divestment and etc. For fossil fuels, the regulatory guidance can contain minimum levels of fossil fuel divestment trustees need to display. For example trustees may be required

[66] Being the 'three pillars of institutions': W. R. Scott, *Institutions and Organizations* (Sage Publications, 3rd ed, 2008) 151-152; P. J. DiMaggio and W. W. Powell, 'The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organization Fields' in W. W. Powell and P. J. DiMaggio (eds), *The New Institutionalism in Organizational Analysis* (University of Chicago Press, 1991).
[67] See s 1.3.4

to as a minimum have no more that 20% of their portfolio allocated to fossil fuels. Similarly, in relation to climate scenario analysis, trustees can be expected to have some form of scenarios set-up that are linked with the Paris Agreement goals for example the 2030 target and a zero emission target by 2050 and in doing so they may be asked to utilise certain tools such as the temperature metric from a regulatory mandated list of tools. It will be very easy for regulators to provide a list of available best practice tools and these can be updated semi-annually or annually. Laslty, the regulatory guidance must clearly indicate the consideration of member views and this can be done for example at the time of designing the annual climate policy or before significant financial decisions. Additionally, the regulation can be clear in the tools used to gauge member views such as embedded survey and/or extensive consulations with the members' representative on the board.

It is acknowledged that regulatory guidance is already available in the UK and Australia.[68] However, these are open-ended and peppered in various different documents. A stand-alone guidance that is precise and links climate risk with optional but exhaustive strategies at certain degrees will not only result in modern judicial precedents in the field of duties of trustees and climate risk but also insulate the trustees from uncertain climate liability risks. Additionally, trustees will be incentivised to go over and beyond the minimum obligations so as to solidify their fund's immunity from liability risk. Lastly the guidance will also steer the pension industry away from a multiple strategy approach towards a consistent holistic response that can be proportional to the urgency of climate risk and allow the pension fund industry to play their role in meeting the goals of the Paris Agreement.

This proposed reform has the potential to embody all facets of contemporary environmental reform discourse while embedding a holistic response to climate risk by the pension fund industry. Apart from the benefit of the clear supplementary guidance in relation to duties of trustees, the proposed reform addresses the facets of the proposed contemporary reform discourse in the following ways.

a) <u>Packaging and Bundling</u>

[68] As a UK example see The Pensions Regulator, *Investment Guidance for Defined Benefit Schemes* (September 2019) <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/db-investment-guidance.ashx>.

First, the reform is packaged and bundled into one regulation. As affirmed by Bowman and Sunstein,[69] this is the best enunciation of climate policy design as bundling makes it easier for the industry to absorb the net gains of the policy and reach a compromise easily. The exact packaging and the bundling of the proposed regulation can take multiple forms: depending on what is fleshed out in the regulatory/legislative process in the UK and Australia, the final form does not negate the features required.

Considering any compromise by signing PRI, the benefit pension fund brand and costs of extra regulation as part of the PRI, the state can provide incentives to such funds. These can range from traditional tax incentives (not only to the funds themselves, but also the employers who choose such funds as their providers). Another, albeit implied, incentive is the inherent perception that if pension funds do not adopt this regulation based on PRI, then something more prescriptive and stringent will be done to them in the future which may not carry incentives or net gains. This implied incentive is quite pronounced in light of climate change and its recent physical manifestations. Thus, the proposed pathway for reform can be bundled into one regulation and packaged with appropriate incentives along with the implied incentive.

b) <u>Minimal backlash from the funds:</u> As it is a mix of prescription and incentivisation, the reform will not face backlash in its bill/consultation stages, as other recent reforms have faced. For example, the recent proposed UK pension reform (discussed in Chapter 5) was extremely diluted from its original state.[70] What this reform encapsulates and embodies is nothing farfetched or prescriptive to make the funds wary of it. Most large and prominent funds already have signed the PRI or recognise its importance.

Additionally, the proposed pathway for reform is targeted towards major funds which pass the 100-member rule or perhaps the USD 10 million rule. Large funds which are already PRI signatories tend to gain the advantages of the benefit branding and the incentives. The thesis is acutely aware of the backlash by UK pension funds in the recent reform process and most of it stems from reporting burdens, cost and perhaps lack of clarity behind the purposes of the reform.

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[69] Bowman, 'Nudging Effective Climate Policy Design' (n 30) 247, 248; Thaler and Sunstein (n 30) ch 10.
[70] The UK recently diluted its mandatory requirement to incorporate member views to an optional policy where one of the factors can be member views. See s 5.4.2

On the other hand, the advantage of the proposed pathway for reform lies in the knowledge base and global mainstreaming of the PRI. It is an evolving standard and knowledge hub that is flexible in a practical way but also carries sanctions of blacklisting and naming and shaming, if regulators adopt such a path. Signatory funds have the flexibility to report to the PRI in numerous ways; thus, there is no additional burden or overhaul of the business-a-usual practices of the fund. Funds which are already engaged in some form of responsible investment perhaps may need to refine and document their approaches, while funds which have been absent in relation to responsible investment can take steps that are reasonable for them. The pathway for reform is closer to a principle-based reform backed by financial and reputational sanctions which is not prescriptive but, rather, an evolving phenomenon requiring best practice.

c) <u>The new normal for pension funds: Climate scenarios, stress-testing, modelling:</u> As an example, climate scenario analysis, stress testing and climate modelling is a requirement for the consideration of just transition risks. Up until now, regulation expects these in the UK and Australia but, due to silence as to the precise requirements, multiple strategies prevail that distract from a uniform and holistic approach. The regulation must be set up to progressively align the requirement for climate scenario analysis with the Paris Agreement temperature scenarios and goals.

Consequently, the regulators have the potential via this regulation to embed best practice in relation to climate risk in the form on scenario analysis, stress testing and modelling as the norm across the pension fund industry. As Chapter 6 analyses, PRI signatories in the UK and Australia already display evidence of incorporation of scenario analysis and stress-testing; however, the data clearly indicates the presence of variance and lack of uniformity across the industry. The proposed reform can enable these elements of best practice to uniformly prevail in the pension industry while leaving the door open for their continuous evolvement and improvement on account of the PRI affiliation and PRI knowledgebase. A starting point of the Paris Agreement goals is necessary for urgently incorporating a holistic approach to climate risk.

d) <u>Fake greenwashing:</u> Greenwashing in the finance industry has been on the rise in recent times and is particularly pronounced in the pension industry.[71] Greenwashing is a box-ticking approach to make it appear that environmental issues are a priority when, in reality, financial gain is pursued under the guise of a green outlook. The proposed reform, however, counts on this phenomenon. The 'benefit' branding may be a hurdle, but we must understand the psyche of the funds. These pension funds aim to maximise the business case. Until now, greenwashing and green branding have been the way to attract stakeholders and reduce exposure to reputational risk. What this regulation does, prima facie, is give pension funds the 'benefit' or B-economy brand. Most funds will jump on this bandwagon to exploit reputational gains which, in turn, means financial gains. Thus, the proposed reform has the potential to leverage the greenwashing behaviour of pension funds to its advantage.

e) <u>Nudging and isomorphism/herding behaviour:</u> The proposed pathway for reform takes inspiration from the nudge thesis,[72] and urges legislators to truly harness the traditional business case of pension funds in their favour. It is posited that the free-market approach and the other extreme of government authoritarian approach do not result in the best progressive environmental outcomes.[73] The best path forward is the 'nudging' role of the legislators and regulators in creating an enabling regulatory environment, where the pension industry pursues the best financial interest in a responsible way by taking into account climate risk. The proposed pathway truly allows regulators, such as ASIC in Australia, to become choice architects and allow progressive, responsible investment attitudes to become embedded in the psyche of pension funds.

The proposed reform pathway is simply a tweaking of the regulatory setup in which the UK and Australia pensions operate, but the responsible investment outcomes can be akin to an overhaul of the whole pension industry. This is a neat middle ground between heavy government intervention and the free-market model. The proposed reform is a true embodiment of regulatory 'nudging' that balances voluntarism and state control of

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[71] Elizabeth McArthur, 'Fifty Shades of Green', *Financial Standard* (8 October 2019) <http://www.ethicaladviserscoop.org/uploads/1/1/4/6/11462046/vol17n19_7_october_featurette_ethical_investing-copy.pdf>; Sarah Simpkins, 'Super Industry Charged with Greenwashing', *Investor Daily* (6 June 2019) <https://www.investordaily.com.au/superannuation/45069-super-industry-charged-with-greenwashing>.
[72] Thaler and Sunstein (n 30).
[73] David Vogel, *The Market for Virtue: The Potential and Limits of Corporate Social Responsibility* (The Brookings Institute, 2005).

institutional investors. Even in relatively free economies, such as the UK and Australia, climate risk mitigation requires regulators to 'nudge' the pension industry via well-designed and tactful reforms such as the one the thesis proposes.[74]

Furthermore, once the proposed reform is passed as one packaged regulation with accompanying incentives, then one more trait of the pension industry will work to the advantage of the regulators; that is, herding behaviour, or isomorphism. This behaviour is quite pronounced in the banking industry as well.[75] Herding behaviour is frowned upon at best and is a common trait in the pension industry in the UK and Australia, whereby funds copy each other to have a normal outlook and free ride on each other's investment practices in order to remain competitive.[76]

Consequently, due to the prevalence of herding behaviour, regulators in both countries can expect the pension industry to adopt the proposed reform at all levels. For instance, as the reform is aimed only at pension funds which pass a certain threshold (like the 100-member rule or holding more than USD 10 million in assets), those pension funds which do not meet the criteria will be excluded from the reform. However, the thesis optimistically argues that, due to the herding/isomorphism phenomenon prevalent in the pension industry, all pension funds will copy the pension funds covered by the reform to the extent that they will take responsible investment into account just to appear normal and remain competitive. Thus, the proposed reform, although targeted towards larger pension funds, can embed a holistic response to climate risk across the whole industry.

f) Surrogate regulation: Richardson's argument in relation to surrogate regulation, along with Principle 4 of Gunningham, Grabosky and Sinclair's smart regulation, posits that industry participants can be enabled to act as surrogate regulators. Richardson's argument is more nuanced; for instance, that soft law regulation such as the SRI can compensate for the gaps in official regulation and embody surrogate regulation.[77] The thesis argues that

[74] Ibid.
[75] DiMaggio and Powell (n 59).
[76] Keith L. Johnson and Frank Jan de Graaf, *Modernizing Pension Fund Legal Standards for the 21st Century*. Network for Sustainable Financial Markets Consultation Paper No. 2 (February 2009) <https://www.oecd.org/daf/ca/corporategovernanceprinciples/42670725.pdf>; David Blake, Lucio Sarno and Gabriele Zinna, 'The Market for Lemmings: The Herding Behaviour of Pension Funds' (2017) 36 *Journal of Financial Markets* 17.
[77] Richardson (n 22) 507.

the proposed reform embodies all aspects of the surrogate regulation as the proposed reform fills the lacuna in a tactful way by recognition of soft law (PRI). It is an official regulation that attaches all the benefits, progressiveness and flexibility of the PRI. This will enable pension funds to improve their investment and disclosure practices, by considering climate change risk in a more entrenched and progressive way across the whole industry. Thus, funds will be screening out risk intensive (ESG) options and those investee companies that may be engaged in ESG risky business. Additionally, pension funds can be expected to engage more assertively in relation to ESG risk. Consequently, the proposed reform not only allows soft law to fill the gap in the official law, but also enables pension funds to act as surrogate regulators.

g) <u>Reform can result in a transformation of the pension fund regime:</u>
It is important to reiterate that the reform is capable of transforming the state of the pension fund legal regime from a state of 'arrested development' to 'progressive development'. This means that the reform will attract all the progressive and self-evolving aspects of the PRI, which is not only a regulator of those who sign the principles, but also an academic knowledge base in its own right, that is self-evolving and seeps into the regulatory make-up of the PRI. The most recent, and arguably best, example is that the PRI cultivates relationships and affiliations with a catalogue of soft law movements, initiatives and mechanisms, such as the TCFD, Climate Action 100, RIAA, Mercer, SDGS and so on.[78]

These translate into its regulatory make-up; for instance, the annual mandatory transparency report requires trustees to evidence if they are part of any soft law mechanism or initiative. This translation from PRI's knowledgebase to the regulatory make-up is progressive and evolving. For example, from 2020 onwards, TCFD-style disclosures will be mandatory for PRI signatories. This was not part of the PRI requirements before 2020.[79]

The proposed reform allows the PRI's knowledge base and understandings of the laws surrounding the duty of care and disclosure obligations to seed within the regulatory

[78] See s 2.6.
[79] PRI, 'TCFD-based Reporting to Become Mandatory for PRI Signatories in 2020' (Web Page, 19 February 2019) <https://www.unpri.org/news-and-press/tcfd-based-reporting-to-become-mandatory-for-pri-signatories-in-2020/4116.article>.

schema of UK and Australia. It is argued that this will minimise the uncertainty present in the law in the UK and Australia in relation to a holistic consideration of climate risks and also embody broader interpretations of current case law such as *Cowan* to develop organically. The proposed reform can lead to newer case law in this area that clarifies the law in line with the holistic approach required to address the subtle aspects of climate risk such as just transitions. This phenomenon has arguably been absent in the case law sphere in the UK and Australia since the *Cowan* line of cases.

2. Regulation that recognises PRI (watered-down version):

The thesis proposes and supports the above reform (i.e., PRI-based pension funds packed in one regulation, supplemented by a guidance on the duties of trustees and climate risk and aligned with explicit and implied incentives) as the primary path forward. Anything short of that is a lost opportunity in terms of embedding a holistic approach to climate risk in the UK and Australia. Nonetheless, it would be naïve to expect regulators to adopt the primary proposed pathway in its entirety. Proposals do get diluted in their consultation and legislative processes, and the UK's recent pension laws are a prime example (as analysed in Chapter 5).[80]

Considering this, the thesis proposes a stop-gap reform pathway which is, in essence, a lighter and diluted form of Pathway 1. Here, the thesis proposes a simple recognition and application of the PRI model for all large pension funds that meet the threshold of 100 members or USD 10 million in asset holdings on a 'comply or explain' basis. This is a more voluntary pathway that provides encouragement on account of regulatory guidance for funds to adopt the PRI model. However, unlike reform Pathway 1, this is not a packaged regulation that attracts all of the elements of environmental reform best practice. Nonetheless, it does attract some advantages, but only for those who adopt the model, such as branding and reputation gains. It does not have the potential to transform the whole state of the regime from 'arrested development' to 'progressive development', as it does not have the advantage of enabling change across the industry. In other words, this is not an example of the 'smarter' regulation posited by the thesis.

[80] The compulsory statement on member views was watered-down in the UK See s 5.4.2.

Its main advantage lies in taking strong steps in allowing the PRI model to be recognised explicitly by regulators and to embody some aspects of climate risks that the data show PRI funds embody over and above non-PRI funds in general terms. However, this reform, while a positive step, will not embed a holistic approach to climate risks as the PRI itself is vague and promotes multiple strategies.

3. Embedded surveys (connect with beneficiary acquiescence)

The lowest level of a reform pathway proposed by the thesis is that of embedded surveys. This is a minimum best practice recommendation that is the worst-off in terms of attracting the advantages of the environmental reform discourse. This reform pathway aims to align with one of the indicators of just transition risk; that is, incorporating member views. It envisions a regulatory introduction of a mandatory requirement every year for beneficiaries to participate in an ‘embedded’ survey. Unlike voluntary surveys, this survey will be embedded into the signing-up stage to the fund and linked to the annual PDS. Consequently, beneficiaries will need to participate in the survey before becoming a member of the fund in the first instance; then, every subsequent year, they will need to participate in the survey in order to receive their PDS.

These embedding steps will ensure that beneficiaries adequately fill out the surveys in a meaningful way, rather being than a box-ticking exercise. The surveys need to be styled in line with the increasing and urgent transition risks. The surveys also need to include a section that aids pension trustees understanding of the beneficiary preference for pro-ESG and pro-climate inclusive options. The surveys can also include historical and market snapshots that showcase the fact that considering ESG risk such as climate risks is not a financial detriment in the short or the long-term.

Again, this is not a solution or a stop-gap solution, but an independent pathway that will aid pension trustees in investing for ESG risk in line with the wishes of their beneficiaries. Thus, at least this reform pathway will enable trustees to engage with their beneficiaries in a meaningful way on ESG risk, increase the knowledge of their beneficiaries in relation to ESG risk, and gauge their preferences and, maybe down the line, members will become acutely aware of just transition risks and stranded assets that may enable a broader future reform.

Again, this reform pathway is the least recommended option as it does not embody elements of the cutting-edge environmental reform discourse, nor does it alter the state of the regime from ‘arrested development’. However, the reform affirms the view that members will be the most vulnerable stakeholders in terms of just transitions risks and will suffer financially and socially as well in the short and long run. Giving member’s their voice in pension fund risk management of climate risk will allow for the reduction of some of the risks that flow from the transition to a low carbon economy though not all as addressing one key indicator is not sufficient to display minimum best practice standards in relation to holistic climate risk management.

7.4 Conclusion: reality check

First, the chapter analyses contemporary environmental reform arguments in line with the findings of the previous chapters. Second, it proposes a reform pathway and alternative reforms. Third, the chapter connects the reform pathway with the elements of environmental reform arguments and distils the uniqueness of the reform pathway. The reform pathway is supported by the developed environmental reform arguments and has the potential to embed a holistic consideration of climate risk in line with the Paris Agreement goals via a precise regulatory approach branded as a benefit regulation. Additionally, the precise regulation can transform the state of pension funds from a state of arrested development to progressive development. It is hoped that the regulation and the accompanying regulatory guidance can address the legal gaps in the current consideration of climate change by pension funds. Additionally, the supplementary guidance on duties of trustees and climate change can resolve uncertainties in relation to climate risk and insulate pension trustees of climate liability risks in the wake of increasing climate litigation.

The other two reforms are not recommended pathways but, rather, last-resort pathways that may embody positive steps in relation to climate risks. However, it is unlikely that they will embed a holistic approach to climate risk as they are not supplemented by precise regulations. Nonetheless, even Pathways 2 and 3 are capable of ensuring that the pension industry can take vital steps in the right direction in combatting climate risk. Unfortunately, the fact is that politics and the mandate of the government in power shape any economic policies and laws. In light of the current trajectories of the law in the UK and Australia, and heightened awareness of climate risk due to physical manifestations, now is the perfect time to introduce a packaged regulation that aligns pension funds' responses with the threat of climate risk. Due to the pandemic and shrinking economies, the concern is that stakeholders will get distracted from the pressing risks of climate change. Significantly, if the state does not grasp this opportunity to introduce such reforms and course-correct vital financial institutions, the wave of interest could ultimately die down and traditional 'business as usual' would thrive. It is expected that this would be the case as countries recover from the devastation of Covid. This would lead to irreversible damage due to climate risk, a default on the Paris Agreement goals and a disorderly shift to a low-carbon economy. The next chapter serves as a conclusion to the thesis.

Chapter 8 Conclusion

The thesis explored the current relationship between UK and Australian pension funds and climate change risk with a focus on the duties of trustees and disclosure obligations. This study was inspired to investigate this evolving and fast-paced relationship due to the ever-increasing financial, physical and transition risks of climate risks to the global economy and the physical environment. The urgency of climate risks is further supplemented by the Paris Agreement goals and the warnings of the IPCC that warrant an urgent global response to climate risks by global economies and financial institutions such as pension funds.

Climate risks previously were considered as inappropriate for consideration by pension funds in Anglo-American jurisdictions such as the UK and Australia. However, this legal uncertainty surrounding the legality of considering climate risks for pension funds has virtually abated due to the increasing manifestations of climate risk, global declarations of climate emergencies and instances of climate litigation. The thesis assumes this stance and does not explore the legality of considering climate risks. Rather, it is submitted that the more crucial problem is the extent of this legality and whether the current approach by regulators in the UK and Australia is enough to combat climate risk and meet the Paris Agreement goals.

Thus, the thesis explores the extent to which pension funds can take climate risks into account under the current legal pension regime in the UK and Australia. Climate risks need to be considered holistically – encompassing physical, liability and transition risks – on an urgent basis. The holistic approach also encompasses the consideration of subtle aspects of climate risks such as just transition risks of climate change to pension funds. Consequently, in order to gauge the extent to which pension funds are addressing climate risks holistically in the UK and Australia, a unique just transition lens is utilised. The just transition lens comprises of four indicators: incorporation of a policy on climate risk; divestment from fossil fuels; incorporation of member views; and incorporation of climate scenario analysis.
The just transition climate risk lens is utilised to analyse the extent to which pension funds in Australia and the UK can accommodate climate holistically as per the current legal pension fund regime. The legal regime includes the duties of trustees, disclosure norms and the impact of soft law in the form of the PRI. The thesis finds that the current regulatory approach in the UK and Australia, while allowing legal consideration of climate risk, is

effected by legal gaps that limit the holistic consideration of climate risk and favour a disjointed and compartmentalised approach to climate risk. This is because the regulations and regulatory guidance are either silent or open-ended in relation to climate risks; this causes pension funds to adopt multiple strategies at variable degrees in considering climate risks. This, in turn, distracts from the required holistic approach to climate risks and ignores consideration of subtle aspects of climate risks such as just transition risks.

The impact of soft law in (the form of the PRI) on pension fund practices in relation to climate risk was empirically analysed by comparing public disclosures of PRI signatory funds with non-PRI funds in both jurisdictions. It was found that, while the PRI does have a positive impact on pension funds in relation to the consideration of the four indicators of just transition risks, the PRI on its own is not sufficient to embed a holistic response to climate risk. It is proposed that a strong and precise regulatory approach is required that, as a start, is based on the PRI but contains a precise minimum obligation that allows for the embedding of a holistic approach to climate risk across the whole industry. It is posited that as a starting point, the Paris Agreement goals and temperature scenarios can help guide regulators in relation to minimum obligations.

The relationship between the financial sector and climate risk has garnered increasing attention at in the past decade, and this attention has become more pronounced as the physical, financial and transition risks of climate change have started to crystallise; for example, loss of marine life, increased instances of severe weather events, bushfires and new extreme weather records. Nonetheless, in recent times, the specific relationship between climate change risk and pension funds continues to be under-researched in terms of the extent to which climate risks can be legally considered by pension funds. Research has focused more on questions surrounding the legality of considering climate risks for pension fund governance, rather than the extent of the legality.

Moreover, a comparative understanding of the extent to which UK and Australian funds are addressing climate risks has not received much attention. This, coupled with the unique lens of just transition risk, makes this study an insightful contribution to scholarship. At the same time, there has been no systematic examination of the combined effect of the current law and current soft law mechanisms on this relationship (in the UK and Australia, specifically) and how soft law can play a role in positing a ‘smarter’ reform pathway. Yes, there have been notions of re-interpretations of the duties of trustees and stronger disclosure obligations; however, in recent times, a workable reform package for these two countries has not been posited.

The thesis therefore sets out to address the main research question and secondary research questions.

> **1) Main research question:** To what extent does the current legal regime allow pension funds to respond to climate change risks in a holistic manner?
>
> **2)** To what extent can current laws in the UK and Australia accommodate consideration of the four key indicators of the just transition risk lens as part of the holistic consideration of climate risks for pension funds.
>
> **3)** To what extent does soft law in the form of the PRI embed the four indicators of the just transition risk lens in the implementation of current laws in the UK and Australia?
>
> **4)** What reform might promote holistic climate risk management among pension funds in the UK and Australia?

The thesis utilises an environmental governance lens to identify the state of the pension fund legal regime as per Oran Young's 'exogenous-endogenous alignment', based on the findings. It concludes that the pension fund legal regime is in a state of 'arrested development' in relation to consideration of climate change risks. While legal uncertainty surrounding consideration of climate risks has reduced in the UK and Australia, uncertainty remains in the legal consideration of climate risks. The legal gaps that exist lead to the regime being unable to respond to climate risks adequately, while and updates to regulatory guidance do not alleviate the situation as the regulations are ambiguous rather than precise. Only precise regulations, that link climate risks with minimum obligations and the goals of the Paris Agreement, are capable of embedding a holistic approach to climate risk and transform the state of the regime from 'arrested development' to 'progressive development'. The proposed reform is based on not only the PRI's positive impact, but also on developed arguments of environmental reform theory.

The main and secondary research questions address the gaps in the literature by conducting a contemporary, comparative study of the extent to which pension funds address climate risks by utilising the lens of just transition risks for pension funds. The thesis analyses the regime as a whole – hard law and soft law – by examining the duties of trustees, disclosure norms and impact of the PRI (soft law) and the extent to which they accommodate the four indicators of the just transition risk lens for pension funds.

This analysis illustrates the exact circumstances and the extent to which these four indicators of the just transition risk lens can be considered by the regime. The analysis traverses a vast scope surrounding the relationship between pension funds and climate risk in the UK and Australia. It employs numerous methods that allows the work to be richer and more fruitful, and a genuine addition to scholarship in this field. The thesis takes inspiration from many enquiries, international studies, reports, and academic interest in the area in its analysis. Given international interest in this relationship, the thesis is both timely and topical.

The COVID-19 pandemic bolsters the reform rhetoric developed by the thesis. The thesis places credence on the need for government intervention to 'nudge' the pension industry towards adopting a holistic approach to climate risk. State oversight is key to embedding a standardised response in the pension industry to combat the physical, liability and transition risks associated with climate change; however, this oversight is not rooted in traditional government interventionist approaches. Rather, it takes inspiration from developed 'smarter' regulatory approaches. The pandemic highlights the importance of swift government intervention to nudge macroeconomic, microeconomic, institutional and individual behaviour and practices. For instance, speedy state intervention temporarily made pension funds contributions available to members in need in Australia.

In countries like Australia, the entire concept of 'business as usual' has transformed; this has become internalised and ingrained in the psyche of institutions and individuals. Had the pandemic response been left to the free market, the situation in Australia, which has combated the pandemic better than most countries, would have been dire. There certainly would not have been a standardised response, nor would there have been sacrifices to the financial imperative by financial institutions in such a swift and broad way. Government intervention, in for the form of timely stimulus packages, JobKeeper programmes, border closers and enforced physical distancing, curbed the pandemic risk successfully. In summary, the Australian response to the pandemic risk, via enabling government intervention, was proportionate and holistic.

Climate change risk needs to be viewed as being as imminent and urgent as the current pandemic. It is a threat to the physical and financial world and to health of individuals; like the pandemic, it does not care about borders, beliefs, ideals or intentions. Swift and proportionate action is required by all jurisdictions to address climate change risk. The reform pathway proposed by the thesis is capable of reconfiguring the response of pension funds in the UK and Australia to make it proportionate to the urgent risks of climate change. It is an enabling and psyche-changing response that would alter pension fund behaviour in an organic and internalised way. The triggering or nudging factor is government intervention in the form of a packaged regulation that links with the goals of the Paris Agreement.

It must be kept in mind that, due to recent manifestations of climate risks in the form of extreme weather events, increased interest in climate risk (due to movements such as the fossil fuel divestment movement and Extinction Rebellion) and declarations of climate emergencies, there is a strong momentum to argues for a seamless and timely regulatory response. However, if the momentum is not utilised, it will die down and the state of the pension fund legal regime in relation to climate risks will deteriorate and may even lead to punctuated equilibrium or collapse, in the worst-case scenario.

It could be argued that the momentum has already started to die down. First, due to the pandemic generally, the world, politicians, law-makers, financial institutions, members and stakeholders are all distracted and concerned with surviving the pandemic physically and financially. Such a distraction does not bode well for consideration of climate risks which have taken decades to be understood as financial risks. Unfortunately, additional recent evidence is present that the momentum is dying down and reversing. For instance, a recent US Department of Labor rule is proposed that would severely limit the consideration of ESG factors for US pension funds and enhance sole financial consideration of financial interests in the short-term.[1] Additionally, the Australian Government has foreshadowed new legislation for pension funds that would dissuade them from consideration of ESG risk towards the sole financial consideration of their members' interests.[2] These two developments are disturbing in view of the already prevalent, compartmentalised approach to climate risk and the holistic

[1] Ira G. Bogner et al, 'Department of Labor Proposal Would Curtail ESG Investing' (Proskauer Employee Benefits & Executive Compensation Blog, 1 July 2020) <https://www.erisapracticecenter.com/2020/07/department-of-labor-proposal-would-curtail-esg-investing/>.
[2] Karen Maley, 'Super Changes Will Sting Industry Funds', *Financial Review* (6 October 2020) <https://www.afr.com/politics/federal/super-changes-will-sting-industry-funds-20201006-p562fq>.

approach required to address climate risk urgently in line with the Paris Agreement goals. It is hoped that these developments do not progress. However, there is hope as well, not least because of the current US President-elect's promise of the US rejoining the Paris agreement. Secondly, a groupf of Australia pension funds and investment banks have formed a climate league under the coordination of the Investor Group on Climate Change (IGCC). The group is focussing on achieving the Paris Agreement goals and also cutting greengouse gas emission to net zero by 2050.[3]

In conclusion, this thesis is but a speck in the universe. Perhaps all it achieves, if the reform is adopted in its entirety, is aligning the legal response of pension funds in the UK and Australia with the urgent physical, financial and transition risks of climate change. Yes, pension funds are perhaps the most important and largest of institutional investors. Their collectively improved response to climate change will benefit the whole economy and might even have trickle-down effects to other financial institutions and economy participants. Nonetheless, this is not enough; there are numerous opportunities not only to extend the objectives of this thesis, but also to deviate on tangential objectives. It must also be kept in mind that the Paris Agreement goals are a modest starting point, not a guaranteed solution.

In extending the scope and objectives of this thesis, studies can be conducted of all Anglo-American economies and their responses can be aligned with a holistic consideration of climate change risk in line with the Paris Agreement goals (excluding the US). There is also opportunity to compare Anglo-American economies with civil economies and then perhaps devise a response methodology that applies to both systems. Additionally, studies can be conducted of different jurisdictions that have contrasting models of pension funds and then align the responses; for example, the Canadian and Norwegian pension fund models can be contrasted with more traditional models found in the US. Furthermore, there is significant scope for extending the empirical study to include not only the impact of more soft law initiatives, but also to extend the methods by conducting interviews with pension fund managers, regulators and so on.

[3] See for instance Investors back push for stronger climate action <https://probonoaustralia.com.au/news/2020/10/the-new-climate-league-is-backed-by-investors-that-have-over-850-billion-under-management/>

In extending its tangential scope, the thesis strongly recommends similar studies and aligning responses to combat climate change risk by the banking industry. Had the thesis itself not been inspired by pension funds, it most certainly would have investigated the banking sector. Like pension funds, banks are the lifeblood of global economies and their actions and investment practices have trickle-down effects across the whole economy; they, too, have direct stakeholders (such as customers, consumers and guarantors) who are exposed to additional risks. Another reason that a study of banks is necessary is because non-traditional soft law initiatives have started to divert their attention towards the banking sector in a more nuanced way. Here, I refer, of course, to the UNEP FI's Principles for Responsible Banking. These principles, launched in 2019 and like the PRI, will create huge waves in the banking sector in the coming years. It will be interesting to see the impact of these and other principles (such as TCFD, the Equator Principles, IFC performing standards and so on) on the banking response to climate change.

These opportunities for further research should not reduce the focus on the important and timely contribution of this project and its impact on the relationship between responsible investment and UK and Australian pension funds. It is an imperative that pension funds, the most intergenerational of all financial institutional investors, align their legal responses and combat climate change risk in a holistic manner and address subtle aspects of climate risks such as just transition climate risks. The thesis contributes to the scholarship in this area and makes some first steps in understanding the gaps in the legal and regulatory sphere. It then addresses those gaps by developing an environmental reform rhetoric and pathway for reform. The thesis builds on the ever-expanding interest in the responses of the financial sector, including pension funds, to combating climate change risk. The thesis successfully analyses the important milestones in this ever-expanding interest, while analysing and identifying gaps in contemporary law that hinder a holistic response to climate change risk by pension funds.

Unfortunately, even in the aftermath of evidence and the embodiment of physical and financial risks of climate change (such as the recent extreme weather events that include floods, bushfires, heatwaves, and so on), financial institutions are falling short of actions required to take climate change risks into account holistically. This dovetails into the fact that the emission targets set by the Paris Agreement are not being met. Such a frustrated scenario has led to the 'declaration of climate emergency' movement in councils, towns and cities across the world. Even in light of this, the pension fund regime surrounding responsible investment remains in a state of ‘arrested development’.

Such inaction and entrenchment of ‘business-as-usual’ (i.e., pursuing financial maximisation) will lead to only one end. It will exacerbate the physical, liability and transition impacts of climate change risk and these will cause irreversible damage to the UK, Australia and the entire planet. There will be loss of ecosystems and life, and economic turmoil to a point where the damage cannot be reversed. The price will be paid by intergenerational stakeholders. Learning from the responses to the COVID-19 pandemic, UK and Australian pension funds need to be enabled by ‘smarter’ government intervention to consider of climate change risk in a holistic and uniform way across the whole industry. This will start to reshape the response of the whole economy due to the trickle-down effect of pension funds. While laws alone cannot reverse the damage caused by climate change risk, they can nudge the main participants of the economy on a trajectory that adequately responds to climate change risk and alleviates climate change financial and physical impacts for the betterment of the whole society.

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