State of OECD Pension Funds' Climate Transition

Insights and recommendations from the Net Zero Finance Tracker

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CLIMATE POLICY INITIATIVE

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ABOUT CLIMATE POLICY INITIATIVE

CPI is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. CPI has offices in Brazil, India, Indonesia, South Africa, the United Kingdom, and the United States.

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RELATED CPI WORKS

Net Zero Finance Tracker (2025)

Tracking the Transition: Global private financial institutions' progress toward net zero (2025)

State of European Pension Funds' Net-Zero Transition (2024)

Net Zero Finance Tracker Methodology (2025)

Net Zero Finance Tracker Scoring Methodology (2025)

Using the Net Zero Finance Tracker to Assess Financial Institutions' Transition Plans (2025)

Developing an operational transition finance definition for project/activity-level financing (2025)

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EXECUTIVE SUMMARY

WHY CLIMATE ACTION MATTERS FOR PENSION FUNDS

Pension funds—among the world's largest asset owners—play a unique role in the financial sector's climate transition. Given their long investment horizons, they are particularly exposed to both transition and physical climate risks that threaten asset values and returns.

Unlike other institutional investors, which often focus on short-term performance, pension providers have a fiduciary duty to address long-term systemic issues and act in their beneficiaries' best interests. In many jurisdictions, this obligation includes setting credible climate targets, implementing internal changes to strategy, governance, and process, and actively supporting the decarbonization of the real economy.

Pension funds' role in financing the climate transition is drawing sharper focus as the limits of public finance become clearer amid volatile markets, fiscal constraints, and rising climate risks. At the same time, sustainability disclosure rules and fiduciary standards are evolving across jurisdictions, creating both opportunities and uncertainty for long-term investors.

To reach their full potential for climate action, pension funds need support to overcome policy fragmentation, which continues to hinder their progress. Weak regulatory frameworks that prioritize short-term financial returns at the expense of long-term interest make it difficult for funds to integrate climate objectives into their own investment strategies and mandates with external managers.

Building from Climate Policy Initiative's previous study on *The State of European Pension Funds' Net Zero Transition (2024)*, this report presents an analysis of data from CPI's Net Zero Finance Tracker (NZFT) to explore the progress for the climate transition of 594 pension funds based in OECD countries, together representing USD 22.5 trillion in assets managed or owned (AUM/O). The report charts these funds' progress across the three dimensions of Targets, Implementation, and Impact to identify where pension funds are making meaningful progress and where further action is needed.

In addition, the report examines how policies across OECD countries influence pension fund behavior, and how pension funds, in turn, can shape policy through various levers. It then explores the relationship between pension funds and asset managers, showing how pension funds can use mandates, incentives, and expectations to influence climate alignment across their external managers.

KEY FINDINGS FROM THE NZFT

Below, we summarize the overall improvement of OECD-based pension funds across the NZFT dimensions in the last five years.

Table ES1. OECD pension funds' progress, performance, and comparison to other OECD institutions

	Indicator scores	Improvement (2020-24)[1]	Current Performance (2024)[2]		Quality of adoption vs other OECD entities in the NZFT (2024)[3]
Targets	Mitigation target	Very strong	Strong	□□□	Similar
Targets	Climate investment target	Medium	Very weak	□□□	Similar
Targets	Fossil fuel phase-out and exclusion targets	Medium	Weak	■□□	Stronger
Implementation	Internal accountability framework	Very strong	Strong	■□□	Weaker
Implementation	Shareholder and client engagement	Medium	Strong	□□□	Similar
Implementation	Policy engagement	Medium	Medium	■□□	Much stronger
Implementation	Climate risk strategy	Strong	Strong	■■■	Similar
Implementation	Climate risk management	Very strong	Strong	■■■	Stronger
Implementation	Disclosure of climate risk	Medium	Medium	□□□	Similar
Implementation	Disclosure of investment data	Medium	Weak	■■□	Weaker
Implementation	Disclosure of emissions data	Medium	Medium	□□□	Much stronger
Implementation	Net zero without offsets	Very weak	Very weak	□□□	Much weaker
Impact	Energy exposure (% clean energy)		Weak		Much stronger
Impact	Indirect financing (% clean energy)		Strong		Similar

1 **Improvement** shows the change from 2020-24 in share of AUM/O scoring beyond *No action/Planned.*
Percentage point increase: <20% very weak; 20–30% weak; 30–40% medium; 40–50% strong; >50% very strong.

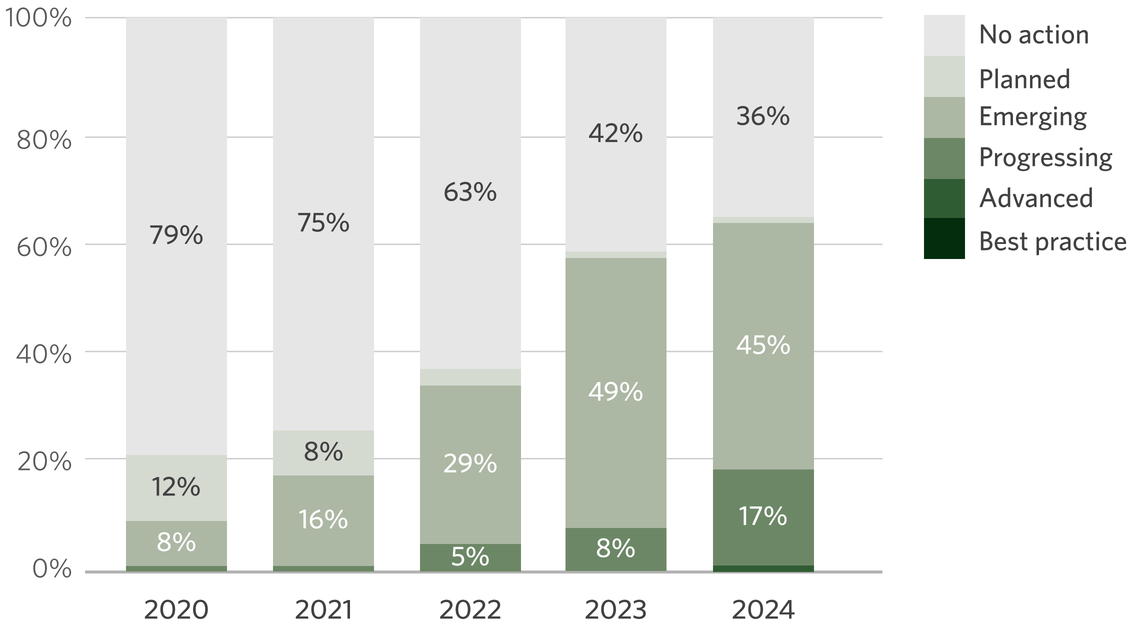
2 **Current performance** relates to the share of AUM/O in 2024 scoring beyond *No action/Planned.*
<40% very weak; 40-50% weak; 50-60% medium; 60-70% strong; >70% very strong.
For the impact indicators: <20% very weak; 20-40% weak; 40-60% medium; 60-80% strong; >80% very strong.
For targets & implementation, the square symbol indicates the share of Advanced/Best Practice:
□□□ <10% ■□□ 10-20% ■■□ 20-30% ■■■ >30%

3 **Quality of adoption** compares the percentage point difference of the share of AUM scoring *Advanced/Best Practice* of the pension fund sample with other entity types across the rest of the NZFT.
Gap in percentage points: <5% similar; 5-10% stronger/weaker; >10% much stronger/weaker.

1. PENSION FUNDS ARE RAMPING UP CLIMATE TARGETS AND IMPLEMENTATION.

Many more pension funds have set climate targets over the last five years, but there are gaps in quality and widespread adoption (see Figure ES1). Funds improved across all three Target indicators (mitigation, fossil fuel exclusion and phase-out, and climate investment), most notably for mitigation—driven by increased target setting together with detailed specifications of baselines as well as which sectors and asset classes are covered. However, notwithstanding the progress, significant gaps remained for all three in 2024, particularly for climate investment targets. *Advanced* and *Best Practice* scores are observed only for some funds regarding their fossil fuel phase-out and exclusion targets.

Figure ES1. Pension funds' overall target score 2020-2024, by % of AUM/O



No action: No action observed for any indicator
Planned: ≥1 indicator is Planned
Emerging: ≥1 indicator is Emerging or above
Progressing: ≥50% of indicators are Progressing or above
Advanced: ≥50% of indicators are Advanced or above
Best practice: All indicators in the dimension are scored as 'best practice'

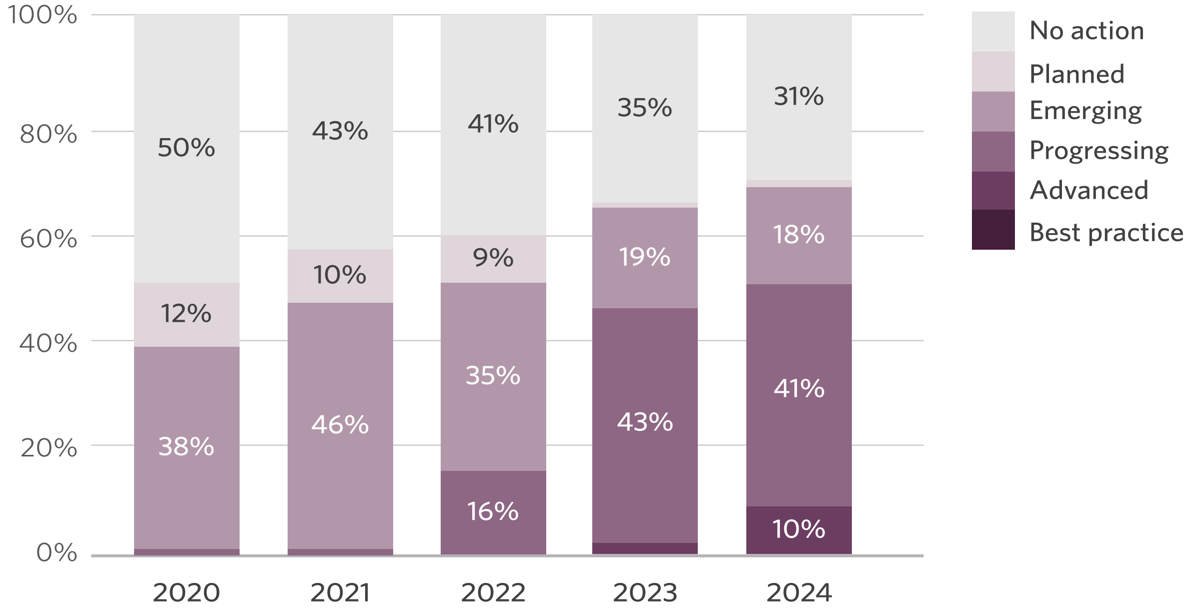
Note: The figure shows aggregate scores for FIs' climate targets across three areas: adoption of a mitigation target, of a fossil fuel exclusion and phase-out target, and of a climate investment target. For a full overview of the sources and scoring criteria please refer to the NZFT methodology.

Climate change is reflected both in pension funds' strategy and governance, though the depth and quality of integration vary. Strong improvements were observed, particularly in the use of internal accountability frameworks, climate risk management, and climate risk strategy.

This positive trend stemmed from a rise in actions such as greater coverage in the use of tools to manage climate-related risks across assets, as well as having chief-level staff accountable for climate change.

Advanced and *Best Practice* scores were predominantly seen across climate risk management and strategy, and internal accountability frameworks (see Table ES1), driven by pension funds appointing board members with climate-related expertise as well as processes to review their climate change strategy regularly.

Figure ES2. Pension funds' overall implementation score 2020-2024, by % of AUM/O



No action: No action observed for any indicator
Planned: ≥1 indicator is Planned
Emerging: ≥1 indicator is Emerging or above
Progressing: ≥50% of indicators are Progressing or above
Advanced: ≥50% of indicators are Advanced or above
Best practice: All indicators in the dimension are scored as 'best practice'

Note: The nine NZFT Implementation indicators capture FIs' tangible steps taken to deliver on climate goals. The figure shows the aggregate scores across all nine indicators: 1) Internal Accountability Frameworks, 2) Shareholder Engagement, 3) Policy Engagement, 4) Climate Risk Strategy, 5) Climate Risk Management, 6) Disclosure of Climate Risk, 7) Disclosure of Investment Data, 8) Disclosure of Emissions, and 9) Net Zero without Offsets. For a full overview of the sources and scoring criteria please refer to the *NZFT methodology*.

2. PENSION FUNDS HAVE A SIGNIFICANT INFLUENCE ON THE DECARBONIZATION OF THE REAL ECONOMY, BUT REMAIN MATERIALLY EXPOSED TO FOSSIL FUELS.

Existing portfolio allocations show that tracked pension funds' energy investments are heavily concentrated in companies expanding their fossil fuel operations. Analyzing the portfolios of 96 pension funds with USD 310 billion invested in energy, we find that expansionist fossil fuel companies account for 55% (USD 169 billion) and non-expansionist fossil fuel companies account for 8% (USD 24 billion). Only 38% is directed toward clean energy companies (See Section 2.3 for methodology and definitions of clean energy and (expansionist) fossil fuel companies).

For new energy investments, NZFT data attributes USD 4.5 billion of pension finance in 2024 to energy projects, with around two-thirds classed as clean and transition finance. Focusing on 135 pension funds and tracking project-level investments associated with their equity holdings in listed companies, we link their capital to 2,750 new clean energy and fossil fuel projects, totaling USD 479 billion, illustrating the reach of pension fund investment across the energy system. Across OECD pension funds, around 63% of this indirectly enabled investment is classified as clean, 4% as transition, and 33% as fossil fuels.

Taken together, current portfolio allocations and new energy investments of pension funds are misaligned with the net-zero scenarios of the International Energy Agency (IEA) and the Network for Greening the Financial System (NGFS).

3. ONCE PENSION FUNDS INTEGRATE CLIMATE INTO THEIR TARGETS AND STRATEGIES, THEY MATCH OR SURPASS OTHER FINANCIAL INSTITUTIONS' AMBITION AND ACTION.

NZFT data indicates that once funds start embedding climate into their governance and investment processes, they tend to score as highly, or higher, than other entity types tracked by the NZFT. Pension funds often scored similarly to other kinds of FIs across the individual Targets and Implementation indicators (see Table ES1). However, overall, they outperform other entities in terms of fossil fuel exclusion targets, policy engagement, climate risk management, and emissions disclosure. They only score slightly lower on internal accountability, investment data disclosure, and disclosing and committing to net-zero pathways without carbon offsets. In addition, within their energy portfolios, pension funds tend to have a larger exposure to clean energy, with 38%, compared to just 26% of other financial institutions (FIs).

4. TARGETS, IMPLEMENTATION MEASURES, AND TRANSITION PLANS MATTER.

NZFT data show that targets, implementation measures and transition plans are more than symbolic commitments: they are associated with measurable shifts in portfolio allocation. As Table ES2 illustrates, funds that have adopted these elements hold a higher share of clean energy than the sample average of 38%.

Table ES2. Average share of clean energy in pension funds' energy holdings, by adoption of targets, implementation, and transition plans

	Average clean share of funds' energy portfolio		
	Overall target	**Overall implementation**	**Transition plan**
Adopted (Scored *Emerging* or above)	46%	45%	46%
Not adopted (Scored *No Action/Planned*)	28%	27%	29%

Note: See Section 2.3.1 for methodology.

5. STRONG, WELL-DESIGNED POLICIES ARE CRUCIAL TO EMBED CLIMATE CONSIDERATIONS IN PENSION FUNDS' STRATEGIES.

Robust, coherent policy frameworks enable pension funds to strengthen their climate ambitions and take action. OECD countries with clear regulatory guidance for pension funds—such as the Netherlands, Denmark, and the UK—set and implement the most targets, while fragmented or voluntary regimes leave funds uncertain about their duties and less able to act on climate. Moving from policies that merely allow consideration of climate factors to those that require it, clarifying that responding to long-term sustainability and climate risks is part of fiduciary duty, and harmonizing disclosure standards across jurisdictions will be critical to unlocking more action and finance. However, it is important to recognize that national structural and market differences, the availability of climate-focused products, and societal demand for pension funds to integrate climate change into their strategies significantly affect funds' ability to make climate investments and adopt related policies and targets.

Table ES3. Target score vs Implementation vs pension fund legislation scores by country in 2024

	Climate relevant policies	Targets	Implementation
Country	Mandatory climate risk inclusion[1]	Weighted average score by AUM/O	Weighted average score by AUM/O
Netherlands	Required	2.3	2.5
Denmark	Required	2	2.6
UK	Required	1.7	2.5
Norway	Required	3	3.9
Australia	Permitted	1.6	2.1
Switzerland	Permitted	1.5	1.7
Canada	Permitted	1.6	2.1
South Korea	Required for NPS[2]	2	1.9
Japan	Required for public pensions	1.4	2.2
US	Required in some states	0.8	1.2
	Yes Partial	2024 Score 0-5: 0-No action; 1-Planned; 2-Emerging; 3-Progressing; 4-Advanced; 5-Best practice	

[1]Are pension funds permitted/required to assess and incorporate climate risks that could materially impact investment returns?
[2]NPS is South Korea's largest public pension.

Note: Sequenced from strongest to weakest policy environment

In addition, climate coalitions and trade associations present important opportunities for pension funds to advocate for ambitious climate policy reforms. FIs should ensure that their trade associations' policy engagement efforts align with their own climate positions. They should also continue to utilize climate coalitions to engage with policymakers on sustainable finance reforms.

6. THE ASSET OWNER–ASSET MANAGER RELATIONSHIP IS A CRITICAL LEVER FOR CHANGE.

The world's largest pension funds are uniquely positioned to drive climate impact at scale by influencing their asset managers. European funds consistently outperform peers on stewardship policies and disclosure, while many North American funds lag, often due to legal or political constraints on ESG integration.

Pension funds are pursuing one or more of three strategies to exercise more control and influence over their delegated capital toward net zero. First, systematic engagement and active ownership, by strengthening oversight and other stewardship mechanisms through revised mandate terms, the integration of climate considerations in manager screening, explicit policy-aligned voting, and clear escalation pathways (e.g., Pensioenfonds van de Metalektro's tightening of manager selection and assessment criteria). Second, mandate termination, by using mandate withdrawal as the final escalation step where managers fail to meet stewardship or responsible investment expectations (e.g., the People's Pension and Danish pension fund Akademiker Pension terminating mandates with US manager State Street). Finally, reallocation, internalization, or reduced diversification, by assigning significant mandates to asset managers aligned with sustainability priorities, and/or bringing asset management in-house to reduce principal-agent risks. For example, Dutch fund Pensioenfonds Zorg en Welzijn (PFZW) reduced its equity portfolio from 3,500 to 800 names, withdrew mandates and appointed new managers alongside an internal team to increase control (Rundell, 2025).

RECOMMENDATIONS

A more supportive operating environment can help pension funds to act in their beneficiaries' best long-term interests. Based on the findings outlined above, a comprehensive literature review, and interviews with experts, the report outlines recommendations to create such an environment that enables pension funds to act in their beneficiaries' best long-term interests.

The recommendations are organized around four mutually reinforcing pillars:

Pillar 1 – How policymakers can create an enabling environment
I. Align fiduciary duty and market signals with net zero: Policymakers should hard-wire climate into fiduciary duty, recognizing climate risk as a core financial issue and supporting climate-aligned benchmarks.
II. Build the governance, standards, and stewardship architecture: Regulators should build a clear governance and stewardship architecture for asset owners, including transition-plan requirements, harmonized reporting standards, and standardized asset owner-asset manager templates.
III. Enable scale, flexibility, and capacity for climate investment: Supervisors should review prudential rules, fee caps, and scheme structures to remove barriers to climate investments, support consolidation where appropriate, and enable smaller funds to invest in climate-aligned products.
Pillar 2 – How pension funds and asset manager can use their relationship as a lever for change
I. Set expectations and select aligned managers as *ex-ante* controls: Pension funds should codify climate expectations in mandates and stewardship policies, and use climate and stewardship criteria explicitly in manager selection.
II. Conduct ongoing monitoring and engagement: Asset owners should strengthen monitoring systems and structured dialogue with managers, assessing portfolio alignment, voting, escalation and policy advocacy.
III. Determine specific climate-related engagement and escalation processes to ensure alignment towards net zero: Where managers remain misaligned, pension funds should reclaim key levers such as voting, apply escalation frameworks and, if needed, reallocate mandates or build in-house capabilities.
IV. Design climate-aligned investment solutions: Asset managers should design climate-aligned investment solutions, offer customized mandates with explicit stewardship tools, and provide cost-efficient pooled funds and reporting that allow clients of all sizes to implement credible net-zero strategies.
V. Use stewardship as a strategic differentiator: Asset managers can compete on stewardship by evidencing outcome-focused engagement, credible escalation and leadership in collaborative initiatives.

Pillar 3 – How pension funds can move forward independently
I. Embed net zero in strategy, governance, and portfolios: Pension funds should upgrade to comprehensive, time-bound net-zero targets and embed climate in governance, risk management and incentives, shifting capital from fossil fuel expansion toward clean and transition assets so portfolio decisions prioritize real-economy decarbonization.
II. Drive change across the pensions and financial ecosystem: Individually and through associations and coalitions, pension funds should advocate for clear climate policy, share tools and learning with peers, and build coalitions on key issues.
III. Increase transparency and public understanding: Funds should voluntarily disclose delegation structures, transition plans, stewardship activities and outcomes in accessible formats, and communicate clearly with members and the public.
Pillar 4 – How other actors can create a supportive ecosystem for policymakers, pension funds, and asset managers
I. Support improved data and reporting: Data providers, research organizations and coalitions should deliver granular, comparable climate-relevant data and standardized AO-AM reporting tools, so investors can gauge systemic risk and compare managers and funds.
II. Provide independent scrutiny of what works in practice: Academic and research institutions should assess which policy, regulatory, and stewardship frameworks drive real-economy decarbonization, and publish benchmarks of pensions and manager performance.
III. Support collective action and accountability: NGOs and coalitions should mobilize investors, civil society, and experts to advocate for credible climate policy, track delivery, and explain pensions' role in the transition, strengthening accountability to beneficiaries.

CONTENTS

1. INTRODUCTION

1.1 CONTEXT

Pension funds hold deep pools of long-term capital that can drive the climate transition by financing sustainable growth. The global economy is already experiencing the environmental, economic, and technological impacts of climate change, and these systemic risks will intensify as warming progresses. Given their long-term investment horizons and broad exposure across the economy, pension funds cannot diversify away from these risks. This creates both a responsibility and an incentive to strengthen the resilience of their portfolios and the real economy by reducing exposure to climate-related systemic risks and investing in solutions that mitigate them. In doing so, pension funds can capture returns from sustainable infrastructure, renewable energy, and climate adaptation assets—including in emerging markets—while contributing to the estimated minimum USD 6 trillion in climate finance required through 2050 (CPI, 2025a).

Amid an evolving regulatory and geopolitical landscape, pension funds need support to seize opportunities to sustain and scale their climate action. Many jurisdictions are adopting sustainability disclosure regimes aligned with the International Sustainability Standards Board (ISSB) framework, and clarifying that climate change constitutes a material financial risk that pension funds should consider. However, few have made these disclosures mandatory for pension funds, and interpretations and clarity on fiduciary duty in relation to climate change still vary widely among pension funds, asset managers, and regulators.

At the same time, political backlash against climate investing has intensified. In the US, more than a dozen states are attempting to restrict pension funds from considering environmental or social factors in investment decisions (Malone et al., 2023). In other jurisdictions as well, concerns about energy security and industry competitiveness have slowed climate action (Dutta, 2023). These developments can undermine pension funds' confidence in their ability to strengthen their ambitions and, in some cases, even expose them to litigation risks (Dechert, 2023).

Industry contexts add further complications. Inflation and geopolitical instability have made de-risking and liability matching top priorities for many pension funds, especially for defined benefit (DB) schemes, as they close to new members. At the same time, recent growth in clean energy (CPI, 2025a) and green bond markets is expanding avenues for long-term pension investments, if policy frameworks and asset manager relationships enable pension funds to access them.

Despite these challenges, many pension funds remain committed to climate action. Net-Zero Asset Owner Alliance (NZAOA), for example, has been more resilient than some other coalitions, with Net Zero Banking Alliance (NZBA) disbanding and Net Zero Asset Managers initiative (NZAM) revising its requirements as of late 2025. To stay relevant in the changing political landscape, NZAOA has evolved from promoting best practices among a core group of leading asset owners to enabling broader action across the membership through shared tools and resources. While the alliance has seen some defections, rather than fears of ESG pushback, many have been due to members opting to focus on one or two coalitions, as was the case with Danish pension fund PKA and the Church of England Pensions Board, which are both members of Paris Aligned Asset Owners (PAAO), another global group of asset owners committed to net zero (Marchant, 2023; Albuquerque, 2024).

In this context, independent tracking of pension funds' climate action is more important than ever. The NZFT provides the evidence base to identify leading pension funds, guide laggards, and drive meaningful progress toward a transitioned, more resilient financial system.

1.2 SCOPE AND METHODOLOGY

Building and expanding upon CPI's 2024 report, *The State of European Pension Funds' Net-Zero Transition*, this report provides an overview of the progress of 594 pension funds in OECD countries, representing USD 22.5 trillion in assets managed or owned (AUM/O), roughly 38% of global pension assets (Thinking Ahead Institute, 2025). Not all pension funds are included in each section due to data limitations (see Annex A for details). This year's research delves deeper into the key actions identified in the previous study to enhance the impact of pension funds in the real economy.

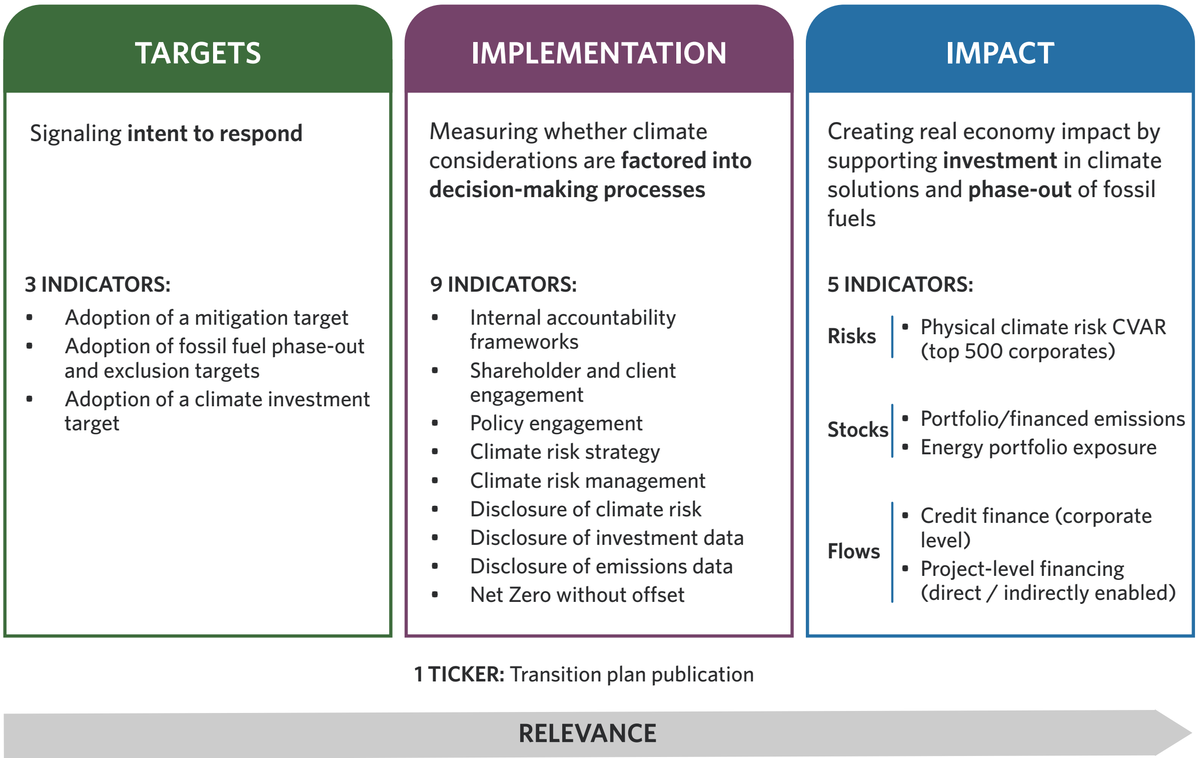
Our work examines a subset of the 1,500 top global FIs covered in Climate Policy Initiative's Net Zero Finance Tracker (NZFT) to analyze progress from 2020 to 2024 on achieving climate transition goals and delivering adaptation and mitigation impacts on the ground.

Box 1: About the NZFT

CPI's Net Zero Finance Tracker (NZFT) is an interactive data tool that provides insights into the financial sector's transition from 2019 to 2024 by tracking climate targets, implementation, and real-world impacts. The NZFT 2025 release tracks 1,500 global financial institutions, primarily private, representing USD 286 trillion in AUM/O, around 60% of the global financial system, or 67% of the global private financial system (FSB, 2024). For more information, see CPI's NZFT 2025 methodology and guidance on *Using the Net Zero Finance Tracker to Assess Financial Institutions' Transition Plans*.

Figure 1 shows the 17 NZFT indicators and one ticker, tracked across three dimensions: 1) **Target** setting; 2) **Implementation** of climate change into governance and the wider strategy, and 3) **Impact**, or how this action is driving investment in new clean or fossil fuel energy projects in the real economy.

Figure 1. NZFT dimensions and indicators



Each indicator is assessed by capturing, standardizing, and benchmarking actions across data from 58 different sources. Key data partnerships/agreements include Asset Impact, BNEF, Center for Active Stewardship, CDP, Diligent, Institut Louis Bachelier, InfluenceMap, IJ Global, MSCI, PRI, Profundo, RAN, Reclaim Finance, ShareAction, Sustainable Finance Observatory, Tracenable, and Urgewald. Together, this data offers the most comprehensive available picture of large FIs, including pension funds. Our assessments align with key elements of several international frameworks for net zero and transition plans, including the Net Zero Investment Framework (NZIF), iCAPS, TCFD, TPT, ACT Finance, PCAF, and others developed by organizations such as GFANZ, ISSB, NZAOA, and the UN High-Level Expert Group (UN HLEG).

Each of the 12 target and implementation indicators has an assessment framework based on actions aligned with credible net-zero pathways, ranked from *No Action* to *Best Practice*. The framework is informed by literature on 17 net-zero alignment frameworks and transition plans, capturing FIs' transparency, concreteness, comprehensiveness, and ambition on climate action (See *NZFT methodology* and *Using the Net Zero Finance Tracker to Assess Financial Institutions' Transition Plans*). Institutions' scores are displayed at both the indicator and aggregate dimension levels. This report presents scores as a weighted average observed across tracked pension funds.

Impact is assessed using quantitative indicators for activities that either support a net-zero transition (new project-level investment in clean energy) or detract from it (new project-level investment in fossil fuels).

Despite continuous and significant improvements compared to last year, data on pension funds remains constrained, particularly regarding their impact on the real economy. Pension funds' climate disclosures are relatively new and incomplete, with gaps, delays, and a lack of standardization across voluntary disclosures. In addition, amid policy volatility and political backlash, some pension funds are choosing to disclose less information even as they continue to integrate climate change into their strategies. This is particularly true when investment is delegated to asset managers rather than being managed internally. For this reason, we explored in depth the relationship between asset owners and their asset managers this year (see Section 4). The ongoing shift toward mandatory climate disclosures can help to close these gaps. Improvements over time mean that year-on-year data reflects both better information and evolving entity responses, creating complexities that we disentangle and flag where possible. Nevertheless, the powerful insights from this substantial and representative sample provide valuable indicators of progress and trends in pension funds' commitments to and implementation of net-zero initiatives. For further details, see the NZFT Methodology 2025.

In addition to analyzing data from the NZFT, we also conducted several interviews with representatives of the pension fund industry, regulators, climate coalitions, and think tanks across the OECD countries.

1.3 SAMPLE STRUCTURE

This report presents an analysis of 594 OECD pension funds, representing USD 22.5 trillion in assets under management or ownership (AUM/O), roughly 38% of global pension assets (Thinking Ahead Institute, 2025).

Figure 2. Location of sampled entities by % of entities, and % of AUM/O

LAC: Latin America and Caribbean, MENA: Middle East and North Africa

1.4 REPORT STRUCTURE

This report is organized in the following sections:

- **Section 2 – Progress across NZFT dimensions:** Presents what the NZFT tells us about pension funds' progress on Targets, Implementation, and Impact, including detailed analysis of energy portfolio exposure and indirect project-level financing, and comparisons with other FIs tracked by the NZFT.
- **Section 3 – Influence of the policy landscape:** Examines how regulatory, political, and market developments are shaping pension funds' climate action, including key drivers of progress and the role of collaborative policy engagement.
- **Section 4 – Pension funds' influence via asset managers:** Explores how pension funds can increase their real-economy impact through their relationships with asset managers, introducing the asset owner–asset manager framework and analyzing trends in asset owner control and positioning.
- **Section 5 – Key findings:** Synthesizes the evidence from the NZFT, policy analysis and interviews into a set of headline findings on pension funds' net-zero transition, highlighting current progress, the constraining role of weaker policy and regulatory frameworks, and the central importance of the asset owner–asset manager relationship.
- **Section 6 – Recommendations:** Sets out concise, actor-specific recommendations for policymakers, regulators, pension funds, asset managers, and data providers/ coalitions, structured around four pillars that, together, aim to build a more supportive operating environment and make climate-aligned investment the prudent, mainstream choice for pension funds.

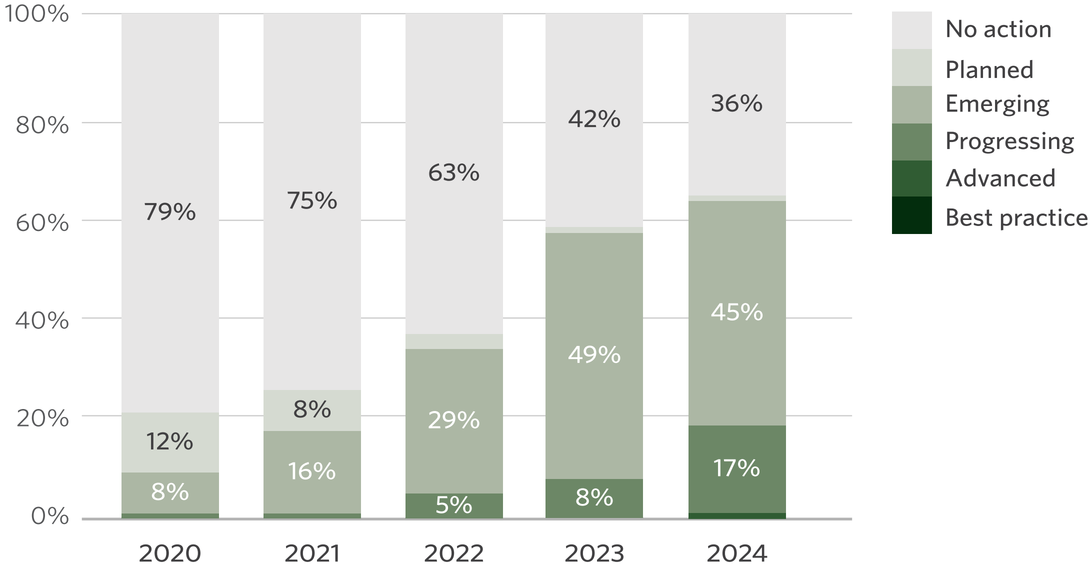
2. PROGRESS ACROSS NZFT DIMENSIONS

2.1 TARGETS

Setting strong, credible targets is a fundamental first step toward integrating climate considerations into investment decisions. OECD-based pension funds' target setting accelerated from 2020 to 2024, but quality remained low, with few exceeding the *Emerging* score across all three Target indicators. For more information on the underlying methodology, see *NZFT methodology*.

Showing broad progress, the share of pension funds in our sample by AUM/O that moved beyond *Planned* targets rose from 9% (27 funds)[1] in 2020 to 63% (209 funds) in 2024. Targets must now improve in quality; only 1% of entities by AUM/O (7 funds) had *Advanced* scores in 2024.

Figure 3. Aggregated score across NZFT Target indicators over time



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Note: Figure 3 shows aggregate scores for FIs' climate targets across three areas: adoption of a mitigation target, of a fossil fuel exclusion and phase-out target, and of a climate investment target. For a full overview of the sources and scoring criteria please refer to the *NZFT methodology*.

1 Unless otherwise stated, percentages refer to the proportion of the total sample of OECD pension funds analyzed in this report. Depending on the numeric value discussed, we measure sample size using 1) the numeric size of the sample (594 institutions), or the relative share of AUM/O managed by the sample (USD 22.5 trillion).

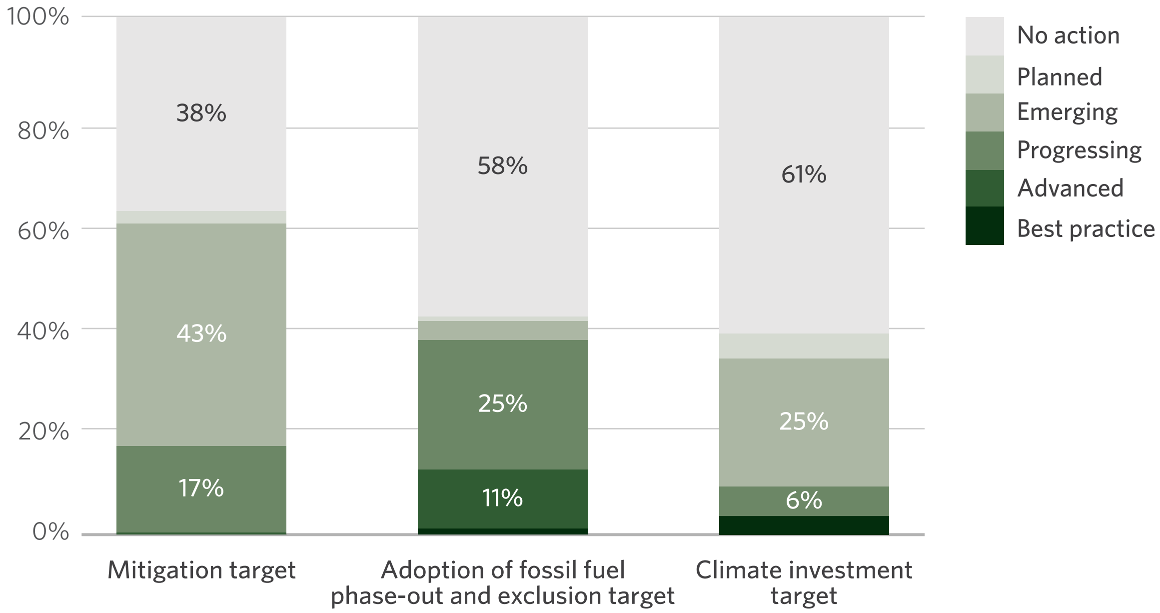
The overall Target score was primarily driven by wider adoption of mitigation targets, with smaller contributions from fossil fuel exclusion and phase-out targets and climate investment targets, as shown in Figure 4.

Mitigation targets are widespread, but lack specificity and depth. Mitigation targets increased the most since 2020, covering 60% of pension funds by AUM/O (195 funds) by 2024. Entities disclosed more details on their mitigation targets, such as the baseline year. However, only two funds had *Advanced* mitigation targets.

Fossil fuel exclusion and phase-out targets were of the highest quality, but coverage was sparse. Adoption stood at 41% of AUM/O (120 funds), with 13% (46 funds) achieving *Advanced/Best Practice*. Progress mainly stemmed from funds specifying the extent of their divestment targets and adopting some form of fossil fuel phase-out policy.

Climate investment targets were the least adopted overall, though some leaders had *Advanced* and *Best Practice* scores. Only 34% of entities by AUM/O (104 funds) had an investment target. Again, progress was driven by more detailed targets and specifying the timelines for their achievement. Pension funds now need to move beyond headline climate investment commitments toward robust, time-bound capital allocation goals.

Figure 4 Individual Target scores of OECD pension funds in 2024



Note: Indicators are sequenced from highest (left) to lowest (right) levels of adoption for scores of *Emerging* and above. For a full overview of the sources and scoring criteria please refer to the NZFT methodology.

Table 1. Top standard actions for Target indicators

	2020	2024	∆ 2024-2020	Adv. / Best Practice 2024	Top 3 standard actions ∆ 2024-2020
Aggregated target score	9% (27)	63% (209)	+54 pp (+182)	1% (7)	
Mitigation target	2% (9)	60% (195)	+58 pp (+186)	0.3% (2)	• Has other active emissions reduction targets (+67 pp, +153) • Baseline year for target is disclosed (+55 pp, +104) • Net-zero target or long-term target adopted (+53 pp, +79)
Climate investment target	2% (3)	34% (104)	+32 pp (+101)	4% (8)	• Investment target adopted (+39 pp, +82) • Timeline specified (+23 pp, +50) • Commits to finance climate solutions (+15 pp, +39)
Fossil fuel exclusion target	8% (18)	41% (120)	+33 pp (+102)	13% (46)	• Extent of divestment target (+38 pp, +76) • Undefined fossil fuel policy (+32 pp, +67) • Has phase-out/exclusion policy for coal (+30 pp, +60)

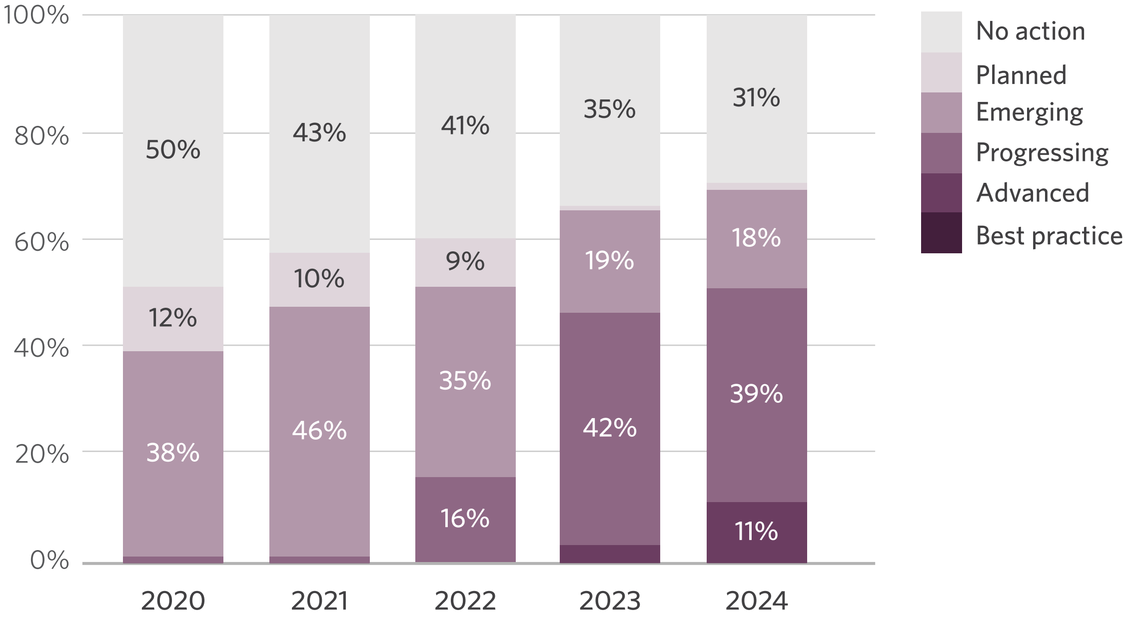
Note: For the 2020 and 2024 columns, numbers refer to pension funds scoring at least *Emerging*. Percentages refer to the share of AUM/O in the NZFT pension fund sample. Numbers in brackets refer to the absolute number of pension funds. "pp" refers to percentage points.

2.2 IMPLEMENTATION

In addition to target setting, pension funds must integrate climate considerations into their governance and decision-making processes. Most OECD pension funds strengthened their implementation from 2020 to 2024, but generally sat in the middle NZFT scoring tiers. No entity demonstrated *Best Practice* across all implementation indicators, as shown in Figure 5. For more information on the underlying methodology, see the NZFT methodology.

Entities moving beyond *Planned* implementation increased from 38% by share of AUM/O (145 funds) in 2020 to 68% (240 funds) in 2024, with half either *Progressing* (41%) or *Advanced* (10%).

Figure 5. Aggregated score across NZFT Implementation indicators over time



No action: No action observed for any indicator
Planned: ≥1 indicator is Planned
Emerging: ≥1 indicator is Emerging or above
Progressing: ≥50% of indicators are Progressing or above
Advanced: ≥50% of indicators are Advanced or above
Best practice: All indicators in the dimension are scored as 'best practice'

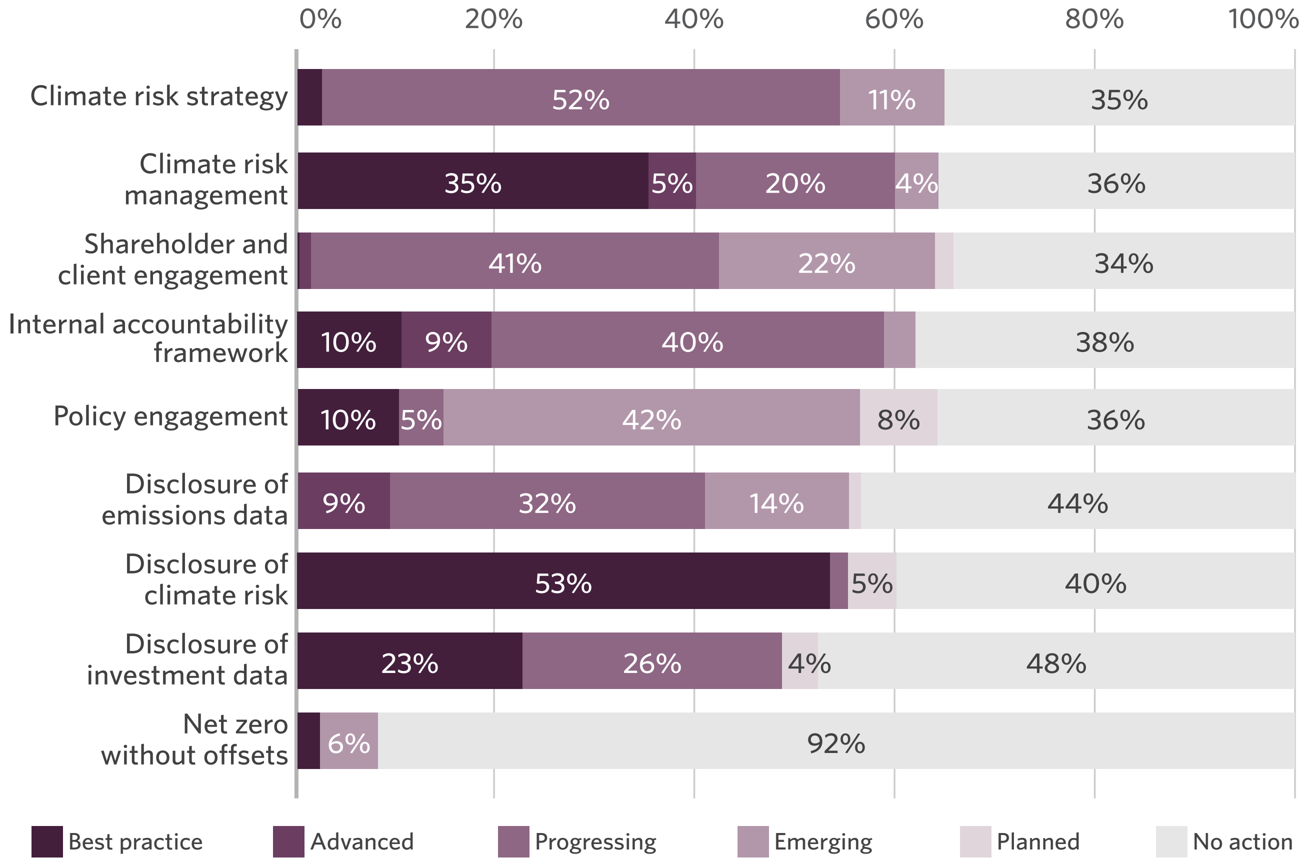
Note: The nine NZFT Implementation indicators capture FIs' tangible steps taken to deliver on climate goals. The figure shows the aggregate scores across all nine indicators: 1) Internal Accountability Frameworks, 2) Shareholder Engagement, 3) Policy Engagement, 4) Climate Risk Strategy, 5) Climate Risk Management, 6) Disclosure of Climate Risk, 7) Disclosure of Investment Data, 8) Disclosure of Emissions, and 9) Net Zero without Offsets. For a full overview of the sources and scoring criteria please refer to the *NZFT methodology*.

Data from 2024 validates that OECD pension funds are increasingly integrating climate considerations into their operations, governance, and strategy. Figure 6 shows wide integration of climate risk strategies and climate risk management, and, to a lesser degree, climate risk disclosure. Shareholder and client engagement was broadly adopted, though there is room to improve quality. While emissions and investment disclosures expanded, commitments to reach net zero without using carbon offsets were limited. Based on consultation with industry experts, this may be due to a lack of disclosure rather than poor practices; many pension funds consider offsets a clear breach of fiduciary duty and not something they would consider necessary to report.

- **Climate risk strategy** (adopted by 65% of funds by AUM/O) saw a step-change since 2020, integrating climate risks and opportunities into strategy and financial planning using recognized transition scenarios and multiple time horizons. More pension funds should take action to achieve *Advanced/Best Practice* scores (currently representing just 3% of funds by AUM/O).

- **Climate risk management was one of the most mature areas of Implementation.** Pension funds representing 64% of AUM/O moved beyond *Planned*, and 40% reached *Advanced/Best Practice*. Many funds established processes to assess and manage climate risk and deployed tools to manage risk exposures.
- **Shareholder and client engagement was broad but shallow,** with limited *Best Practice*. Pension funds representing 64% of AUM/O moved beyond *Planned* action, but only 1% reached *Advanced/Best Practice*. Many funds now have voting/engagement policies, escalation strategies, and report pro-climate engagement activity. However, the quality gap is evident: most funds achieved only *Emerging/Progressing* scores.
- **Internal accountability frameworks** saw broad uptake, with a high share of *Advanced/Best Practice* scores. Implementation beyond *Planned* stood at 62% of pension funds by AUM/O, with 19% scoring *Advanced/Best Practice*. The strongest drivers were the build-out of dedicated responsible investment staff and explicit accountability for climate at the business and C-suite levels. This combination placed internal accountability frameworks among the more mature Implementation areas in 2024.
- **Policy engagement was widespread,** but a high share of pension funds need to progress from intent and positioning to achieve consistent, transparent advocacy. While *Best Practice* leaders represented a notable 10% of AUM/O, funds representing 42% of AUM/O were still *Emerging*. The largest improvements stemmed from proactive support for specific financial regulations (standards, taxonomies, and prudential rules) and broader climate reforms, alongside commitments to align engagement with Paris goals.
- **More than half of pension funds were disclosing their emissions data**, but only 9% scored *Advanced/Best Practice*. Clearer methodologies, explanations for changes in emissions, and broader tracking of portfolio emissions are needed.
- **Climate risk disclosure was widespread, and the indicator saw the highest maturity.** Pension funds representing 55% of AUM/O were disclosing these risks, with more than 90% of those demonstrating *Best Practice*. The uplift was driven by publishing TCFD/ISSB/CSRD-aligned disclosures and requesting TCFD alignment from external managers, demonstrating how robust guidance can drive change.
- **Around half of pension funds by AUM/O were disclosing their climate investment data,** with 23% by AUM/O achieving *Advanced/Best Practice*. The improvements stemmed from the establishment of reporting systems for climate investment data (and for high-emitting assets) and clearer plans to disclose.
- **Disclosure of and commitment to reach net zero without offsets were limited.** Only 8% of funds by AUM/O progressed beyond *Planning*, and just 2% achieved *Best Practice*.

Figure 6. Implementation indicator scores of OECD pension funds in 2024



Note: Implementation indicators are ranked by the percentage of AUM/O with scores that are 'Emerging' or higher. For a full overview of the sources and scoring criteria please refer to the [NZFT methodology](#).

Table 2. Top standard actions for Implementation indicators for OECD pension funds

	2020	2024	∆ 2024-2020	Adv. / Best Practice 2024	Top 3 standard actions ∆ 2024-2020
Overall Implementation	39% (145)	68% (240)	+30 pp (+95)	11% (11)	
Climate Risk Strategy	22% (67)	65% (216)	+43 pp (+149)	3% (9)	• Considers the impact of climate risks and opportunities in strategy or financial planning (+65 pp, +164) • Uses reputable Energy Transition scenarios (+46 pp, +115) • Assesses climate risks and opportunities for different time horizons (+41 pp, +124)
Climate Risk Management	12% (42)	64% (216)	+52 pp (+174)	40% (101)	• Has a process to assess climate risk (+67 pp, +104) • Has a process to manage climate risk (+66 pp, +143) • Uses tools to manage climate-related risks (+66 pp, +159)

	2020	2024	Δ 2024-2020	Adv. / Best Practice 2024	Top 3 standard actions Δ 2024-2020
Shareholder and Client Engagement	32% (99)	64% (197)	+32 pp (+98)	1% (6)	• Engagement policy contains escalation strategy (+64 pp, +151) • Engaged to drive climate-related behavior in investees: Positive Action (+56 pp, +112) • Has a climate voting or engagement policy (+51 pp, +130)
Internal Accountability Framework	11% (39)	62% (192)	+51 pp (+153)	19% (105)	• Has dedicated responsible investment staff (+71 pp, +146) • Business-level staff is accountable for CC (+69 pp, +137) • Chief-level staff is accountable for CC (+62 pp, +128)
Policy Engagement	19% (74)	56% (140)	+37 pp (+66)	10% (11)	• Positions itself in favor of specific financial regulation, including the use of reporting standards and taxonomies, as well as prudential regulation: Positive Action (+59 pp, +86) • Positions itself in favor of general climate/ sustainable government reforms and regulation: Positive Action (+58 pp, +94) • Commits to conduct engagement activities in line with the goals of the Paris Agreement (+26 pp, +22)
Disclosure of Emissions Data	11% (37)	55% (145)	+44 pp (+108)	9% (8)	• The emission calculation methodology is disclosed and/or an explanation of factors influencing emissions changes is disclosed (+60 pp, +112) • Some level of emissions is tracked (+39 pp, +47) • Portfolio emissions are tracked (+38 pp, +48)
Disclosure of Climate Risk	11% (38)	55% (190)	+44 pp (+152)	53% (179)	• Publishes TCFD/ISSB/CSRD disclosures (+55 pp, +146) • Requests that external managers and/or service providers incorporate TCFD into reporting (+37 pp, +96) • Commits to engage for corporate TCFD disclosures (+21 pp, +43)
Disclosure of Investment Data	1% (3)	49% (99)	+48 pp (+96)	23% (23)	• Reporting system for climate investment data is in place (+63 pp, +88) • Plans to disclose investment data (+44 pp, +61) • Reporting system for high-emitting assets is in place (+36 pp, +31)
Net Zero Without Offsets	0% (0)	8% (25)	+8pp (+25)	2% (10)	• Discloses use of carbon credits (+10 pp, +17) • Exclusion of using carbon credits in achieving mitigation targets (+3 pp, +10)

Note: For 2020 and 2024 columns, numbers refer to pension funds scoring at least *Emerging.* Percentages refer to the share of AUM/O in the NZFT pension fund sample. Numbers in brackets refer to the absolute number of pension funds. "pp" refers to percentage points.

2.3 IMPACT

Because no single metric captures real-economy impact, the NZFT assesses multiple Impact indicators. While the NZFT tracks five indicators across different entity types (see Box 2), this section focuses on two indicators where attribution is most reliable for pension funds: energy portfolio exposure and indirect financing of new projects.

Box 2: Challenges to assessing the real-world impact of pension funds

The NZFT analyzes and tracks five impact indicators:

1. **Risk:** Physical climate value at risk (CVaR)
2. **Stock:** Energy portfolio exposure
3. **Stock:** Portfolio/financed emissions
4. **Flow:** Corporate-level credit finance
5. **Flow:** Project-level finance (directly or indirectly enabled)

The CVaR indicator captures potential portfolio loss from acute and chronic physical climate hazards under specific climate scenarios for the top 500 global corporates. The two stock indicators describe the composition and carbon intensity of existing holdings at a given point in time. Finally, the flow indicators reflect how much new capital goes to clean energy, transition, or fossil fuel activities, indicating the direction and pace of portfolio realignment.

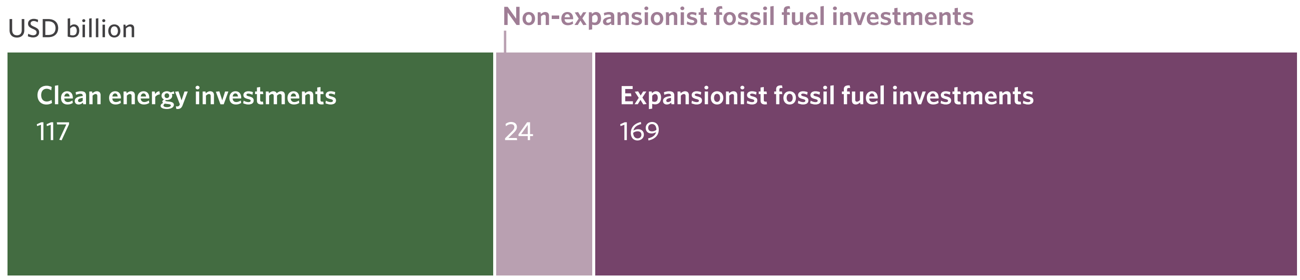
Tracking these indicators for pension funds is challenging due to how these entities invest, the availability and structure of the data. Modern equity ownership is heavily intermediated, with legal title often held by custodians or nominees, and investment discretion commonly delegated to external managers or pooled vehicles. Disclosure regimes vary by jurisdiction, featuring reporting lags and thresholds. The use of derivatives and securities lending can decouple economic exposure from registered ownership, limiting clean look-through to a named pension fund. Only the largest funds have substantial in-house teams. As a result, observable sources (share registers, top-holder lists, regulatory filings) typically attribute holdings to asset managers or investment vehicles rather than to the underlying pension client, thereby preventing the end-to-end attribution of physical climate risk and portfolio emissions. In addition, credit financing is not applicable to pension funds, and direct project-level investments are uncommon due to their large ticket sizes and the limited capabilities of pension funds' investment teams, which mostly focus on equity and bonds.

2.3.1 ENERGY PORTFOLIO EXPOSURE

OECD-based pension funds allocate more of their energy portfolio to clean power than other types of FIs. Nevertheless, their energy portfolios are dominated by investments in expansionist fossil fuel companies.

Building on data from Urgewald and Profundo, the NZFT tracked USD 310 billion in energy company holdings across 96 pension funds in 2024.[2] USD 232 billion of this amount was in equity, and USD 78 billion in bond holdings. Clean energy made up 38% (USD 117 billion) of these holdings. Non-expansionist fossil fuel companies made up 8% (around USD 24 billion), and 55% (USD 169 billion) in expansionist fossil fuel companies.[3]

Figure 7. Sample of 96 OECD pension funds' portfolio exposure to clean energy and fossil fuel investments in 2024[4]



The data indicates that target setting and implementation actions are more than just symbolic commitments—they correspond to measurable shifts in portfolio allocation. To test whether these actions correlate with higher portfolio exposure to clean energy, we grouped the 96 funds into two categories for each of the indicators below: those scoring at least *Emerging* (*Adopted*) and those scoring *No Action* or *Planned* (*Not adopted*).

Table 3 shows that funds that adopt targets, implement climate change into their governance, and publish transition plans consistently have a higher portfolio exposure to clean energy (45% to 48%) than the sample average (38%).

2 For the reasons mentioned in Box 2, we were only able to analyze energy portfolio exposure for 96 pension funds. The analyzed energy portfolio equals 2.1% of the assessed AUM/O of those 96 funds.
3 Expansionist fossil fuel companies are those that plan to increase their extraction (e.g., oil and gas field development), transportation and processing (e.g., pipelines and LNG terminals), and energy production (e.g., gas- and oil-fired power plants).
4 The energy portfolio exposure indicator measures the share of FIs' corporate bonds and equity holdings invested in fossil fuels vs. clean energy. To more accurately capture underlying exposure, investments are adjusted to reflect the approximate share of each company's business activities attributable to fossil fuel or clean energy. This stock measure does not track new investment but highlights transition risks and opportunities by revealing the balance of fossil fuel/clean energy assets. See the *NZFT Methodology 2025* for details on the calculations on this page.

Table 3. Share of clean energy exposure grouped by the adoption of six indicators

Status	Average clean share of funds' energy portfolio					
	Overall target	Mitigation target	Climate investment target	Fossil fuel exclusion target	Overall implementation	Transition plan available
Adopted[5]	46%	47%	48%	46%	45%	46%
Not adopted[6]	28%	28%	33%	34%	27%	29%

However, tracked pension funds' 55% exposure to expansionist fossil fuel companies in 2024 shows that portfolios remained misaligned with net-zero pathways. This breaches the IEA guidance that no new fossil fuel investments are needed to reach net zero if clean energy is deployed at pace (IEA, 2023), raising questions about the credibility and effectiveness of pension funds' net-zero strategies. While energy portfolio exposure is a stock metric and therefore does not measure new capital or the decarbonization of the real economy, it signals material transition, as well as reputational and regulatory risks, as sustainable finance taxonomies increasingly exclude fossil fuel expansion. We explore how such allocation translates into new capital flows in the next section.

2.3.2 INDIRECT PROJECT-LEVEL FINANCE

Roughly two-thirds of indirect finance from tracked pension funds for projects in 2024 flowed to clean and transition projects. However, a third backed new fossil capacity, concentrated in advanced economies.

To understand what is deployed on the ground, the NZFT tracks direct and indirect finance to new energy projects. However, pension funds rarely invest directly in individual infrastructure projects, as explained in Box 2. Pension capital is more frequently invested indirectly via equity holdings in banks, corporates, and asset managers, or through financial structures provided by asset managers, such as mutual funds. Since data on pension investments via asset managers is scarce, we focus on their equity in entities that then directly invest in projects.

We analyzed indirect project-level financing for 135 OECD pension funds, attributing USD 4.5 billion in new energy investments to them in 2024.[7] This amount is significantly higher than pension funds' direct investment. It also far exceeds the indirect investment that we were able to track in last year's report (USD 12.5 million). However, it remains modest compared to the overall USD 172 billion in direct and USD 58 billion in indirect project finance tracked across all entities in the NZFT, because pension funds typically hold small stakes in financing institutions and sit several layers away from real-economy assets. Most importantly, amounts can be tracked back to pension funds when they directly manage their capital allocation choices. Visibility reduces significantly when pension funds delegate investment to asset managers (see Box 2).

The vast majority of indirect equity financing went through banks (USD 3.75 billion or 83%) and corporations (USD 600 million or 13%). Overall, the number of projects partly financed by

5 Scored *Emerging* or above.
6 Scored *No Action/Planned*.
7 The calculation of indirectly enabled investment only focuses on investment that can be transparently and additionally attributed to FIs based on their equity and debt ownership shares. For more information see [The NZFT Methodology 2025,](#) and the [NZFT Ownership Methodology](#).

pension funds is substantial. In 2024, the 135 analyzed funds held indirect equity in more than 2,750 new clean energy and fossil fuel projects, totaling USD 479 billion, underscoring their potential influence on new energy-related investments.

Figure 8. Indirect energy project finance by OECD pension funds in 2024

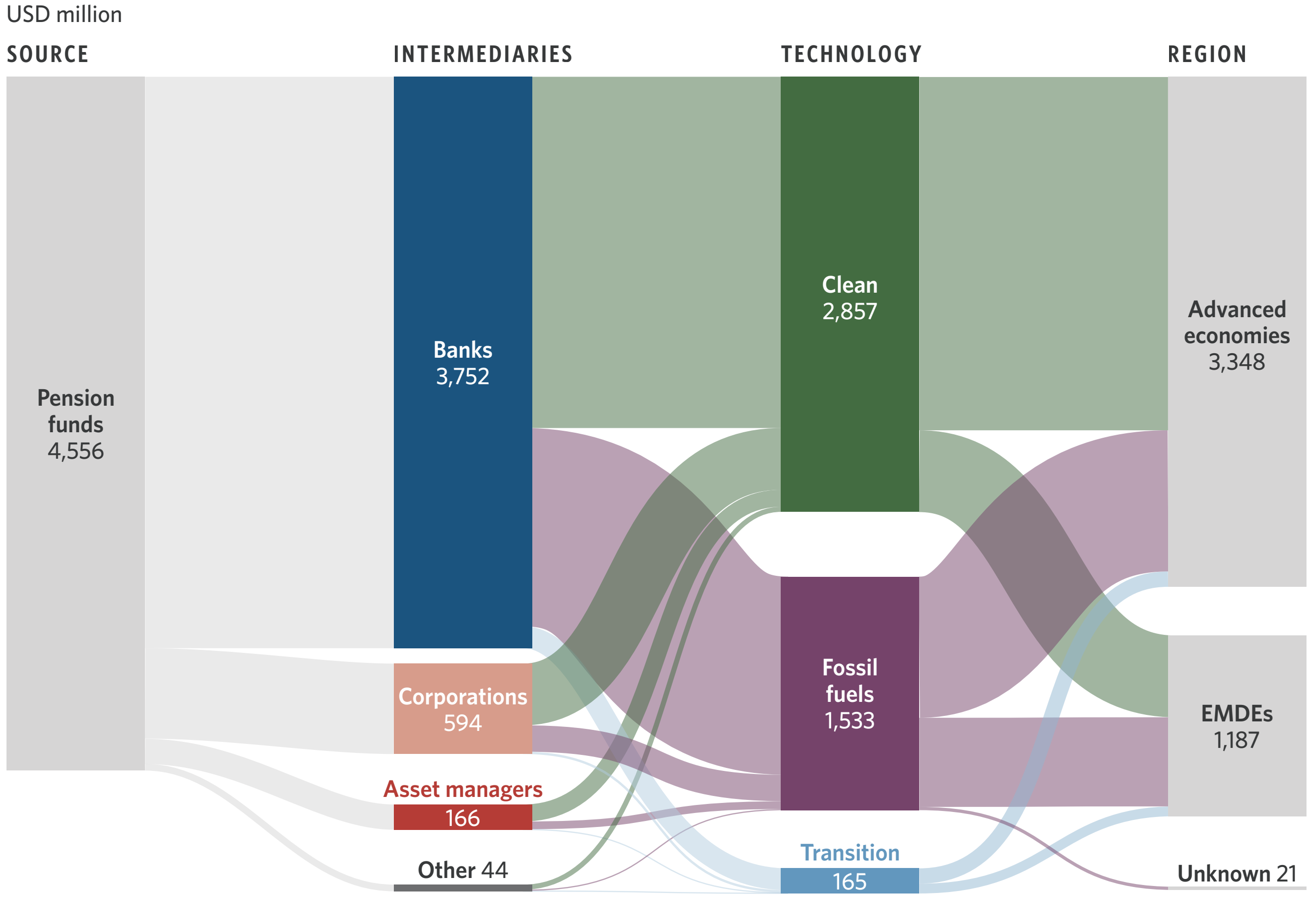


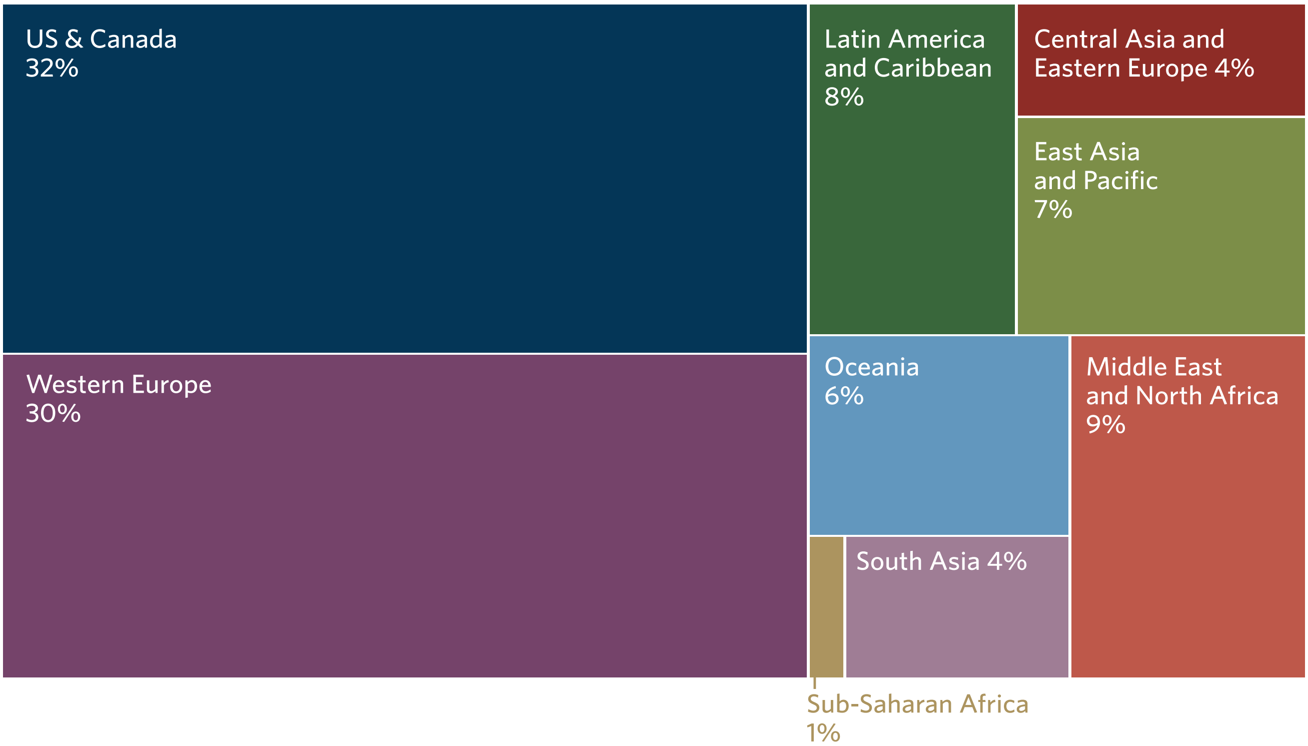
Figure 9. Indirect project financing of OECD pension funds for clean, transition, and fossil fuel energy in 2024

OECD pension funds' indirect clean energy and transition investments have outstripped those in fossil fuels in recent years. This mirrors global trends, with newly installed energy capacity increasingly dominated by clean sources (IEA, 2024a, 2024b). Across OECD pension funds, around 67% of indirectly enabled investment is classified as clean and transition (clean 63%, transition 4%), and 33% is classified as fossil fuels, broadly in line with NZFT global patterns.[8]

8 Within clean energy financing, activity concentrates in solar (39%), wind (32%), and power grids (21%), with smaller shares in hydropower, geothermal, storage, marine, and unspecified renewables. Transition investment is led by bioenergy (58%) and power grids (36%), with nuclear (6%). In the high-emissions category, flows go primarily to gas (38%) and oil (14%), with smaller allocations to coal (2%) and waste-to-energy (3%), and 37% unspecified fossil projects.

Indirectly financed projects are concentrated in North America and Western Europe (62%). Emerging markets and developing economies (EMDEs) receive around 25% of flows, and least-developed countries 0.13%, indicating limited reach into the markets where additional clean investment is often most catalytic. Given their scale and long-term horizons, pension funds are increasingly recognized as systemically important 'universal' asset owners whose capital allocation and stewardship expectations can shape how banks, utilities, and asset managers align their financing decisions with net-zero objectives.

Figure 10. Location of energy projects indirectly financed by OECD pension funds in 2024



Pension funds' adoption of Targets, Implementation actions, and transition planning shows little correlation with the clean/transition share of the new projects they indirectly enabled. To test whether these actions correlate with higher indirect investments in clean energy or transition projects, we grouped the 135 funds into two categories for each of the below displayed indicators: those scoring at least *Emerging* (*Adopted*) and those scoring *No Action* or *Planned* (*Not adopted*).

Unlike the energy portfolio exposure indicator (see Table 3), the results suggest that, at current market maturity and scale, indirect clean-project financing does not correlate with climate Target and implementation adoption. This likely reflects the maturity, attractiveness and bankability of clean technologies. Table 4 shows the adoption rates, which are generally slightly above the sample's average clean energy and transition finance share of 67%.

Table 4. Share of new clean energy and transition finance grouped by the adoption of six indicators

	Overall target	Mitigation target	Climate investment target	Fossil fuel exclusion target	Overall implementation	Transition plan
Adopted[9]	71%	72%	72%	68%	72%	67%
Not adopted[10]	68%	67%	69%	70%	67%	70%

Current finance flows are not aligned with IEA net-zero pathways, which require no new fossil fuel projects and continued expansion of clean energy. Although the 67% share of new clean/transition finance exceeds the 38% observed in the existing portfolio, it is below the required level. CPI estimates clean/transition should account for 78–100% of new project financing based on NGFS/GCAM and IEA scenario benchmarks (CPI, 2025b). Under the IEA NZE, no new fossil fuel projects are needed, while clean energy must continue to expand.

2.4 COMPARING PENSION FUNDS WITH OTHER NZFT ENTITIES

2.4.1 TARGETS AND IMPLEMENTATION

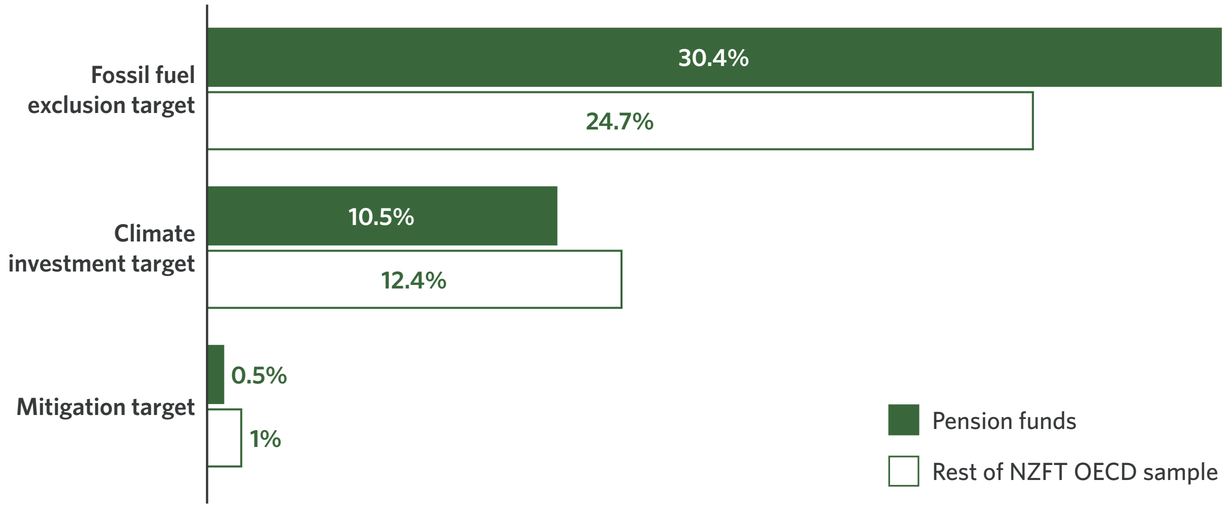
Building on the above analysis of OECD pension funds across Targets, Implementation, and Impact, we compare them with other types of FIs in OECD countries. Two contextual points are critical. First, historically lighter regulation and stakeholder scrutiny, together with more limited in-house resources, frameworks, and tools, have constrained pension funds' ability to provide disclosures, implement climate change into their strategies and publish dedicated transition plans, often shifting action to external asset managers. Second, data on pension funds is harder to obtain, meaning that some *No Action* scores might reflect information gaps rather than an absence of activity.

To mitigate these biases, for each indicator our comparison focuses on the subset of pension funds and entities from other sectors that have progressed beyond the *Planned* stage, i.e., organizations that have begun integrating climate considerations into their targets and implementation, and for which data is available. Within this subset, we assess the quality of execution by comparing the share of AUM/O rated *Advanced* or *Best Practice* across NZFT indicators with the share rated *Progressing* or *Emerging*.[11]

Targets adopted by pension funds are of broadly similar quality compared to those of other OECD-based entities, with a relatively higher quality for fossil fuel exclusion policies.

9 Scored *Emerging* or above.
10 Scored *No Action/Planned*.
11 For example, for Fossil Fuel Exclusion Targets, 120 pension funds with USD 9.27 trillion AUM/O score above *No Action* or *Planned*. Of those, 46 pension funds with USD 2.81 trillion AUM/O score *Advanced* or *Best Practice*. As a result, 38% (46/120) of pension funds with 30% (2.81/9.27) of AUM show a high-level of adoption (i.e. either score *Advanced* or *Best Practice*). The sample for each indicator varies depending on the scoring. As for other charts in this report, the chosen metric is AUM/O.

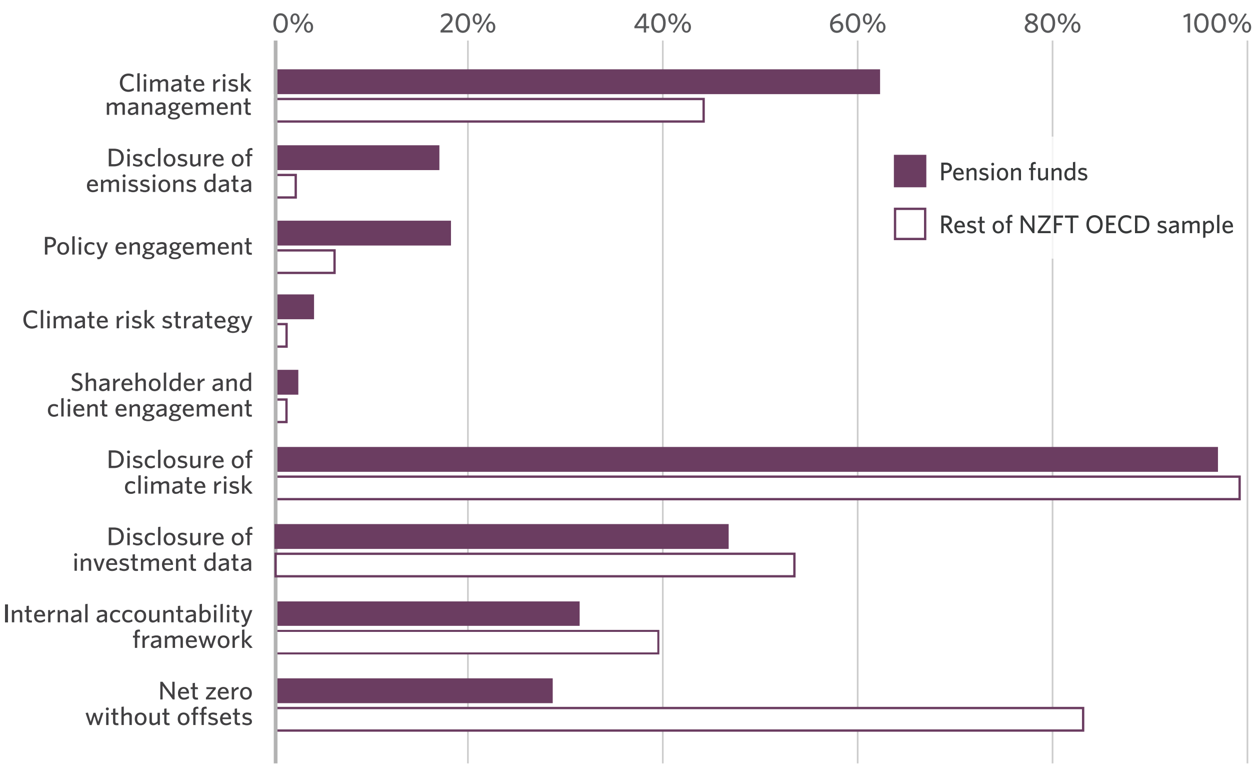
Figure 11. Relative share of *Advanced/Best Practice Target* scores of AUM/O beyond *No Action/Planned*



Note: Indicators are ordered from those where pension funds lead to those where they lag.

In terms of Implementation, pension funds have higher quality scores across several dimensions, particularly in climate risk management, emissions data disclosure, and policy engagement. While the disclosure of climate risk is broadly similar, there are greater differences in high-quality internal accountability frameworks, investment data disclosure, and reaching net zero without offsets.

Figure 12. Relative share of *Advanced/Best Practice* Implementation scores of AUM/O beyond *No Action/ Planned*



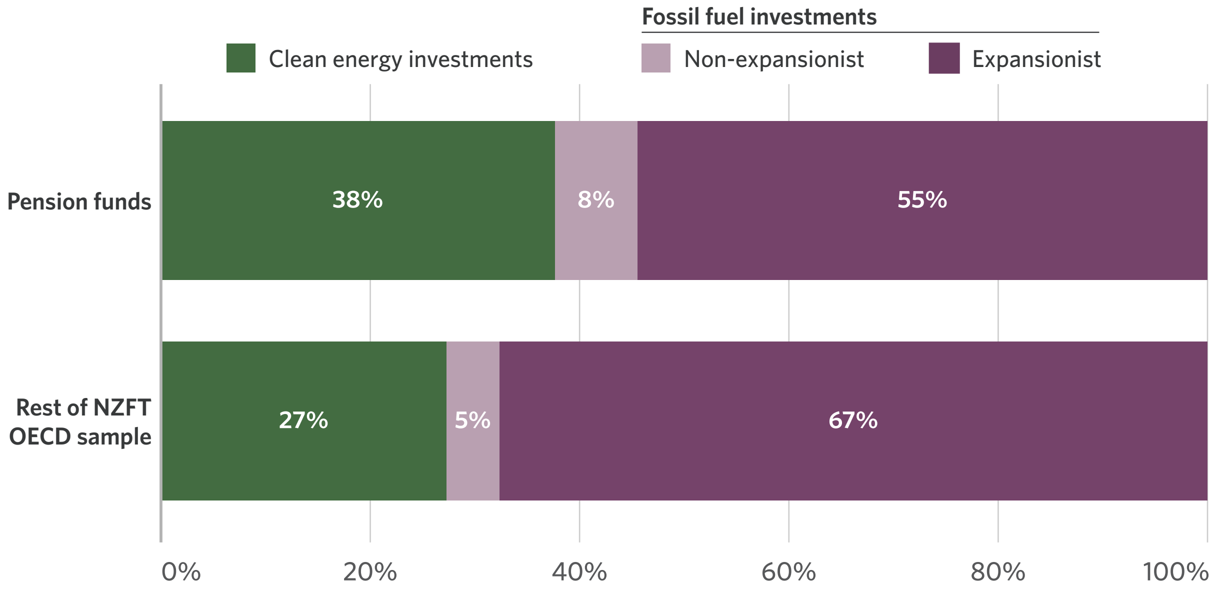
Note: The indicators in the figure are sequenced from those on which pension funds lead to those on which they lag.

2.4.2 COMPARISON OF IMPACT INDICATORS

While pension funds have a much higher relative exposure to clean energy than other entity types, most of their energy exposure is still in expansionist fossil fuels, as is the case across the broader NZFT.

With 38% or a total of USD 117 billion, the relative energy portfolio exposure to clean energy of the 96 pension funds is significantly higher than the 27% (or a total of USD 686 billion) across other entities of the NZFT, an +11 pp gap. On average, entities across the NZFT are more concentrated in expansionist fossil fuels, 67% (USD 1,677 billion) versus pensions' 55% (USD 169 billion). The non-expansionist fossil slice is small for both pensions, 8% (USD 24 billion), and others, 5% (USD 137 billion).

Figure 13. Comparison of energy portfolio exposure of pension funds vs other NZFT entities (OECD) in 2024

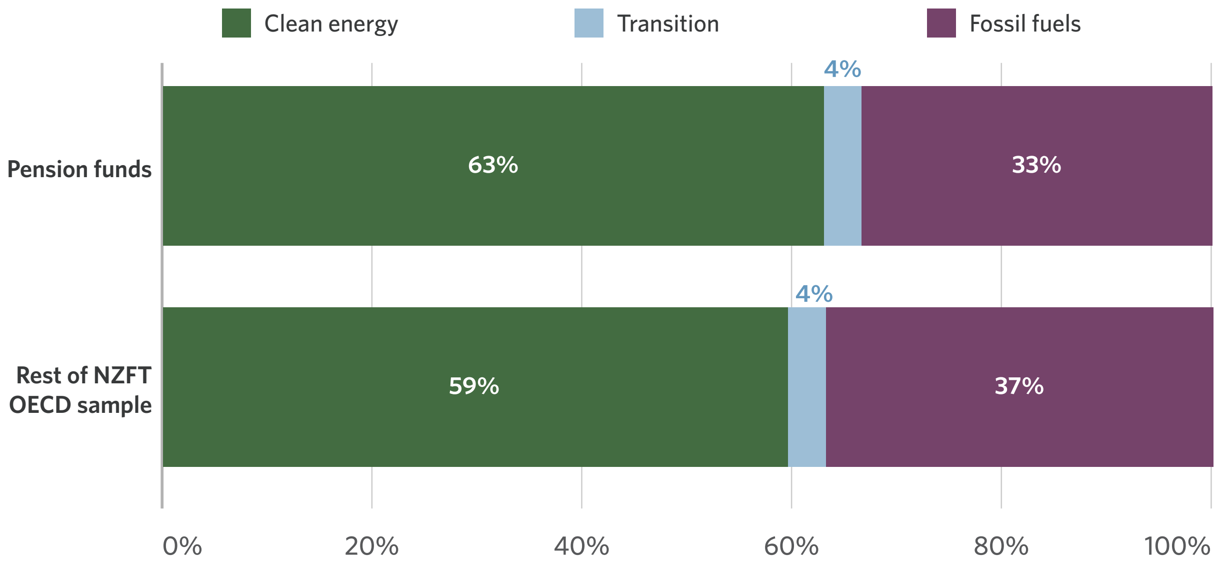


Note: The energy portfolio exposure indicator measures the share of FIs' corporate bonds and equity holdings invested in FFs vs. clean energy. To more accurately capture underlying exposure, investments are adjusted to reflect the approximate share of each company's business activities attributable to FF or clean energy. This stock measure does not track new investment but highlights transition risks and opportunities by revealing the balance of FF/clean energy assets. See the NZFT methodology 2025 for details on the calculations on this page.

About one-third of indirect financing from both OECD pension funds and other OECD-based entities in the NZFT is channeled to new fossil projects—out of step with net-zero pathways.

For both groups, most indirect (attributed) project finance goes to clean and transition projects, with pension funds a touch cleaner by share: 67% to clean/transition versus 63% on average for the NZFT sample. Yet in both cases, roughly a third of flows still go to finance new fossil capacity.

Figure 14. Indirect energy project financing by pension funds vs other NZFT entities (OECD) in 2024



Taken together, the findings in Section 2 point to a mixed but nuanced picture. Many pension funds have moved beyond *No Action* and now exhibit Targets and Implementation practices that are broadly comparable to, and for some indicators ahead of, those of other OECD FIs. Yet in terms of impact, both their portfolios and their indirect financing remain heavily exposed to expansionist fossil fuels. These gaps and differences suggest that structural headwinds persist. The next section examines how differences in national policy and regulatory frameworks help to explain these patterns in pension funds' targets and implementation, and what this implies for closing the remaining gaps.

3. INFLUENCE OF THE POLICY LANDSCAPE

3.1 WHAT IS DRIVING PROGRESS?

Policy and regulatory frameworks shape how pension funds—and other FIs—respond to climate change. Well-designed regulations can accelerate action by clarifying fiduciary duties and improving transparency, while weak or inconsistent frameworks constrain ambition and reinforce short-term investment behavior (PRI, UNEP FI, & Generation Foundation, 2024).

Pension funds have often had lighter regulatory oversight than other financial actors, including on climate issues, as they typically use little to no leverage and are therefore unlikely to pose systemic risks (Agrawal et al., 2025). However, recognition of their systemic importance and potential to support the low-carbon transition has grown, prompting new disclosure requirements, stewardship expectations, and investment guidelines in many jurisdictions.

Different policy environments across countries affect pension funds' ability to address climate change. This section analyzes the ten countries with the largest pension fund AUM/O tracked by the NZFT, categorizing their policy contexts as *Strong*, *Progressing*, and *Limited*. Stronger policy frameworks are generally associated with higher levels of disclosure on target-setting and Implementation. The section concludes by identifying key policy gaps, reviewing the role of coalitions and industry initiatives, and outlining recommendations to strengthen enabling environments for climate-aligned pension investment.

In addition to policy, market, and structural factors also influence FIs' ability to advance climate-related goals, as acknowledged in Box 3.

Box 3. Impact of structural and market differences on pension funds' ability to make climate investments

Structural and market differences significantly affect pension funds' ability to make climate investments and adopt related policies and targets.

Fund size and investment structure

Large, systemically important funds often invest directly, shaping markets through allocation and engagement, and typically have greater regulatory oversight, resources, and expertise in climate-related matters. Their scale also increases exposure to systemic climate risks, which may incentivize action. For example, Norway's Government Pension Fund Global (GPFG) allocated 85% of its equity and corporate bond energy investments to clean energy, a significantly higher share than most financial institutions. Smaller or mid-sized funds, by contrast, often invest through pooled mandates or external managers, which limits their influence and access to climate expertise.

Scheme type and liability structure further constrain options

Defined Benefit (DB) schemes frequently prioritize low-risk assets to meet existing liabilities, limiting their ability to invest in climate funds and Exchange-Traded Funds (ETFs), which tend to be public equity. Many DB schemes are closing to new members and being replaced by Defined Contribution (DC) arrangements. These offer more flexibility and hence the ability to direct investment, e.g., potentially to climate-relevant activities, but are constrained by liquidity requirements, especially for illiquid assets such as renewable energy infrastructure (PensionsEurope, 2024).

Even where funds have climate goals, the availability of suitable products in the market is a barrier. A University of Cambridge survey found that 33% of global asset owners reported difficulty accessing investment-grade corporate bonds (indices, benchmarks, or funds) aligned with their climate strategies. This highlights the role of financial product innovation and policy frameworks in enabling pension funds to scale up climate-aligned investments (Tomson, 2024).

Likewise, when jurisdictions fail to introduce adequate tax measures and market incentives that reward climate-positive activities and penalize high-emission practices, it becomes difficult for pension funds to achieve their climate targets while balancing financial returns with sustainability goals (NZAOA, 2024b).

Pension funds in countries with the strongest regulatory guidance and clear integration of environmental and climate considerations consistently perform well on both target-setting and Implementation, as shown in Table 5. By contrast, those in jurisdictions with limited or no policy direction tend to lag, with weaker commitments and slower progress on climate integration.

The rest of this section highlights the key characteristics of example jurisdictions with strong, developing, and limited policy environments for supporting pension funds' climate action.

At the end of the report, we also lay out recommendations and actions for policymakers to create better enabling environments for pension funds' climate action in Section 6.1—outlining how they can:

I. Align fiduciary duty and market signals with net zero,

II. Build the governance, standards and stewardship architecture, and

III. Enable scale, flexibility and capacity for climate investment.

In addition, Section 6.2 outlines specific actions that pension funds can take to move forward independently of strong policy environments in order to:

I. Embed net zero in strategy, governance and portfolios,

II. Drive change across the pensions and financial ecosystem, and

III. Increase transparency and public understanding.

Table 5. Target score vs implementation vs pension fund (PF) legislation scores by country in 2024

	Sample characteristics			Climate relevant policies in each country				Targets	Implementation
				Climate as a material risk		Sustainability as an investment strategy			
Country	% of AUM/O of the NZFT OECD PFs	No. in sample	Median size of pension funds (USD billion)	Mandatory climate risk inclusion[1]	Mandatory climate disclosure (FY2024)	Environmental investment[3]	Stewardship guidance[5]	Weighted average by AUM/O	Weighted average by AUM/O
Netherlands	7%	35	11	Required			Legally binding[6]	2.3	2.5
Denmark	3%	19	23	Required			Legally binding[6]	2	2.6
UK	8%	91	12	Required			Not legally binding	1.7	2.5
Norway	7%	4	21	Required		GPFG[4] only		3	3.9
Australia	7%	41	27	Permitted	Under dev. (2026)	Guidance is ambiguous	Only voluntary guidance from industry associations	1.6	2.1
Switzerland	4%	11	12	Permitted			Only voluntary guidance from industry associations	1.5	1.7
South Korea	4%	3	39	Required for NPS[2]	Under dev. (2026)	NPS only	Not legally binding	2	1.9
Canada	7%	45	9	Permitted		Guidance is ambiguous	Only voluntary guidance from industry associations	1.6	2.1
Japan	10%	11	46	Required for public pensions			Not legally binding	1.4	2.2
US	31%	179	14	Required in some states			Only voluntary guidance from industry associations	0.8	1.2
				Yes / Partial / No				2024 Score 0-5	

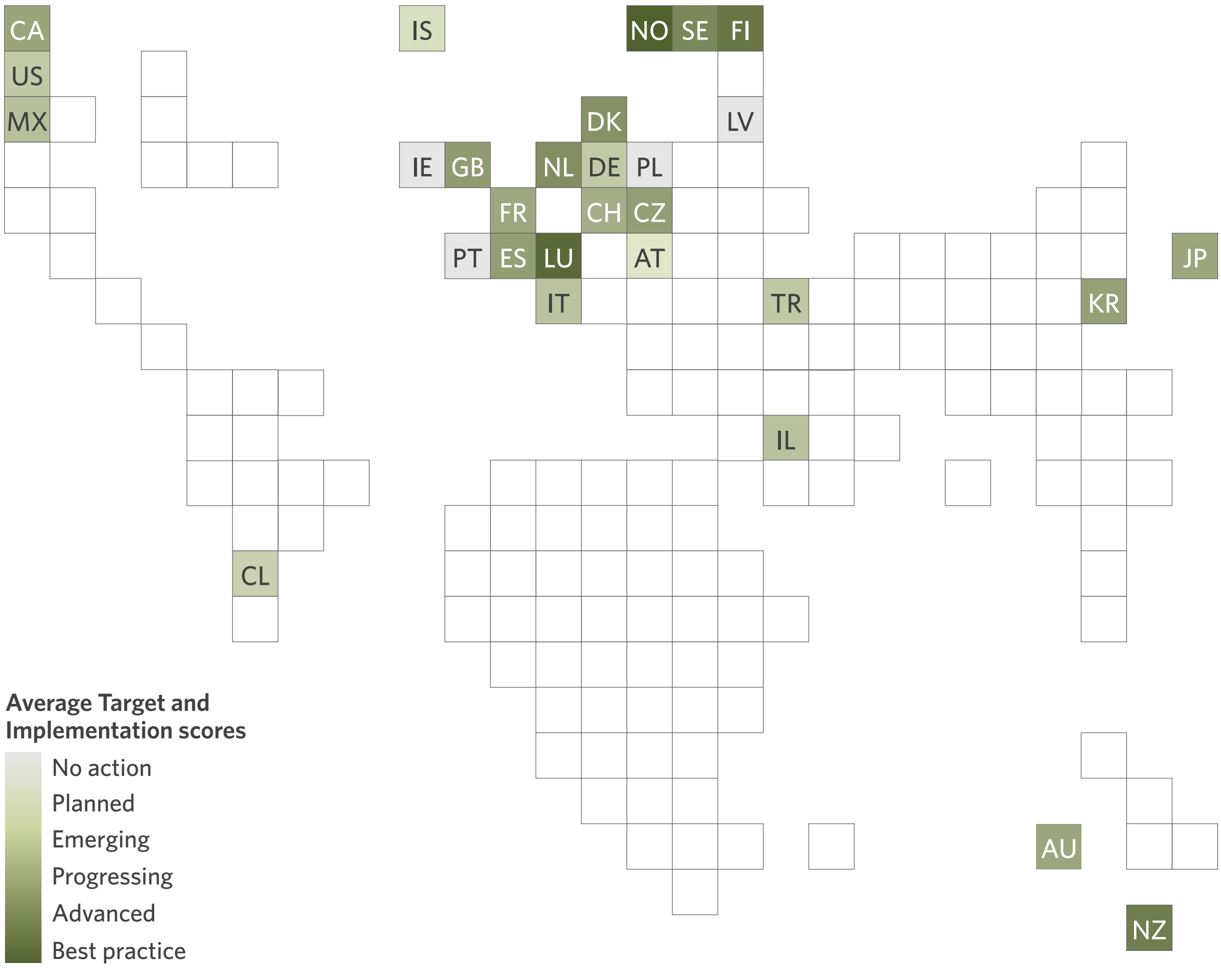
[1]Are pension funds permitted/required to assess and incorporate climate risks that could materially impact investment returns?
[2]NPS is South Korea's largest public pension.
[3]Are pension funds permitted to integrate environmental objectives when managing investments?
[4]GPFG is Norways's sovereign wealth fund.
[5]Does the jurisdiction offer stewardship guidance, such as a code or directive, outlining expectations or requirements for stewardship practices?
[6]This refers to the EU SRD II rather than national stewardship codes.

0-No action; 1-Planned; 2-Emerging; 3-Progressing; 4-Advanced; 5-Best practice

Note: Ordered from strongest to weakest overall policy environment

3.1.1 STRONG POLICY JURISDICTIONS

Figure 15. Pension fund target and implementation score for OECD countries.



CA: Canada; US: United States; MX: Mexico; CL: Chile; IS: Iceland; NO: Norway; SE: Sweden; FI: Finland; DK: Denmark; LV: Latvia; IE: Ireland; GB: United Kingdom; NL: Netherlands; DE: Germany; PL: Poland; FR: France; CH: Switzerland; CZ: Czech Republic, PT: Portugal; ES: Spain; LU: Luxembourg; AT: Austria; IT: Italy; TR: Turkey; KR: South Korea; JP: Japan; IL: Israel; AU: Australia; NZ: New Zealand.

The countries with the strongest pension fund climate policies—the Netherlands, Denmark, and the UK—share a common characteristic: clear, comprehensive regulatory frameworks that establish both duties and discretion for pension funds to integrate climate considerations into their investment and stewardship practices. Crucially, these frameworks go beyond a narrow understanding of climate as an immediate risk-return issue and also allow funds to actively pursue long-term sustainability outcomes (PRI, UNEP FI, & Generation Foundation, 2024). This enabling environment is characterized by several key components: mandatory climate risk disclosures, requirements to consider ESG risks in investment processes, a regulatory 'license' to pursue sustainability objectives, and government-backed stewardship codes or guidance that embed these principles in practice. Legislators in each of these jurisdictions have also supported stewardship (Edwards et al., 2025).

In the EU, these components are enabled through legislation including the Sustainable Finance Disclosure Regulation (SFDR), the Shareholder Rights Directive II (SRD II), the Institutions for

Occupational Retirement Provision II Directive (IORP II), and Solvency II. Together, these embed sustainability considerations into risk management, governance, and disclosure.

In the Netherlands, the regulator De Netherlandishe Bank (DNB) has surpassed the EU minimum, recommending scenario analysis, stress testing, and explicit integration of double materiality—how climate affects portfolios and how portfolios affect climate—supported by the Pension Funds Code 2024, which expects climate expertise in governance (DNB, 2025; Pensioen Federatie, 2025).

Denmark's approach is closely aligned, but with lighter enforcement. Most pension assets fall under Solvency II and, increasingly, the CSRD, ensuring climate risk and double materiality are recognized in investment and stewardship practices (Birkmose and Madsen, 2022). Supervisory enforcement is lighter than in the Netherlands, and guidance tends to focus on disclosure rather than prescriptive integration.

In the UK, binding TCFD-aligned climate disclosures and the voluntary (but widely adopted) Stewardship Code create one of the most advanced frameworks outside the EU. Pension funds must set at least one climate target and report on progress, and recent legal guidance confirmed that considering environmental and social factors is compatible with fiduciary duty (DWP, 2022b; FMLC, 2024; DWP, 2024).

3.1.2 DEVELOPING POLICY JURISDICTIONS

While some pension systems have made significant progress in integrating climate, others operate in more limited or fragmented policy environments. Such 'developing policy jurisdictions', including Australia, Norway, and Switzerland, have introduced frameworks that acknowledge climate as a financial risk but fall short of providing clear mandates for integrating sustainability as an investment outcome. These regulatory frameworks tend to prioritize risk disclosure over stewardship or sustainability-focused investment strategies, resulting in lower performance on both target setting and implementation.

Australia allows pension funds to recognize climate change as a material financial risk and, from 2026, must report climate-related financial information (IFRS, 2025a). However, broader sustainability reporting is voluntary, with no mandates on stewardship or impact, limiting the ability to link investment decisions to long-term sustainability outcomes (APRA, 2023; NABERS, 2025). Fiduciary duty explicitly refers to financial best interests, complicating the integration of climate considerations.

Norway has recently adopted EU climate-related regulations (IORP II, SFDR). However, comprehensive requirements apply primarily to the Government Pension Fund Global, while most occupational schemes lack clear direction or enforcement (Regjeringen, 2021; Regjeringen, 2022; Regjeringen, 2024).

In Switzerland, integration is largely industry-led: voluntary tools like the Swiss Climate Scores exist, and the government has confirmed the law does not prevent sustainable investing, but no legal mandate connects sustainability to fiduciary duty, and cantonal or industry initiatives only partly fill the gap (Senik, n.d.; ICLG, 2025; ASIP, 2024).

3.1.3 LIMITED POLICY JURISDICTIONS

Limited policy jurisdictions are those that have fragmented, ambiguous, or, in some cases, actively constrained regulation on climate and sustainability integration. While some disclosure or stewardship frameworks exist in these environments, they are typically voluntary, partial, or inconsistently applied, with unclear guidance on how fiduciary duties relate to sustainability. Certain jurisdictions even face political or legal efforts to limit the consideration of environmental factors in investment decisions. As a result, pension funds in these countries perform among the lowest in terms of climate targets and implementation. This group includes Canada, Japan, South Korea, and the US.

In Canada, Japan, and South Korea, regulators have moved toward sustainability disclosure standards aligned with the ISSB, but only South Korea has confirmed a date when these will become mandatory (CSA, 2025; IFRS, 2025b; ISS-Corporate, 2024). Until this occurs, pension funds have no reporting or stewardship requirements, and none of these countries has clear policy guidance on whether funds can pursue sustainability impact goals beyond financial risk mitigation (PRI, 2023a; PRI, 2023b).

The US stands out for the politicization and polarization of climate integration in pension funds. Federal guidance permits but does not require consideration of climate risks, while states such as Texas and Florida have introduced legislation restricting climate integration (Malone et al., 2025; Helm, 2024). These conflicting legal and political signals inhibit pension funds' ability to confidently act on climate.

3.2 COMPARING JURISDICTIONS

Examining the link between country policy and pension funds' disclosure of climate-related targets and implementation actions provides insights into policies that governments can adopt to support climate action, as well as what ambitious pension funds should prioritize in their policy engagement.

Strong policy jurisdictions combine regulatory clarity with flexibility, ensuring climate risk is treated as a material financial issue, while giving funds the confidence to pursue long-term sustainability goals. This is reflected in the consistently high performance of Dutch, Danish, and UK funds on both target-setting and implementation. Yet even these countries' policy frameworks are largely enabling rather than directive. Greater clarity on double materiality, clear definitions of engagement, stronger accountability beyond "comply or explain," and explicit requirements for transition planning and target setting would strengthen consistency and ambition across the pensions sector (EIOPA, 2023; Finance Watch, 2024; Van der Heide, 2021; EBA, EIOPA, & ESMA, 2024; ShareAction, 2025a).

In developing policy jurisdictions, policy frameworks are incomplete: they acknowledge climate as a material financial risk but not yet as a systemic challenge requiring proactive mitigation through investment and stewardship. Progress will depend on explicitly linking sustainability to fiduciary duty, introducing binding stewardship requirements, and moving from voluntary to mandatory disclosure and governance standards.

Compared to strong and emerging policy jurisdictions, limited policy frameworks fall short in three main areas. Firstly, where regulations exist, they often apply only to some kinds of pension funds (e.g., public schemes). Secondly, fiduciary duty and stewardship are often ambiguous, with uncertainty over whether pension funds can integrate sustainability into investment decisions. Lastly, the guidance is fragmented, voluntary and sometimes conflicting. As a result, these countries perform among the lowest on climate Targets and Implementation. Within the group, Japan's Government Pension Investment Fund (GPIF) and Korea's National Pension Service (NPS) stand out for stronger mandates and disclosure, reflecting the influence of large, systemically important funds even in weak regulatory environments.

As discussed in Box 3, fund size is one of several structural factors likely to influence pension fund performance. Other elements include the availability of climate-focused investment products, which can determine the range and quality of climate-aligned opportunities accessible to funds. In addition, the presence or absence of climate-relevant tax regimes, subsidies, and incentive structures can either enable or constrain investment at scale in climate-related assets.

3.3 MEANS OF COLLABORATIVE POLICY ENGAGEMENT

Pension funds leading on the climate transition have an interest in improving the policy landscape in which they operate to enable effective climate action. While individual entities can engage policymakers and regulators directly, doing so collaboratively can increase their influence by presenting a coordinated voice. There are two primary ways to achieve this: through industry associations and climate-specific coalitions. This section examines the roles and importance of each in addressing climate concerns within today's policy landscape.

3.3.1 CLIMATE COALITIONS

Climate coalitions are investor-led initiatives focused on climate-related issues. While not all engage directly in lobbying, there is growing recognition among them that policy advocacy is key to effective climate action. While FIs that are members of climate coalitions perform better on target-setting, Implementation actions and climate Impact (CPI, 2025b), their ability to drive deep systemic change is constrained by fractured and unhelpful policies.

Coalitions are evolving, in part due to policy changes in some key jurisdictions. Two major financial sector coalitions ceased operations in 2024 and 2025, and others are shifting their focus from targets and exclusions to promoting credible transition pathways and climate toolkits for institutions. In this context, policy engagement that supports systemic change should be a key priority for them. In a context of policy volatility and political backlash, working together to remove policy barriers will allow them to maintain the levels of ambition required.

One of the major global initiatives targeting policy engagement/advocacy is Net-Zero Asset Owner Alliance (NZAOA). NZAOA identifies two of the three primary levers available to asset owners as influencing norms and standards by exemplifying effective climate action and engaging proactively with policymakers to support systemic change (NZAOA, 2024b). Many other industry coalitions have commitments to align their lobbying with climate goals as part of their statements of commitment (e.g., Paris Aligned Asset Owners (PAAO)). Through these coalitions, pensions can present a coordinated position to influence both industry norms and formal regulation. Examples of action include:

- The Investor Agenda Global Investor Statement to Governments on Climate Change calls on governments to strengthen net-zero policy frameworks, with 60 OECD pension funds in the NZFT signed on in 2024.

- The climate coalition Collaborative Sovereign Engagement on Climate Change, led by Principles for Responsible Investment (PRI), aims to influence public climate-related policy. For example, from 2024 to 2025, the group held 25 engagement meetings with various government agencies or individuals in Australia (PRI, 2025a). Focus topics included making Nationally Determined Contributions (NDCs) investable as well as sustainability-labeled bond issuance and reporting.
- The Institutional Investors Group on Climate Change (IIGCC) has supported climate-related disclosures. For example, it advocated for stricter ISSB standards, including a double-materiality approach (IIGCC, 2023) and in 2024, responded to consultations on the Basel Committee on disclosing climate-related financial risks, arguing in support of integrating disclosure around climate stress testing (IIGCC, 2024a).
- The Asia Investor Group on Climate Change (AIGCC) engages governments on topics such as climate disclosure frameworks, energy transition policies, climate finance taxonomies and legislation, and physical climate risk. Its work includes 1-1 engagements with government ministers and submissions to consultations and roundtables (AIGCC, 2025a).
- The Ceres Investor Network Policy Working Group offers a platform for investors to hear key policy, regulatory, and legal updates from Ceres' experts, and discuss strategies for supporting climate, clean energy, and sustainable finance policies. Meetings focus on policy developments in multiple jurisdictions and advocacy opportunities. Engagement methods include direct engagement with policymakers, sign-on letters, thought leadership, and media outreach.

These examples show that pension funds are already making efforts to engage with policymakers. Notably, though, most of this engagement focuses on financial regulation such as disclosure regimes, rather than on the real-economy policies that ultimately drive the transition, such as encouraging governments to adopt green industrial strategies, fiscal measures and subsidies. This imbalance is problematic as reaching a low-carbon economy ultimately requires policy action in the real economy, meaning that pension funds should make this a key strategy in their engagements with policymakers.

3.3.2 INDUSTRY ASSOCIATIONS

Another way for pension funds to exert influence is through industry associations, which are the traditional means by which they coordinate standards and collectively advocate for regulatory, legal, and operational issues. While they are not climate-specific, their established relationships with regulators and policymakers give them significant potential to act on climate, particularly by setting de facto standards or norms where frameworks are weak or fragmented. Some examples of this include:

- **In Australia**, in the absence of government guidance, half of asset owners and managers have adopted stewardship codes from industry coalitions such as the Financial Services Council and the Australian Council of Superannuation Investors (RIAA, 2022).
- **In Switzerland,** despite little government clarification on fiduciary duties, the Swiss Association of Pension Funds considers environmental risks as part of fiduciary duty, resulting in this understanding becoming commonplace in the market (ASIP, 2024).

- **In the Netherlands,** the Federation of Dutch Pension Funds organizes climate-related workshops and meetings, including skills training such as measuring portfolio emissions.

Engagement is uneven. According to the global tracker of industry associations, no national pension association has received more than a C-rating for policy engagement quality (InfluenceMap, n.d.).[12] While industry associations can be a powerful tool for pension funds to influence policy, because they are not inherently climate-focused, members must proactively ensure that their associations support positive climate lobbying efforts.

12 LobbyMap's assessment of climate policy engagement includes 16 Performance Bands from A+ to F. Grades B and above describe broad climate policy support, grade C indicates mixed engagement, while grades D to F describe negative climate policy engagement (LobbyMap, n.d.).

4. PENSION FUNDS' INFLUENCE ON THE REAL ECONOMY VIA THEIR ASSET MANAGERS

As well as being influenced by the policy landscape, the way pension funds operate within the wider financial ecosystem also shapes their ability to invest in the climate transition. CPI's 2024 report, *The State of European Pension Funds' Net-Zero Transition*, highlighted wide disparities in the implementation of net-zero targets across a sample of 342 European institutions. The report also found that the way pension funds delegate investment decisions, often through complex chains of external managers and advisers, creates challenges for ascribing responsibility for meeting net-zero targets (CPI, 2024b).

Despite improvements in visibility achieved this year in indirectly enabled investment, as mentioned in Box 2, applying CPI's ownership methodology for pension funds presents limitations where entities invest through asset managers (i.e., segregated mandates) or pooled vehicles, creating a structural separation between legal asset ownership and decision-making authority over investment strategies and voting (CPI, 2024a).

From this lack of clarity, CPI's previous report recommended looking into asset owner and asset manager relationships to understand the main influence channels through which pension funds can deliver increased deployment of net-zero aligned capital (CPI, 2024b).

This section takes a first step in exploring relationships between asset owners and managers, introducing a new framework developed by CPI for classifying these relationships and presenting the results of applying it to 32 of the world's largest OECD pension funds.

At the end of the report, in Section 6.2, we outline recommendations and actions for pension funds and asset managers on how they can turn their relationship into a lever for change. For pension funds, this report provides several recommendations on best practices for them to:

I. Set expectations and select aligned managers as ex-ante controls,

II. Conduct ongoing monitoring of the quality of their relationships with selected asset managers, and

III. Determine specific climate-related engagement and escalation processes to ensure alignment towards net-zero.

In addition, for asset managers, the report outlines recommendations for them to:

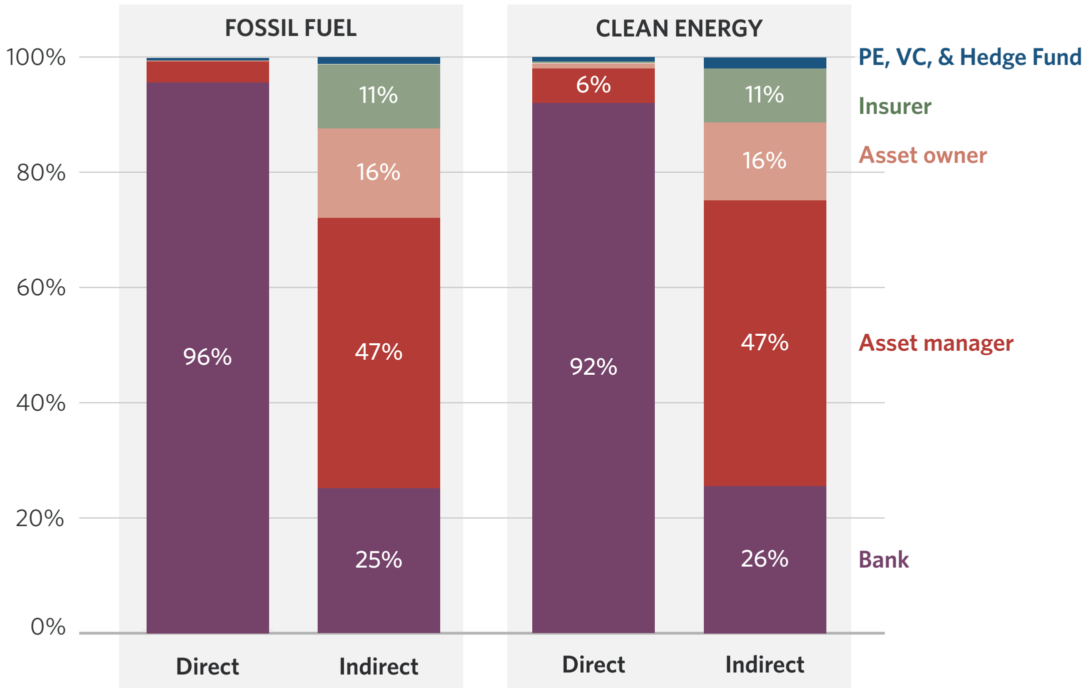
I. Design climate-aligned investment solutions and

II. Use stewardship as a strategic differentiator.

4.1 INCREASING REAL-ECONOMY IMPACT THROUGH ASSET MANAGER ENGAGEMENT

Asset managers are key enablers of real-economy investment. The financial system shapes the economy not only through direct investments in projects, but also indirectly as an enabler through shareholdings and corporate lending, as explored in the *NZFT Ownership Methodology* (CPI, 2024a). Among FIs, banks are by far the largest providers of direct financing for new energy projects—both clean and fossil fuel—accounting for 92% and 96%, respectively, of observed direct financing, primarily in the form of commercial debt (see Figure 16). However, NZFT data reveals that asset managers play a major role in indirectly enabling such investments, accounting for 50% of clean energy financing and 47% of fossil fuel financing, largely by allocating capital to institutions, corporates, and real-economy actors that ultimately invest in these assets.

Figure 16. Project-level energy investments by actor and project type, 2024



The world's largest pension funds are uniquely positioned to drive climate impact at scale if they can positively influence their asset managers. Meeting climate goals is essential for pension funds to manage climate risks, fulfill potential fiduciary duties, and align with rising stakeholder expectations (PRI, 2025b). Yet, despite similar net-zero commitments, their progress on implementation and impact outcomes varies widely, as explored in Section 2 (Pensions UK, 2024).

A contributing factor for this lies in how pension funds govern their relationships with the asset managers that deploy large shares of their capital. Delegation creates a structural governance challenge: while dispersing capital across multiple managers increases operational efficiency and reduces concentration risk, it also fragments decision-making authority, resulting in a dual visibility problem. First, delegating capital to asset managers tends to reduce pension funds' direct visibility into how their capital is ultimately managed. Second, pension funds often struggle to translate their climate targets into enforceable expectations that asset managers implement.

This results in a disconnect between pension funds' climate ambitions and real-world decarbonization. Delegation without robust mandates, clear expectations, or mechanisms for accountability creates a classic principal-agent problem: while the asset owner (principal) may set high-level ambitions, the asset manager (agent) may lack the incentive (e.g., time-horizon, risk-adjusted returns)—or the instruction—to act on them (PRI, 2025b; InfluenceMap, n.d.; Pensions for Purpose, 2025). For pension funds, this not only undermines climate action credibility but also creates difficulties and high transaction costs in correcting misalignments or even detecting them.

Recent geopolitical developments underscore the risks associated with relying on voluntary coordination in this matter. The temporary suspension of and revisions to NZAM, and departures of prominent asset managers from Climate Action 100+ and rollbacks of ESG regulations (see Section 3.1.3) hinder alignment on climate goals within the industry (Climate Action 100+, 2024; Helm et al., 2025; NZAM, 2025).

These shifts affect how asset owners view their relationships with their managers. Pension funds have expressed disappointment over dropouts and have re-evaluated their asset management setups. Some have switched their mandates to asset managers that align with their principles, or have increasingly internalized their asset management (Helm et al., 2025; Houmann, 2022; Mach, 2025; Mooney, 2025; Ross, 2025; Schwartzkopff, 2025; Thomasson, 2025; Webb & Gambetta, 2024)

4.1.1 INTRODUCING THE ASSET OWNER-ASSET MANAGER FRAMEWORK

Understanding pension funds' progress on climate outcomes requires examining how they govern their asset manager relationships, identifying delegation models conducive to net-zero outcomes, and understanding whether and why similar climate commitments may yield divergent results.

CPI has developed a comprehensive framework for comparing asset owner-manager relationships across two dimensions: asset owner positioning and asset owner control (see Figure 17). This approach aims to proxy the potential 'real-economy influence' of an examined pension fund, referring to its practical ability (control) and/or incentive (positioning) to shape how its capital is managed in relation to its climate goals. That is, the extent to which the pension fund retains decision-making power, sets enforceable expectations, and monitors implementation of climate objectives across its asset manager relationships.

The application of the framework to a global sample of 32 large pension funds (with a total AUM/O of USD 9.6 trillion) reveals significant variation in how these dimensions are structured and executed. The sample comprises 18 of the largest European and the 14 largest non-European funds by AUM/O, with a regional split applied to limit over-representation of US-based entities. Large pension funds were selected for their greater potential to have a real-economy impact, and given that some have a universal owner status. An overview of the framework, sample, and methods is shown in Annex B.

Box 4: Focus of CPI's asset owner-asset manager analysis

This analysis focuses exclusively on the governance relationships between pension funds and their asset managers, where strategic decisions, voting rights, and governance levers (e.g., mandate terms and stewardship expectations) are primarily held. It does not assess pension funds' direct engagement with investee companies and pooled vehicles, nor broader market-level influence. Unless otherwise stated, we refer to stewardship and engagement at the asset owner level with respect to asset managers. We define asset managers as the first-order entities appointed to manage capital and execute mandates—including in-house teams and external setups (see Annex B).

Figure 17. Framework for comparing asset owner-manager relationships

ASSET OWNER POSITIONING

How structurally positioned a fund is to influence asset managers, based on:

1. Management structure
The current mix of assets managed internally and externally.
2. Asset manager dispersion
How concentrated or fragmented the fund's external asset manager relationships are (if any).
3. Delegation transparency
How clearly the pension fund discloses its asset manager relationships, mandates, and delegated climate responsibilities.

ASSET OWNER CONTROL

How much practical authority the pension fund retains on its delegated capital, based on:

4. Mandate type
Whether mandates are active, passive, or discretionary.
5. Stewardship and oversight
Whether and how the pension fund sets expectations, monitors climate performance, and escalates non-compliance with managers.
6. Voting control
Who controls proxy voting and whether voting practices are aligned with the pension fund's climate objectives.

4.1.2 FINDINGS ON ASSET OWNER POSITIONING

Pension funds employ diverse governance models to manage capital. Each approach comes with distinct trade-offs between operational efficiency, decision-making control, and transparency. Our analysis reveals dominant trends in delegation structures and significant variations in asset manager dispersion and structures:

Asset owner positioning refers to the degree to which a pension fund is structurally exposed to its asset managers and has a reputational or financial motivation to engage. This is assessed based on the share of assets managed externally, the concentration of mandates, and the levels of transparency reported.

4.1.2.1 MANAGEMENT STRUCTURE

Multi-manager models dominate, accounting for 27 of the 32 analyzed pension funds (76% of AUM/O). Two pension funds (with 2% of AUM/O) use the Outsourced Chief Investment Officer (OCIO) or single fiduciary manager model, and three (22% of AUM/O) use the predominantly internal management model.

4.1.2.2 ASSET MANAGER DISPERSION

Nearly half of the sample (15 funds, with 31% of AUM/O) did not disclose the identities of their asset managers, a key blind spot in the sector. The pension funds whose asset managers were identifiable were quite evenly split between having a highly dispersed and a concentrated number of asset managers. Nine pension funds (48% of sample AUM/O) had more than 15 external managers, and seven (20% of sample AUM/O) had fewer than five external managers.

A sub-analysis of 132 asset managers whose association with 12 asset owners could be verified reveals that **32% of the reported asset managers identified are in the US or are US subsidiaries,** demonstrating the incumbency of US asset managers with significant concentration. US asset managers are estimated to control 61% of assets under management globally, a dominance driven by scale, efficiency, and diversified products—particularly low-cost passive products—with implications as seen in Section 4.1.3.1 Mandate types and Section 4.1.3.2 Stewardship and oversight (WTW, 2024).

4.1.2.3 DELEGATION TRANSPARENCY

Pension funds that are transparent about their delegation provide information on their use of asset managers, a breakdown of managed assets, net-zero alignment data for delegated assets, and disclose engagement outcomes. Seven pension funds (27% of sample AUM/O) had low levels of disclosure on delegation, 14 (27% of AUM/O) had medium levels, and 11 (46% of AUM/O) had good levels. Notable examples of transparent disclosure on delegation are the Australian Retirement Trust (ART) and Japan's GPIF, which list investment assets by investment methods and by manager (GPIF, 2024; ART 2025), as well as Norway's GPFG's Norges Bank Investment Management (NBIM), which has identified its external managers on its website yearly with data going back to 1998 (NBIM, n.d.). One barrier to better disclosure is the difficulty of comparing engagement outcomes across mandates, partly because asset managers define "engagement" differently. This highlights the need for clear, consistent definitions built into mandate agreements from the start.

4.1.3 FINDINGS ON ASSET OWNER CONTROL

Asset owner control estimates how much practical authority and oversight a pension fund retains and/or exercises in shaping asset manager behavior and net-zero implementation. It revolves around the mix of mandate types and the variability in stewardship, oversight, and voting practices across the sample. CPI's analysis reveals a wide range of combinations employed by pension funds in their control mechanisms.

4.1.3.1 MANDATE TYPE

Relationships between pension funds and asset managers are dynamic. Pension funds regularly review and revise mandates, influenced by mergers, regulatory shifts, or ESG performance (Warnakulasuriya, 2017). The nature of the mandate—active, passive (index-based), or discretionary—shapes a fund's ability to steer climate outcomes.

Of the 32 analyzed pension funds, 17 (53% of the sample's AUM/O) have predominantly active mandates, enabling direct engagement and active ownership practices. Nine pension funds (28% of AUM/O) follow a mix of passive, discretionary, and active mandates. In addition, two (6% of sample AUM/O) follow predominantly discretionary mandates. Four (14% of sample AUM/O) did not report their mandate types. There is significant variation in whether pension funds provide a quantified breakdown of AUM/O per mandate type.

Asset managers' climate engagement strategies often diverge from those of their clients, particularly under passive mandates (NZAOA, 2023b). Passive strategies tend to rely on index-based benchmarks with lower fees. While they are often marketed as ESG-compliant, they usually lack standardization and have shown minimal impact on ESG ratings and company behavior (Becht et al., 2023). To counter this, some pension funds, such as Japan's GPIF, have adopted hybrid strategies for index fund engagement, for example, by paying a separate fee for passive managers to actively engage on ESG issues - bridging the traditional divide between passive investing and active stewardship (IIGCC, 2025). This approach is estimated to have yielded measurable improvements in ESG ratings, corporate responsiveness, and market-wide practices (Becht et al., 2023). Other pension funds, such as the Dutch fund Pensioenfonds Zorg en Welzijn (PFZW), have shifted from passive to active management, reducing equity allocations to gain greater control (Hoekstra, 2025; Rundell, 2025).

4.1.3.2 STEWARDSHIP AND OVERSIGHT

Best-in-class pension funds develop mandate language that explicitly commits asset managers to net-zero objectives, with clear performance metrics and consequences (PRI, 2020, 2021; NZAOA, 2023a). For instance, mandate renewal is being linked directly to demonstrated progress on climate goals, creating accountability through contractual enforcement. Of the 32 sampled pension funds, 18 (46% of the sample's AUM/O) appear to exhibit stronger control mechanisms over their relationships with asset managers. These funds have stewardship policies and practices set across (1) manager selection and screening, (2) stewardship expectations for asset managers, and (3) oversight, monitoring and escalation practices. Ten pension funds (40% of AUM/O) display engagement and stewardship expectations, but with weaker follow-up. The remaining four (14% of sample AUM/O) did not disclose any stewardship practices. Our observations corroborate those of Pensions for Purpose (2025), which found that pension funds are strengthening their assessments of managers' stewardship efforts.

These expectations determine how pension funds may withdraw and redirect mandates. For example, PFZW recently withdrew mandates from asset managers BlackRock, LGIM and AQR Capital Management partly due to misalignments on sustainability (often driven by anti-ESG regulatory and legal interventions in the US), and assigned mandates to more sustainability-aligned managers in Europe (Robinson-Tillett, 2025; Segal, 2025). This exemplifies how major asset owners are rewarding managers who embed sustainability and enhance transparency

(Thomasson, 2025). Incumbent asset managers that have been challenged by their clients are offering new products, as seen with BlackRock's launch of its Climate and Decarbonization Stewardship Guidelines for investors focused on the low-carbon transition (Segal, 2024).

Despite some asset owners realigning their relationships with managers, most pension funds continue to prioritize engagement over divestment. They are designing mandates and governance structures that enable meaningful oversight of delegated capital. This includes regular performance reviews, established strategic escalation pathways from dialogue to voting or divestment from asset managers, and decision-making authority to enforce mandate terms. Pensioenfonds van de Metalektro (PME) plans to more explicitly screen for value alignment and look more closely at the actual sustainability characteristics of asset managers (Gambetta, 2025). PFZW, through its asset manager PGGM's '3D' strategy (risk, return, impact), demonstrates integrated climate action, with specific targets and engagement expectations embedded throughout the mandate structure and regular reporting on progress across all three dimensions (Hall, 2025).

4.1.3.3 VOTING CONTROL

Over half of sampled pension funds (18 of 32, 47% of AUM/O) delegate voting to asset managers aligned with policy or to a third-party service such as Institutional Shareholder Services (ISS). Seven pension funds (14% of AUM/O) conduct voting internally. Two pension funds (18% of AUM/O) fully delegate to asset managers, with no mention of a voting policy. The remaining five (21% of AUM/O) did not disclose their voting practices. Asset owners seeing discrepancies between their stewardship objectives and asset managers' actual voting behavior may lead them to reclaim proxy voting control, particularly on ESG-related issues (Kokoszka, 2023). Reasons for these discrepancies include cultural/political misalignment, misunderstandings over the concepts of fiduciary duty and relevance of voting as part of stewardship, and different perceptions of the most effective combinations of stewardship processes (Hoepner, 2023). Some asset managers have responded by launching pass-through voting programs (e.g., BlackRock's "Voting Choice" since 2022) that allow pension funds to participate in proxy voting rather than defaulting to the asset manager's decisions (BlackRock, 2025). While such programs grant pension funds direct voting control, they risk decoupling voting from asset managers' engagement. This can weaken stewardship effectiveness, as voting is used as an instrument to escalate engagement (FRC, 2025).

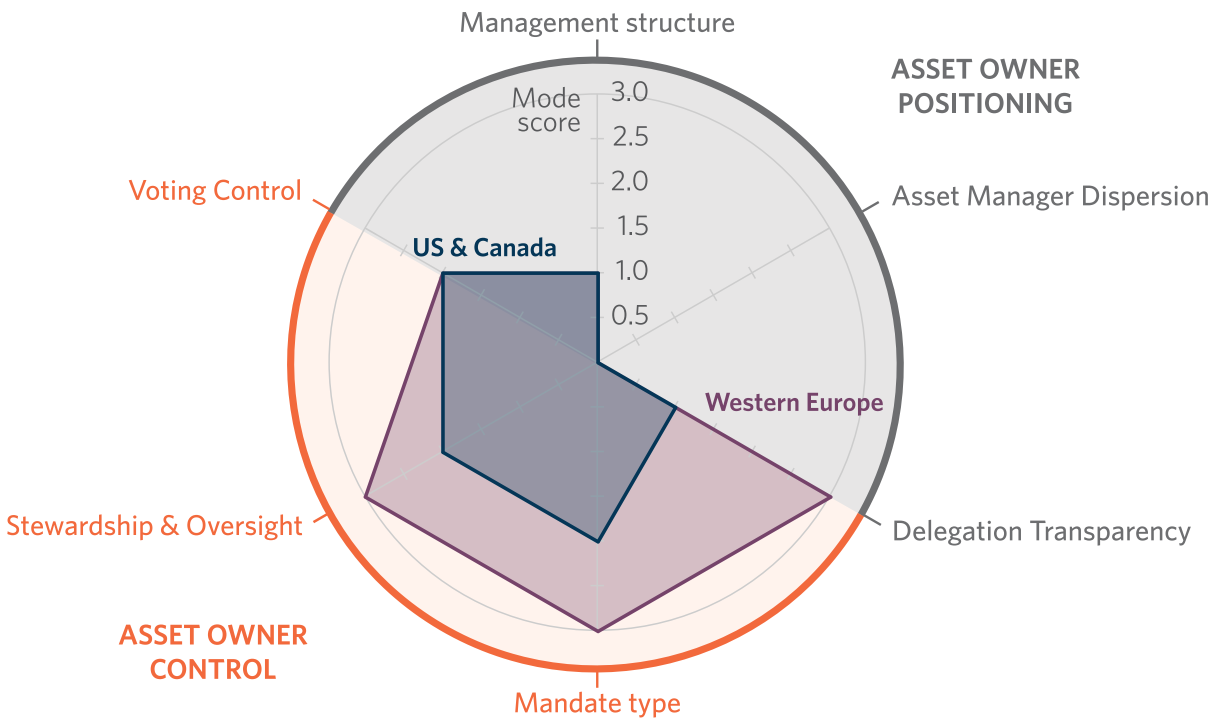
4.2 TRENDS IN ASSET OWNER AND MANAGER RELATIONSHIPS

Pension funds can rethink and reshape their influence over delegated capital to deliver real-economy climate impact through systemic stewardship. As revealed by the above analysis of a sample of the world's largest pension funds, strong-performing pension funds treat climate alignment as a whole-system governance challenge. Those with external managers integrate climate strategy into mandates, manager selection, oversight, and enforcement. While this analysis was applied to a small sample of pension funds and would require validation at scale, it reveals some overarching trends.

Leading pension funds are already taking strategic action. Those funds with greater control over their asset managers are also setting and implementing more credible net-zero targets, as per NZFT data. They are generally pursuing one or more of three strategies to exercise more control and influence over their delegated capital toward net zero. First, systematic engagement and active ownership, by strengthening oversight and other stewardship mechanisms through revised mandate terms, the integration of climate considerations in manager screening, explicit policy-aligned voting, and clear escalation pathways (e.g., PME's tightening of manager selection and assessment criteria). Second, mandate termination, by using mandate withdrawal as the final escalation step where managers fail to meet stewardship or responsible investment expectations. Finally, reallocation, internalization, or reduced diversification, by assigning mandates to asset managers aligned with sustainability priorities, and/or bringing asset management in-house to reduce principal-agent risks (PwC, n.d.). As mentioned, a prime example being PFZW, who reduced its equity portfolio from 3,500 to 800 names, withdrew mandates and appointed new managers alongside an internal team to increase control (Rundell, 2025).

There are clear regional patterns. European funds (particularly in the Netherlands and Scandinavian countries) consistently have better transparency and stewardship than their peers. Meanwhile, many North American funds lag, mainly due to legal or political constraints on ESG integration, as covered in Section 3. Consequently, governance effectiveness cannot be assessed without accounting for regulatory and political context; benchmarking and performance expectations must distinguish between execution challenges and structural constraints.

Figure 18. Overview of most common results (mode) per criterion for pension funds in the US & Canada and Western Europe



Note: Oceania and East Asia and Pacific are not included due to small sample size.
See Annex B, 2. Summary of Framework and Scorecard for interpretation of results.

Pension funds with higher positioning and control scores tend to work with asset managers with better Implementation, Targets, and Impact scores (for pro-climate voting and financed emissions) on the NZFT. Within a sub-analysis of 115 asset managers (with USD 190.5 trillion in AUM/O) whose identities could be matched to 12 of the 32 sampled pension funds, analyzing extreme values suggested that "like attracts like." Nevertheless, these observations on tendencies and practices are limited by our sample size.

Transparency is both a governance necessity and a competitive opportunity. Improving disclosure across the entire investment chain - from asset owners through asset managers to end investments - is essential for effective oversight and alignment. Minimizing reporting burdens, making requests clear and relevant to asset classes, and using reporting to inform follow-up meetings and discussions with external managers are key levers to ensure meaningful, long-term relationships that drive climate impact.

Ultimately, asset owners cannot deliver systemic change on their own. They must be supported through multi-actor initiatives that co-design and co-finance system-wide transition pathways (Mundy, 2025).

5. SYNTHESIS OF KEY FINDINGS

NZFT data, wider literature, interviews with experts, and the insights gained in Sections 2-4, have yielded the key findings below.

1. **Pension funds are ramping up their climate Targets and Implementation.**
   As shown in Section 2, NZFT data highlights that pension funds have steadily strengthened their climate Targets and Implementation in recent years. While progress is uneven, the direction of travel is clear: climate is becoming a core element of their long-term investment strategy.

2. **Pension funds have a significant influence on the decarbonization of the real economy, but remain materially exposed to fossil fuels.**
   As shown in Section 2.3, the analysis of existing energy portfolio exposure and indirect flows into new energy investments shows that pension funds' investments are misaligned with the net-zero scenarios of the International Energy Agency (IEA) and the Network for Greening the Financial System (NGFS).

3. **Once pension funds integrate climate into their targets and strategies, they match or surpass other financial institutions' ambition and action.**
   As shown in Section 2.4, once pension funds start embedding climate into their strategies and processes, they tend to score as highly or higher than other entity types tracked by the NZFT. However, pension funds generally outperform other entities by setting more ambitious fossil fuel exclusion phase out targets, using policy engagement to drive legislative change, and implementing more robust climate risk strategies.

4. **Target-setting, Implementation measures, and transition plans matter.**
   As shown in Section 2.3, target setting and Implementation are more than just symbolic commitments; they correspond to measurable shifts in portfolio allocation and in how pension funds think about climate. The adoption of targets, implementation measures and transition plans correlates with a higher share of holdings in clean energy for the sampled funds.

5. **Strong, well-designed policies are crucial to embed climate considerations in pension funds' strategies.**
   Building on the analysis in Section 3, there is evidence that when fiduciary duty explicitly includes climate and climate-related disclosures are mandatory, pension funds tend to set stronger targets and implement them more fully. The EU is broadly ahead of other jurisdictions on these aspects, while the US lags due to weaker disclosure rules and political pushback on ESG.

6. **The asset owner–asset manager relationship is a critical lever for change.**
   CPI's new analytical framework, introduced in Section 4, combined with interviews with leading funds and experts, shows that the asset owner–asset manager relationship is emerging as a central channel through which pension funds influence the climate transition. The data shows that the largest pension funds are increasingly using mandates and incentives to drive climate alignment across their external managers and to scrutinize their relationships more closely.

6. RECOMMENDATIONS

A more supportive operating environment can help pension funds to act in their beneficiaries' best long-term interests. This means creating an environment that provides pension funds with a clear interpretation of fiduciary duty, along with clear obligations (ranging from target setting to disclosure) and a real economy capable of delivering on those goals. It must also amplify the asset owner–asset manager relationship by supporting both sides in fulfilling pension fund mandates, while drawing on an ecosystem that provides data, tools, and social and political support.

Operating environments that make climate-aligned investment the prudent and cost-effective choice have clear policy signals, coherent legal frameworks, and practical tools to translate high-level expectations into day-to-day investment and stewardship decisions. Based on insights from the NZFT, a literature review of the recommendations of industry coalitions and groups,[13] and interviews with representatives of different stakeholder groups across the OECD, this section summarizes key recommendations to create a supportive operating environment.

6.1 HOW POLICYMAKERS CAN CREATE AN ENABLING ENVIRONMENT

A central element is supportive public policy. The most important contribution policymakers can make is to deliver an investable real economy aligned with domestic and international climate targets, providing investors with confidence and attractive climate-related opportunities to allocate capital (NZAOA, 2024a).

Beyond that, pension funds have stronger climate targets and implementation in jurisdictions with clearer guidance on climate within fiduciary duty and robust climate-related disclosures (see Section 3). Therefore, policymakers can meaningfully contribute to an enabling policy environment in the following ways:

I. Align fiduciary duty and market signals with net zero.	
Embed climate in fiduciary duty	Embed climate in fiduciary duty in legislation, regulation, and stewardship codes to recognize climate-related factors as integral to long-term risk and return (Commonwealth Climate and Law Initiative, 2024). For example, the EU[14] and UK[15] regulators have signaled that ignoring climate risk may violate fiduciary duty.
Recognize climate-aligned benchmarks	Recognize climate-aligned benchmarks that internalize climate transition and systemic risk (NZAOA, 2022).[16] Acknowledge that managing these risks may require justified deviations from traditional, backward-looking benchmarks, and that such deviations are consistent with fiduciary duty when supported by robust analysis, providing boards and chief investment officers with a defensible yardstick (Karamally & Franco, 2025).

13 These recommendations include, but are not limited to NZAOA 2023a, 2023b, 2024a, 2024c, 2025; The People's Pension 2025; Pensions UK 2025; PRI 2025b, 2025d; and ShareAction 2025a.

14 France has pioneered embedding climate in financial regulations through its Law on Energy Transition for Green Growth in 2015, with enhancements in 2019 (FIR, 2016; CPI, 2024b). The EU's 2016 Institutions for Occupational Retirement Provision (IORP II) Directive requires pension funds to factor ESG considerations into their risk management processes, creating an obligation to address climate-related risks (Karamally & Franco, 2025).

15 UK pension regulations have required trustees to treat financially material ESG risks as part of their duties since 2018, with large schemes (>GBP 1 billion in assets) also mandated to report in line with the TCFD (C2ES, 2025).

16 In 2020, the European Commission set out minimum standards that an index must satisfy to qualify as a Climate Transition or a Paris-Aligned Benchmark (MSCI, n.d.)

II. Build the governance, standards, and stewardship architecture.	
Provide climate transition frameworks and stewardship codes	Provide climate transition frameworks and stewardship codes that are specific to asset owners. These should link net zero to clear requirements on target setting, implementation plans, escalation policies, disclosure and forward-looking scenario analysis (PRI, 2025c). Expect investors to publish standardized, comprehensive transition plans that cover governance, capital allocation, stewardship and policy engagement, so that credibility can be assessed consistently (IIGCC, 2025a).
Enable responsible investor collaboration	Provide regulatory clarity that good-faith collaborative investor action on climate, including joint engagement and shared escalation frameworks, is permissible under competition law (International Chamber of Commerce, 2022; Hanawalt et al., 2024). Offer guidance on appropriate safeguards so that collective initiatives can scale up without legal uncertainty or chilling effects on ambition.[17]
Harmonize reporting standards	Harmonize reporting standards internationally to align sustainability reporting with emerging global guidance, such as that of the ISSB, creating foundational mandates for pension funds (UNCTAD, 2024). Provide phased adoption and capacity building for smaller schemes so that reporting drives real improvements, not box-ticking.
Standardize asset owner–asset manager data and templates	Standardize asset owner–asset manager data and templates for delegated capital disclosure, stewardship reporting, and vote reporting. This should cover mandate structures, investment objectives, engagement activity, escalation and outcomes (Willi & Gurova, 2025). Build on existing industry initiatives to create comparable metrics for oversight quality and mandate alignment across asset owners and managers.[18]
Address greenwashing	Enforce marketing and disclosure rules to deter it in pension products, protect beneficiaries from misleading claims, and avoid penalizing early movers that set more ambitious standards. Use supervisory tools and, where necessary, sanctions to ensure that climate-related commitments are credible, consistent and backed by action.[19]
III. Enable scale, flexibility, and capacity for climate investment.	
Review prudential liquidity and risk requirements	Review prudential liquidity and risk requirements that may inadvertently discourage pension funds from allocating capital to long-term climate investments (The Phoenix Group, 2023). Part of this could include providing guidance that distinguishes between short-term liquidity needs and strategic, long-dated investments, and clarifying/adjusting risk rules so that long-term climate investments are not in breach of liquidity requirements.
Review fee caps and cost rules	Revisit fee caps and other cost-focused rules that unintentionally discourage allocations to climate solutions, emerging market transition strategies and other higher-cost but systemically important investments (DWP, 2021a; The Pheonix Group, 2023). Where justified, allow targeted flexibility or exemptions to ensure long-term risk-adjusted benefits outweigh short-term fee constraints.
Support consolidation	Support consolidation for smaller pension schemes to enhance governance quality, professional expertise and the capacity to develop sophisticated climate strategies (The Pensions Regulator, 2025). Encourage consolidation processes to integrate climate risk management, stewardship expectations, and alignment with national transition objectives.
Support smaller funds using pooled vehicles	Support smaller funds using pooled vehicles with guidance that sets minimum expectations on climate integration, stewardship questions to ask, and reporting to demand (The Pensions Regulator, 2024). This helps ensure that small funds without the scale for bespoke mandates can meet climate expectations.

17 Numerous competition agencies around the world (e.g., Japan Fair Trade Commission, Austrian Federal Competition Agency) have guidelines for corporations to collaborate on climate initiatives while maintaining pro-competitiveness (Broderick & Pugh, 2023).
18 Examples include a new industry shareholder vote reporting template developed by Pensions UK together with the Vote Reporting Group in March 2025 (Pensions UK, 2025).
19 For instance, in 2023 the UK Financial Conduct Authority introduced an anti-greenwashing rule to clarify to firms that sustainability-related claims about their products and services must be fair, clear, and not misleading (FCA, 2024).

6.2 HOW PENSION FUNDS AND ASSET MANAGER CAN USE THEIR RELATIONSHIP AS A LEVER FOR CHANGE

The design of the asset owner–asset manager relationship is a crucial part of the operating environment (see Section 4). Pension funds rely on external managers to implement their climate strategies. How mandates are structured, how performance is assessed, and how stewardship is governed will largely determine whether climate commitments translate into real-world change—especially for large asset owners who recognize their position as universal owners and are exposed to systemic risks.

I. Set expectations and select aligned managers as ex-ante controls.	
Set clear climate expectations (pre-selection)	Pension funds should formulate and set explicit climate expectations in mandates, investment beliefs and stewardship policies, covering portfolio targets, climate scenario alignment, exclusions, engagement, policy advocacy and voting (DWP, 2021b; Pension Protection Fund, 2023; The People's Pension, 2025; IIGCC, 2024a). Where possible, use model clauses and shared templates to embed these expectations in investment management agreements and align them across asset owners to strengthen market-wide signals.
Integrate climate criteria into manager selection	Integrate climate and stewardship criteria explicitly into manager selection, not only into ongoing oversight (PRI, 2020; DWP, 2022a). Before appointments are made, assess candidates on voting records, engagement practices, policy advocacy, industry leadership, and stewardship track record in relevant asset classes—alongside the integration of climate factors into portfolio construction and risk management. This reduces the need to retrofit expectations into legacy relationships and avoids locking in misaligned managers.
II. Conduct ongoing monitoring and engagement of asset managers.	
Strengthen monitoring and oversight	Asset owners need systems to monitor managers' climate performance, assessing not only portfolio alignment but also voting behavior, escalation practices, policy advocacy and the alignment of industry association memberships (IIGCC, 2022; Reclaim Finance, 2023; NZAOA, 2021). Standardized reporting should cover these dimensions, and regular review meetings should identify inconsistencies and link overall stewardship performance to manager evaluations and mandate decisions.
Engage managers on climate priorities	Pension funds should engage managers systematically on climate, making it a standing item in relationship management. Dialogue should focus on the quality of transition plans, real-economy impact, escalation practices and policy engagement, rather than only on backward-looking metrics (ICSWG, 2024; IIGCC, 2022; The People's Pension, 2025; Quigley, 2020).
III. Determine specific climate-related engagement and escalation processes to ensure alignment towards net-zero.	
Take control where necessary and feasible	Where external managers' actions are not aligned with the fund's climate strategy, pension funds should consider taking back key levers such as voting on climate-critical resolutions or setting more prescriptive stewardship guidelines, recognizing that high-quality stewardship requires focus, expertise and sufficient resourcing (Kokoszka, 2023; Impact Investing Institute, 2023; The People's Pension, 2025). When considering passive mandates, adopting hybrid strategies such as providing incentives for passive managers to engage can help improve the ESG performance of portfolio companies (Becht et al., 2023).
Escalate when progress stalls	A clear escalation framework is needed for managers that fail to meet climate expectations, ranging from formal letters and tighter voting instructions through to fee adjustments and, ultimately, mandate termination. Escalation should be transparent, time-bound and linked to measurable improvements in practice and outcomes (A4S, 2021; Lindstrom & Waxman, 2025).

Terminate mandates in case of unsuccessful engagement	If repeated engagement and escalation do not lead to credible progress, pension funds should be prepared to terminate mandates, and reduce diversification and/or work with managers with stronger climate alignment and stewardship. This sends a clear market signal that climate performance is a core determinant of commercial relationships and, where appropriate, can be accompanied by a measured communication strategy to explain the rationale and support wider awareness and momentum—while also demonstrating virtuous behavior to prospective pensioners.[20]
Build in-house capabilities	Where scale and strategy permit, funds may develop in-house investment and stewardship capabilities to retain more direct control over climate alignment, particularly on strategic asset classes or systemically important holdings (Houmann, 2022; Hoekstra, 2025). Internal teams can also better coordinate engagement, voting and policy advocacy.

For asset managers, understanding and addressing the needs of pension funds represents both a responsibility and a commercial opportunity to win and retain mandates. As transparency improves and asset owners sharpen their expectations, managers who can demonstrate robust climate integration and meaningful stewardship are increasingly able to differentiate themselves.

IV. Design climate-aligned investment solutions.	
Acknowledge trade-offs transparently	Asset managers should be open about constraints such as policy uncertainty, benchmark limitations and the size of the investable universe. By explaining the trade-offs they face and how they manage them, managers can build trust and work with asset owners to design credible, solution-oriented net-zero investment strategies (UNEP FI, 2023; CFA Institute, 2024).
Provide tailored mandates	Be prepared to customize investment management agreements to include explicit climate and stewardship requirements, including escalation tools, voting choice programs, and reporting commitments (UNEP FI, 2023).
Offer cost-efficient, pooled climate-aligned funds	Design pooled vehicles and default strategies with robust climate and stewardship approaches, and ensure that smaller clients can use them to implement net-zero policies within fee and scale constraints (Reclaim Finance, 2025; PLSA, 2022). This ensures that climate-aligned options are available not only to large asset owners with bespoke mandates but also to smaller schemes.
Enable effective client monitoring	Provide high-quality, decision-useful climate reporting and tools that allow clients to monitor alignment, engagement and voting in detail. Proactive transparency and mechanisms that increase client control over key stewardship levers can help retain and win mandates (UNEP FI, 2023; UNEP FI, 2024a).
V. Use stewardship as a strategic differentiator.	
Compete on stewardship quality	As pension funds reallocate mandates, managers that demonstrate proactive, outcome-focused stewardship and credible escalation can position themselves as partners of choice. This includes leadership roles in collaborative initiatives and the ability to evidence measurable stewardship objectives and outcomes (The People's Pension, 2025).
Co-design stewardship with asset owners	Managers can offer to co-design stewardship priorities and escalation strategies with asset owners, giving them clear sight of engagement plans, challenges and successes, and using regular bilateral meetings to discuss how public positioning, initiative memberships and voting align with day-to-day practice. Joint planning and ongoing dialogue can make stewardship more strategic, consistent and aligned with beneficiaries' long-term interests (PLSA, 2022).

20 In early 2025, the People's Pension moved GBP 28 billion out of US manager State Street due to misalignment on climate stewardship (Dohle, 2025). Similarly, USD 14 billion was reallocated from BlackRock by the New York City's Comptroller's Office because of issues over climate engagement (Main, 2025).

6.3 HOW PENSION FUNDS CAN MOVE FORWARD INDEPENDENTLY

The NZFT data shows that even in jurisdictions with weak or contested policy frameworks, pension funds can retain significant agency. They can strengthen their own targets, implementation, impact, and transparency, and work collectively to raise expectations across the system. At the same time, they can treat visible, credible climate leadership as part of their reputation and marketing strategy, using it as a commercial opportunity to build member trust and differentiate themselves from laggards.

I. Embed net-zero in strategy, governance and portfolios.	
Strengthen climate targets	Upgrade from partial or high-level commitments to comprehensive, time-bound climate targets that cover most of the portfolio and address mitigation, capital allocation to climate solutions and fossil fuel phase-out (ACT, 2024; SBTi, 2023; UN, 2022). Align ambition, scope, methodologies and exclusion policies with credible net-zero pathways and, where possible, seek external validation or adherence to recognized net-zero frameworks.
Deepen implementation and governance	Embed climate accountability across governance and investment decision-making. Integrate scenario-based climate risk assessment across all major asset classes, deepen shareholder and bondholder engagement, and ensure that climate-related objectives and metrics are reflected in board oversight, executive incentives and manager evaluation processes (Ceres, 2024; CDP, 2023; IFRS, 2023).
Focus on real-economy impact	Shift portfolios and new financing away from expansionary fossil fuel activities and toward clean and transition assets, assessing companies' revenue streams, capital expenditure and transition plans. Prioritize real-economy decarbonization over reliance on carbon credits (GFANZ, 2022; WWF; 2022; UN, 2022).
II. Drive change across the pensions and financial ecosystem.	
Policy engagement and advocacy	Pension funds should engage constructively with policymakers, individually and through their industry associations, to support the development of clear climate-related fiduciary standards, disclosure rules and transition plans, highlighting that this is in the interest of both their beneficiaries and the wider society (Transition Plan Taskforce, 2023; WWF, 2022; UNEP FI, 2024b). Pensions should also engage governments on climate-related reforms in the real economy. They should be transparent about their own lobbying positions and those of their associations (ACT, 2024; GFANZ, 2022). Large pension funds in particular can use their voice in policymaker engagements, and contribute to collaborative initiatives where their resourcing allows, both to learn from other investors and ensure that their long-term perspectives are reflected in climate engagement objectives.
Drive peer learning and accountability	Engage actively with peers to share tools, mandate clauses, questionnaires and data provider assessments, and to understand which engagement and escalation approaches are most effective (AIGCC, 2025b; IIGCC, 2023)[21]. Large, well-resourced funds should deliberately support smaller schemes by sharing practical materials and encourage managers to offer climate-aligned pooled vehicles, so that leadership by a few does not entrench a long tail of permanently constrained followers.
Build coalitions and collective voice	Work through coalitions and alliances to amplify the influence of pension funds with asset managers, companies and policymakers (The Investor Agenda, 2023). Coordinate on shared expectations, engagement priorities and public positions so that individual actions add up to system-wide signals, including on issues such as fossil fuel expansion, just transition and climate-related financial regulation.
Engage with the wider financial industry	Pension funds can engage with the wider financial industry—including consultants, index providers, data providers, and proxy advisers—to help create products and services that support net-zero alignment (IIGCC, 2025b).

21 To guide climate stewardship, the IIGCC's Asset Owner Working Group (comprising representatives from organizations like Aegon UK and The Phoenix Group) produced an Asset Owner Stewardship Questionnaire in 2023 (IIGCC, 2023).

III. Increase transparency and public understanding.	
Increase transparency & adopt voluntary standards	In the absence of mandatory rules, publicly disclose delegation structures, stewardship policies, voting records with rationales and evidence of engagement activities and outcomes. Provide clear, accessible reporting on climate risks, targets, implementation and progress, enabling members, regulators and peers to understand and assess the fund's contribution to the transition (WWF, 2022; Transition Plan Taskforce, 2023). Transparency should support accountability, not just compliance.
Communicate with members and public	Treat climate leadership and transparent communication as part of the fund's core strategy and reputation. Clearly explain to members how climate risks and opportunities affect their pensions, what the fund is doing in response and how this aligns with their long-term interests. Use AGMs, reports and the media to build understanding, support and scrutiny around climate-related decisions (Climate Finance Action, 2025).

6.4 HOW OTHER ACTORS CAN CREATE A SUPPORTIVE ECOSYSTEM FOR POLICYMAKERS, PENSION FUNDS, AND ASSET MANAGERS

NGOs, coalitions, academic institutions and data providers can help to build a supportive ecosystem for policymakers, pension funds and asset managers. They can provide information, scrutinize claims and outcomes, and develop tools and frameworks that help these actors design effective policies, take credible climate decisions and strengthen the AO–AM relationship within a coherent, transition-aligned operating environment.

I. Support improved data and reporting.	
Improve data and transparency	Provide granular, science-based, forward-looking and comparable data on companies', asset managers' and pension funds' climate transition. Make assumptions and limitations clear so investors can properly assess systemic risk and align with credible net-zero pathways (FSB, 2025).
Develop AO-AM reporting templates and data platforms	Build tools, platforms, and guidance that help asset owners compare managers' climate performance, coordinate engagement tactics, track voting and assess the efficiency of escalation mechanisms. Standardize data and reporting formats to strengthen the AO–AM relationship as a lever for change while easing the reporting burden on individual institutions.[22]
II. Provide independent scrutiny of what works in practice.	
Assess policy and system effectiveness	Run empirical research on which policy and regulatory frameworks drive meaningful real-world decarbonization by pension funds and asset managers. Analyze how fiduciary duty, disclosure rules, benchmarks and stewardship codes shape behavior, and distill this into clear guidance for policymakers and supervisors (Financial Markets Law Committee, 2024; PRI, 2024).
Benchmark institutional performance	Produce independent assessments and benchmarks of pension funds' and asset managers' climate strategies, implementation and outcomes, including how industry associations lobby on climate (InfluenceMap, 2024).[23]
III. Support collective action and accountability.	
Strengthen coalitions and public engagement	Convene and support coalitions that bring together investors, civil society, and experts to advocate for credible climate policy and explain the role of pensions in the transition.[24] Use campaigns and clear narratives to build public awareness across society, demonstrate alignment with beneficiaries' long-term interests and counter misinformation (IIGCC, 2024b; Ceres, 2024).

22 Examples of such initiatives include (1) the 'Vote Reporting Template' from Vote Reporting Group (Pensions UK, 2025) to improve transparency between asset managers and asset owners,(2) the Investment Consultants Sustainability's Working Group's (ICSWG) Engagement Reporting Guide for reporting and collection of engagement data (ICSWG, 2024), and (3) data platforms such as Rezonanz for proxy voting and engagement records actionability (Rezonanz, n.d.).
23 Examples of this include the work done by ShareAction (2025b), MakeMyMoneyMatter (2025), Shift (2025), and Fair Pensions Guide Netherlands (2025)
24 Examples of this include the 'Cambridge Universal Ownership Initiative', where some of the largest asset owners globally are brought together by the University of Cambridge to work together to consider how they can address systemic risks, including through where they should engage regulators and policy makers on legislation changes (CUOI, n.d.).

7. CONCLUSION

7.1 PENSION FUNDS' CRITICAL ROLE IN THE TRANSITION

Pension funds stand at the center of the global transition to net zero. As long-term, universal owners, they are uniquely exposed to climate risk but also uniquely positioned to shape how capital is allocated across the real economy. This report shows that OECD pension funds have made meaningful progress in setting climate targets and strengthening implementation of internal changes to strategy and governance, with many now matching or outperforming other FIs once they take action. The analysis also underlines that ambition remains uneven, particularly on climate investment targets, net-zero pathways without offsets, and consistent disclosure of investment data.

The evidence from the NZFT is clear: credible targets, robust implementation frameworks, and well-designed transition plans are associated with higher allocations to clean energy and more systematic management of climate risk. Where policy frameworks provide clear expectations on fiduciary duty, climate risk management, and disclosure, pension funds go further and faster. Where regulation is fragmented or permissive, progress is slower and more piecemeal, despite growing climate risks and the scale of finance required.

Unlocking the potential of pension funds will therefore require a more supportive operating environment. Policymakers must move from ambiguity to clarity on climate-related duties, align disclosure and taxonomy frameworks, and remove barriers to climate-aligned investment. Pension funds, in turn, need to deepen their own targets, data, governance, and policy engagement, while using their leverage over asset managers through mandates, incentives, and stewardship expectations. Asset managers must respond with investment processes and products that are genuinely consistent with their clients' net-zero objectives.

7.2 POSSIBLE NEXT STEPS FOR THE NZFT RESEARCH

The NZFT data and methodology are updated annually, alongside this specific focus on pension funds. We are considering exploring several additional areas as part of our next update:

- **On pension funds, we will consider extending our scope to include non-OECD entities**, to give a more holistic and complete understanding of progress worldwide. This might also include extending country-level policy analysis to other jurisdictions.
- **We will also explore new data sources and methodological approaches to gain a deeper understanding of the investment practices of pension funds,** including identifying and examining the external funds in which pension funds allocate their capital, to look more closely at the specific investments held within those funds and the voting behavior of the managers of these funds.
- **Tracking impact areas and associated metrics used by pension funds beyond reporting on net zero (e.g., nature, climate adaptation**) is another potential future area of focus, to understand which topics are being closely reported on and increasingly considered material to pension funds, and consequently assessing how to enable a sufficient operating environment around these areas.

- **Given the growing needs and awareness of the importance of emerging markets and developing economies for both pension funds specifically and other FIs**, we will explore current financing and opportunities to increase financing to climate projects and companies in emerging markets and developing economies.
- **In terms of the research on relationships between asset owners and asset managers**, CPI's efforts will revolve around data collection and refining the framework and takeaways on a wider sample which could potentially become a recurring feature on the NZFT dashboard.
- **As part of the wider NZFT methodology improvements**, we will explore including additional mitigation sectors beyond energy (e.g., transport) to further understand how the financial system is enabling real-world decarbonization.

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ANNEX A: SAMPLE CHARACTERISTICS

Table A1. Sample characteristics across the NZFT

	Sample of FIs (AUM/O in USD)	Description
NZFT platform	1,500 (286 trillion)	Largest FIs globally, covering 10 types of financial institution (FI) from 67 countries, equal to around 60% of global financial assets, or 67% of the global financial system, excluding central banks and public FIs (FSB, 2024)
Sections 3.1 and 3.2 (Target and Implementation)	594 (23 trillion)	OECD pension funds from across 29 countries, roughly 37% of global pension assets (TWT, 2025)
Section 3.3.1: (energy portfolio exposure)	96 (12 trillion)	OECD pension funds from across 14 countries
Section 3.3.2 (indirectly enabled project finance)	135 (10 trillion)	OECD pension funds from across 21 countries
Section 4.1.1 (Pension funds and asset managers)	32 (9.6 trillion)	OECD pension funds from across 14 countries

PENSION FUND SAMPLE COMPOSITION AND DEPTH OF ASSESSMENT

Location of the samples in this study: In our sample of 594 pension funds, with combined assets under management of USD 22.6 trillion, the largest share are located in the United States of America (179), followed by the United Kingdom (91), Canada (45), Australia (41), Switzerland (44), Germany (38), and the Netherlands (35). We also include pensions from the following countries: Denmark (19), France (17), Japan (11), Sweden (11), Mexico (10), Italy (9), Finland (5), Israel (5), Austria (5), Norway (4), Chile (4), the Republic of Korea (3), New Zealand (3), Poland (3), Luxembourg (2), Iceland (2), Ireland (2), the Czech Republic (2), Spain (1), Turkey (1), Portugal (1), and Latvia (1).

Our sample includes 120 signatories of the Principles for Responsible Investment (PRI), 40 participants in Climate Action 100+, 39 in the Paris Aligned Asset Owners (PAAO) initiative, 25 signatories of Net-Zero Asset Owner Alliance (NZAOA); these are simple counts of memberships, and individual institutions may appear in multiple alliances.

Our data sources include primary (e.g. a pension funds own disclosures) and secondary data (e.g. through our data sources, see Methodology 2025). For more than half of the sample in terms of AUM/O, we have both secondary and primary data available, ensuring robust data quality.

Table A2. Depth of assessment of pension funds in this study

Data coverage category	#	AUM/O (USD tn)	AUM/O (%)
Secondary & primary data collection for all indicators	102	10.1	45%
Secondary & primary data collection for some indicators and/or supplemented with 2023 disclosures	79	3.3	14%
Secondary data only	413	9.2	41%
Total	**594**	**22.6**	**100%**

ANNEX B: ASSET OWNER-ASSET MANAGER (AO–AM) RELATIONSHIPS

1. BACKGROUND ON THE AO-AM RELATIONSHIPS FRAMEWORK

In this research, we treat pension funds as asset owners ("principals") who set strategic investment direction, and asset managers as the "agents" who carry out day-to-day investment and stewardship activities.

We propose a framework of characterization of pension funds and asset manager relationships based on six criteria. The framework was created using an inductive research methodology, by first diving deep into pension fund reports, websites, and other available documentation, and extracting the classification patterns into a framework. Hence, the framework is naturally geared toward analyzing large pension funds. The importance of these categories was then validated by extensive desk research.

The six criteria assess how capital and authority are structurally and operationally delegated. They help identify who controls investment decisions and how closely pension funds remain tied to execution. The criteria are divided into two main broad categories: asset owner positioning and control:

- **Asset owner positioning** measures the pension fund's incentive and structural position toward the climate alignment of its capital – is the pension fund structurally positioned to direct how its capital is managed and aligned with net-zero goals?
- **Asset owner control** is defined as the extent to which a pension fund retains oversight, authority, and enforceable influence over its delegated asset managers – does the pension fund have the tools to act on its capital alignment?

2. SUMMARY OF FRAMEWORK AND SCORECARD

Pension funds can score a maximum of 3 points for each criterion, with a low score being the category where less optimal positioning or control is expected, and a higher score what hypothetically constitutes stronger levels of positioning or control. While this scoring allows assessing patterns among the sample, it has more categorical value instead of ordinal - as what defines 'best practice' revolves around different individual setups and is influenced by regulatory and political constraints.

Pillar	Criteria	Scorecard
Asset Owner Positioning	Management structure (Criteria 1)	3 = Internal or wholly owned manager 2 = Outsourced Chief Investment Officer (OCIO) or single fiduciary manager 1 = Multi-manager model 0 = Undisclosed
	Asset manager dispersion (Criteria 2)	3 = Concentrated 2 = Moderate 1 = Dispersed 0 = Undisclosed
	Delegation transparency (Criteria 3)	3 = Discloses all 4 categories of transparency (visibility of asset managers, breakdown of managed assets, net-zero alignment data for delegated assets, stewardship outcome disclosure) 2 = Discloses 2-3 categories of transparency (visibility of asset managers, breakdown of managed assets, net-zero alignment data for delegated assets, stewardship outcome disclosure) 1 = Discloses 1 category/limited information available (visibility of asset managers, breakdown of managed assets, net-zero alignment data for delegated assets, stewardship outcome disclosure) 0 = Undisclosed/opaque
Asset Owner Control	Type of Mandate (Criteria 4)	3 = Predominantly active mandates 2 = Mixed of passive, discretionary, active with lower predominance 1 = Predominantly discretionary 0= Unknown
	Stewardship & oversight (Criteria 5)	3 = Strong practices in place across three categories (manager selection & screening, mandated engagement by asset managers, oversight, monitoring & escalation) 2 = Has some expectations but weak follow-up across three categories (manager selection & screening, mandated engagement by asset managers, oversight, monitoring & escalation) 1 = No structured oversight set in place by the pension fund across three categories (manager selection & screening, mandated engagement by asset managers, oversight, monitoring & escalation) 0 = Undisclosed
	Voting control (Criteria 6)	3 = Reclaims or sets strict voting policy (pension fund-controlled, instruction-based with strict monitoring) 2 = Delegates with aligned policy (policy-aligned), third-party service (if tied to internal policy), instruction-based (if guidance is looser or not enforced) 1 = Full delegation, no guidance (discretionary, no mention of internal policy or expectations) 0 = Unknown (no public information available, disclosure too vague)

3. PILLARS & CRITERIA

3.1 ASSET OWNER POSITIONING

3.1.1 CRITERION 1: MANAGEMENT STRUCTURE

This criterion captures the overall structure of how asset management responsibilities are executed and delegated. The classification is done according to the asset management structure predominance within the pension fund (internal, external, or OCIO/fiduciary manager). To inform this classification, the split between external vs internal % AUM/O managed was collected when available. The scoring reflects the range from full execution control (internal) to additional layers of external execution (single external, multiple external).

Sub-criteria	Definition
Internal Management or Wholly Owned External Manager (1:1)	The pension fund manages its assets entirely or predominantly in-house, or via an external entity it owns or tightly controls (e.g., a wholly owned asset manager). Strategic and executional authority remain under the pension fund's governance.
Outsourced Chief Investment Officer (OCIO) or Single Fiduciary Manager	The pension fund delegates day-to-day investment implementation – including portfolio construction, manager or fund selection, and execution - to a single external provider. This external manager may select and oversee multiply underlying sub-managers or fund vehicles but is the primary point of governance and strategy alignment. While fiduciary management can involve broader discretion than OCIO (Schroders, 2023), the two approaches are combined in this framework because both rely on a single external delegate for implementation.
Multi-External Asset Manager Model (1:M)	The pension fund predominantly delegates its assets through multiple external asset managers, each responsible for a portion of the portfolio. These relationships are not managed through a single OCIO-style intermediary. Strategy, selection, and oversight may be retained internally – but execution is structurally fragmented, making alignment and coordination more challenging. Execution is mainly dispersed across multiple external AMs.

3.1.2 CRITERION 2: ASSET MANAGER DISPERSION

This criterion assesses whether a pension fund's management structure positions it to have the motivation to influence asset managers on net-zero alignment by assessing the number of asset managers contracted. High concentration can increase the fund's motivation to engage more proactively with the manager, given the material exposure and associated risks. Large funds with concentrated external relationships are also more likely to be important clients to asset managers and can dedicate more resources to engagement.

Sub-criteria	Description
Concentrated	≤ 5 external managers.
Moderate	6–15 external managers.
Dispersed	>15 external managers.

3.1.3 CRITERION 3: DELEGATION TRANSPARENCY

This criterion assesses how clearly pension funds disclose relationships, structures, and ESG data. Pension funds are then compared in terms of whether they report on these different insights.

Sub-criteria	Examples
Visibility of asset managers	Are asset managers identified, and is their role described? This includes names, mandates, asset classes, extent of exhaustive overviews.
Breakdown of managed assets	Does the report mention the share of internal vs outsourced asset management?
Net-zero alignment data for delegated assets	Does the pension fund disclose key indicators related to climate performance of delegated portfolios? Does the pension fund only report on their internal progress, or do they present results for internal and external assets? This may include financed emissions (Scope 1-3), ESG scores, exclusions, or alignment with net-zero targets.
Stewardship outcome disclosure	Are engagement and voting outcomes tracked and reported for delegated portfolios?

3.2 ASSET OWNER CONTROL

Measures how much practical authority and oversight the pension fund exercises in shaping asset manager relationships and net-zero implementation, including stewardship mechanisms.

3.2.1 CRITERION 4: MANDATE TYPE

This criterion defined the level of discretion granted to external asset managers over investment decisions and net-zero implementation within the type of mandate (active, passive, discretionary).

Sub-criteria	Definition
Active mandate	The pension fund retains ESG policy-setting power and mandates its implementation (e.g. engagement, exclusions).
Passive mandate (index-based)	Asset managers follow ESG indices. Control relies on index construction.
Discretionary mandate	The asset manager has autonomy over both investment and ESG decisions.

3.2.2 CRITERION 5: STEWARDSHIP & OVERSIGHT

This criterion evaluates how the pension how the pension fund governs, instructs, and oversees the stewardship activities that it delegates to its external managers. It evaluates whether stewardship is treated as an active responsibility or passively delegated. Enforcement depends on the mandate type, relationship type, and the regulatory environment.

Sub-criteria	Description
Manager selection & screening	Does the pension fund incorporate net-zero criteria into its selection and appointment of asset managers (e.g. selection frameworks, screening of asset managers, exclusion criteria in case of non-compliance/fossil investments)?
Stewardship expectations for asset managers	Does the pension fund require asset managers to engage with portfolio companies on net-zero issues (e.g. mandate that managers engage on climate, voting policy on climate, engagement priorities aligned with global frameworks i.e. PRI, Climate Action 100+, pension fund-specified themes or sectors for engagement)?
Oversight, monitoring & escalation	Does the pension fund follow-up on engagement and stewardship expectations through monitoring/escalation mechanisms? E.g. asset managers required to submit regular engagement reports, engagement outcomes tracked, clear escalation pathways in cases of non-performance (internal reviews, mandate renegotiation, termination), conduction of audits/period reviews on how manager is complying with net-zero objectives.

3.2.3 CRITERION 6: VOTING CONTROL

Examines who controls voting rights and whether they align with the fund's climate goals. Voting authority can be structured in multiple ways – retained by the pension fund, delegated to asset managers, outsourced to proxy advisers, or shared through hybrid models.

Sub-criteria	Description
Pension fund controlled	Pension fund retains or reclaims voting rights. The fund votes directly in both internal and asset manager-controlled assets.
Instruction-based	Fund sets strict voting instructions for managers, manager votes accordingly.
Discretionary	Managers vote based on their own policies.
Policy-aligned	The fund has a central voting policy but allows the manager to execute votes.
Third-party service	Voting is outsourced to a third-party service by the pension fund.

5. SAMPLE

A global mix of 32 prominent pension funds in OECD countries was selected in terms of highest AUM. The sample selected contains the following: (1) 18 of the largest European pension funds and (2) the top 14 non-European OECD pension funds. This allows a more even geographical spread considering otherwise prevalence of US-based entities. For each pension fund:

- Consulted publicly available reports, pension websites, official documents, and news articles – primarily annual reports, investment reports, and governance, ESG or voting policy disclosures – to identify references to external asset managers or investment management arrangements.
- Extracted any explicit mentions of asset management relationships, such as which firms manage portions of the portfolio or how the pension fund's investment management is structured – this information serves as the basis to create a comprehensive framework on AM-PF relationships in an inductive way.

The pension funds are then assessed against the framework and categorized.

Country	No	Names
USA	7	Federal Retirement Thrift Investment Board (FRTIB) Calpers California State Teachers' Retirement System (CALSTRS) New York State Common Retirement Fund (CRF) Florida State Board of Administration (SBA) Teachers' Retirement System Of Texas (TRS) Washington State Investment Board (WSIB)
Netherlands	4	ABP Pensioenfonds Zorg En Welzijn (PFZW) Pensioenfonds Metaal & Techniek (PMT) Pensioenfonds Van De Metalektro (PME)
Japan	1	Government Pension Investment Fund (GPIF)
Switzerland	3	Baloise Perspectiva Collective Foundation BVG St. Gallen Pensionskasse Helvetia Prisma Group Foundation
Canada	3	Canada Pension Plan Investment Board (CPPIB) Ontario Teachers' Pension Plan (OTPP) Public Service Pension Plan
Denmark	3	Arbejdsmarkedets Tillaegspension (ATP) PFA Pension Danica Pension
Australia	2	Australiansuper Australian Retirement Trust
Sweden	2	Alecta Sjunde AP-fonden (AP7)
UK	2	Pension Insurance Corporation Northern LGPS (Greater Manchester Pension Fund, Merseyside Pension Fund and West Yorkshire Pension Fund)
Finland	1	Keva
Norway	1	Norway Government Pension Fund Global
Germany	1	Bayerische Versorgungskammer
France	1	Agirc-Arrco
South Korea	1	National Pension Service South Korea

Below are summarized the modes for each pillar and criteria. There are some limitations to interpreting descriptive statistics within this analysis, including: (1) external factors (legal-political) affecting scores, (2) inter-dependency of criteria, (3) floor effects. For this reason, they are interpreted with caution and supplied by additional desk research and analysis of external factors.

Descriptive statistics	Mode
Criteria 1 - Management structure	1
Criteria 2 - Asset Manager Dispersion	0
Criteria 3 - Delegation Transparency	2
Criteria 4 - Mandate type	3
Criteria 5 – Stewardship & Oversight	3
Criteria 6 - Voting Control	2
Final Score (max 18)	11
Positioning Score (max 9)	3
Control Score (max 9)	8