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Executive Summary

The increasing focus of industry stakeholders on responsible investment has led to greater scrutiny of how asset owners integrate environmental, social, and governance (ESG) information into their investment strategies. We identified a gap in the literature regarding the role of ESG integration in setting long-term investment strategy, such as strategic asset allocations (SAAs). Through an interview and survey approach with investment strategy leaders at large asset owners in Australia and New Zealand, our research explores the key considerations for integrating ESG information into SAA, including regulatory changes, evolving stakeholder expectations, and the recognition that ESG risks and opportunities may have a material impact on financial returns over time. Given the prominence of Australian and New Zealand asset owners in the wider international pension system, this research has global relevance.

We found that as asset allocators, particularly in Australia and New Zealand, continue to refine their ESG integration approaches, significant variation exists in their methodologies. Some asset allocators adopt a top-down approach, adjusting their capital market assumptions (CMAs) to account for climate risks in their return assumptions. Many others rely on a bottom-up methodology, incorporating sustainability at the asset class or individual investment level. Additionally, debate continues about the balance between impact objectives and traditional risk-adjusted return expectations, as well as other investment objectives that asset allocators must optimise.

Despite growing efforts to integrate ESG information into SAA processes, several challenges persist. Data limitations, methodological complexities,

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and organisational structures influence the extent to which ESG information can be meaningfully incorporated.

Further, a key finding from our study is that ESG information continues to be viewed largely in the realm of asset class teams and is not the most important determinant of setting long-term investment strategy. This dynamic partly reflects the fact that investment strategy teams and leaders need to juggle many-sometimes competing-objectives, including the incorporation of ESG information. The challenge of managing these competing priorities is an important aspect to monitor and track, especially as asset owners become more sophisticated in strategies that consider ESG information, such as advancing toward decarbonisation targets.

Key Findings from Asset Allocators¹

Asset allocators prioritise financial objectives over environmental, social, and governance within the strategic asset allocation process.

ESG factors rarely drive strategic asset allocation decisions and remain secondary to financial performance and regulatory benchmarks.

Environmental, social, and governance integration at the strategic asset

allocation level is informative but not transformative.

Asset allocation teams typically employ an ESG integration toolkit that includes climate-aware capital market assumptions, stress testing, and scenario analysis. However, the influence of these tools on SAA settings remains limited, due to the marginal impact on return forecasts and persistent challenges related to data uncertainty.

In this paper, asset allocators are defined as Chief Investment Officers and senior investment strategy and allocation professionals whom we have interviewed and/or surveyed. This study focuses specifically on this group, whose work centres on long-term investment strategy and portfolio construction. Accordingly, the findings may not reflect the broader perspectives or practices of the asset owner organisations they represent, where ESG integration is often more deeply embedded and approached through a wider range of frameworks and methodologies.

Regulation and internal constraints hinder environmental, social, and governance integration.

Policies like Australia's Your Future, Your Super test and competing internal priorities discourage ESG innovation in long-term strategy.

Environmental, social, and governance integration within asset allocation focuses heavily on climate factors.

Social and governance factors remain relatively underdeveloped due to the

- inherent difficulties in quantifying and integrating them into asset allocation models.
- Environmental, social, and governance integration requires board insights, strategic leadership, and smart regulation.

Effective ESG integration requires board directors to understand where the levers of highest impact are, senior management to set deliberate strategies, and regulators to be aware of unintended policy consequences.

Background and Methodology

Setting long-term investment strategy, such as the SAA process, is widely acknowledged as the most critical investment decision for asset owners in effectively managing long-term portfolio performance variability. Moreover, signatories of the Principles for Responsible Investment (PRI) have committed to integrating ESG risks and opportunities into their investment processes. This integration has significant implications, not only at the asset class and individual security levels but also in terms of how exposures aggregate and influence the overall resilience of portfolio performance.

Recognising the importance of the topic, PRI prepared a discussion paper in 2019 to stimulate wider discussions on opportunities to embed ESG risks and opportunities into the SAA framework and process.² More recently, the Institutional Investors Group on Climate Change (IIGCC) launched the new Net Zero Investment Framework 2.0, which has a section dedicated to integrating net-zero objectives into the asset allocation process.3

Overview of the Australian Superannuation Industry

The Australian superannuation system, instituted in 1992, is a mandatory retirement savings framework designed to ensure financial security for individuals in their post-employment years, alleviating dependence on government-funded pensions. According to the Australian Prudential Regulation Authority (APRA), as of March 2025, the system oversees assets totalling

²PRI, "Embedding ESG issues into strategic asset allocation frameworks: Discussion paper" (September 2019). www.unpri.org/embedding-esg-issues-into-strategic-asset-allocation-frameworks-discussion-paper/4815.article.

³IIGCC, "Net Zero Investment Framework" (June 2024). www.iigcc.org/net-zero-investment-framework.

approximately AUD4.1 trillion, 4 of which AUD2.9 trillion is regulated assets. The Super Members Council (SMC) ranked Australia as the fourth-largest holder of pension fund assets globally, and Australia's retirement savings pool is projected to become the second largest in the world by 2031 (Exhibit 1).5 This growth is underpinned by investment returns but also by a legislated increase in employer contribution, which has increased from 9% in June 2013 to 12% of employee earnings in July 2025.6

A defining feature of the Australian superannuation system is its fiscal sustainability. Unlike many OECD nations, where public pension spending is expected to rise to 10.2% of gross domestic product by 2050, Australia's pension-related government expenditure is projected to decline to just 2.1%.7 This expected decline is attributable not to reduced retirement benefits but rather to the increasing financial independence of retirees through their superannuation savings. In recent years, the industry has experienced

Exhibit 1. Australian Superannuation System Key Facts



Source: APRA, "Quarterly Superannuation Statistics" (March 2025). www.apra.gov.au/quarterly-superannuation-statistics.

⁴APRA, "Quarterly Superannuation Statistics" (March 2025). www.apra.gov.au/quarterly-superannuation-statistics. SMC, "Global Pension Rankings," research note (February 2025). https://smcaustralia.com/app/uploads/2025/ 02/2025-02-20-SMC-Research-Note-Global-Pension-System-Rankings.pdf.

^{&#}x27;See the Australian Taxation Office's "Super guarantee" webpage, www.ato.gov.au/tax-rates-and-codes/key superannuation-rates-and-thresholds/super-guarantee.

OECD, "Pensions at a Glance 2023: OECD and G20 Indicators" (13 December 2023). www.oecd.org/en/ publications/pensions-at-a-glance-2023_678055dd-en.html.

significant consolidation, with the top 10 regulated superannuation funds now managing nearly 70% of total assets and more than 60% of all member accounts, reflecting a trend toward scale and efficiency (Exhibit 2).8

Arguably, this trend enhances the capacity of superannuation funds to integrate ESG considerations into their SAA. Trustees of superannuation funds play a pivotal role in this evolution. Entrusted with acting in the best financial interest of their members, they consider a diverse set of risk and return drivers, including ESG information, in their investment decision-making process. This alignment of fiduciary duty with sustainable investing principles underscores the strategic importance of ESG integration in securing long-term value and resilience in retirement portfolios.

The Australian superannuation industry encompasses various fund types, including retail, industry, and corporate superannuation funds. These entities are primarily regulated by the APRA and the Australian Securities and Investments Commission. APRA-regulated superannuation funds are subject to the Your Future, Your Super (YFYS) annual performance test, which evaluates fund

100% 3% 90% 15% 80% 44% 70% 60% 50% 29% 40% 61% 30% 20% 10% 15% 0% By Asset Under By Number of APRA-Regulated Management (AUM) Superannuation Funds ■ Very Large: Greater than AUD100 Billion Large: AUD50 Billion to AUD100 Billion Mid: AUD10 Billion to AUD50 Billion Small: Less than AUD10 Billion

Exhibit 2. Distribution of APRA-Regulated Superannuation Funds⁹

Source: APRA, "Annual Fund-Level Superannuation Statistics June 2024."

⁸APRA, "Annual Fund-Level Superannuation Statistics June 2024" (30 January 2025). www.apra.gov.au/annualfund-level-superannuation-statistics.

⁹In this report, we have categorised the APRA-regulated asset owners according to their assets under management as follows: very large (>AUD100 billion), large (AUD50 billion to AUD100 billion), mid (AUD10 billion to AUD50 billion), and small (<AUD10 billion).

performance against a fund-specific SAA benchmark over a 10-year period.¹⁰ Superannuation funds that fail the test are required to notify members and may face restrictions on accepting new members after consecutive failures. The test is intended to enhance transparency, accountability, and overall member outcomes within Australia's superannuation system. As expressed by the Australian superannuation industry via the YFYS review, the YFYS annual performance test may create a risk that value-based products, such as those that embed ESG investment strategies, will fail and close. 11 This risk arises from the tendency of these strategies to deviate from the benchmark and increase tracking error. This issue raises the question of whether the YFYS annual performance test may incentivise superannuation funds to adopt more passive or lower-tracking-error investment strategies, potentially hindering the integration of ESG information into the investment decision-making process.

Most Australian superannuation funds operate on a defined contribution basis, wherein the retirement benefit is contingent on both the contributions made and the investment performance of the superannuation fund. Investment strategies within the superannuation sector are diverse, encompassing both publicly traded securities and private assets, with a general objective of achieving returns that outpace inflation over the long term. Similar to the experience in the United States, Australian superannuation funds tend to have higher allocation to equities relative to international pension industries that are dominated by defined benefit funds (**Exhibit 3**).

Although the system is predominantly in the accumulation phase, in which members are actively contributing to their superannuation accounts, certain

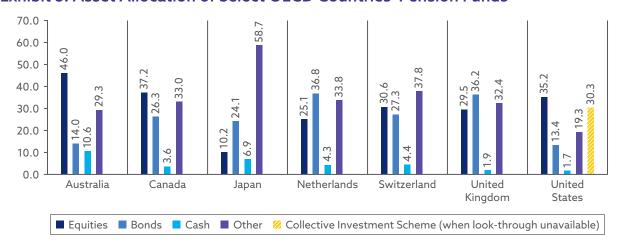


Exhibit 3. Asset Allocation of Select OECD Countries' Pension Funds

Source: OECD, "Pension Markets in Focus 2024" (2 December 2024). doi:10.1787/b11473d3-en.

¹⁰APRA, "Your Future, Your Super legislation and supporting material" (August 2023). www.apra.gov.au/yourfuture-your-super-legislation-and-supporting-material.

¹¹Australian Government the Treasury, "Your Future, Your Super Review: Summary of Issues" (April 2023). https://treasury.gov.au/sites/default/files/2023-04/c2022-313936-yfys-review.pdf.

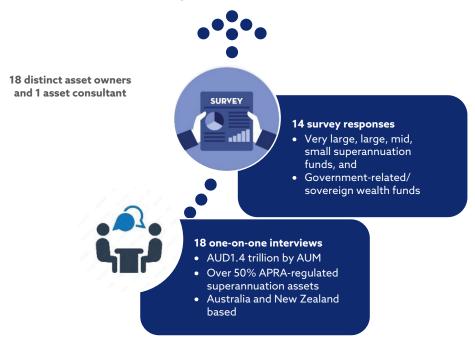
superannuation funds have a significant proportion of members who are transitioning into the decumulation phase, drawing down their superannuation savings during retirement. Liquidity management is a critical aspect for superannuation funds, especially because members are permitted to switch between different investment options within the same superannuation fund or transfer their balances to different funds.

Methodology

This study uses a qualitative research design, supplemented by a survey, to explore ESG integration in asset owners' investment strategy and asset allocation. Our specific focus on investment strategy, asset allocation, and portfolio construction staff rather than ESG and responsible investment personnel differentiates this study from other research. As such, the key data were gathered primarily from asset owners' chief investment officers (CIOs) and asset allocation teams, as well as consultants involved in ESG integration at the SAA level. **Exhibit 4** provides an overview of our methodology.

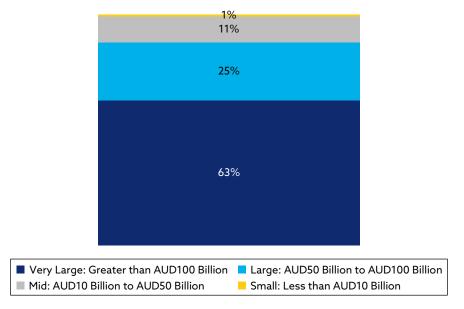
We conducted 18 one-on-one interviews and received 14 survey responses, encompassing insights from 18 distinct asset owners and one asset consultant. Participants came from across Australia and New Zealand, representing a diverse range of fund sizes and structures. 12 The distribution by size of asset owners included in this study (Exhibit 5) broadly matches the distribution

Exhibit 4. Overview of Methodology



¹²In this report, we have categorised the APRA-regulated asset owners according to their assets under management as follows: very large (>AUD100 billion), large (AUD50 billion to AUD100 billion), mid (AUD10 billion to AUD50 billion), and small (<AUD10 billion).

Exhibit 5. Asset Owner Research Participants' Ranges of Assets under Management



of APRA-regulated superannuation funds by assets under management (as illustrated in Exhibit 2). In terms of asset owners regulated by APRA, the 14 regulated asset owners in this study encompass more than 50% of APRAregulated superannuation assets by assets under management. 13

Additionally, the research includes four Australian and New Zealand non-APRAregulated funds that invest on behalf of government agencies and employees. We included these funds in order to identify differences in ESG approaches between asset owners subject to the YFYS annual performance test and those that are not, as well as to highlight any variations between asset owners using a total portfolio approach (TPA) framework and those whose investment processes are anchored in an SAA framework (see the section titled "Anecdotal Observations on ESG Integration via the Total Portfolio Approach vs. Strategic Asset Allocation" for further details).

We collected primary qualitative data through one-on-one interviews with asset allocators and relevant stakeholders. These semi-structured interviews ensured in-depth exploration while maintaining confidentiality through de-identification if requested. To encourage comprehensive discussion, we used broad, openended interview questions. Specific questions examined how participants incorporate ESG information into their investment strategies, including climate risk modelling, mitigation strategies, financed emissions, and sustainability budgeting. Social and governance factors, such as modern slavery and cybersecurity, were also considered. The questions further addressed such challenges as regulatory impacts, trade-offs between carbon reduction and returns, and resource constraints. We also assessed the role of team structure

¹³APRA, "Annual Fund-Level Superannuation Statistics June 2024."

in ensuring effective ESG integration within asset allocation processes. We also conducted an anonymous premeeting survey to quantitatively assess how ESG information is considered within the organisation's goals and systems, as well as any implementation challenges.

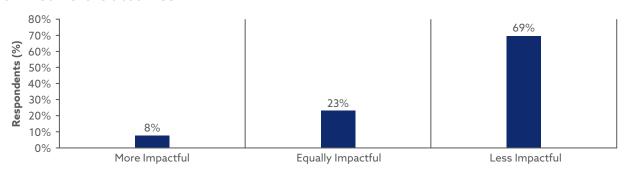
Key Insights from Australian and New Zealand **Asset Owners**

In this section, we examine the important findings from our interviews and survey responses. The insights that follow explore how asset allocators are navigating a range of complex and evolving priorities which includes ESG considerations. We delve into whether ESG information is being interpreted as either risk mitigator or return enhancer, and how preferences between listed and unlisted assets reflect broader considerations around tracking error and opportunity sets. The challenge of carbon reduction, particularly in Australian equities, is examined given the home bias for Australian investors. We also touched on anecdotal evidence on ESG integration through different portfolio approaches. Finally, we consider whether organisational structure plays a meaningful role in shaping investment outcomes and decision-making processes.

Focus on Areas of High Impact: Asset-Level Decisions Outweigh SAA

Asset allocators commonly believe that the most impactful decisions regarding ESG considerations occur at the asset class level, rather than through topdown strategic asset allocation. One key reason is the complexity of balancing multiple investment objectives, in which ESG considerations often remain at the margin. We delve into more details on this point in the section titled "The Portfolio Construction Dilemma: Challenges in Optimising Multiple Objectives." Exhibit 6 illustrates our survey findings around this topic, showing that most investment strategy and asset allocation teams-professionals

Exhibit 6. Survey Outcome: SAA and Investment Strategy Team Impact on Net-Zero Outcomes



Note: This exhibit graphs the distribution of participants' responses to the survey question, "Compared to other areas of investments, how impactful is the SAA and the work of the investment strategy team in achieving net-zero outcomes?"

responsible for managing the SAA-believe their work has relatively limited impact to the overall portfolio's net-zero and ESG outcomes.

Relatedly, some asset owners prioritise responsible investment policy alignment with their investment partners, meaning the flow-on impact to SAA is often secondary. Many believe that manager-driven stewardship efforts have a far greater influence on ESG outcomes than what can be achieved through broad asset allocation decisions. Most asset allocators indicated that although ESG teams can collaborate on investment decisions, they have no veto power over final investment decisions. In an exceptional case, one small-sized asset owner emphasised that ESG considerations are deeply ingrained in the firm's overall business strategy, including in the overall brand and marketing. Therefore, this asset allocator suggested it had less need for additional investment-specific levers on ESG integration compared with other asset owners. As a result, the firm's asset allocation naturally reflects these values, ensuring alignment with its long-term ethical commitments. Decision making within the superannuation fund is highly collaborative, and in cases of disagreement, a clear escalation process helps to resolve conflicts effectively.

At the SAA level, it is common practice for ESG information to be integrated through climate-aware CMAs, internal scenarios, and stress testing. Climateaware CMAs, in particular, are widely adopted by Australian asset allocators and asset consultants. However, these adjustments often have immaterial impact on final SAA settings. These assumptions typically reflect an expectation of marginally lower returns for both listed and unlisted asset classes, driven by the anticipated long-term impacts of climate change. These adjustments come with a considerable degree of uncertainty, however, stemming from challenges in accurately modelling climate-related variables and predicting their economic effects. This uncertainty arises from the complexities of forecasting climate scenarios and their diverse impacts across various asset classes. As a result, many asset allocators have limited conviction on fully optimising SAA settings based on climate-aware CMAs, given other, potentially competing objectives (such as other determinants of risk and return, as well as peer-relative risks; refer to the section titled "The Portfolio Construction Dilemma: Challenges in Optimising Multiple Objectives"). This situation ultimately leads to a diluted ESG integration approach at the strategic level. One asset owner, which has made significant inroads into incorporating material climate-aware CMAs into its SAAs, shared its blended approach of using 80% traditional and 20% climate-aware CMAs to optimise its SAAs initially. Despite this conservative approach, this asset owner is still seeing meaningful changes in some subsector asset allocations, such as asset-backed securities and Australian equities.

The Portfolio Construction Dilemma: Challenges in Optimising **Multiple Objectives**

The portfolio construction dilemma highlights the challenge for large asset allocators in balancing multiple, often conflicting investment objectives, such as maximising returns, minimising risk, maintaining liquidity, adhering to

regulatory or ethical guidelines, and ongoing judgment of performance versus peers. Traditional frameworks such as mean-variance optimisation provide a foundation, but they often fall short when investors must also consider qualitative goals such as sustainability. To navigate these complexities, investors typically develop a scorecard or hierarchy of objectives, ranking them from most to least important based on their specific goals, constraints, and values.

Our survey results, illustrated in **Exhibit 7**, indicate that for most institutional investors, investment returns and peer performance are the primary priorities. This outcome aligns with expectations for two key reasons. First, it reflects the fiduciary duty of superannuation fund trustees in Australia, as outlined in Section 52 of the Superannuation Industry (Supervision) Act 1993, which require trustees to act in the best financial interests of members—in particular, with respect to returns to those beneficiaries. Second, strong financial performance is essential in a highly benchmarked environment, where superannuation funds are routinely evaluated against industry peers. These performance metrics often influence internal accountability structures and are commonly integrated into the remuneration frameworks for investment professionals.

Your Future, Your Super: The Impact of Regulation on Environmental, Social, and Governance Integration in Strategic Asset Allocation

Aside from returns and peer risk, survey respondents indicated that managing regulatory risk is their fourth most important priority. In Australia, superannuation funds operate within a highly regulated framework that has become increasingly stringent following the 2021 introduction of the YFYS annual performance test. This test places pressure on superannuation funds to meet performance benchmarks, and failing it can lead to severe consequences, including restrictions on accepting new members. Given this scrutiny, it is reasonable that superannuation funds have increasingly prioritised investment returns and

Exhibit 7. Survey Outcome: Asset Allocators' Ranking of Primary Objectives and Priorities



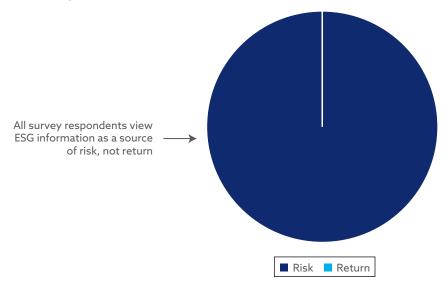
regulatory risk management to avoid potential regulatory penalties or reputational damage. The need to optimise performance under YFYS might unintentionally deprioritise the other interests, including ESG considerations, because they may introduce tracking error or lead to investments that diverge from benchmarkdriven strategies. We found some anecdotal evidence of this situation.

A non-APRA-regulated fund advised that fewer regulatory constraints provided greater flexibility in its investment strategies. This freedom allows the fund to prioritise long-term objectives, such as significantly increasing allocations to renewable energy sectors, without the immediate pressure to minimise tracking error or adhere closely to traditional benchmarks. The fund may also accept higher current carbon emissions in certain areas in its portfolios, operating under the assumption that it can implement decarbonisation measures over time to meet future climate goals. Additionally, non-APRA-regulated superannuation funds appear to face less pressure in terms of needing to promptly address member concerns or react to short-term peer performance. This scenario enables some of these non-regulated funds to introduce ESG or Paris-aligned climate benchmarks and pursue more aggressive renewable investment strategies, potentially leading to greater environmental impact in the long term.

Is the Consideration of ESG Information a Risk or Return Driver?

In our interviews, most asset allocators acknowledged that ESG considerations play a role in both risk and return perspectives. The actual work conducted as part of the investment process, however, suggests a stronger emphasis on managing risk rather than using ESG considerations as a strategy to increase return. This dynamic is reflected in the survey responses when allocators were asked to choose whether ESG considerations were a driver of risk or return (see Exhibit 8).

Exhibit 8. Survey Outcome: How Asset Allocators View ESG Information in Investment Strategy and Portfolio Construction



Asset allocators view ESG information as a material risk factor rather than as a direct driver of value creation. A major reason for this focus is that certain ESG risks, such as climate transition risks, may not be fully priced into markets, creating potential tail risks that asset owners seek to mitigate. Additionally, ESG risk management tends to align with traditional risk management frameworks, reinforcing the perception that ESG information is primarily for controlling exposures rather than generating alpha.

Furthermore, within asset allocation teams, ESG information often receives less attention than traditional economic and financial metrics, indicating that its role is viewed more as a safeguard against downside risks rather than a driver of upside potential. This sentiment is underscored by a participant from a very large asset owner, who, following a research trip on ESG integration at the asset allocation level, remarked that "financial factors are more important than ESG at the moment" but noted that it is still early days for the top-down approach via asset allocation. Interestingly, a participant from a mediumsized asset owner commented that the firm's members do not place material emphasis on ESG considerations, which has contributed to the organisation viewing its ESG approach from a risk perspective rather than as a source of return generation.

Conversely, a participant from a smaller asset owner indicated that it perceives ESG information, particularly carbon emissions, as a potential source of return, having generated alpha through proactive management of climate risk. Since divesting from fossil fuel-intensive assets several years ago, the asset owner has reported outperformance in its Australian equity portfolio, attributing this outperformance to reduced exposure to high-carbon sectors. Furthermore, this asset owner believes that carbon risk is significantly mispriced relative to the current scientific literature. The asset owner anticipates that as we approach a tipping point over the next decade (marked by accelerating ice cap melt, more frequent climate-related disasters, and escalating physical risks), this mispricing will increasingly be reflected in market valuations.

Unlisted vs. Listed Assets: A Case of Tracking Error, Impact, and Opportunity Set

Although the consideration of ESG information pertains to all asset classes, most asset allocators see more opportunities to reduce their climate risk through their allocation to private assets, as opposed to public assets. This finding results from asset allocators and portfolio managers generally being more comfortable with the concept of larger tracking error in the unlisted asset classes given the idiosyncratic nature of the investment universe and how the unlisted benchmark is often an inflation-adjusted return or does not represent the entire opportunity set. Furthermore, investments with positive environmental or social impact, such as renewable energy, often require a long investment horizon, and therefore, short-term tracking error considerations are less important.

Additionally, many asset allocators believe that social and governance risks are more effectively managed through public assets via proxy voting, stewardship (e.g., holding companies accountable, influencing and measuring their net-zero targets and emission reduction plans), and advocacy (e.g., working with the government on such issues as social housing)—all of which are outside of the scope of traditional SAA.

A CIO of a small superannuation fund noted that opportunities in private markets tend to be richer and that asset owners tend to express stronger ethical and ESG convictions in this space, the combination of which often results in increased allocations to unlisted asset classes. Because ethical considerations are already in the DNA of its investment process, however, this fund has no additional levers to the strategic asset allocation investment process as such. Rather, the increased allocation to private markets reflects an outcome of the fund's investment philosophy.

Carbon Reduction in Australian vs. International Equities: A Unique Challenge for Australian Asset Owners

Many participants have observed that integrating material climate-aware CMAs can lead to significant changes in investment portfolios, particularly when comparing international and domestic equities. This disparity arises from the Australian market's substantial exposure to fossil fuel industries. MSCI data indicate that the S&P/ASX 200 index exhibits one of the highest fossil fuel intensities among developed country benchmarks. This fact is evident in the substantial portion of revenue generated from fossil fuel-related activities, illustrated in **Exhibit 9**.

This situation raises questions about the role of long-term investment strategy in driving decarbonisation at a total portfolio level. Although reallocating

250 12% tCO,e/USD Million Sales 10% 200 8% 150 6% 100 4% 50 2% CAC 40 S&P/ASX **DAX 30** S&P 500 **FTSE 100** MSCI New Topix 200 Zealand Fossil Fuel-Based Revenues (right-hand scale) Weighted Average Carbon Intensity

Exhibit 9. Fossil Fuel Exposure by Index, March 2023

Source: Data from MSCI.

from Australian equities to international equity markets could reduce a portfolio's carbon footprint on paper, the real-world impact on global carbon emissions remains unclear. This issue highlights a broader debate in ESG investing: whether divestment from high-emission assets leads to meaningful environmental outcomes or merely shifts carbon exposure elsewhere. Although asset owners around the world theoretically face a similar investment strategy challenge, it is likely particularly pronounced for Australian asset owners given the carbon intensity of the Australian equity index.

Anecdotal Observations on Environmental, Social, and Governance Integration via the Total Portfolio Approach vs. Strategic Asset Allocation

Across the Australian and New Zealand asset owner landscape, we observed a spectrum of approaches to long-term investment strategy, particularly in the asset allocation process. Some organisations remain firmly anchored in SAA, while others use SAA as a foundational structure with elements of the TPA layered on top. A few asset owners appear to have made more substantial progress in integrating the TPA into their investment processes.

Importantly, this report does not aim to assert that either the TPA or SAA offers an inherently superior approach for ESG integration. Rather, we aim to present the diverse viewpoints and practices that came up in the one-on-one interviews with the asset allocators. Anecdotally, we found that the definition of TPA remains fluid and subjective, with varying interpretations and implementations across institutions. For instance, some superannuation funds identify themselves as TPA oriented but still retain SAA frameworks, often because of regulatory requirements, such as YFYS, which mandates reporting of SAA for each investment option.¹⁴ Additionally, from a superannuation fund member communication standpoint, SAA remains a practical tool for explaining investment strategies.

TPA frequently surfaced in the interviews, prompting us to explore how it is being applied in the context of ESG integration. TPA represents a paradigm shift in portfolio construction, moving beyond the conventional SAA methodology, which emphasises asset class-based allocations and benchmark-driven portfolio management. Instead, TPA adopts a more integrated and dynamic approach, fostering a unified investment culture in which capital allocation is determined through a comprehensive, opportunity-driven process. Rather than adhering to rigid asset class silos, this method encourages direct competition for capital across all potential investment opportunities. As the investment landscape continues to evolve, institutional investors must understand the implications of these contrasting approaches in order to optimise long-term portfolio performance—particularly for the integration of ESG risks and opportunities into the investment process.

¹⁴APRA, "Reporting Standard SRS 550.0: Asset Allocation" (March 2023). www.apra.gov.au/sites/default/files/2023-03/Reporting%20Standard%20SRS%20550.0%20Asset%20Allocation%20Clean_0.pdf.

One notable feature of the TPA is its emphasis on diversification through risk factor exposures rather than asset classes. 15 As such, it is possible to consider ESG information through a risk factor lens when considering how to integrate these considerations within the investment portfolio. As one CIO from a large asset owner put it, "We call it ESG, but really these are risk factors [such as] poor governance, exposure to energy prices, etc."

Another participant from a large asset owner highlighted that the TPA encourages "whole-of-fund thinking and being aware of the different return and risk to the portfolio" but cautioned that "[they] are not getting rid of their asset allocation framework" just yet. Additionally, the fund has a small allocation to impact investments at the SAA level, consisting of strategies that are aligned with the organisation's beliefs and the UN Sustainable Development Goals. The allocation is small in part because of tracking error considerations and the difficulty in finding suitable investments to fill the allocation.

A participant from a government-related asset allocator further emphasised that "culture is more important than team structure" and that the TPA plays a key role in embedding ESG considerations into the asset owner's processes. This cultural shift has enabled the asset owner to introduce the adoption of Paris-aligned climate benchmarks in the reference portfolio as part of its asset allocation process.

Organisational Structure: Does It Matter?

Several participants spoke about culture and organisational structure as a factor in how ESG information is incorporated at an investment strategy level. For example, those who reported heightened emphasis on ESG information from investment strategy often spoke about the role of "buy-in" from senior management (e.g., the CIO) in helping shape cross-area collaboration on ESG integration. The amount of assets under management appeared to be an interrelated issue. Comments made in the interviews suggested that being "not too big nor too small" could be ideal for ESG integration in investment strategy.

For example, participants from some smaller asset owners suggested they were not sufficiently big enough and lacked the resources to consider additional ESG information in investment strategy. In contrast, other interviewees from smaller asset owners noted that their limited team size—with staff often handling multiple roles, including ESG responsibilities—led to a more naturally integrated ESG approach within the investment process. Meanwhile, a participant from a large asset owner suggested that with a very large investment team, collaboration becomes difficult (and perhaps such organisations are generally more prone to silos). These themes arose in the interviews, but we caution that from a quantitative perspective, our sample size was not sufficiently big to draw concrete conclusions about the impact of fund size on ESG integration. Therefore, this is potentially an area for further research.

¹⁵CAIA Association, "Innovation Unleashed: The Rise of Total Portfolio Approach" (2024). www.nxtbook.com/caia/ $Thought Leadership/the \hbox{-rise-of-total-portfolio-approach.}$

Key Considerations for Board Directors, Management, and Regulators

Our study illuminated various important considerations for board directors, members of management, and regulators. Highlights include being mindful about multiple (often competing) objectives that may interact with ESG goals, the role of organisational structure, and unintended consequences of regulations.

Board Directors

One of the key implications of our study for board directors is understanding where ESG efforts are being focused within investment teams. As highlighted earlier, the survey data and interview observations suggested that despite some focus on ESG considerations within investment strategy teams, ESG information is primarily considered at the individual asset class level. This study does not focus on judging whether this approach is "good" or "bad." Rather, we hold that it is important for board directors to understand the approach in the context of broader ESG objectives. For example, in reaching net-zero aspirations, investment teams will likely focus on decarbonisation and stewardship within an asset class, compared with asset allocation as a tool, all else equal. Similarly, climate resilience will be a risk factor at the asset and security level, compared with an opportunity to generate alpha. Again, there may be valid reasons for this more bottom-up approach, and our recommendation is that board directors should be cognisant of the relative importance of ESG considerations across the investment program and should work with senior management to understand the implications.

Senior Management, Such as Chief Investment Officers

CIOs should have a clear understanding of what levers are at their disposal in achieving their aspirations in ESG integration. The key message is not to assume that ESG themes will be a driving force within investment strategy teams. It is important to consider incentives.

In defence of investment strategy teams, they are focused on solving for multiple, often competing objectives—driving high returns, beating inflation, lowering risk, lowering fees, managing liquidity, meeting regulatory demands, and outperforming peers (to name just a few). CIOs should be clear about how ESG priorities fit into this list, as well as their relative importance. Again, this is not about "right" or "wrong" but about how CIOs and management should be very deliberate in their strategy. This is likely particularly true for large asset owners, which find coordination of big teams more challenging—and often more siloed—and for which stewardship could be of heightened importance, given that larger asset owners may be more impactful at using stewardship, such as voting, as a way to drive ESG outcomes within asset classes.

Regulators

When considering policy levers, regulators must understand that investment strategy teams have to solve for multiple competing objectives. For example, regulatory efforts that aim to bring about more optimal industry outcomes in one area (such as return or risk) could have intended or unintended consequences for how asset owners invest in other dimensions, such as ESG considerations. Although this study does not focus on specific regulations, some participants asserted that YFYS may make meeting climate goals more difficult given that decarbonisation results in increased tracking error. Perhaps more surprisingly, YFYS was also brought up with non-APRA-regulated asset owners as a potential area of competitive peer advantage—for example, in having the freedom to make choices on benchmarks that control exposure to ESG issues.

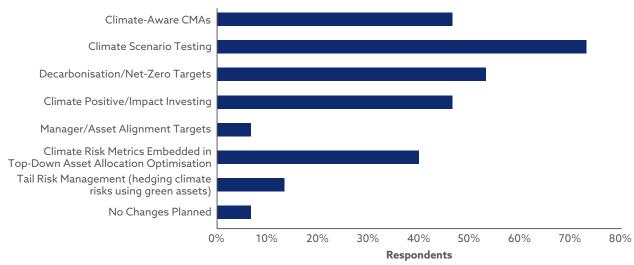
Future Research and Considerations

The findings from the interviews and asset owner survey suggest that the majority of investors intend to further develop and enhance their existing ESG approaches over the next three to five years. **Exhibit 10** illustrates the responses. Some asset owners have recognised the significant work required in this area and have traditionally drawn inspiration from their European counterparts, who are known for their pioneering approaches in sustainable investments.

Building on the insights from this study, we propose three avenues for future research:

Comparative global analysis: Examining both the commonalities and variations in ESG approaches among asset owners across different global

Exhibit 10. Survey Outcome: Future Planned Areas of Focus in the Next Three to Five Years (% of respondents)



- regions could provide valuable insights. Further investigation is needed as to how these approaches are shaped by corporate targets, investment philosophy and objectives, and regulatory constraints.
- Exploring an alternative framework for ESG information optimisation: Given the prevailing view of ESG information as primarily a risk consideration, future research should undertake an in-depth analysis of asset owners that have effectively implemented SAA optimisation, the TPA, or comparable frameworks to solve for multiple objectives, including ESG. The objective would be to evaluate whether these methodologies offer more effective means of optimising portfolios in light of ESG-related risks.
- Integrating the "S" and the "G" of ESG information: A clear need exists to explore how the social and governance components of the term "ESG" can be more effectively and directly integrated into the asset allocation process—for example, learning how other global large asset owners integrate social and governance issues within asset allocation. For example, the '3D approach' to investing, an approach that is gaining traction in the Netherlands that focuses on risk, return and impact.

Conclusion

This study offers a unique contribution to the evolving discourse on ESG integration by focusing specifically on the perspectives of investment strategy, asset allocation, and portfolio construction professionals, rather than ESG or responsible investment specialists. By engaging directly with CIOs, asset allocation teams, and consultants involved in ESG integration at the SAA level, we provide a rare and practical lens into how ESG information is considered within the core of long-term investment decision making.

Our findings reveal that although ESG information is increasingly acknowledged as material to investment outcomes, its integration at the strategic level remains limited and often subordinate to other priorities, such as financial returns, peer-relative performance, and regulatory compliance. ESG considerations are more commonly embedded at the asset class level, with investment strategy teams often constrained by competing objectives and structural limitations when setting SAAs. In Australia, the YFYS annual performance test, in particular, has emerged as a material influence, potentially discouraging ESG-aligned innovations because of concerns about tracking error and benchmark deviation.

These findings have important implications for key industry stakeholders such as board directions, senior investment management staff, and regulators. For example, having a clear understanding of investment priorities can inform a shared understanding of the relative importance of ESG goals as they relate to other, more traditional objectives (such as risk and peer-relative returns). Additionally, regulators should be mindful of potential unintended consequences when designing policies.

Further research could explore how ESG integration strategies vary around the world, shaped by differing regulatory environments, investment philosophies, and corporate mandates. There is also an opportunity to assess the effectiveness of alternative frameworks, such as 3D optimisation and the TPA, in enhancing ESG risk integration at the strategic level and whether such frameworks provide a more optimal outcome. Additionally, greater attention could be given to the integration of social and governance dimensions within asset allocation processes, an area that remains underdeveloped (at least from the perspective of asset allocators) relative to environmental considerations. These directions will be critical to advancing ESG integration in a way that is both rigorous and aligned with long-term investment objectives.

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