Integrating Sustainability and Responsible Investment into Asset Allocation

Implementing Top-Down ESG for Multi-Asset Portfolio Management

David Maywald - August 2020

“Fiduciaries, motivated by the best interests of their beneficiaries, have the opportunity, and arguably an obligation, to invest their portfolios and influence companies and policymakers, consistent with a more sustainable and economically secure tomorrow.”

Mercer’s Responsible Investment team

Summary: Forward-thinking investors are already applying ESG to their AA

Deeply embeds sustainability into the Investment Process: objectives; universe exclusions; benchmarks; Strategic Asset Allocation; tactical switches between Asset Classes; analytics; and reporting.

This new frontier of Sustainable Investment is being applied by a small number of Asset Owners and Investment Managers, and will accelerate in coming years.

Expands the range of investible Asset Classes…

It is practical to have significant tilts towards social and environmental impact (versus conventional portfolios), while seeking to enhance risk-adjusted returns.

Sustainability factors are among the most important drivers of long-term returns, and resilience.

This presentation contains general information and no advice/recommendations. Recipients and readers are completely responsible for all investment decisions.

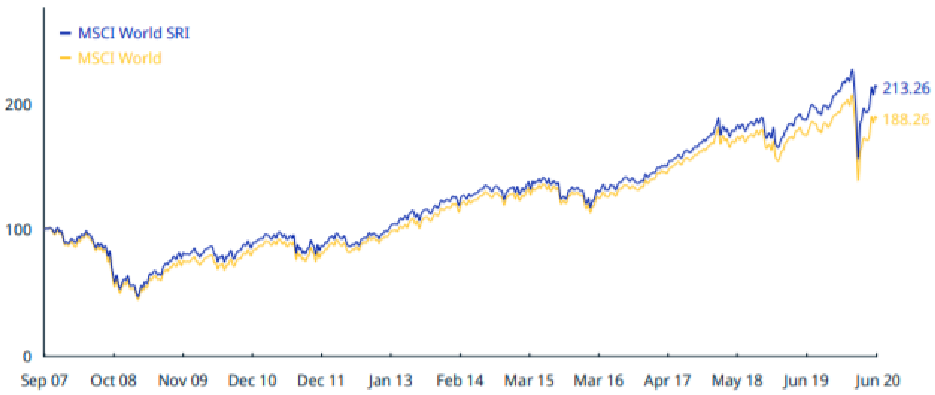
"Because Sustainable Investment options have the potential to offer clients better outcomes, we are making sustainability integral to the way BlackRock manages risk, constructs portfolios, designs products, and engages with companies. We believe that sustainability should be our new standard for investing… Resilient and well-constructed portfolios are essential to achieving long-term investment goals."

Letter to clients from BlackRock's Global Executive Committee

EXCESS RETURNS VS MARKET PER REGION AND ON AVERAGE: INDICES UNDERLYING XTRACKERS ESG ETFS

Source: Bloomberg, DWS calculations, based on weekly data. Past performance is not indicative of future returns. Forecasts are based on assumptions, estimates, views and hypothetical models or analyses, which might prove inaccurate or incorrect. As of 15/05/20.

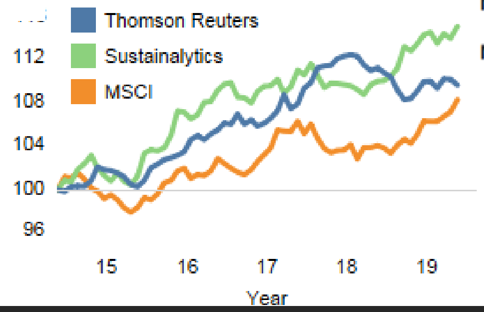
CUMULATIVE INDEX PERFORMANCE — GROSS RETURNS (USD)
(SEP 2007 – JUN 2020)



INDEX PERFORMANCE — GROSS RETURNS (%) (JUN 30, 2020)

	1 Mo	3 Mo	1 Yr	YTD	ANNUALIZED 3 Yr	5 Yr	10 Yr	Since Sep 28, 2007
MSCI World SRI	3.52	19.32	9.03	-1.37	10.57	9.40	10.99	6.11
MSCI World	2.69	19.54	3.40	-5.48	7.29	7.50	10.57	5.08

Relative performance of top ESG-ranked companies vs. equal-weighted S&P 500



Sustainable Investment and High ESG Ratings have Outperformed over multiple time periods, with Lower Risk…

Source: DWS Group, Bloomberg, Bank of America, MSCI, Sustainalytics, Thomson Reuters

"ESG criteria can be systematically and consistently integrated into the Asset Allocation process… However, investors struggle with how to incorporate ESG criteria into their top-down Asset Allocation decisions."

Fidante Partners

Asset Allocation is a New Frontier of Sustainable Investment

Most investors have glossed over this area… As best practice emerges, it will likely contain:

- Objective setting and risk/return targets. Comprehensive Strategy for applying Responsible Investment approaches and an ESG lens across the portfolio. Addressing SDGs/Paris Agreement, and other initiatives/memberships.
- Whole-of-fund policies covering sustainability, Climate Change, Investment Manager selection and ESG Service Providers (taking account of demographics, inequality, fossil fuels, resource depletion, biodiversity, populism, nationalism, changing technology, regulation and other themes).
- Negative screening for sectors and activities, which apply across the whole portfolio.
- Thematic sustainability investing that applies across Asset Classes, seeking opportunities and alignment.
- Strategic Asset Allocation weights and ranges: capture ESG risks and opportunities by adjusting Asset Class allocations (sectors, regions and sub-Asset Classes), plus a regular process for reviewing opportunities as they emerge…
- Tactical Asset Allocation that takes account of sustainability, the premia for high-ESG and low-carbon, flows and the fast-moving nature of this space.
- Incorporate sustainability and emissions into risk management, factor/quant analysis, stress testing and scenario analysis across the whole portfolio (to understand inter-connections and overall exposures, guided by TCFD).
- Whole-of-portfolio monitoring and reporting that captures overall compliance with Strategy, material risks and aggregate carbon exposure.

"If various asset mixes result in similar expected return – why wouldn't Asset Owners select the asset mix to maximise positive real world impact?"

United Nations-supported Principles for Responsible Investment (PRI)

Mini Case Study #1: ABP Dutch Pension Fund

Total assets of €430 billion.

Signatory of PRI, was present at the launch of Climate Action 100+, co-founder of CHRB human rights index, Brooklyn Pledge, Cerrado initiative.

Voted most sustainable pension fund in Netherlands, both 2018 and 2019.

ABP have an explicit target to invest 20% of their assets into Sustainable Development Goals (these are captured across all Asset Classes).

Concrete goal of reducing portfolio emissions 40% from 2015 to 2025. They will stop investing in OECD thermal coal by 2030.

"As one of the largest pension funds in the world, our influence is significant. This is why we also ensure that our investments contribute to a sustainable world. Indeed, just like a pension, we not only think of ourselves, but also of the generations that follow us."

Currently invest €24 bn into sustainable Real Estate investments, which support cities and lived environment. They have €8 bn in Green, Sustainable and Social Bonds, as well as €7 bn in Renewable Energy investments. Plus ABP support a microfinance organisation.

Elevate Impact to the Whole-of-Portfolio Level

Impact Investing has been a small segment of the Sustainable Investment universe historically.

The SDGs, Paris Agreement and collaborative sustainability initiatives envisage a rapid expansion of social and environmental impact, which will require regulatory change as well as dynamic market engagement from all parties…

The PRI Discussion Paper *Embedding ESG issues into strategic asset allocation frameworks* envisages an additional dimension to objective setting, the maximisation of positive “real world impact” (aligned with the SDGs).

Impact Management Project (IMP) is a forum that’s building consensus on how to measure, compare and report impact. They convene a Practitioner Community of over 2,000 organisations to debate and find norms on impact management techniques.

Mini Case Study #2: Local Government Super (LGS)

Whole-of-fund Responsible Investment, certified by the Responsible Investment Association Australasia (RIAA).

Signatory of the PRI, supporter of TCFD, member of RIAA/ACSI/IGCC, participant of Climate Action 100+.

Six time winner of Money Magazine's Best Green Super Fund award.

Responsible Investment Policy is applied across every Asset Class. Carbon emissions are 18% below Australian equities benchmark, CO_2 tonnes per $ million according to MSCI data.

Negative screen that excludes 272 companies across 29 countries, including material exposure to "high carbon" activities.

Voted at 100% of company meetings last year, with 11% of votes against resolutions (including executive remuneration and lack of diversity). Supported Climate Change resolutions at BHP and Origin Energy.

Exposure to aged-care facilities, vaccine producers, organic food and GoGet car share scheme. Holdings include AMP Community Infrastructure Fund (Royal North Shore Hospital and Victorian Comprehensive Cancer Centre), UTA Infrastructure Fund (water, rail and electric transmission) and Impax (all companies must derive 50% of revenue from resource efficiency and environmental markets, such as energy/water efficiency, renewables and sustainable agriculture, has returned 17.2% p.a. since 2013).

“We believe that integrating Sustainable Investment into the entire investment process from setting the mission and objectives through Asset Allocation, Portfolio Construction and Manager Selection, to monitoring and reporting, is the best way to realise its full value. Therefore, it is fully integrated and embedded in our research, advice and solutions.”

Willis Towers Watson

Mini Case Study #3: Willis Towers Watson (WTW)

Signatory of the PRI, official supporter of the Transition Pathway Initiative, member of the IIGCC, collaborate with the Thinking Ahead Institute, Tier 1 signatory of the UK Stewardship Code, founding member of the Diversity Project.

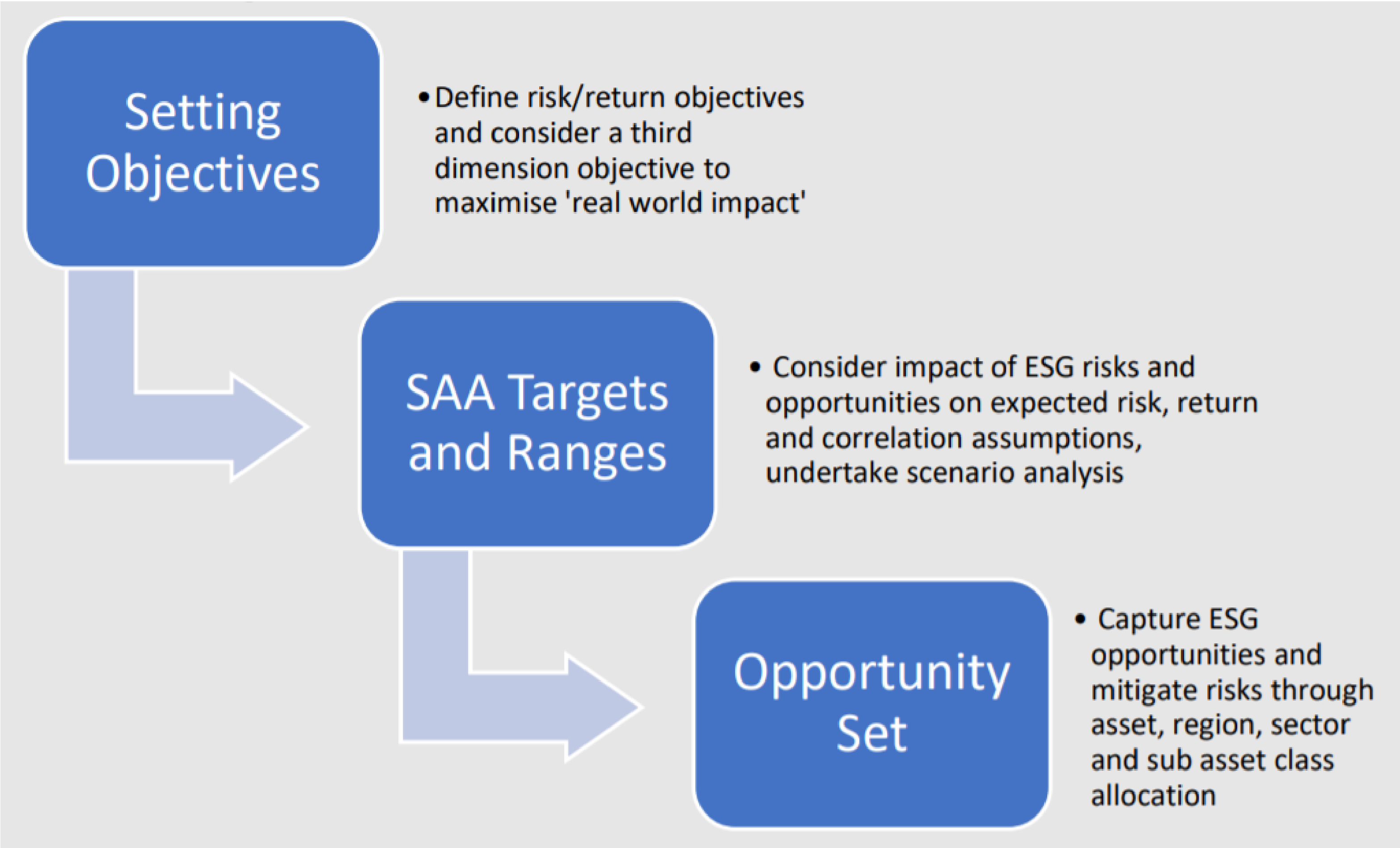
WTW have 50 Sustainable Investment champions across their business.

Leading global advisory, broking and solutions company with 45,000 employees. Serving 140 countries/markets.

"Sustainable Investment is central to successful long-term investment outcomes and a key part of Willis Towers Watson's beliefs and investment approach… delegated portfolios look to fully embed the best of our SI research, risk management and idea generation."

Capable of delivering a full Delegated Investment Service, from mission setting and belief framework through to implementation and monitoring. WTW have partnered with EOS at Federated Hermes for corporate engagement, a leading stewardship provider.

Portfolio tools include resilience scoring, Scenario Analysis for global emission pathways, and physical risk mapping.



Embedding ESG into SAA Frameworks: Where Top-Down Meets Bottom-Up

Source: The PRI Inevitable Policy Response programme, with input from Aberdeen Asset Management

Objective Setting

Truly embedding sustainability, Responsible Investment, Values-Based Investing and purpose requires a re-assessment of portfolio objectives.

- The investment industry and financial services sector have often suffered from agents or service providers focusing on short-term financial gain, at the expense of long-term interests for clients/members/beneficiaries.
- Return and risk targets cannot always be achieved, due to volatility and market conditions over short periods of time.
- It's not clear when interest rates and bond yields can materially move above zero (Developed Countries are bunched between -0.5% and 1.3%). Real GDP has been decelerating for several decades, due to lower population growth, stagnating productivity and regulatory/health/safety/environmental constraints…
- An ESG lens can be embedded into objectives and targets along with regulatory requirements, liquidity constraints, funding needs and home country bias.

There are several options to modernise objectives: moving towards lower performance targets; explicitly recognising uncertainty with a range; emphasising the importance of risk/return across multiple time periods (short, medium and long-term); as well as potentially including targets for portfolio impact.

Mini Case Study #4: Australian Ethical Investment

$4.1 billion under management, two-thirds Super and one-third Managed Funds. Over 57,000 customers.

PRI Signatory and RIAA Certified.

2020 awards from SuperRatings (Infinity Award for best sustainable super fund), Finder (Green Superannuation Fund of the Year) and Financial Standard (Investment Leadership Award: ESG - Australian Equities).

“The more people that invest ethically, the more significant the positive change we will create... There’s never been a better time to take control of your own financial wellbeing and the wellbeing of families, communities and the planet.”

Strong investment returns (both for super and managed funds). Australian Ethical have done well recently in terms of customer acquisition and awards. FUM grew 19% YoY, with $660 mn of net inflow for year to June-2020.

Multi-asset portfolios have few Asset Classes: listed equity; Australian fixed income; unlisted property; cash and minimal alternative investments. This limits portfolio optimisation.

Since inception in 1986, Australian Ethical has invested according to its Ethical Charter (23 principles that are part of the company’s constitution).

10% of Australian Ethical's profits (after tax and before bonuses) funds their Community Grants program, for organisations and projects making an impact.

Universe Exclusions and New Benchmarks

Ethical and SRI funds tend to exclude a small number of activities from all asset classes:

- Tobacco, controversial weapons, gambling, alcohol, pornography, nuclear power and fossil fuels (especially thermal coal and oil sands).
- Equity, debt and other universes should be uniformly screened to exclude these subsectors, reducing exposure to high-risk industries across the whole portfolio.
- Benchmarks and sector allocations are structurally different to mainstream portfolios, introducing tracking error (which is largest for fossil fuel divestment, compared to say tobacco or weapons).
- Average sustainability ratings vary across equity markets (by country or sector, for example). ESG ratings also vary across sovereign debt as well as corporate credit.

Schroders assessment of the availability of sustainable components reveals that alternative assets, especially commodities and hedge funds, are the most difficult to implement in an integrated way.

There are many ESG and Sustainability indices now available for equities and fixed income.

Mini Case Study #5: Aware Super

Merger of First State Super and VicSuper. Managing over $125 billion in savings on behalf of more than 1.1 million members (from industries such as education, healthcare and the public service).

First State Super was a globally recognised leader in ESG integration.

VicSuper was a founding member of the Investor Group on Climate Change in 2005.

"We are now Australia's second largest super fund. This means we can create a positive impact on a scale that simply wasn't possible before."

Merger benefits include driving down the cost per member and "having access to a broader range of investment opportunities, to help us continue to deliver strong, sustainable long-term returns to our members."

First State Super have committed to divest companies with more than 10% of revenues from thermal coal by October 2020, and reduce equity portfolio emissions 30% by 2023, as part of their Climate Change Portfolio Transition Plan.

VicSuper produced their first Climate Change report in-line with the TCFD recommendations, and have invested US$700 million in an international equity customised carbon strategy that aims to deliver a 70% reduction in GHG emissions intensity against its benchmark.

Here are some long-term themes that capture economic changes, as well as the future of people, profit and our planet…

Source: Willis Towers Watson

Main themes	Sub-themes
Environmental challenges	Transition to a low carbon economy
	Acute environmental impacts
	Chronic climatic shifts
Societal challenges	Human capital
	Inequality
	Savings
	Public sector finances
	Consumption
Emerging economy growth and dynamism	Urbanisation
	'One Belt One Road' initiative
	EM competitors
	EM consumers
	EM institutions
Technological advances	Cybersecurity
	Digitisation
	Automation
	Fintech
	Biotech

Sustainable Thematic Investing plus the rise of New Asset Classes

Some Asset Classes are much richer in sustainability leaders, high ESG ratings, Sustainable Development Goals and potential climate solutions than others:

- Green Bonds, Social Bonds, Sustainability-Linked Loans and other new categories of ESG fixed income
- Infrastructure is the most important Asset Class from a climate point of view (Renewable Energy, electric transmission, smart grids, energy storage, low-carbon transport, etc) as well as having community and social assets (schools, hospitals, social housing, Public Private Partnerships)
- Some Real Estate assets are particularly attractive (low-carbon, Green Stars, and energy/water efficiency)
- Circular Economy (waste management, recycling, etc), plus energy efficiency, sustainable agriculture, aquaculture, Clean Tech, healthcare, education and other solutions are found across Venture Capital, Private Equity, Small and Mid Cap companies, Public Equity and Fixed Income…
- Natural resources such as forestry and farmland (biodiversity preservation and GHG offset income streams)
- About 70% of the capital investment required for the 2°C Climate Change scenario will be in Emerging Markets according to Aberdeen, where political and counterparty risks result in a high cost of capital.

Unlisted assets have the benefits of lower volatility and capturing an additional illiquidity premia.

	Manager progress on ESG integration*	Availability of sustainability-themed strategies**
Public equity (active)	Medium/high	Low/medium
Fixed income	Low/medium	Low
Real estate	Medium/high	Low
Private equity and debt	Medium	Low/medium
Infrastructure	High	Medium/high
Natural resources***	Medium	Medium/high
Hedge funds	Low	Low

Note: Low: < 5%; low/medium: 5%–10%; medium: 11%–20%; medium/high: 21%–40%; high: > 40% (as of December 2018).
* Refers to the percent distribution of ESG1- and ESG2-rated strategies in GIMD, where available.
** Refers to the percent distribution of sustainability-themed strategies compared to the asset class universe — noting equities is a large universe, so the low relative number is not actually a low absolute number.
*** Conservative view — research updates in this asset class may result in a more favorable view than is currently held.

Progress on ESG Integration and the Availability of Sustainability Strategies, by Asset Class

Source: Mercer's *Investing in a Time of Climate Change — The Sequel*

Mini Case Study #6: Regnan and Pendal

Regnan – Governance Research & Engagement has roots in Westpac and Pendal (formerly BT Funds Management)

Regnan was fully acquired by Pendal in February 2019, but continues to provide services to third-party Investment Managers and Asset Owners

Pendal manages over A$100 billion, and has applied Responsible Investment for 35 years

Both are Signatories of the PRI

Regnan is an Australian-born leader in ESG and Responsible Investment. It grew out of Monash University, Commonwealth Superannuation Corporation and BT Funds Management from 1996 to 2007. They provide advisory, research and stewardship services.

“Since it is a fiduciary’s responsibility to monitor all risks – including long-term risks that financial markets tend to ignore, the real choice is whether or not to apply a values strategy on top of the value strategy.” Susheela Peres da Costa

Pendal has been managing diversified multi-asset funds for over 40 years, including their Sustainable Conservative Fund and Sustainable Balanced Fund (which was launched by the Bankers Trust group in 1984 as the BT Australia Charities Trust). There is a strong focus on risk, thereby “helping to improve the consistency of long-term wealth creation”.

“Strategic Asset Allocation is typically set over multiple economic cycles, perhaps 10-30 years. Over this time period we would expect sustainability to impact the return/risk and correlation assumptions used. It therefore seems reasonable that for Asset Owners who take sustainability issues seriously, the Strategic Asset Allocation should incorporate ESG.”

Schroders plc

Opportunities and Implications for Strategic Asset Allocation (SAA)

Effective integration of sustainability into Asset Allocation ought to deliver better performance, and more diverse risk-return opportunities, compared to an Investment Process that ignores ESG.

- "Asset Owners could consider the extent to which different regions and sectors of the global economy will prosper or decline under different ESG factors, such as Climate Change or different SDG scenarios." according to the PRI Discussion Paper.

Add more sub-Asset Classes (regions and sectors) into the SAA mix, to capture sustainable growth opportunities plus to access areas where the greatest climate transition is expected to occur…

Increasing the SAA targets for unlisted sustainable assets will free-up some of the risk/volatility budget for high-ESG and low-emissions investment options in listed markets.

The optimisation of risk, returns and impact needs to become more sophisticated (incorporating quantitative and qualitative factors at a deeper level, as well as stress testing).

"Our research suggests no such compromise exists when replacing a non-ESG component with an ESG component. Given a reasonable sustainability budget, it appears that Asset Owners are able to achieve both their traditional risk and return objectives, as well as their sustainability objectives, in an actively managed multi-asset portfolio."

Schroders plc

Asset Allocation simple example: move 10% listed equities from generic to Sustainable (1% shift for Private Equity and Infrastructure)

Source: Mercer's *Investing in a Time of Climate Change — The Sequel*

Asset category	Growth portfolio weight %	Sustainable growth portfolio weight %
Developed market equity	17.5	7.5
Emerging market equity	10.0	10.0
Low-volatility equity	7.5	7.5
Small-cap equity	2.5	2.5
Sustainable equity		10.0
Private equity	5.0	4.0
Sustainable private equity		1.0
Real estate	10.0	10.0
Infrastructure	5.0	4.0
Sustainable infrastructure		1.0
Timberland	2.5	2.5
Agriculture	2.5	2.5
Hedge funds	5.0	5.0
Private debt	5.0	5.0
Developed market debt (sovereign)	10.0	10.0
Emerging market debt (sovereign)	2.5	2.5
Multi-asset credit	10.0	10.0
Investment-grade credit	5.0	5.0
Total	**100.0%**	**100.0%**

Two Options for Applying Sustainable Investment to SAA Weights

Sustainably-managed Asset Classes have delivered superior returns and less volatility (better earnings revisions, lower cost of capital, fewer negative controversies), which should be captured in quantitative analysis. Typical models used for SAA can incorporate parameter adjustments and be tailored for ESG (Mean-Variance Optimisation, Total Portfolio Analysis, Liability Driven Investment, Factor risk frameworks):

- Shallow implementation would incorporate updated risk, return and correlation assumptions capturing the characteristics of Sustainable Investment (historic outperformance of 0.1-1.0% per annum while Mercer forecasts higher by at least 0.1-0.2% per annum over the long-term, annualised standard deviation lower by 0.4-0.7%).
- Deeper implementation would extend from the risk and return framework to the additional dimension of "real world impact". This could be either a single sustainability or impact parameter, or a small number of new parameters to capture the social and environmental impacts that are most relevant to the portfolio/members.

"Needless to say, no Investment Process should be driven solely by mean-variance optimisation. There is a need to apply judgment, impose sensible constraints, and evaluate how the overall portfolio will behave. Investors need to consider risk exposures, for example, and consider other aspects of return distributions, such as drawdown risk." according to Aberdeen Standard Investments.

Alternative Strategic Portfolios: similar returns, lower volatility, but much higher climate impact…

Source: constructed by Aberdeen Standard Investments, using the standard steps in their SAA process, forecast Asset Class returns were employed as inputs for a portfolio optimisation tool, to create an efficient portfolio with a targeted investment return of 5%

Traditional balanced Target return 5%			Modern diversified Target return 5%			Climate-aligned Target return 5%		
Asset classes	% asset class weight	% of portfolio allocated to climate opportunity	Asset classes	% asset class weight	% of portfolio allocated to climate opportunity	Asset classes	% asset class weight	% of portfolio allocated to climate opportunity
Equities	55	1.7	Equities	30	0.9	Equities	25	0.8
						Climate opportunity equity	5	5
Rates	10	0	Rates	10	0	Rates	10	0
Credit	35	1.1	Credit	40	1.2	Credit	30	0.9
						Green/ infrastructure bonds	5	3.5
			Infrastructure	10	4.5	Other infrastructure	7	0
						Renewable energy infrastructure	8	8
			Real estate	10	1	Climate enhanced real estate	10	3
Portfolio expected return	Portfolio volatility	Climate solutions allocation	Portfolio expected return	Portfolio volatility	Climate solutions allocation	Portfolio expected return	Portfolio volatility	Climate solutions allocation
5%	**7.9%**	**2.8%**	**5%**	**5.8%**	**7.6%**	**5%**	**5.8%**	**21.2%**

"SAA exists within a symbiotic relationship with Environmental, Social and Governance (ESG) factors. ESG trends affect the way we invest, while SAA has the power to shape society… Asset Class returns are not static but undergo structural shifts over time. These changes are often the result of ESG factors. For example, large scale changes in the structure of society – aging populations, increasing inequality and shifts in the composition of the work force – matter when forecasting the long-term returns of bonds and equities."

Craig Mackenzie (Head of Strategic Asset Allocation at Aberdeen Standard Investments)

Mini Case Study #7: Mercer

Supporter of TCFD, Signatory of PRI, they have signed all G20 investor letters on Climate Change since 2014

World's largest outsourced asset manager with over US$300 billion outsourced Assets Under Management, and US$15 trillion under advisement in total

Leader in Responsible Investment, and at incorporating Climate Change into investment portfolios. Their series of seminal reports *Investing in a Time of Climate Change* have been published in 2011, 2015 and 2019.

“Humans have never lived in a world much warmer than today; yet the current trajectory of at least 3 °C above the preindustrial average by 2100 could put us beyond the realm of human experience sometime in the next 30 years.”

Mercer is a consulting business of Marsh & McLennan Companies, the world's leading professional services firm in the areas of risk, strategy and people, with 76,000 colleagues and annualised revenue approaching US$17 billion.

Mercer refers to Climate Change in their global investment beliefs as a “systemic risk” and encourages investors to “consider the potential financial impacts of both the associated transition to a low-carbon economy and the physical impacts under different climate outcomes”.

Incorporating Climate Change via Portfolio-Level Scenario Analysis

Investors need to consider both climate-related mitigation and adaptation, in an active way to develop climate resilience in their portfolios. Scenario Analysis is a process of analysing possible future events by considering alternative outcomes.

- Consider the risk of stranded assets, physical damage, adaptation costs and opportunities, plus the potential for re-pricing of assets (in response to the transition to a low carbon economy)…
- Findings from stress testing highlight that Climate Change risk is not only the biggest issue facing investors, it's also a fiduciary responsibility that needs to be addressed now.
- All three of Mercer's *Investing in a Time of Climate Change* reports, and the models that accompany them, consider how Climate Change is expected to impact return outcomes using a top-down approach (not all Asset Classes are equally exposed). A key conclusion is that investing for a 2ºC scenario is both an imperative, as well as an opportunity…

"Advocating for and creating the investment conditions that support a 'well-below 2ºC scenario' outcome through investment decisions and engagement activities is most likely to provide the economic and investment environment necessary to pay pensions, endowment grants and insurance claims over the timeframes required by beneficiaries." according to Mercer.

"In the long-run, we expect: more severe storms; more frequent and severe droughts; more wild fires; rising sea levels and melting permafrost. Indirect effects include: increased political instability; conflict over water and other scarce resources; and mass migration from countries in the most climate-stressed regions."

Aberdeen Standards Investments

Example industry sectors and asset classes	% p.a. to 2030 in 2°C scenario	% p.a. to 2050 in 2°C scenario	% cumulative impact to 2030 in 2°C scenario	% cumulative impact to 2050 in 2°C scenario
Coal	-7.1	-8.9	-58.9	-100.0*
Oil and gas	-4.5	-8.9	-42.1	-95.1
Renewables	+6.2	+3.3	+105.9	+177.9
Electric utilities	-4.1	-3.3	-39.2	-65.7
Developed market equities	0.0	-0.2	-0.5	-5.6
Emerging market equities	+0.2	-0.1	+1.8	-4.0
All world equities — sustainability themed	+1.6	+0.9	+21.2	+32.0
Infrastructure	+2.0	+1.0	+26.4	+39.4
Infrastructure — sustainability themed	+3.0	+1.6	+42.3	+67.1
All world real estate	0.0	-0.2	-0.1	-4.7

* Effective absolute loss of value is expected to occur in 2041 under a scenario in which global warming is limited to 2°C by 2100.

Asset Class returns are impacted by Climate Change, with significant industry variations depending upon the scenario…

Source: Mercer's *Investing in a Time of Climate Change — The Sequel*

Mini Case Study #8: Future Super

They build Super Funds with zero exposure to fossil fuels, negative carbon footprints and direct investments in clean energy projects

Future Super has been in operation for five financial years, their Balanced Impact option has been a top-quartile performer over that time period

They offer three retail superannuation options: Balanced Index, Balanced Impact and Renewables Plus Growth (invests a target 20% of the portfolio into Renewable Energy projects, like solar farms). Roughly 60% of new members join the Renewables Plus option even though it has much higher fees (1.73% per annum + $1.80 per week, compared to 0.98% per annum + $1.80 per week for Balanced Index).

Portfolios make use of Social Impact Bonds as a sub-Asset Class, in addition to unlisted renewable projects.

Future Super came out with the top returns for FY19/20, according to Chant West and SuperRatings. Balanced Index option delivered 5.5%, Balanced Impact 5.2% and Renewables Plus 5.3%. This compared to -8% for the Australian sharemarket, 6% for global shares in A$, -29% for the Australian energy sector and -34% for the global energy sector…

Mini Case Study #9: HESTA Super Fund

Industry Fund for workers in health and community service sectors

HESTA Eco Pool has been awarded Money Magazine's Best ESG Super Product for 2020

Chant West give them five apples for both Super and Pensions

More than 860,000 Australians have $52 billion of retirement savings with HESTA.

They support Aboriginal and Torres Strait Islander peoples with a Reconciliation Action Plan, as well as supporting financial inclusion, Responsible Investment and sustainability. HESTA promotes diversity through the 30% Club, an organisation campaigning for 30% women on ASX 200 boards.

Announced the development of an ambitious Climate Change Transition Plan (CCTP) in June 2020. Committed to reducing the absolute carbon emissions of its investment portfolio by 33% by 2030, and to be Net Zero by 2050 (aligned with the goals of the Paris Agreement).

“Climate change presents a financial risk to the HESTA investment portfolio and the world in which our members will retire.” according to CEO Debby Blakey.

Tactical Asset Allocation: harnessing Sustainability in Asset Class Switches

"Sustainability and ESG are key factors in identifying themes and Asset Classes we wish to pursue, avoid, overweight or underweight in our clients' portfolios" according to Willis Towers Watson.

Asset Owners and Investment Managers undertake tactical switching between Asset Classes, as part of their Portfolio Construction processes. Typical factors that are utilised in this decision include valuation, momentum, sentiment, economic cycles, earnings outlook, liquidity, etc…

Inflows to Sustainable Investment have been strongly positive since the start of 2019 (driven by improving sentiment, regulation and client demand), and this has increased the premium for high ESG securities:

- There are Sustainability Factors, just like there are factors for Growth, Quality, Low Volatility and many others.
- Consider the sustainability analogy for valuation and other metrics… There is a P/E multiple premium for securities with high ESG ratings compared to low ESG ratings, as well as other premia for low-carbon compared to high-carbon, and for Sustainability Leaders compared to Laggards. These premia vary widely, and they change over time.

Sustainability and ESG need to be integrated into tactical positioning and switches, as part of the process.

“We suggest that Asset Allocation can direct private capital to where it’s most needed to help alleviate our most pressing social problems… We contend that ESG factors have a material impact on the long-term returns of Asset Classes… we show how an enhanced approach to AA might increase the amount of capital available to finance socially and environmentally important projects, without compromising investment returns.”

Aberdeen Standard Investments

Sustainable Development Goals (SDGs)

Source: United Nations General Assembly in 2015, part of UN Resolution 70/1

Mini Case Study #10: Foresight Analytics

Foresight is a member of RIAA

Their sustainability and impact measurement tools incorporate UN-supported Principles of Responsible Investing and SDGs

They apply research findings, evidence-based insights and rigorous quantitative tools to Big Data

Foresight Analytics provide sustainability assessments of Investment Manager products (focused on emissions, other quantitative factors as well as some qualitative analysis) and investment consulting for Asset Owners (incorporating many ESG perspectives). Seeking to assess whether a manager has an active advantage to their process, which is repeatable. Foresight can generate level 3 emission reports on bond and equity portfolios…

Cuts through the marketing spin, and is able to independently analyse greenwashing claims, with ESG/sustainability diagnostics.

“We demonstrate, using a data-driven approach, how advanced analytics can be used to assess carbon risks in portfolios, assess key drivers of emissions from security, sector, country and decision perspectives”

Their risk and quality ratings combine to deliver an overall sustainability rating, which can rank funds.

Portfolio Level Reporting and Boosting Transparency for all Stakeholders

Members, and investors in general, want to understand the impact that their investments are having on our society and on the environment. They are increasingly moving their money into Sustainable Investment options.

Client engagement is going through a long transition from short-term/narrow/process-driven/returns towards long-term/outcomes-aware/values/performance. As the focus continues to move, reporting can be guided by quantified metrics for social and environmental impact (such as the Impact Management Project).

The amount and quality of ESG data for evaluating companies, projects, assets, securities and sovereigns is variable. This means that there's a risk of putting more emphasis on investing in areas that have better data availability (which itself poses the risk of increasing concentration in portfolios).

- Schroders strongly believe that it's important to have a consistent methodology across all Asset Classes, and to be able to report using an ESG Dashboard.

Dimension	Metric	Portfolio score	Benchmark score	Portfolio assessment
Portfolio resilience	Sustainability Risk Exposure Score (absolute)	4.7	4.2	
	Sustainability Risk Exposure Score (relative)	41.9	37.5	
Carbon footprint	Weighted Average Carbon Intensity	136.4	201.1	
Climate impact	Impact on portfolio return of 2°C scenario	-0.1% pa	-0.2% pa	
	Impact on portfolio return of "business as usual" scenario	-0.2% pa	-0.4% pa	
Bottom-up industry exposures	% revenue exposed to top 5 industry climate opportunities	9.1%	8.9%	
	% revenue exposed to top 5 industry climate risks	11.5%	19.9%	
Manager sustainability integration	Areas of strength (% of total)	65%	n/a	
	Areas of weaknesses (% of total)	8%	n/a	

Sustainability Monitoring Scorecard: bespoke summary of key portfolio metrics, with clear indicators of out/underperformance

Source: Willis Towers Watson, Factset, McKinsey Global Institute, MSCI, SASB

"The key insights emerging from this exploration, thus far, suggest that current industry-wide practices do not sufficiently recognise the importance of ESG factors, including climate change and the SDGs, as part of the core SAA decision-making frameworks."

PRI Discussion Paper on *Embedding ESG Issues into Strategic Asset Allocation Frameworks*

Conclusion: Mapping the Next Steps for Sustainability in Asset Allocation

Sustainability and the ESG lens are intrinsically intertwined with long-term returns and risk. Instead of being retrofitted into the Investment Process (at the security level and via Responsible Investment Policy implementation), they need to be incorporated into Objectives, Policies, screening, benchmarks, Strategic Asset Allocation, tactical investment decision making, risk management, portfolio analysis and reporting/communications.

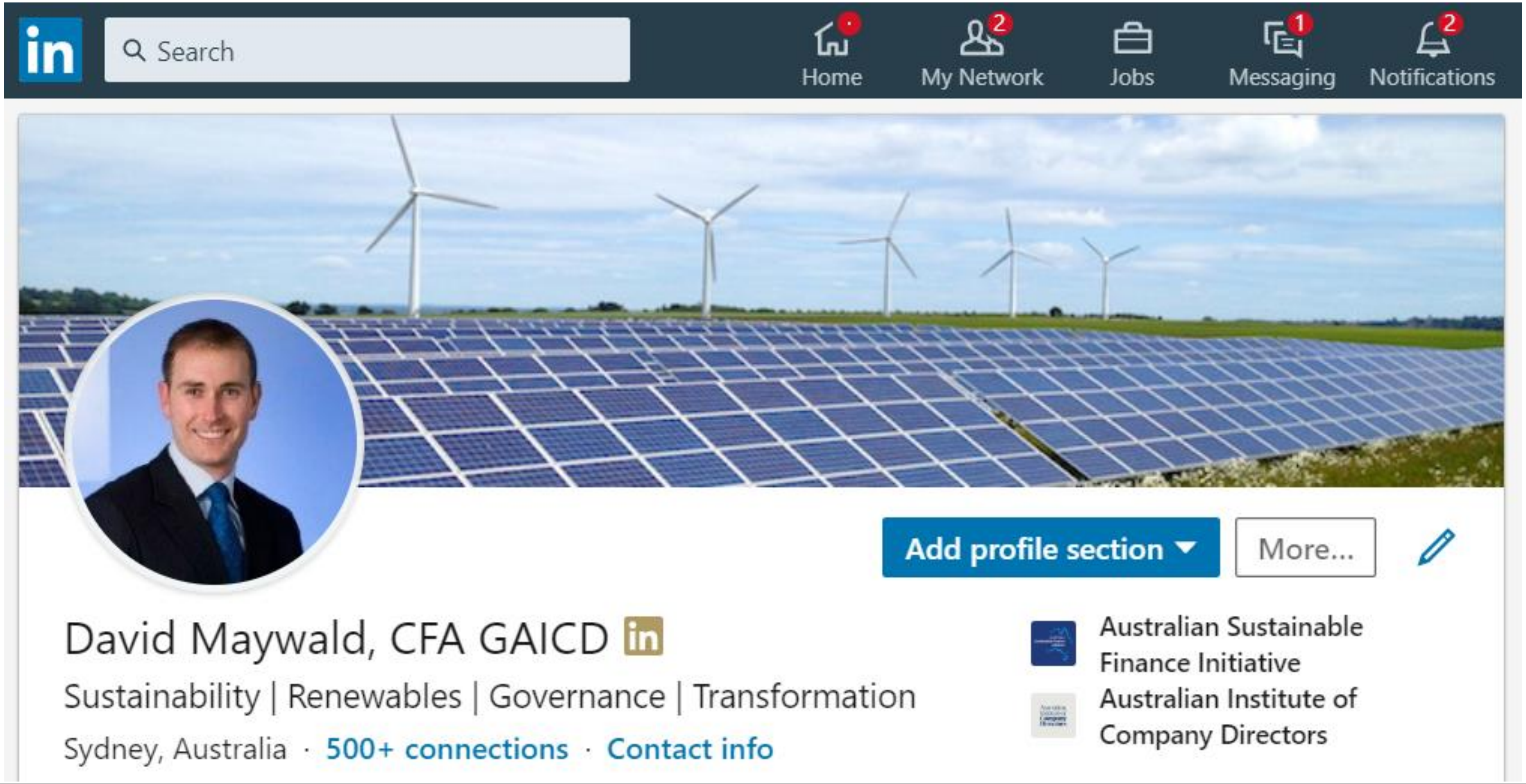
Reassessment of these fundamental drivers gives a fantastic opportunity to get buy-in from Trustee Boards, senior management and from all staff. Followed-up by engagement with members/investors.

Members and investors are benefiting via: extending the investible universe to new Asset Classes; taking account of superior risk-adjusted returns from Sustainable Investment; better optimisation of portfolio characteristics; and understanding the impact of their investments on society/environment.

Responsibility at the Principles for Responsible Investment has been handed over from Kris Douma to Toby Belsom. PRI plans to publish a compendium of case studies and best practice guidance this year.

"If a growing number of institutional investors set goals to expand the share of their strategic portfolios allocated to low-carbon opportunities, they will increase the pressures and incentives within the investment industry. This will drive entrepreneurial energy, creativity and problem-solving across the investment value chain, in the form of product and service innovation, and asset management industry capital expenditure… This is a paradigm shift, but it is also a natural extension of the one that has seen ESG ideas become mainstream over the past 20 years."

Aberdeen Standard Investments



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David Maywald
CFA BCom(Hons) BEc GAICD

Top-quartile Portfolio Manager, Research Analyst, infrastructure investor and economist

- Studied BCommerce (Accounting and Honours in Finance) plus BEconomics at The Australian National University
- Two decades investing into global listed markets, from Sydney (active, long-only, funds management)
- Worked for four Investment Managers (start-ups, medium-size and national/international firms)

One of the four initial employees at RARE Infrastructure, working with the two founders

- Grew from nothing in 2006 to A$11 billion in 2015, sold to Legg Mason for A$500 million
- Chair of the Investment Advisory Board (IAB) for four and a half years

Leadership in ESG Integration and Sustainable Investment for over a decade

- RARE Infrastructure was an early Signatory of the PRI in 2010, and the first Australian client of Sustainalytics
- Personally wrote the first case study of ESG Integration for Global Listed Infrastructure
- Currently an Expert contributor to the Australian Sustainable Finance Initiative (ASFI)

Sources and Further Reading

PRI workstream on embedding ESG into SAA https://www.unpri.org/asset-owners/strategic-asset-allocation

Craig Mackenzie's thought leadership paper from Aberdeen on SAA: ESG's new frontier https://www.aberdeenstandard.com/docs?documentId=SG-240919-99760-1

Access to Mercer's series of reports on Investing in a Time of Climate Change https://www.mercer.com.au/what-we-do/campaigns/investing-in-a-time-of-climate-change.html

Materials from Willis Towers Watson including their Sustainable Investment Policy for delegated accounts https://www.willistowerswatson.com/en-AU/Solutions/services/sustainable-investment

Ortec Finance consulting on Climate and ESG https://www.ortecfinance.com/en/insights/products/systemic-climate-risk

Dutch pension fund ABP's website, reports and announcements https://www.abp.nl/images/abp-sustainable-and-responsible-investing-report-2019.pdf

Presentation from Kris Douma on Enabling Real-World Impact aligned with the SDGs http://www.unrisd.org/80256B42004CCC77/(httpInfoFiles)/74FCA3536E6CCF12C125841F0035968D/$file/SDPI---Kris-Douma-PRI-Presentation.pdf

Sources and Further Reading

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PRI blog following workshop on SAA and Responsible Investment https://www.unpri.org/pri-blog/strategic-asset-allocation-and-responsible-investment/5150.article

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Letter to clients from BlackRock's Global Executive Committee https://www.blackrock.com/au/individual/blackrock-client-letter

Incorporating Climate Risks into AA by Refinitiv https://lipperalpha.refinitiv.com/2019/11/incorporating-climate-risks-into-asset-allocation/