PENSIONS AND
LIFETIME SAVINGS
ASSOCIATION

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CLIMATE INDEXES

MADE SIMPLE GUIDE

ACKNOWLEDGEMENTS

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FOREWORD

THE WORLD'S ATTITUDE TO CLIMATE CHANGE IS RAPIDLY EVOLVING. WHAT WAS ONCE PERCEIVED AS A RELATIVELY DISTANT CONCERN HAS BECOME AN IMMINENT AND INCREASINGLY URGENT THREAT. AS WE REACH THIS INFLECTION POINT, PENSION SCHEMES, PENSION SCHEME MEMBERS AND GOVERNMENTS AND REGULATORS ARE NOW PUBLICLY EXPRESSING A DESIRE TO TAKE ACTION.

At the Pensions and Lifetime Savings Association's Investment Conference 2020, Pensions Minister Guy Opperman made this clear when he said "If you are in the pensions and savings business, you start with the fundamental principle that you believe saving should be done for the longer term. If you aren't addressing climate change, there is no longer term. It is the defining issue of the 21 Century." Certain regulations now require pension schemes to set out how they consider financially relevant environmental, social and governance (ESG) factors — see page 6.

As a result, measuring and managing climate risk has become an ever-more important tenet of the investment process. So is identifying new and innovative low-carbon investment opportunities, to help build more climate-resilient portfolios.

Until now, measuring the potential impact of transitional or physical risks or the economic impact of climate change on portfolios was limited due to the lack of tools available to investors.

We believe climate change will become the most important investment risk factor over the long-term and MSCI is committed to creating solutions to support investors' decision-making. Institutional investors should be able to analyse the exposure of their portfolios to climate risk and opportunities while also being able to report on their climate strategy. We hope this guide goes someway to support them with their objectives.

MSCI recently published The MSCI Principles of Sustainable Investing,[1] a framework designed to illustrate specific, actionable steps that investors can and should undertake to improve practices for environmental, social and governance (ESG) integration across the investment value chain. We strongly believe that a systemic and large-scale integration of ESG considerations throughout the entire investment process should enable a more efficient allocation of capital globally towards the most productive assets in the long-term. It should contribute to a more effective and balanced transition towards a sustainable and inclusive economy and protect/enhance the value of beneficiaries' savings.

Remy Briand
Head of ESG at MSCI

1 The MSCI Principles of Sustainable Investing https://www.msci.com/documents/10199/16912162/MSCI-ESG-House-View-FINAL.pdf/63bba1a1-aecf-ba80-aa49-7910748ed942

INTRODUCTION

GLOBAL WARMING AND CLIMATE CHANGE PRESENT ONE OF THE BIGGEST ECONOMIC AND SOCIAL CHALLENGES OF THE 21ST CENTURY. SINCE 1990, ECONOMIC DAMAGE DUE TO CLIMATE-RELATED DISASTERS HAS INCREASED MORE THAN SEVENFOLD.[2] THE MISCONCEPTION THAT CLIMATE CHANGE IS ONLY A LONG-TERM RISK CONSIDERATION IS NOW MORE EVIDENT THAN EVER. COMPANIES ARE ALREADY FACING BOTH PHYSICAL IMPACTS SUCH AS WATER SHORTAGES AND HURRICANE DAMAGE,[3] AND TRANSITION RISKS SUCH AS GROWING CARBON REGULATIONS OR REDUCED FOSSIL FUEL DEMAND.[4] CARBON RISKS CAN POSE AN IMMEDIATE THREAT TO SOME INVESTMENT PORTFOLIOS.

Some of the global responses to address these challenges have wide-reaching implications for many industries. We have already seen falling demand for carbon-intensive products — e.g. coal, coal-fired power and high-cost oil production — which has led to asset write-offs and bankruptcies over the last five years.[5] Transitioning to a low-carbon world could put assets worth an estimated USD 25 trillion at risk of stranding in the fossil-fuel industry alone.[6]

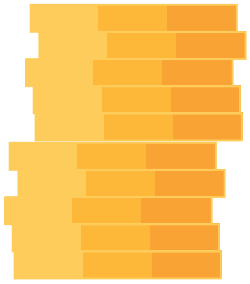
The headwinds faced by carbon-intensive industries could also put at risk "carbon-dependent" industries that are affected by the business cycles of carbon-intensive industries.[7] For example, in June 2019, Ford announced it will have to cut 12,000 jobs in Europe by the end of 2020.[8] The challenge of investing in electric, hybrid and autonomous vehicles while having to overhaul combustion engines to meet new clean-air rules, has forced Europe's carmakers to slash fixed costs and streamline their model portfolios.

In June 2020, BP announced its plans to lay off 10,000 staff by the end of the year and to write off almost USD 17.5 billion of assets after reducing its long-term oil price forecast to USD 55/bbl from 70.[9] According to the company, this price reflects the current decline in demand but also the growing appetite of society to transition to lower carbon sources of energy. As an indication of anticipated higher costs of production in the future, BP also announced that it will implement an internal or shadow carbon price for all its projects, increasing to 100 USD/t of CO2 by 2030, from the 40 USD/t of Co2 that it currently uses.

In contrast, the demand for some low-/zero-carbon technologies is increasing as their costs fall. In many cases, the cost of renewable energy generation – wind, solar and geothermal – has already fallen to lower than traditional methods – coal, oil, gas and nuclear – at the utility scale.[10] Wind and solar power generation rose by 15% in 2019, generating 8% of the world's electricity.[11]

Globally, several cities have begun to mandate or create clear incentives for zero net-energy buildings,[12] vehicle-charging infrastructure[13] in every new build, and even solar panels on the roof [14] of every new home, such as in the case of California from 2020. A similar trend has been observed in the automobile industry as well. Global carmakers have announced to invest over USD 300 billion in electric vehicle technology alone over the next five to 10 years.[15]

2 The annual economic damages due to climate-related disasters have increased from USD 14 billion during the 19801990 period to USD 100 billion in the 2004-2014 period. (Damage and losses from climate-related disasters in agricultural sectors, Food and Agriculture Organization of the United Nations)
3 Insurance Business Canada, 2018, https://www.insurancebusinessmag.com/ca/news/catastrophe/insurance-companies-facing-us20-billion-exposure-from-hurricane-florence-111280.aspx
4 Carbon Tracker 2020 vision: why you should see peak fossil fuels coming. https://www.carbontracker.org/reports/2020-vision-why-you-should-see-the-fossil-fuel-peak-coming/
5 "Why Peabody Energy, the world's largest coal company, just went bankrupt." Vox, April 13, 2016; "Coal played a part in 'big five' energy firms losing £100bn in share value." Guardian, June 5, 2015; "Is any end in sight for power and utilities asset impairments in Europe?" EY, Aug. 27, 2018; "Energy companies wrote down nearly 8 billion barrels of Canadian oilsands reserves last year." Financial Post, June 12, 2017.
6 "2020 vision: why you should see peak fossil fuels coming." Carbon Tracker, Sept. 10, 2018.
7 "Oil & Gas-Oilfield Services Outlook: Struggle to Sustain." Zacks Equity Research, July 23, 2018; International Energy Agency (IEA), "World Energy Investments 2018." International Energy Agency; "Global steam turbine market to decline to $8.9bn by 2022." Power Technology, Aug. 29, 2018.
8 https://www.nasdaq.com/articles/ford-to-cut-12000-jobs-in-europe-by-end-of-2020-2019-06-27
9 https://www.nytimes.com/2020/06/15/business/energy-environment/bp-oil-gas-write-down.html
10 https://www.irena.org/publications/2019/May/Renewable-powergeneration-costs-in-2018
11 https://ember-climate.org/wp-content/uploads/2020/03/Ember-2020GlobalElectricityReview-Web.pdf
12 https://ipeec.org/upload/publication_related_language/pdf/766.pdf
13 https://www.mckinsey.com/industries/automotive-and-assembly/ourinsights/charging-ahead-electric-vehicle-infrastructure-demand
14 https://www.latimes.com/business/realestate/hot-property/la-fi-solarmandate-20181214-story.html
15 Reuters, Jan. 10 2019 "VW, China spearhead $300 billion global drive to electrify cars": https://uk.reuters.com/article/uk-autoshow-detroitelectric-exclusive/exclusive-vw-china-spearhead-300-billion-globaldrive-to-electrify-cars-idUKKCN1P40GI



In order to limit the negative impact of global warming and climate change, in December 2015 in Paris, world leaders agreed to limit global warming to less than 2 degrees Celsius and pursue efforts to limit the temperature increase to 1.5 degrees Celsius.[16] This entails limiting future carbon emissions and a transition of the global economy from carbon-intensive operations and energy sources to zero- or low-carbon operations and energy sources.

INSTITUTIONAL INVESTORS LIKELY CANNOT AFFORD TO IGNORE CLIMATE CHANGE

The transition to a low carbon economy poses significant risks and opportunities for investors' portfolios. A migration of demand from a carbon-intensive company to a low- or zero-carbon product or service provider could alter the risk-return profile not only of individual companies but of some entire industries as well. The possibility of economic losses for carbon-intensive and carbon-dependent companies during a low-carbon transition scenario could adversely affect their attractiveness to institutional investors who wish to mitigate their climate-related risks (the companies may experience a reduction in sales, earnings or book value, for example).

Conversely, low- or zero-carbon companies could become more attractive to such investors if the demand for their services exceeds market expectations or an assessed lack of exposure to transition risks is borne out.

HOW TO USE THIS GUIDE: A FRAMEWORK FOR SIMPLIFYING THE COMPLEXITY

This guide is aimed at illustrating how equity and fixed income indexes can be a relevant tool for institutional investors in portfolio construction. It also aims to present how climate risk indexes may be used as part of an approach to manage climate-related risks and integrate them into the investment process.

With climate-related risks posing a potential threat to the long-term resilience of investment portfolios, using all tools available to investors and in particular equity and fixed income indexes may become even more relevant.

The last few years have brought about new responsibilities for pension schemes when communicating how they have undertaken their stewardship responsibilities:

- From 1 October 2019, the 2018 changes to the Occupational Pension Scheme Investment Regulations (2005) required pension schemes to set out in their Statement of Investment Principles (SIP) their policies on stewardship, including engagement and voting, as well as how they consider financially material environmental, social and governance (ESG) factors.
- 2020 will bring the first implementation deadlines of the 2019 changes to the Investment Regulations, which implement the changes brought about by the European Union's Shareholder Rights Directive II (SRD II). These require further detail on trustee stewardship policies to be added to pension scheme SIPs and implementation statements by various deadlines in 2020 and 2021 depending on the type of scheme.
- 2020 will also see the first deadline for schemes' "implementation statements" where they will have to state how they have implemented those activities and policies which they set out in their SIP the previous year. These requirements derive from both the 2018 and the 2019 changes to the Investment Regulations.
- While DC schemes already have to publish information online, the 2019 changes mean DB schemes will also need to publicly disclose their policies – and what they are doing – on their stewardship, ESG and shareholder engagement activities.

These latest changes have been a significant catalyst for the surge in scheme interest in ESG and stewardship approaches. They also mean that schemes will be under more scrutiny than ever on how they practice good stewardship.[17]

16 The Paris Agreement; https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

17 Stewardship Guide and Voting Guidelines 2020, PLSA February 2020 https://www.plsa.co.uk/Policy-and-Research/Document-library/PLSA-Stewardship-Guide-and-Voting-Guidelines-2020

WHAT ARE INDEXES? HOW DO INVESTORS USE THEM IN THE CLIMATE CONTEXT?

INDEXES WERE ORIGINALLY CREATED TO SERVE AS A "BENCHMARK" TOOL FOR THE ASSET OWNER COMMUNITY, WHO WERE SEEKING SIMPLE, UNBIASED AND TRANSPARENT WAYS TO MEASURE THE PERFORMANCE OF THEIR ASSET MANAGERS IN MANAGING THEIR GLOBAL PORTFOLIOS. THE BROAD ADOPTION OF INDEXES AS BENCHMARKS STANDARDISED PERFORMANCE MEASUREMENT, AND INCREASED THE TRANSPARENCY AND INTEGRITY OF FINANCIAL MARKETS.

Asset owners started to use the composition of indexes not just as a measure, but as a proxy for creating investment opportunity sets. This new practice, in turn, spurred innovation among index providers and resulted in the introduction of what are known as "replicable" indexes. The construction of these new tools more accurately accounted for real-world constraints of international institutional investors — including index constituent size, free float and liquidity. In short, they were a better reflection of the true investment opportunity set available to large asset owners.

Using broad indexes as policy benchmarks for the purpose of setting their strategic asset allocation, allowed asset owners to evolve their equity allocation decision-making. No longer were allocations based solely on a manager's beliefs or even those widely held by the investment community. For the first time, allocations could be balanced to the economic weight of the different regions of the world by using the natural free-float-adjusted market capitalisation weights of the different countries and regions in the indexes. Thus, they started playing an important role in setting judgment-free capital allocation.

In recent years, a number of larger asset owners have shifted toward alternative indexes as their policy benchmarks – individually or in combination. These include indexes built around factors, as well as ESG indexes, which draw on data around how companies address associated long-term environmental and social issues, and how these businesses are run, including board composition and executive incentives. By redefining the opportunity set, investors who look to alternative indexes aim to tilt their portfolios, and hence their asset allocation, away from pure market-capitalisation-based weighting. Instead, they seek to increase long-term risk-adjusted excess returns through strategic exposures to ESG characteristics and/or factors that can have an impact on risk and return.

In short, there are various applications for indexes including the following:

- **Policy or strategic benchmark:** indexes can be used at the policy level to guide asset allocation decisions.
- **Performance benchmark:** indexes can be used to gauge performance of active investment strategies. Increasingly active managers are using ESG or climate indexes to benchmark their climate funds as a way to highlight their stock picking capability and commitment to climate.
- **Index underlying ETFs and other traded products:** indexes can serve as an underlying for ETFs, and other financial products.
- **Engagement tool:** a more recent use case is engagement. We are seeing investors use indexes as a way to engage with companies in a scalable and transparent manner. By using indexes whose methodologies are transparent, investors may convey the message to companies that by following the rules they may become eligible to an index and as a result become eligible to their investments. This practice is often done in combination with a more direct engagement through proxy voting or dialogue with companies.

WHAT ARE INSTITUTIONAL INVESTORS TRYING TO SOLVE WHEN CONSIDERING CLIMATE IN THEIR INVESTMENT PROCESS?

GLOBAL EFFORTS TO TACKLE CLIMATE CHANGE BY REDUCING CARBON EMISSIONS WILL RESULT IN A TRANSITION TO A LOW-CARBON ECONOMY. THIS TRANSITION PRESENTS BOTH RISKS AND OPPORTUNITIES FOR THE FINANCIAL SECTOR. TRANSITION RISKS INCLUDE MARKET AND TECHNOLOGICAL SHIFTS, POLICY AND LEGAL CHANGES AND REPUTATIONAL DAMAGE, WHILST OPPORTUNITIES MAY INCLUDE FALLING COSTS OF RENEWABLE TECHNOLOGY AND THE NEED FOR INVESTMENT IN LOW CARBON ALTERNATIVES.

When developing a climate strategy, investors may have different objectives based on their investment strategy and time horizon. We have observed three main objectives that institutional investors commonly tackle individually or combined as part of their climate strategy.

1. MITIGATE TRANSITION RISK

In what ways could exposure to carbon-intensive and carbon-dependent companies and industries be reduced? How could stranded-asset risk and long-term environmental risks be managed? Reducing exposure to carbon intensive activities and/or fossil fuel related activities is one way to reduce transition risks.

2. CAPTURE POTENTIAL ECONOMIC DISRUPTION AND POSITIVE EXPOSURE

How could exposure to lower-carbon technologies and transition "solution" stocks be increased, respecting other investor constraints? This could mean increasing exposure to companies providing environmentally-friendly technologies and solutions.

3. PROMOTE STEWARDSHIP

Engagement with companies is increasingly important for active and passive managers alike. For those institutional investors adopting a climate-driven investment strategy, a consistent aspect is how to assess the scope to change behaviours in their existing investments, so those companies are better aligned with investors' take on the requirements of a low-carbon transition economy and so savers' capital is protected as much as possible.

Actions such as engaging with companies to encourage behavioural changes to improve operations and develop long-term climate change strategies like incentives for better climate risk management.[18]

USE OF CLIMATE INDEXES WITH ACTIVE AND PASSIVE PORTFOLIOS

In our experience, investors generally wish to make their portfolios more climate resilient while at the same time maintaining their preferred investment strategy, whether passive or active, and avoid unnecessary disruption of their investment process.

Climate indexes can be an effective way to help passive investors seeking to integrate climate objectives in their portfolios. Indexes – whether off the shelf or customised to meet an investor's needs and constraints – can replace traditional market cap indexes. This may be an appropriate route for externally managed asset owners with index-replicating strategies.

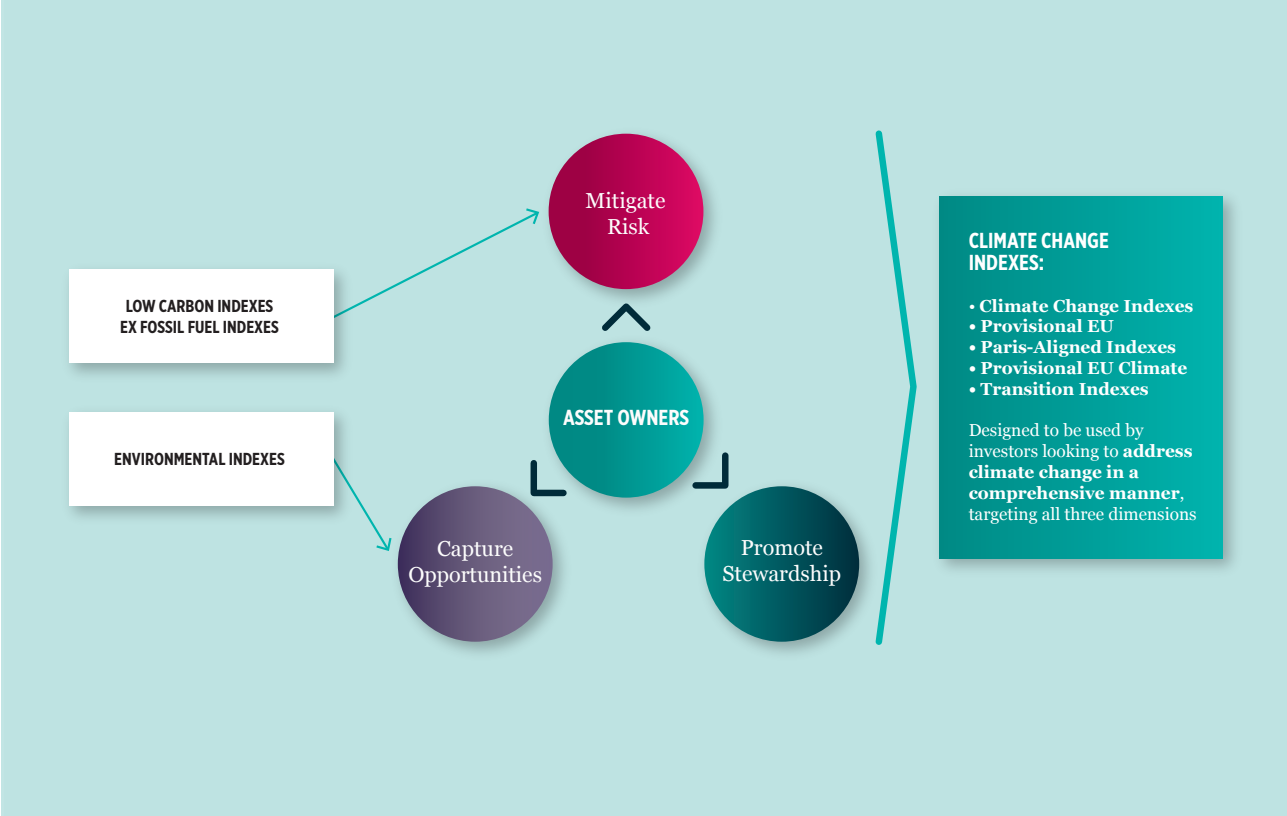
Investors with active portfolios or strategies may find it useful to use climate indexes as benchmarks for their strategies. Indexes can be helpful to perform risk and performance attribution. They can also help compare the climate risk profile of a portfolio vs a benchmark that reflects the investor's climate objectives.

18 See the PLSA's ESG & Stewardship: a practical guide to trustee duties, July 2019 https://www.plsa.co.uk/Policy-and-Research/Document-library/Responsible-Investment-Guide-2019

HOW CAN INDEXES HELP INVESTORS ADDRESS THEIR CLIMATE OBJECTIVES?

INDEX PROVIDERS OFFER A VARIETY OF CLIMATE INDEXES ON THE FIXED INCOME AND EQUITY SIDE THAT AIM TO REPRESENT THE PERFORMANCE OF THE MAIN OBJECTIVES OF A CLIMATE STRATEGY. THOSE INDEXES CAN BE GROUPED UNDER THREE MAIN CATEGORIES:

EXHIBIT 1: **OVERVIEW OF CLIMATE INDEXES**



Source: MSCI

CLIMATE INDEX DESIGNS

There are various approaches to building climate indexes:

Exclusion: for example remove companies with carbon intensive business activities or involved in environmental controversies

Select: for example select companies that are well positioned to benefit from the transition to a low carbon economy

Tilting/re-weighting: over-/under-weight companies based on their climate risk or resiliency profile

Optimisation: create an index using an optimiser, for example to minimise carbon exposure

RISK MITIGATION

LOW CARBON INDEXES:

Investors focused on mitigating risk may wish to adopt indexes that limit constituent carbon emissions and avoid companies with fossil fuel related activities.

This can be achieved by overweighting companies with low carbon emissions relative to sales and those with low-potential carbon emissions per dollar of market capitalisation, relative to the parent index. This approach aims to keep carbon emissions to a minimum while also targeting a low tracking error relative to the parent index.

EX FOSSIL FUEL INDEXES:

Investors who wish to eliminate or reduce some or all fossil fuel reserves exposure from their investments may wish to use ex Coal Indexes or ex Fossil Fuels Indexes. Ex Coal indexes typically exclude companies that have proven and probable coal reserves used for energy purposes. Ex Fossil Fuels Indexes typically exclude coal reserves and/or oil and natural gas reserves used for energy purposes.

OPPORTUNITIES

CLEANTECH INDEXES:

Some investors may wish to gain greater exposure to companies supporting the transition to a low-carbon economy and capture the upside of a transition to a low-carbon economy. They may adopt indexes designed to target companies that focus on offering products or services that contribute to a more environmentally sustainable economy (by making a more efficient use of limited global natural resources). For example, an index may identify companies operating in Alternative (Renewable) Energy, Energy Efficiency, Sustainable Water, Green Building and Pollution Prevention sectors. Some approaches may include companies that derive 50% or more of their revenue cumulatively from these five cleantech themes.

NEW GENERATION OF CLIMATE INDEXES

More recently, a new generation of climate indexes has emerged to address climate in a more comprehensive manner. Rather than focusing on one objective, investors have become more sophisticated in their thinking and willing to target all three dimensions (i.e. risk, opportunities and stewardship) in their strategy. In addition, they have expressed their desire to have broad and diversified indexes aiming to shift from brown to green without necessarily putting constraints on parameters such as tracking error, sector or region exposure. What really matters to them is to let the climate signal drive the index.

Example of Climate indexes key characteristics

EXHIBIT 2: SOURCE: MSCI, AS OF JUNE 30, 2020. NOTE THAT THE GLOBAL ENVIRONMENT INDEX IS BASED ON THE MSCI ACWI IMI.

INDEX	OBJECTIVES	METHODOLOGY	% OF STOCKS VS PARENT	CARBON INTENSITY REDUCTION[19]	FOSSIL FUEL RESERVES REDUCTION[20]	CLEANTECH SOLUTIONS (≥20% REVENUES)[21]
EX-FOSSIL FUEL	Mitigate risks	Exclusion	92.64%	28.50%	100.00%	4.90%
LOW CARBON	Mitigate risks	Optimisation/ Exclusion	68.44%	76.64%	92.24%	4.90%
CLEANTECH	Capture opportunities	Selection	2.57%	-2.83%	100.00%	8.80%
CLIMATE CHANGE	Mitigate risks, capture opportunities, promote stewardship	Reweighting	96.15%	43.93%	80.68%	4.90%

On this basis it is also possible for investors who aim to comply with the recommendations from the EU Technical Expert Group (TEG) to use indexes. These new indexes are designed to meet the minimum standards for the "Climate Transition benchmark" (CTB) and "EU Paris-Aligned Benchmark" (PAB), as defined in the "Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures" published by TEG on Sustainable Finance on September 30 2019.[22] They aim to help investors seeking to hedge against climate transition risks but also to direct their investments towards opportunities related to the energy transition to align with the trajectory of the Intergovernmental Panel on Climate Change's 1.5-degree scenario.

19 Efficiency of a portfolio tracking the index in terms of total Scope 1 and Scope 2 carbon emissions divided by total sales. (Unit: tons of CO2/ million $ of sales)
20 Carbon potential emissions normalised for the size of the portfolio tracking the index. (Unit: tons of CO2/ million $ invested)
21 Exposure to companies that derive 20% or more revenue from any of the five clean tech themes including alternative energy, energy efficiency, green building, pollution prevention, or sustainable water.
22 https://ec.europa.eu/info/files/190930-sustainable-finance-teg-final-report-climate-benchmarks-and-disclosures_en

EU SUSTAINABLE FINANCE ACTION PLAN: A NEW ERA OF CLIMATE INDEXES AND INDEX-BASED PRODUCTS

BACKGROUND

IN FEBRUARY 2019, A POLITICAL AGREEMENT WAS REACHED BETWEEN THE EUROPEAN COUNCIL AND THE EUROPEAN PARLIAMENT TO CREATE A NEW CATEGORY OF FINANCIAL BENCHMARKS. THIS REGULATION WAS ONE OF THE FIRST TO BE ADOPTED AS PART OF THE EUROPEAN SUSTAINABLE FINANCE ACTION PLAN.[23]

The regulation includes:

1. **Greater transparency on ESG integration for benchmark providers:**
   a. ESG information in benchmark statement
   b. Reporting on Paris Alignment for all benchmarks
2. **The creation of two types of benchmarks focusing on climate change:**
   a. EU Climate Transition Benchmarks
   b. EU Paris-Aligned Benchmarks

On September 2019, the Technical Expert Group (TEG) published its final report including recommendations for the methodologies of the "EU Climate Transition" and "EU Paris Aligned Benchmarks" as well as suggestions on a set of ESG metrics to be disclosed by index providers. This report will serve as a basis for the EU Commission for drafting the delegated acts expected in April 2019 amending Regulation (EU) 2016/2011.[24]

ESG DISCLOSURE REQUIREMENTS FOR ALL BENCHMARKS:[25]

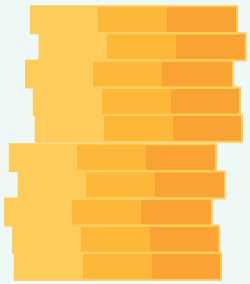
Benchmark administrators were required to comply with ESG disclosure guidelines by April 30 2020 and disclose ESG information for all benchmarks with the exception of currency and interest rate benchmarks. The objective of this requirement is to enhance transparency of benchmark methodologies as well as allow for greater comparability among indices for investors. Requirements include disclosure in methodologies as well as in benchmark statements with a set of metrics that differ by asset class.[26]

THE CREATION OF TWO TYPES OF BENCHMARKS FOCUSING ON CLIMATE CHANGE:

The main objectives laid out by the EU for defining the new climate benchmarks are to:

1. Allow a significant level of comparability of climate benchmarks methodologies while leaving benchmarks' administrators with an important level of flexibility in designing their methodologies
2. Provide investors with an appropriate tool that is aligned with their investment strategy
3. Increase transparency on investors' impact, specifically with regards to climate change and the energy transition
4. Disincentivise greenwashing.

23 Explaining the EU Action Plan for Financing Sustainable Growth, UNPRI https://www.unpri.org/sustainable-financial-system/explaining-the-eu-action-plan-for-financing-sustainable-growth/3000.article
24 EU climate benchmarks and benchmarks' ESG disclosures, European Commission https://ec.europa.eu/info/publications/sustainable-finance-teg-climate-benchmarksand-disclosures_en
25 Final Report on Climate Benchmarks and Benchmarks' ESG Disclosures, EU Technical Expert Group on Sustainable Finance, September 2019 https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190930-sustainable-finance-teg-final-report-climate-benchmarks-and-disclosures_en.pdf
26 https://ec.europa.eu/info/files/190930-sustainable-finance-teg-final-report-climate-benchmarks-and-disclosures_en



There are several differences between climate indexes. As highlighted in the table below, Low Carbon indexes mostly focus on the risk mitigation dimension while PAB and CTB also aim to identify opportunities. In addition, while PAB and CTB pursue a similar objective, which is to be aligned with the Paris Agreement, they vary in how they aim at achieving this goal. For example, the PAB will aim at reducing the carbon footprint by 50% while the CTB will target a minimum of 30% reduction.

EXHIBIT 3: KEY FEATURES OF CLIMATE BENCHMARKS

	LOW CARBON	CLIMATE TRANSITION BENCHMARK	EU PARIS ALIGNED BENCHMARK
CARBON FOOTPRINT	**At least 50%** reduction	**At least 30%** reduction	**At least 50%** reduction
FOSSIL FUEL EXPOSURE	**At leat 50%** reduction in emissions from Fossil Fuel reserves	**At least 30%** reduction in emissions from Fossil Fuel reserves	**Exclusion:** Revenues from: Coal>1%, Oil>10% Coal, Oil & Gas based power generation >50%
ACTIVITY EXCLUSION		Red flags Controversial Weapons	Red Flags Controversial Weapons
SELF DECARBONISATION		7% perannum	7% per annum
GREEN REVENUE		Green/Brown Ratio **equivalent** to parent	Green/Brown Ration **x4**

Source: MSCI

WHAT ARE THE TYPICAL FINANCIAL CHARACTERISTICS OF CLIMATE INDEXES?

CLIMATE INDEXES TEND TO BE BROAD AND DIVERSIFIED INDEXES, HAVE MODERATE TRACKING-ERROR TO THEIR PARENT INDEXES, AND DO NOT DEMONSTRATE LARGE ACTIVE REGION, COUNTRY, SECTOR, FACTOR OR ASSET EXPOSURES VERSUS A MARKET CAP-WEIGHTED PARENT INDEX. THIS BASED ON OUR CASE STUDY BELOW USING A MSCI SUITE OF CLIMATE INDEXES.

EXHIBIT 4: **KEY FINANCIAL METRICS OF MSCI CLIMATE BENCHMARKS**

	MSCI ACWI INDEX	MSCI ACWI CLIMATE CHANGE INDEX	PROVISIONAL ACWI CTB	PROVISIONAL ACWI PAB	MSCI ACWI LOW CARBON TARGET INDEX
TOTAL RETURN* (%)	6.8	7.9	8.1	8.3	6.9
TOTAL RISK (%)	13.3	13.2	13.1	13.1	13.4
RETURN/RISK	0.51	0.60	0.62	0.63	0.52
SHAPE RATIO	0.44	0.54	0.55	0.57	0.45
ACTIVE RETURN (%)	0.0	1.1	1.3	1.5	0.1
TRACKING ERROR (%)	0.0	1.0	1.1	1.3	0.4
INFORMATION RATIO	nan	1.14	1.16	1.16	0.29
HISTORICAL BETA	1.00	0.98	0.98	0.98	1.00
NUMBER OF CONSTITUENTS***	2601	2445	2401	2279	1764
TURNOVER** (%)	2.2	4.2	5.6	6.1	14.5
PRICE TO BOOK***	2.2	2.3	2.4	2.4	2.2
PRICE TO EARNINGS***	18.4	18.4	18.7	18.8	18.2
DIVIDEND YIELD*** (%)	2.5	2.4	2.4	2.3	2.5

Period: November 29, 2013 to June 30, 2020. *Gross returns annualized in USD ** Annualized one-way index turnover over index reviews ***Monthly averages

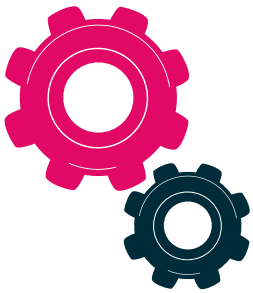
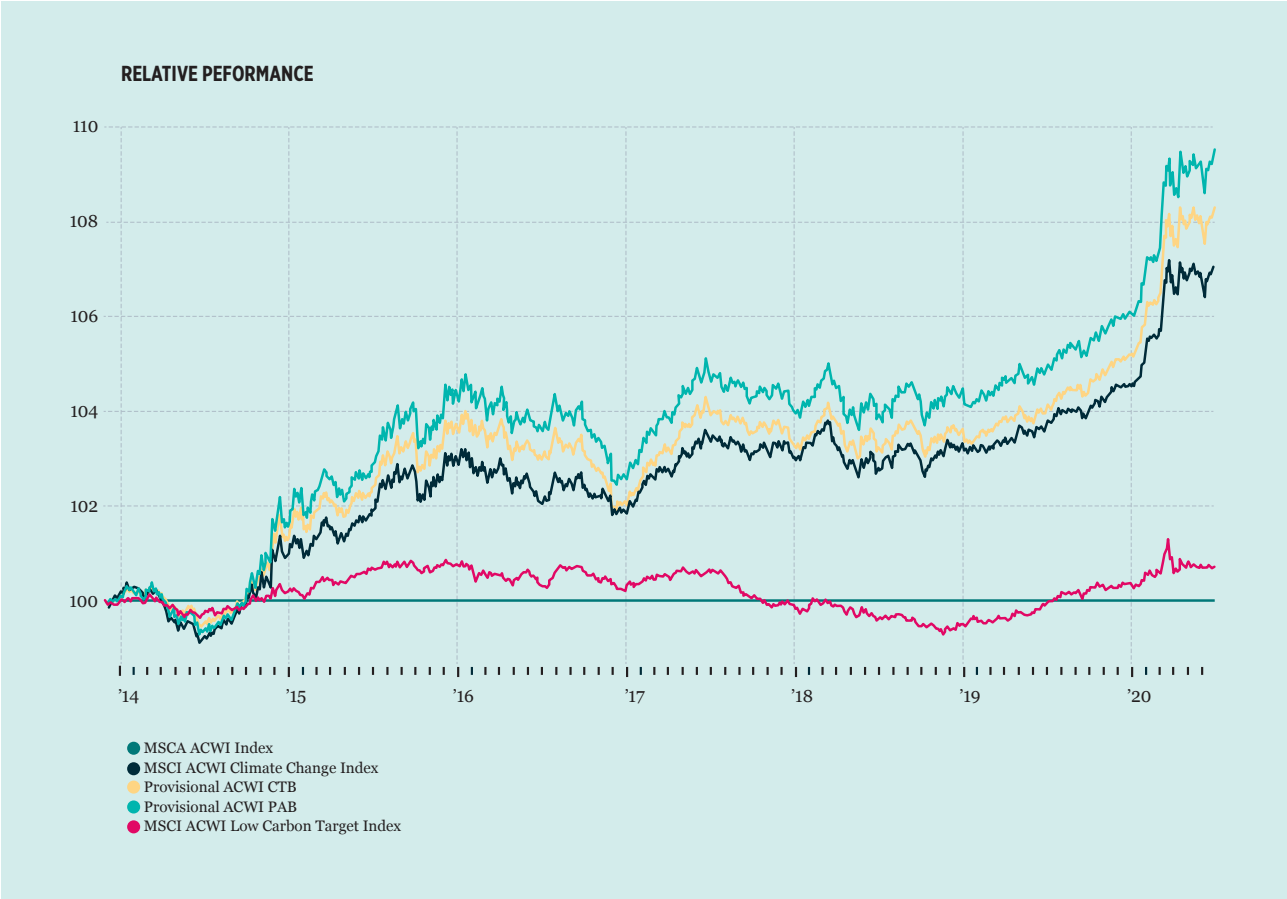


EXHIBIT 5: FINANCIAL PERFORMANCE



Source: MSCI, as of June 30 2020

In addition, climate indexes have demonstrated positive results from a climate perspective with significantly lower exposure to fossil fuel-related activities, large increase in green revenues and strong carbon reduction over the study period from 2013 to 2020.[27]

27 Example for illustration purposes only during the indicated study period. Past performance is not indicative of future results, which may differ materially.

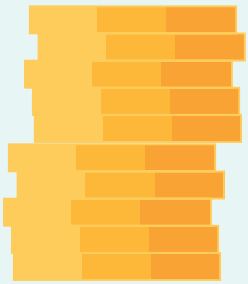
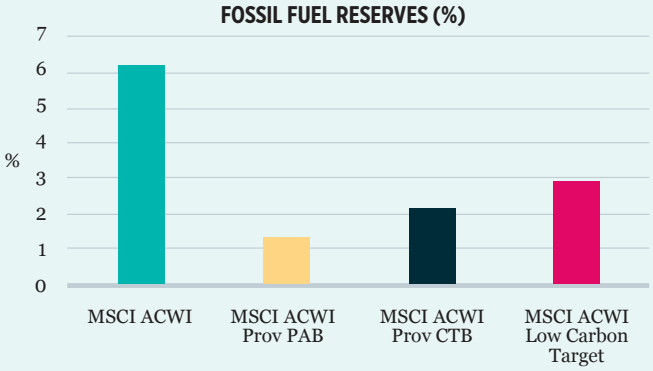
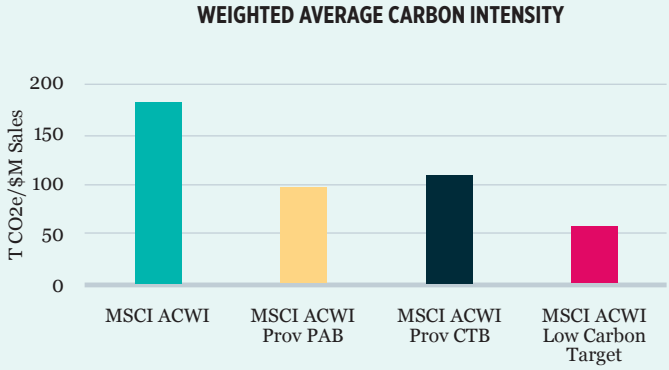
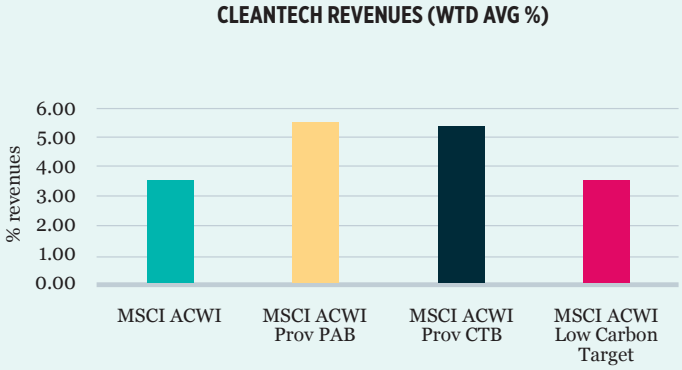


EXHIBIT 6: KEY ENVIRONMENTAL METRICS OF MSCI CLIMATE BENCHMARKS







Source: MSCI, as of June 30 2020

EXAMPLES OF USE CASES BY INSTITUTIONAL INVESTORS

BRUNEL PENSION PARTNERSHIP (UK) – MSCI LOW CARBON TARGET

Brunel Pension Partnership Limited is one of eight UK Local Government Pension Scheme Pools and manages investments for ten pension funds. They use the MSCI World Low Carbon Index for a portion of their global equity allocation. They use the MSCI World Low Carbon Index, which is broad, diversified and closely tracks its parent index. With the adoption of the MSCI World Low Carbon Index, Brunel aims to significantly reduce its carbon footprint through lower exposure to high-carbon emitters and companies with fossil fuel reserves.[28]

PUBLICA (SWITZERLAND) – MSCI CUSTOM CLIMATE INDEX

After a thorough analysis of the potential impact of climate change on its activities, the Swiss Federal Pension Fund PUBLICA decided to use a customised "climate efficient index" to further enhance the management of climate-related opportunities and risks in its investments. Their objectives aim to achieve a significant reduction of climate-related risks in their equity strategy while capitalising on opportunities associated with climate change. They are not only focusing on climate transition risks but also on physical risks while using the following MSCI climate metrics in the index methodology:

- Policy Risk Climate VaR
- Technology Opportunities Climate VaR
- Extreme Weather Climate VaR
- Low Carbon Transition Score

By design, the climate index targets a significant improvement in each climate parameter (between 30 to 50%) and can be used in combination with Publica's existing factor strategy.

PENSAM (DENMARK) – MSCI CLIMATE CHANGE INDEX

Danish labour market pension fund PenSam adopted the MSCI Climate Change Index as its official benchmark in 2020. They decided to adopt the MSCI ACWI Climate Change Index for its whole €4.8bn equity allocation as the methodology relies on a reweighting approach which considers both climate-related risks and opportunities. Using MSCI Low Carbon Transition score as a key input into the index construction allowed Pensam to address climate change in a holistic manner.

28 https://www.brunelpensionpartnership.org/wp-content/uploads/2020/06/Brunel-2020-Responsible-Investment-and-Stewardship-Outcomes-Report.pdf

CONCLUSION

THE WORLD IS EVOLVING RAPIDLY DUE TO DRAMATIC AND SIGNIFICANT SHIFTS IN CLIMATE CHANGE AS WELL AS SOCIAL, INSTITUTIONAL GOVERNANCE AND TECHNOLOGICAL INNOVATION. THE CONVERGENCE OF THESE FACTORS MAY LEAD TO A LARGE-SCALE REALLOCATION OF CAPITAL OVER THE DECADES TO COME. INVESTORS WHO CONTINUE TO IGNORE THESE FACTORS COULD FIND THEMSELVES UNPREPARED FOR THE POSSIBLE RESULTING CHANGES.

The demand for a set of tools that will help investment institutions manage emerging opportunities and inherent risks associated with climate considerations through index adoption has never been greater in their pursuit of long-term, sustainable and inclusive investment performance.

POSSIBLE STEPS TO INTEGRATE CLIMATE IN BENCHMARKS

1) **Define Climate Objectives in terms of financial risk, Norms & Values, opportunities**

2) **Choose a standard or custom benchmark as basis for Climate integration**
   - **Global equity benchmark** or regional subset for Equities
   - **Fixed Income** benchmark

3) **Choose a Climate index construction approach**
   - **Positive selection**
   - **Weight tilt**
   - **Optimised**
   - **Negative screening**

4) **Choose a strategy to integrate climate in your portfolios**
   - **Integration** through policy benchmarks to ensure consistent climate integration approach across all portfolios
   - **Progressive approach**, one mandate or portfolio at a time

5) **Engage stakeholders & report**
   - **Engage companies and external stakeholders**
   - **Report progress on climate strategy to your board**
   - **Provide transparency through client reporting**

6) **Start Climate Monitoring and Reporting**
   - **TCFD:** Report on Governance, Strategy, Risk Management and Targets
   - **EU Reporting guidelines**

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