

**PENSIONS FOR  
PURPOSE**



# Industry trends in climate indices

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### Executive summary

- This research follows discussions with 24 leading asset managers offering climate-focused funds to UK pension schemes.
- These managers had a total of 108 different climate-themed funds on offer with a further 104 that had a broader ESG thematic approach. Within these 212 funds there were 142 different benchmarks or performance targets being used.
- Climate indices can be broadly grouped into low carbon, climate transition, Paris-aligned or positive impact indices. We give suggestions as to when these types of indices might be most suitable for a pension fund.
- There is a lack of commonality in the choice of climate benchmarks and mixed views on whether there will be a move towards consensus benchmarks or a shift towards more tailored benchmarks designed to meet pension funds' specific climate goals.
- Pension funds should be clear about their goals when shifting from one passive strategy to another. There may be some unexpected carbon metrics arising from this.
- Active managers rarely reference climate indices in their funds. Only two active equity managers and one active bond manager benchmarked their funds with reference to a climate index. We set out the arguments given by active managers as to the limitations of climate indices but question whether they could raise the bar if they switched to these for the purpose of comparing carbon emissions and intensity, even if the universe of investment opportunities remained the parent index.



### Background to this industry research



At the Pensions for Purpose annual awards event in November 2021, we asked whether delegates understood the differences between different equity and bond climate indices. Only one person out of around 90 delegates raised their hand. This paper seeks to help pension funds decide on the right benchmark for their listed assets and provides insights on the different indices being used by both active and passive asset managers to measure

success. Our aim is to empower pension funds to make informed decisions when embedding climate action approaches into their investment portfolios.

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### Participants in the research

We invited 32 asset managers to participate in our research and 24 kindly responded - a list of providers is shown in Appendix 1. Between them, these participants offered 108 different climate-focused funds in equities and bonds, and a further 104 that had a broader ESG thematic approach, but which included a climate theme. We have compiled a database of these managers and their funds, with links to the different funds for further information. This is available to asset owners and independent trustees/advisers only, on request, by emailing [Karen Shackleton](mailto:karen.shackleton@pensionsforpurpose.org).

The funds being considered were split between active and passive funds in bonds and equities, plus seven multi-asset funds, and the breakdown is shown in Table 1. The number



of passive equity funds is distorted somewhat because Legal and General Investment Management (LGIM) listed all their regional/ sector funds individually, with other managers tending to link to the broader family of passive funds under the primary global index.

**Table 1**

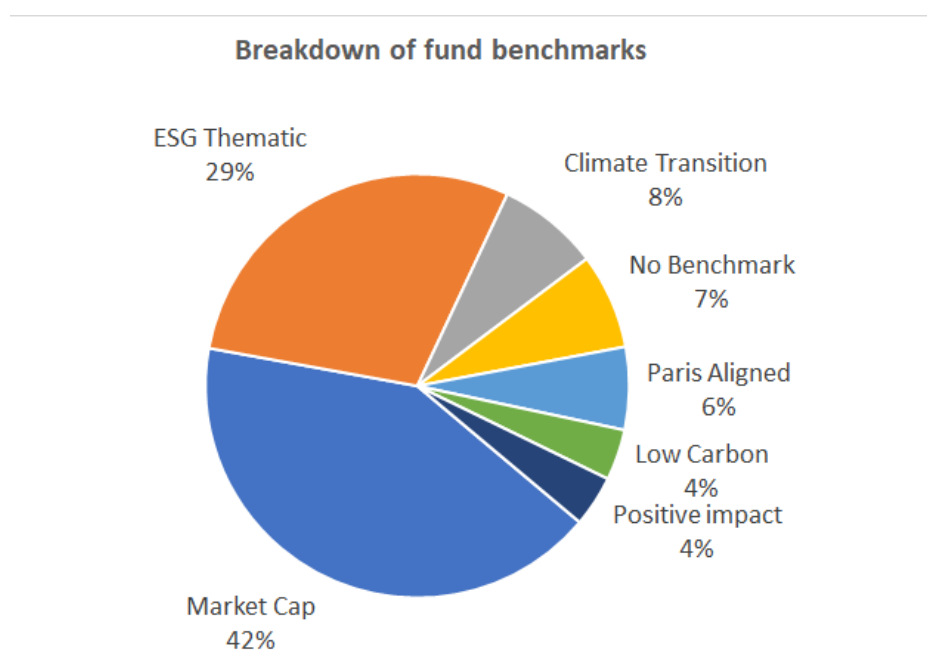
Active/Passive	Number of funds
Active - bonds	31
Active - equities	58
Active - multi asset	7
Passive - bonds	19
Passive - equities	97
<b>Grand Total</b>	<b>212</b>

Within these 212 funds there were 142 different benchmarks or performance targets being used.

### Climate indices

The different climate indices used by managers as benchmarks or performance targets varied by type as shown below.

**Chart 1**



ESG thematic and broad market capitalisation indices remain the most popular benchmarks for managers' climate-related funds, despite a growing interest in Climate Transition and Paris Aligned funds. We would expect these two segments in the pie chart to be much larger going forward, especially for Paris Aligned funds, based on our conversations with managers and investors.







### Understanding the different climate benchmarks

#### Low carbon benchmarks

Low carbon indices tend to re-weight companies based on their carbon emissions and fossil fuel reserves. For example, MSCI's Low Carbon Indices seek to achieve a 0.3% ex ante tracking error target against the parent index, while minimizing the carbon exposure relative to that index. A typical reduction (varies from index to index) might be 30 - 80% of the carbon footprint of the market capitalisation parent index.

#### Climate transition and Paris aligned benchmarks

Climate transition benchmarks (CTBs) and Paris aligned benchmarks (PABs) were introduced into law by the EU and there are strict criteria to which benchmark providers must adhere if they wish to label their indices CTB or PAB.

Both CTBs and PABs have a focus on decarbonisation, but PABs have the additional, more stringent requirement, to be aligned to the Paris Agreement, on a carbon-metrics basis, so they are looking to limit the increase in global average temperatures to well below 2°C and ideally 1.5°C by 2050, compared with pre-industrial levels.

CTBs have a minimum decarbonisation of the underlying investments of 30% compared with the parent index in year one. PABs seek to decarbonise by 50% in year one. They both set year-on-year decarbonisation targets of 7%, with Scope 3 emissions being phased in by year 4.

Both these types of benchmarks have baseline exclusions (controversial weapons, tobacco, companies in violation of UNGC principles etc) but PABs go one step further and they exclude companies with more than 1% of revenues from coal, more than 10% from oil and more than 50% from natural gas. High emitting electricity producers are also excluded.



### Which type of benchmark is right for my fund?

Pensions for Purpose does not give investment advice, but the following may be a helpful guide ahead of a discussion about climate benchmarks with your investment consultant or adviser.

**Market capitalisation** – useful for pension schemes who agree with the arguments laid out by the active managers later in this report (see “Active managers don’t use climate benchmarks”). The pension fund might not want to constrain the universe of investable opportunities and hopes to capture any transition return opportunities in the market. Suitable for active rather than passive mandates.

**ESG thematic** – useful for pension schemes who want to take a holistic view rather than a more climate-focused approach; for example, schemes looking to take into account social and governance themes as well as environmental themes.

**Low carbon benchmarks** – suitable for pension schemes with passive market capitalisation portfolios who want to introduce a climate approach and who are looking to demonstrate immediate progress when engaging with stakeholders.

**Climate transition benchmarks (CTBs)** - a more suitable for pension funds who wish to protect their portfolio against investment risks related to climate change and the transition to a low-carbon economy, but who have not yet set net zero targets for their fund. Suitable for schemes who are happy to introduce baseline exclusions in companies that can be held but who do not wish to set a broader range of exclusions (see below).

**Paris Alignment Benchmarks (PABs)** – these are suitable for pension funds who themselves have committed to becoming Paris-aligned and investing in a net zero portfolio by 2050. They have a narrower universe of company holdings because they have more exclusions.

**Positive Impact Benchmarks** – useful for pension funds who are looking to invest in climate solutions; in other words, seeking to deliver a financial return and achieve a positive environmental impact.

### Lack of commonality in choice of specific climate indices within each grouping

Examining which specific, low carbon, climate transition or Paris aligned benchmarks were chosen by managers revealed that there was no commonality in the choice of index used. This makes it harder for investors to compare one fund against another, so it may be better to think in terms of the higher-level groupings (low carbon, CTB, PAB) when considering which fund to choose.

Reasons given by passive managers for the large number of different indices being used included concerns over specific exclusions, finding an index that achieved the closest alignment to the manager’s climate goals and, for larger clients, a desire to benchmark against a bespoke index designed to suit their specific preferences, eg. sector or company exclusions. The full list of climate indices used by managers in our sample, grouped by low carbon, CTB, PAB or positive impact, is shown in Appendix 2.





### The investor's passive journey

Our discussions with passive managers highlighted some interesting insights. Typically, at the start of a pension fund's journey towards net zero, the trustees are conservative in what they wish to do. They can be particularly wary of exclusions and concerned about fulfilling their fiduciary duties. Typically, they are switching out of market capitalisation index funds, so the focus is on continuing to achieve a low tracking error compared with the full market cap index, whilst trying to reduce the carbon footprint in the portfolio. This means that a typical first step is a low carbon index fund. Low carbon indices are focused on optimising constituents against a market capitalisation benchmark, and typically have only minimal exclusion criteria.

As pension fund trustees' knowledge and understanding improves, supported by a changing regulatory environment such as TCFD reporting which is bringing attention to climate action, trustees tend to shift their focus towards forward-looking goals rather than prioritising investments in companies with a lower carbon footprint today. They recognise that this comes with a higher tracking error relative to the parent, full market capitalisation index.

Often, decisions around exclusions together with a wider focus on S (social) and G (governance) influence the specific choice of benchmark but the passive managers noted that trustees took comfort when they used household names of index providers such as MSCI or FTSE, although these were not always fully aligned to the pension fund's own climate goals. These decisions, the managers noted, were often consultant-led.

Sophisticated, large pension fund investors stood apart. These investors had very precise requirements and preferred a bespoke solution delivered in a segregated portfolio. The index would be designed for them following a typically tripartite discussion between the index provider, the asset manager and the pension fund. These funds wanted specific sector exposures, exclusions, or bespoke decarbonisation targets, for example. They had less concern about tracking error and more concern around meeting their pension fund's specific climate goals.



### Some surprising results

In our discussion with BlackRock, this investor journey was discussed, and they pointed out that a pension fund that switches out of a low carbon index fund into a PAB index fund could experience an increase in carbon footprint if relying on the same metric to evaluate performance against carbon objectives. Indeed, measuring performance against carbon objectives is a multi-dimensional exercise for investor portfolios, sensitive to how carbon footprint is defined in the first place.

Low carbon strategies rely on carbon emissions across scope 1 and 2, typically normalized by company sales. In contrast, PAB strategies additionally include scope 3 emissions (those produced from a company's value chain, upstream and downstream) and are required to use EVIC (enterprise values including cash) instead of sales to normalize these in the case of equities. It is also important to highlight the different objectives of the two strategies: while low carbon strategies have an objective to minimise portfolio carbon intensity, PAB objectives set specific carbon reduction targets versus the parent index and incorporate a year-on-year reduction which highlights the more forward-looking nature of PAB and its focus on transition.

For pension funds tracking their carbon footprint year-on-year, this is an important insight as the switch could result in a temporary increase in their portfolio carbon measure. BlackRock emphasizes that it is important for pension funds to consider how decarbonisation targets are being defined and to have a robust framework of measuring performance against these carbon objectives.

### Where next for climate indices?

One question we asked passive managers was whether they thought there would be a funnelling of climate indices over time, as has been seen with market capitalisation indices (for example, most pension funds use MSCI ACWI or FTSE All World for global equities). Where would we be in five years' time?

Views were mixed. Some passive managers agreed that pension funds would gradually all shift towards a Paris-aligned approach which would mean that PABs would dominate the fund offering. Others felt that, as investors became more sophisticated, there would be an increase in demand for bespoke, client-led benchmarks which would have the opposite effect to funnelling.

Several managers talked about evolving their existing passive fund range rather than setting up new funds with a different benchmark as the trend towards PAB continued. So, a fund that was low carbon might shift to CTB in the next 12-18 months and to PAB in three years, for example. One manager admitted that they typically had a three-year life expectancy for their passive climate funds, before changing trends would require a revamp of that fund with more up to date/challenging climate goals.

Data coverage challenges were mentioned, and the hope is that Scope 3 emissions data can be more widely covered in the indices going forward.







### **The active versus passive debate**

The debate between active and passive managers has always involved hotly contested arguments and on climate it rumbles on, with strong and passionate views on both sides. We have summarised the main views across all our research participants, but we also asked a representative passive manager and an active manager to set out their views in more detail. We hope that this adds some colour to the summary comments made here.

### **Active managers don't use climate benchmarks**

We were surprised by the number of active funds which were labelled as climate-focused, yet which continued to benchmark their performance (from both a financial and climate impact perspective) against market capitalisation indices. Only two active equity managers and one active bond manager explicitly looked to do better in terms of carbon metrics when compared with a climate benchmark. Our concern was that active managers were opting for an easy life, because delivering superior carbon metrics versus the parent index was much easier than when benchmarking against a climate index, which itself had a lower carbon footprint than the parent index.

The active managers defended their position as follows:

- Different methodologies in climate indices made it difficult to choose an appropriate benchmark, for example different rules based on carbon footprint, implied temperature ratings or green revenues.
- Concerns about the opacity in the goals of some of the climate indices.
- The climate indices were not aligned to the manager's own objectives because they were based on a wide range of criteria and measures which made them difficult to use as a comparator.



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- Climate indices often rely on the ability to assign scores across the full parent index constituents and there were issues related to lack of disclosure from companies making these scores less reliable.
- Climate transition was not a stock selection exercise but a programme of engagement and influence which could not be measured by fund versus index data comparisons.
- Managers wanted to capture the transition alpha: restricting themselves to the universe of climate index constituents would limit the opportunity set.
- Not many climate-aligned benchmarks are genuinely aligned to a sub two-degree Celsius world.
- Climate indices limit the scope to include real world solutions because they prioritise decarbonisation alongside tracking error minimisation.
- While a climate tilted index enables access to a reduced carbon intensity, it does not capture broader social and natural capital considerations.
- The IIGCC Net Zero framework targets two pillars – portfolio decarbonisation and investing in climate solutions. Paris-aligned benchmarks are focused on the first pillar but not the second.
- High licence fees may prevent use of climate indices from most reputable index providers.
- Market cap indices are the default benchmark used by pension funds.

For example, Rhys Petheram, Head of Environmental Solutions at Jupiter Asset Management said:

“The objective behind our investment process is to identify companies which, at their core, provide a solution to key environmental challenges, namely climate change and natural capital restoration. With this thematic, solutions approach in mind, we look for companies which are aligned to delivering on environmental objectives, in the same spirit as the development of sustainability taxonomies in the UK and Europe.

Carbon-aligned benchmarks, by contrast, tend to be narrow in scope, looking more at footprints rather than the potential long-term impacts of a company’s products and services. As a result, construction of carbon-aligned benchmarks limits their scope to include real world solutions, instead prioritising decarbonisation alongside tracking error minimisation. To facilitate the type of transformation needed to deliver the Paris Agreement, investors need to take tracking error risk. Paris-aligned indices are constructed to maintain existing holdings and limit tracking error.

For investors seeking real-world solutions, we would need an index that can include enablers of a low carbon transition as well as adopters.”



Baillie Gifford were one of the active managers who offer a climate-focused strategy where the carbon metrics are benchmarked against a climate index. We asked them why they chose to do this. They replied that they had given careful thought as to how best to accelerate the world towards net zero. They did not believe passive approaches were the answer. Instead, they wanted to take their investment strategy, embed this with a carbon overlay, and then benchmark against a climate index so they could assess their emissions against a passive equivalent. They had spent a long time choosing an appropriate climate benchmark.

### **The passive managers' response**

We then went back to the passive managers to ask them for a final response to the reasons given by active managers for not using climate benchmarks. They felt that active managers underestimated the amount of research that goes into the index design – as the index decarbonises there are further tools the manager can use to decarbonise further. It is still possible to get an 80-90% reduction.

The arguments presented by active managers also ignored the pension fund's overarching goal, which is to address climate change. Passive managers believe there is a critical role of engagement in changing company behaviour on as wide a universe as possible and this is key to addressing this overarching goal.



Two managers’ perspectives on climate benchmarks

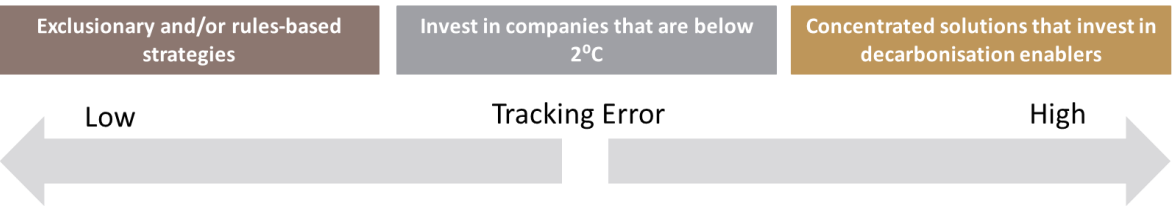
We asked two managers, one active and one passive, to contribute a statement for this research paper, explaining their views. Our thanks to Fulcrum Asset Management and State Street Global Investors for the following contributions.

*The active manager: why tinkering around the edges when building climate-aligned global equity portfolios could backfire - Iancu Daramus, Responsible Investment Analyst, Fulcrum Asset Management*

The decades-old contrast between active and passive investing strategies features increasingly in the climate change investing space. Climate investing approaches can be classified on a tracking error<sup>1</sup>, relative to traditional market capitalisation indices, spectrum, as illustrated below. In the middle of the spectrum are solutions that invest in companies that are taking steps to align their business model to the net zero transition<sup>2</sup>.



Range of climate investing solutions



Whilst the approaches shown above can co-exist and cater to the preferences of different investors, individually, the solutions imply very different outcomes to financing the fight against climate change.

Those designed according to a set of rules, for example: exclude highest emitting sectors, assign a higher weight to lower emitters or allocating more to companies with a higher share of green revenues, have little deviation to traditional benchmarks, possibly due to behavioural biases and well-intended (but insufficient) regulatory developments<sup>3</sup>.

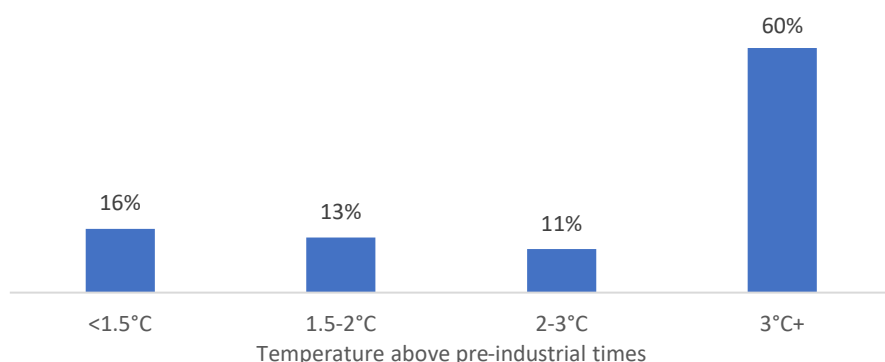
The majority of listed companies today are misaligned to the Paris Agreement temperature targets. As shown below, the proportion of companies, by market capitalisation, within MSCI ACWI that are aligned to a below 2°C pathway is less than 30% and therefore closely tracking traditional benchmarks is problematic.

<sup>1</sup> Tracking error, also known as active risk, indicates how closely a portfolio tracks its benchmark. A low tracking error means that a portfolio closely tracks its benchmark, and vice versa.  
<sup>2</sup> Net zero transition is defined as the reduction of global anthropogenic greenhouse gas emissions to net zero by 2050 to keep the planet’s temperature to below 1.5°C above pre-industrial times.  
<sup>3</sup> We highly commend the EU’s efforts to create a [regulatory framework for benchmarks](#) which allows investors to invest in line with the transition to a low-carbon economy.



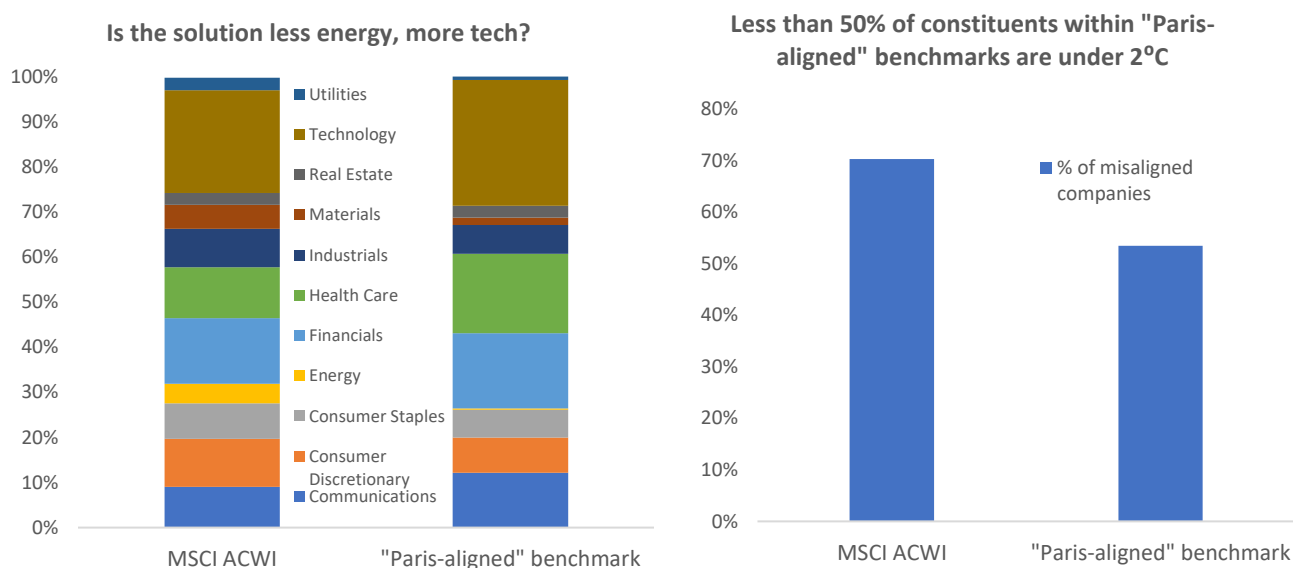


## The majority of companies within ACWI are not aligned to the Paris Agreement 2°C target



Source: S&P Trucost, Bloomberg LLP, Fulcrum Asset Management LLP as at 31 January 2022

All sectors must transition to a low-carbon economy and blanket exclusions do not achieve this objective. Equally, overweighting some based solely on their carbon footprint is an ineffective strategy. 'Less energy, more information technology' is not charting a course for the transition to a low-carbon economy. As an example, less than 50 per cent of companies in an equity index presented as aligned to Paris Agreement (PAB<sup>4</sup>) are below 2°C.



Source: S&P Trucost, Bloomberg LLP, Fulcrum Asset Management LLP as at 31 January 2022

At the other end of the spectrum lie concentrated portfolios investing in decarbonisation solutions. Whilst technological solutions are crucial, the challenge is often deployment, not solely R&D. Existing research shows we can decarbonise much of the world using today's existing solutions.

Investors are unlikely to invest a large proportion of their portfolio in such solutions given their concentrated nature. Globally diversified portfolios that are truly aligned (for example

<sup>4</sup> These indices are known as Paris-aligned Benchmarks (PAB), while their less onerous versions are usually known as Climate Transition Benchmarks (CTB).



by only investing in firms below 2 degrees), combined with robust engagement, have the greatest potential to lead to substantial finance flows towards fighting climate change.

These active, diversified solutions sit in the middle of the spectrum with a clear aim of investing in companies that are taking steps to align their business model to the net zero transition. They take an active decision to deviate from traditional benchmarks whilst providing investors with minimal sectoral and regional deviations.

Using traditional benchmarks as a strict gauge (as measured by minimal tracking error) is unlikely to solve the climate issue. Many investors with a long-term horizon, where climate concerns are said to register ever more menacingly, are at risk of chaining themselves to what is at best a short-term financial measure, and hence certainly not a measure of climate performance.

### Key takeaways

- Investors who believe climate risks are significant and systemic should not aspire to doggedly track a misaligned market.
- Investment approaches that keep carbon and tracking error low at an aggregate level can be misleading at a constituent level.
- Having the highest impact should put climate science at the heart of portfolio construction and efficiently allocate capital to companies, across all sectors, that reduce emissions in line with science-based emission pathways.
- The transition will not be linear. An active approach can allow investors more freedom in engaging with and distinguishing between those companies that are already part of the solution, those that are credibly transitioning, and those that risk becoming obsolete.



***The passive manager: why indexing works well in a climate strategy. Altaf Kassam CFA, EMEA Head of Investment Strategy & Research, State Street Global Advisors***



There are definitely arguments for using both an index and active approach to climate investing for pension schemes. If we think of climate investing as trying to approach the issue from the combined point of view of mitigation, adaptation and transition, where the latter two are risks that we are trying to protect our portfolio from, and the first is an outcome we are trying to achieve, then it seems that index investing is better suited to the first and active management might help for the latter two.

The reason indexing works well, especially for mitigation, is the availability of consistent and reliable data, due to the mostly voluntary nature of disclosures. It seems that, in the area of GHG emissions for example, data disclosure is more widespread, quantitatively justifiable and consistent across corporates, but adaptation and resilience etc are currently more qualitative. That being said, there are various adaptation and transition focused metrics available already that climate indices and index funds are using. Examples of this are Adaptation Scores, Green Revenue, TPI or Climate VaR data to capture the transition-element.

There is currently a lot of space for active management in climate investing if we move away from historical analysis to more broad, forward-looking measures, which currently perhaps aren't (perfectly) captured by some of the forward-looking adaptation and transition metrics mentioned above. Of course, as more data comes on board now and over the next couple of years (eg. geolocation data has helped drive Geophy's contribution to the FTSE EPRA NAREIT Green indices) then the codifying of some of these quantitative measures will become more plausible and the incorporation of that in index strategies more prevalent, but we're not there yet for all asset classes.

While mitigation, adaptation and transition data is already widely available and of good quality for public equities and corporate bonds, progress still needs to be made for other sub-asset classes such as government bonds, emerging market debt or private assets. Active climate strategies might therefore, at this stage, be a better fit for those asset classes, whereas equities and corporate bonds could be accessed via robust, cost-efficient climate index funds, potentially complemented with active strategies.

We have seen a range of third-party indices and proprietary index solutions come to market with sophisticated climate approaches, often at higher tracking errors to allow for meaningful deviations from the market cap benchmarks. Although tracking error remains an important consideration to investors in selecting index strategies, over the years, pension schemes have become more flexible with their tracking error budgets and this will play in favour of climate index strategies. As more and more (forward and backward looking) climate data becomes available then quantitative, either index or active, approaches will be able to benefit more from this and play a larger role in the climate transition.



The advantage of using index strategies as well is that there is always room for active stewardship and engagement. Index providers, by their nature, are providers of long-term capital and have been shareholders in certain companies for over decades. They're uniquely positioned, due to their size and long investment horizon, to work with companies on their transition to Net-Zero. Divestment, an approach often used by active managers, should often be used as a measure of last resort, especially when it comes to the climate transition. We will need to work collectively with companies across sectors and countries to make sure we reach Net-Zero, rather than just relying solely on a handful of potential winners that active managers tend to invest in.

In summary, pension schemes and their advisers shouldn't think to allocate to either an index strategy or an active strategy for their climate transition portfolios, but rather combine both approaches in a way that best matches both their investment and ESG beliefs. There are robust climate index funds and indices available in the market, especially for public equities and corporate bonds, that already utilise a range of backward- and forward-looking data, that can play a role in an asset owner's portfolio and that can be combined with a strong engagement and voting program.

Active climate strategies also play a role, especially when it comes to complementing the lack of forward-looking elements that you might see in some climate index portfolios. It's important for pension schemes to use all the tools in the toolkit. That's why, for example, a combination of State Street's Climate Equity Index Funds with State Street's Active Global Climate Transition Equity Strategy makes sense, as it can allow schemes to fully mitigate climate risks and capture the upside potential of the climate transition, leveraging the best of both approaches.





### Pensions for Purpose's conclusion on this topic

As with all things, having clear goals is imperative when implementing a climate strategy. We always encourage pension funds to spend time articulating a clear set of investment beliefs. We support target setting but our research reinforced our view that these can make the pension fund a hostage to fortune if those targets aren't met year-on-year. Careful wording around targets can overcome this – perhaps setting broader interim goals every five years, for example.

Once goals have been agreed, then it can be helpful to think about how these can be most effectively achieved. Do you wish to focus on carbon emissions and carbon intensity as a measure of success? Is there a desire to focus on climate solutions? How important is engagement? Do you believe there is a return opportunity by investing in companies that are about to transition their business? And over what time frame do you expect to reach your goals? All these considerations will lead towards different investment solutions, and we have spent time with pension funds and their investment consultants thinking carefully about how to be most aligned to their investment beliefs, in our workshops.

Recognising the different roles of active versus passive approaches in delivering to a scheme's climate goals may also influence the implementation of a climate strategy. And understanding the different types of indices available will help you identify the most closely aligned solution, with your investment consultant. We see no reason why active and passive climate funds should not sit comfortably side by side, just as they have done for many years in the market capitalisation space.

One thing is certain. This is a fast-moving market, and the number of climate indices is growing rapidly. Managers are launching new funds, or evolving existing funds, all the time in the race to net zero. Data coverage and data quality is improving all the time and new regulations are being imposed on pension fund trustees. This means that knowledge and understanding on climate-related investment needs to be topped up all the time. We invite you to join our [Paris Alignment Forum](#) debates which allow for discussion time on this important agenda. We are here to help you interpret the language, understand the latest investment thinking and connect you with managers who can deliver to your climate goals.

For more information, please contact Karen Shackleton, either by [email](#) or by calling 01524 389326.

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## Appendix 1 – list of participants in the research

Manager
abrdrn
AllianceBernstein
Amundi
Aviva Investors
AXA Investment Managers
Baillie Gifford
BlackRock
Columbia Threadneedle Investments
Federated Hermes
Franklin Templeton Investments
Fulcrum Asset Management
HSBC Asset Management
Invesco
JP Morgan Asset Management
Jupiter Asset Management
Legal & General Investment Management (LGIM)
Lombard Odier Investment Managers
Morgan Stanley Investment Management
Natixis Investment Managers - Mirova
Newton Investment Management
Pictet Asset Management
Schroders
State Street Global Advisors
WHEB



## Appendix 2 – list of climate indices used by managers, grouped by type of benchmark

Low Carbon	Number of funds using this benchmark
FTSE All World Climate Balanced Comprehensive Factor	1
FTSE Custom Global Developed Component Climate Net Tax	1
FTSE ESG Low Carbon Select indices	1
MSCI World ESG Focus Low Carbon Screened Index	1
MSCI World Low Carbon Target	1
MSCI World Low Carbon Target Reduced Fossil Fuel Select	1
MSCI World Select 5-Factor ESG Low Carbon Target	1
Solactive L&G Low Carbon Transition Global	1

Climate Transition	Number of funds using this benchmark
RAFI Multi-Factor Climate Transition Developed	1
FTSE All-World TPI Transition ex FF ex Tobacco ex Controversies	1
FTSE Developed TPI Climate Transition ex Coal ex Controversies ex Nuclear ex Tobacco	1
ICE BofA Green Bond 0-5y	1
ICE BofA Green Bond Hedged	1
J.P. Morgan Carbon Transition Global Equity Index	1
MSCI Global Green Building Index	1
MSCI World Climate Transition	1
RAFI Multi Factor Climate Transition Developed	1
Solactive L&G Low Carbon Transition APAC ex Japan	1
Solactive L&G Low Carbon Transition Developed Markets	1
Solactive L&G Low Carbon Transition Emerging Markets	1
Solactive L&G Low Carbon Transition Europe ex UK	1
Solactive L&G Low Carbon Transition Japan	1
Solactive L&G Low Carbon Transition North America	1
Solactive L&G Low Carbon Transition UK	1

Paris Aligned	Number of funds using this benchmark
Bloomberg Barclays Global Aggregate Corporate	1
MSCI ACWI for performance and MSCI ACWI EU Paris Aligned Requirements Index for carbon emissions	1
MSCI Europe ESG Climate Paris Aligned Benchmark Select Index	1
MSCI Japan ESG Climate Paris Aligned Benchmark Select Index	1
MSCI USA Climate Paris Aligned	1
MSCI World Climate Paris Aligned	2
MSCI World Climate Paris Aligned Benchmark Select (Net)	1
MSCI World ESG SRI PAB	1
S&P Climate PAB	1
Solactive L&G Developed Markets Paris Aligned ESG SDG	3



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Positive impact	Number of funds using this benchmark
Bloomberg Barclays Global MSCI Global Green Bond	1
MAC Global Solar Energy Index	2
Solactive Clean Energy NTR	1
Various	1
WilderHill Clean Energy Index	2
WilderHill New Energy Global Innovation Index	1

