

Written evidence from Entelligent (PSC0002)

Introduction

Climate change presents a growing threat for investors seeking to reduce their exposure to macroeconomic risk as the global economy transitions to low carbon solutions. As major institutional investors, it is crucial for pension funds to equitably manage these risks. Otherwise, they risk not only compromising emissions targets, but also having a knock-on effect on people's pension pots.

Entelligent equips global investors with the requisite data for making climate-conscious investment decisions. It was founded in 2011 by Nobel Prize-winner Dr David Schimel, and environmental entrepreneur Thomas Stoner, to advocate for the use of global capital markets as a critical solution to the climate crisis. In responding to this inquiry, Entelligent hopes to provide an insight into how pension funds can undertake such investments in an effective manner, drawing on its experience partnering with major global investors such as Société Générale, Prometheus Capital and the United Nations Joint Staff Pension Fund (UNJSPF).

About Entelligent

Entelligent employs a specialised team of data scientists to develop, test and validate their Smart Climate™ methodology. Using big data, artificial intelligence and systems dynamics modelling, they have created a technology that allows investors to account for systemic macro risks such as climate change. This technology has been designed to have both predictive and explanatory power. It is based on a transparent data platform to examine the effects of new laws and regulation, technological innovation, and physical risk factors such as rising sea levels and temperature changes. This process enables a robust calculation of energy costs and profitability, as well as their granular impact on portfolio companies.

Response to inquiry

Are there suitable financial products to enable pension funds to make climate-conscious investments?

With the increased quantity and quality of both, bottom-up data aggregation and top-down climate modelling, as well as their reflection in corporate balance sheets and profitability indicators, it is possible for institutional investors such as pension funds to make climate-conscious decisions with a material and measurable impact.

A bottom-up approach entails collecting and processing climate risk data at the local level. This focuses on where corporations are today, capturing indicators of recent past and present vulnerability. CalSTRS is currently deploying this approach as it expands [low-carbon](#)

[investment strategies](#) across asset classes and pushes its portfolio companies (which include some of the world's largest greenhouse gas emitters) towards setting net-zero targets.

Increased involvement of TCFD, Green Taxonomy and other regulatory authorities in standardising reporting targets and metrics, will certainly equip pension funds with better tools to measure and manage the environmental outcomes of their investment portfolios and strategies.

In addition to this, a top-down approach assesses climate risk and vulnerability based on projections of global climate models which develop multiple scenarios to identify how sensitive certain investments might be to socio-economic, policy and climate-related transformations or shocks. This approach adopts forward-looking analysis to evaluate organisations' current climate trajectory to determine where they might be headed, how resilient they are, and how well they can adapt to the challenges of mitigation and alignment with the desired 1.5-degree climate goals.

In order to align their investment strategies with net-zero goals, leading pension funds are already seeking climate risk evaluations by partnering with data providers that offer sophisticated applications of Big Data and Artificial Intelligence tools. One such example is a partnership between the UNJSPF and Entelligent, where the latter designed and deployed an active strategy using a climate and energy simulation model to assess companies' ability to adapt to various carbon emission pathways. This non-financial 'Entelligent score' was then embedded as an input factor within the pension fund's proprietary technology supporting long-term ESG investment decision-making.

We see pension funds around the globe increasingly integrating, adapting and innovating to move the needle towards climate-conscious investing. The evolution of both bottom-up and top-down climate approaches in tandem will be crucial in establishing meaningful information that enables investors to realise this ambition.

How should such investments be facilitated and supported?

Entelligent believes governments and regulatory bodies must engage more closely with industry on climate risk analysis tools and issues of 'green' taxonomy, in order to encourage investment decisions that respect social justice, equality and diversity across economic sectors and regions.

Majority of savers in the UK ([87%](#)) do not understand the importance of having their pension investments aligned with net-zero goals.

Trustee knowledge is a major component of TCFD rules, yet it was identified (in a [poll](#) by Willis Towers Watson) as the second most common challenge to schemes' ability to assess and manage climate risk – just behind lack of data.

Clearly, there is a role for regulators here in terms of encouraging better engagement among all parties including data providers.

Another key issue is that most applications of climate risk analysis currently centre around an inadequate binary classification – either brown or green. These are based on divestment principles wherein entire economic sectors or regions are excluded from investment considerations.

For pension schemes to achieve sustainable and diversified global economic growth, we need to develop a shade card that is beyond brown and green. There are numerous shades of green in between – depending upon sectoral, regional or infrastructural capabilities, as well as the momentum of carbon reductions.

Divestment approaches might appear straightforward but, leaving out broad economic sectors or regions from investment considerations will not help resolve the urgency of the climate crisis. We need to respect global inclusion, diversity, engagement and momentum across sectors and regions. That is why it is crucial for governments and regulatory bodies to standardise, diversify and normalise climate risk analysis approaches that are based on just and inclusive principles.

How should the UK seek to share and learn from international best practice?

There are several examples to learn from and replicate in the UK, given the availability and application success of science-based solutions to drive net-zero transitions around the world. One such example is the alliance between PRI and AOA.

Another leading example is development of climate-aligned bespoke indices. Widely available financial investment tools tracking these indices can set a virtuous trajectory towards climate-conscious investing.

To encourage more green investments, we also need to create market solutions and products that are appropriate for a variety of global investors. An example of this is SG Entelligent Agile 6% VT Index, a fixed indexed annuity offering from the US-based Investors Heritage Life Insurance Company. Entelligent partnered with Société Générale to launch this product. It uses Entelligent's Smart Climate model to score the potential impact of new environmentally focused regulation, technology and forecasted energy costs, on S&P 500 companies. The index provides exposure to 250 companies with the highest risk scores, thereby helping policymakers marry environmental sustainability with the myriad demands of retirement planning.

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