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Topic: The focused small-group discussion revolved around climate-related matters, encompassing significant topics including climate transition, net-zero scenarios, tools for scrutinising climate scenarios, the examination of climate issues from both macro and micro perspectives, challenges associated with managing climate risks, and the pivotal role of asset owners and managers in fulfilling net-zero commitments, among other pertinent subjects.

Participants:

Brian Kilpatrick – HSBC Bank Pension Trust (UK) Limited
Emma Hunt – HSBC Bank Pension Trust (UK) Limited
Helen Christie – Univest Company B.V
Jeroen Rijk – PGB Pensioendiensten B.V.
Praneel Lachman – FirstRand Bank Ltd.
Tony Broccardo – Barclays Bank UK Retirement Fund (OPAM)
Tim Hodgson – Thinking Ahead Institute (WTW)

Introduction

- In TAI's paper titled [Pay Now or Pay Later?](#) we distilled various climate scenarios into a binary choice: a 1.8°C transition ('pay now') or a 2.7°C status quo ('pay later'). The Investing for Tomorrow (IFT) Macro Working Group, TAI ran this year, extensively examined this framework, addressing issues such as the economic transition under the current rules of the game and the accuracy of incentives.

Two sources regarding climate scenarios were mentioned

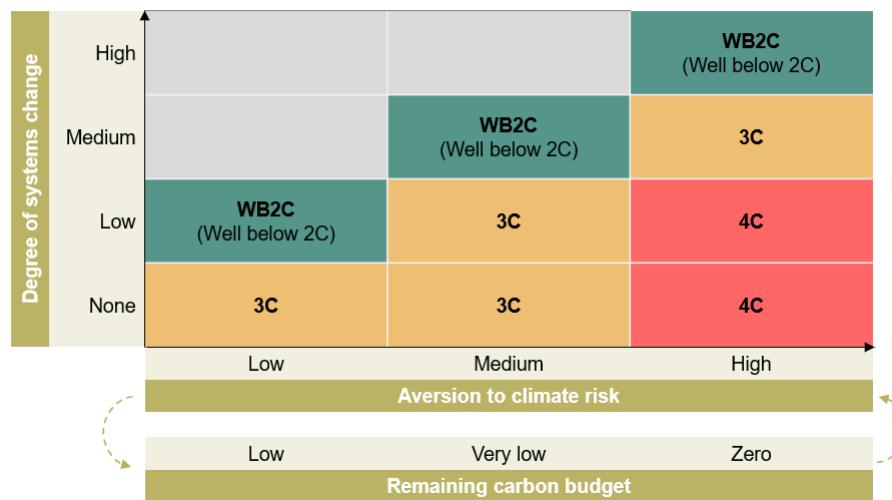
- [Climate Tipping Points Change Everything](#) | this thought piece highlights that should tipping points be breached, the climate issue will shift from a humanly-solvable scenario to an irreversible scenario.
- [The Emperor's New Climate Scenarios](#) | the report emphasises that there is a critical threshold of warming beyond which extreme conditions pose a significant threat to biological life. An S-shaped logistic damage model is proposed, wherein damage accumulates rapidly with rising temperatures, asymptotically approaching a 100% GDP loss. Financial modellers, however, assume that only 13% of GDP is at risk from climate change based on assumptions such as that most economic activities occur indoors, for example. Their damage function, represented by a quadratic shape, is more optimistic compared to the stark consequences predicted by the logistic curves proposed by climate scientists.

Climate model

- Current net-zero scenarios | the working group scrutinised the net zero scenarios from the IEA and NGFS, and called into question the reliability of these mainstream scenarios. We believe there are a number of problems with them, but the summary is that they are 'priced to perfection'.

- Updates from IPCC | current net-zero scenarios predominantly align in the bottom-left quadrant of the figure below, implying an organised transition. However, recent updates from the IPCC revealing a reduced carbon budget push these scenarios further to the right. Consequently, it is imperative to take proactive measures to counter the escalating likelihood of high-risk scenarios.

Long-term scenarios reconstruction



- Defects in current models | the models generally don't capture factors like tipping points or climate change-induced migration, which are significant risks.
- Our climate matrix | TAI proposed a two-dimensional matrix for understanding climate scenarios. The y-axis represents the degree of change. The x-axis denotes the degree of risk.
- Scenarios analysis | the suggestion is to treat a baseline scenario as a reference but hold it lightly, conducting an annual check and adjusting based on evolving factors.
 - Short-term investment returns in the next seven years are likely influenced by current conditions, whereas long-term returns and risks are more connected to the path taken over this period. As investors, it's crucial to have a view not only of our current position but also of how we perceive the unfolding future.

Climate situation

- Carbon budget | the current carbon budget only gives a 50% chance of achieving the net-zero objectives. Therefore, in terms of prudence and risk management, we should assume a smaller carbon budget.
- Energy problem | although we can expect more clean energy supply, it doesn't mean people will stop using dirty energy. Therefore, it is important to transition away deliberately and actively from the fossil fuel system.
- Uncertainty in climate science | referring to ECS (equilibrium climate sensitivity) and ESS (Earth System Sensitivity), the relationship between atmospheric concentration and temperature is less certain than commonly thought.

Discussion

- Requirements on regulation | the deconstruction of the net zero scenarios of IEA & NGFS indicates that the assumptions and the expectations might not align with reality. Governments have a responsibility to ensure that regulations are updated at an appropriate pace.
- Comparison of DM and EM | the developed countries need to accelerate their decarbonisation efforts beyond their current commitments to provide room for less developed countries. By 2030, developed markets must have a carbon price of \$140 and emerging markets must have a carbon price of \$95 (according to IEA NZE scenario).
- Disorderly transition | market volatility is currently on a significant upswing and is expected to further intensify in the future, which will bring more challenges to the financial service sector.

- Responsibility of the investment industry | the investment industry owns 25% of emissions, so carries responsibility for that proportion of the climate problem. However, investors seem hesitant to invest in building a decarbonised economy.
- Transitioning investment models | certain progress has been made in investment organisations; however, a crucial transition remains imperative—from passive or public market investments to a more dynamic and engaged approach in private markets. The need for reskilling and personnel changes to adapt to the evolving financial landscape is acknowledged, but implementing these changes will take time due to ingrained habits and structures in the industry.
- Localised financial repression | considering potential financial repression on a local scale, limitations on offshore investments may occur.
- Migration | there is a possibility of massive migration due to climate change, especially as temperatures rise. Asset owners in certain regions might need to lobby for their beneficiaries to be accepted by receiving countries. There is a possibility of a worldwide redistribution of population centres, which could result in wealthier individuals having more mobility compared to the economically disadvantaged.
- Social inequality | the repercussions of climate-induced migration have the potential to exacerbate social inequalities. As regional differences in service delivery persist, individuals may be compelled to relocate to areas offering better access to these services, thereby amplifying existing imbalances. This mirrors the broader impact of climate change, raising concerns about migration patterns from emerging markets, and contributing to a widening gap between EM and DM.

About the Thinking Ahead Institute

The [Thinking Ahead Institute](#) is a global not-for-profit member organisation whose aim is to mobilise capital for a sustainable future. The Institute's members comprise asset owners, investment managers and other groups that are motivated to influence the industry for the good of savers worldwide. It has around 60 members with combined responsibility for over US\$16 trillion and is an outgrowth of WTW's Investments' Thinking Ahead Group.