WWF

REPORT

EU

2017

EUROPEAN ASSET OWNERS: 2°C ALIGNMENT AND MISALIGNMENT OF PUBLIC EQUITY PORTFOLIOS

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CONTENTS

WWF has undertaken unprecedented research on whether asset owners' public equity investments in - amongst others - renewable energy are aligned with the Paris climate goals.

KEY HIGHLIGHTS

The transition to a low carbon economy is underway. Renewable energy costs are falling, and coal is in structural decline. The Paris Agreement, approved internationally by 195 parties, has built a strong global consensus around climate goals and the need to make finance flows consistent with these goals. Nonetheless under current policies, CO2 emissions will lead to global warming of up to 4.9°C. This will cause catastrophic consequences for natural systems and human societies, but also poses a significant material risk for investors.

Investors have started to play their part but will need to do much more if the Paris Agreement's climate target is to be achieved. How are they actually doing in contributing to the transition to a safe future for the climate? Are their investments aligned with the climate goals? How can we measure what needs to be done? Investors need to be supported – and also challenged – as they start to reallocate capital to align with a sustainable future and maximize their investment returns.

WWF HAS ENGAGED WITH 80 OF THE 100 LARGEST EUROPEAN ASSET OWNERS IN 12 COUNTRIES: 30 HAVE DISCLOSED DATA

To contribute to investors' efforts on capital reallocation, WWF has undertaken this unprecedented piece of research, which is intended to inform and further stimulate the growing conversation about how asset owners' investment portfolios are aligned with the Paris climate goals. At the time of publication, WWF has engaged with 80 of the 100 largest European asset owners in 12 countries – defined in this study as pension funds, insurance companies and sovereign wealth funds. These 80 asset owners represent around $13 trillion in total assets – more than half of all European institutional investors' assets.[1] So far 30 of these asset owners have provided data to be included in the study. As such, this research is part of the increasing demand that climate-related financial disclosures be made by all financial sector actors.

This report demonstrates how a *forward-looking* analysis can inform asset owners' investment decision-making in public equity holdings. It is focused on the sectors of coal mining and electric utilities (coal power and renewable power); in the future the same analysis could be done for other carbon-intensive sectors (oil & gas, automotive and more) and the corporate fixed income asset class. Going beyond carbon footprinting metrics by assessing *technology exposure* at portfolio level, this research helps market participants consider the future pathways their investments need to take.

The analysis is based on the 2°C benchmark and alignment analysis enabled by the Horizon 2020-funded Sustainable Energy Investing Metrics (SEIM) tool, and performed by the 2° Investing Initiative. This tool assesses how well the holdings in an investor's public equity portfolio are aligned with the 2°C scenario and technology roadmaps of the International Energy Agency (IEA) for the year 2020. In accordance with the recommendations from the Financial Stability Board (FSB)'s Task Force on Climate-related Financial Disclosures (TCFD), the tool generates a science-based, forward-looking scenario analysis of investment portfolios for a set of key technologies. It is using physical asset level data: actual capacity and production plans of each company (e.g. tonnes of coal mined per annum or coal/renewable power capacity).

1 Estimate using data from European Commission; Willis Towers Watson (2016), World 500 largest asset managers in 2015; Willis Towers Watson (2016), 300 largest pension funds in 2015.

The research draws these first conclusions on the asset owners' equity portfolios:

Firstly, the lack of disclosure of holdings data from a majority of asset owners, in part due to a current lack of regulation, poses difficulties in assessing the alignment of equity portfolios with the 2°C objective. Given the TCFD recommendations, it is important to stress that the regulatory environment on climate-related financial disclosure might change in the near future.

Secondly, based on the data accessed for 30 asset owners,[2] results show major differences in terms of alignment according to technologies:

- On coal mining, almost all the asset owners surveyed are favourably positioned when compared with the IEA 2°C scenario for 2020: this means that they already underweight this technology in their portfolio in comparison to the IEA benchmark and related stock market average.
- On coal power, nearly half the asset owners fail to align with the IEA 2°C scenario.
- On renewable power, more than half the asset owners are favourably positioned relative to the IEA 2°C scenario, some by a significant amount, with the rest misaligned.
- Almost all the asset owners are aligned with the IEA 2°C benchmark for 2020, for at least one of the three technologies.[3]

While more results are expected over the coming months, the findings suggest that although some asset owners are showing leadership, there is still significant misalignment with the IEA 2°C scenario for 2020 for coal mining, coal power and renewable power. This requires urgent attention from asset owners to set investments on track for 2020.

WWF recommends that:

- Asset owners take action to assess and disclose the degree of alignment of their investment portfolios with the IEA 2°C scenario for key technologies.
- Asset owners contribute to the development of, and demand for, climate alignment assessment methodologies.
- Asset owners work towards full holdings' disclosure across asset classes: several best practice examples exist in five countries[4].
- Financial policy makers and regulators swiftly transpose the recommendations of the FSB Task Force on Climate-related Financial Disclosures into European and/or national legislation and regulation.
- Climate alignment assessment disclosures by asset owners be viewed as best practice, and in due course become the market norm towards the Paris climate goals. As mentioned above, much fuller disclosure of holdings data by asset owners, either publicly or – as a first step – to the national regulator, is paramount to achieve this.

In a forthcoming publication expected in autumn 2017, WWF will issue detailed recommendations on how asset owners can meaningfully develop their investment strategies with a view to aligning their portfolios with the well below 2°C target from the Paris Agreement.

WWF will continue to expand the dialogue – both bilaterally and collectively – with asset owners, financial policy makers and regulators, and other market participants to stimulate the development and disclosure of climate alignment assessments in the market.

2 Section 2 gives further details. It should be noted that DNB noticed an error in the data they provided and their results have therefore been removed temporarily.

3 It should be noted that the alignment with the IEA 2°C benchmark for 2020 for, for example, coal mining does not mean that the given investment portfolio is coal-free. For more details see Section 2.

4 23 asset owners in five countries make their public equity holdings public on their website: see Section 7-1.

RESEARCH FINDINGS

THE PARIS AGREEMENT CONTAINS A PROVISION TO 'MAKE FINANCE FLOWS CONSISTENT WITH A PATHWAY TOWARDS LOW GREENHOUSE GAS EMISSIONS AND CLIMATE RESILIENT DEVELOPMENT'

In the **Paris Agreement on climate change**, 195 governments agreed to *'hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C'*. The Agreement moreover contains a provision to *'make finance flows consistent with a pathway towards low greenhouse gas emissions and climate resilient development'*.[5]

Asset owners, financial regulators and other finance sector actors therefore have an imperative to address climate-related financial risks. Under current policies, CO2 emissions will lead to global warming of up to 4.9°C compared to the pre-industrial period.[6] This will cause catastrophic consequences for natural systems and human societies, but also poses a significant material risk for investors. The Economist Intelligence Unit estimates that losses to manageable assets to 2100 could amount to $7.2 trillion in a 5°C warming scenario – more than the total market capitalisation of the London Stock Exchange. Keeping global warming from climate change under 2°C can cut average projected losses in half, while extreme losses can be reduced by more than three-quarters.[7]

Asset owners have to safeguard the pensions and assets of future generations. Mercer, Cambridge University, the Economist Intelligence Unit and the London School of Economics find in modelling studies that 2°C pathways offer both the lowest risk and the maximum potential for maximising financial returns, in comparison to 3°C and 4°C pathways.[8] Such analyses indicate that aligning investment portfolios with a 2°C compliant low-carbon transition is both technically feasible and advisable, because it will produce higher returns on a risk adjusted basis. It would further deliver the benefit of supporting the transition to a 2°C world and aligning with the Paris Agreement.

A growing number of asset owners recognise the benefits of an orderly low-carbon transition as a means to reduce climate-related financial risks and maximise low carbon investment opportunities. High-level policy initiatives (e.g. the FSB Task Force on Climate-related Financial Disclosures and the European Commission's High Level Expert Group on Sustainable Finance) have been set up to increase understanding and policy action in this area.

This research focuses on the public equity asset class as a starting point with the intention to inform and further stimulate the growing conversation about how the investment portfolios of the largest European asset owners are aligned with the internationally agreed climate goals of the Paris Agreement. In this research WWF focused on three key technologies: **coal mining, coal power, and renewable power**. Such technologies are a good way to start the journey on 2°C alignment of investment portfolios, as they likely present the most visible climate-related financial risks and opportunities to asset owners.[9]

5 UNFCCC, Paris Agreement.
6 Climate Action Tracker (Climate Analytics, Ecofys, NewClimate Institute, Potsdam Institute for Climate Impact Research).
7 Economist Intelligence Unit (2015), The cost of inaction.
8 Mercer (2015), Investing in a time of climate change; University of Cambridge - Cambridge Institute for Sustainable Leadership (2015), Unhedgeable risk; Economist Intelligence Unit (2015), The cost of inaction; London School of Economics (2016), Climate value at risk of global financial assets.
9 While immediate action to decarbonise industrial and economic sectors across economies is required, acting on coal and renewable energy technologies constitutes a first step in realising the energy transition: coal burning remains the single most important source of CO2 emissions globally, and the implementation and deployment of sustainable renewable energy is crucial to accomplish carbon-neutral economies by 2050.

Limited disclosure narrows the scope of this research

This report presents a sample of the results of WWF's engagement with 80 of the 100 largest European asset owners.[10]

A majority of asset owners do not publicly disclose their holding lists, in part due to a current lack of regulation requiring to do so. This poses difficulties in assessing the alignment of equity portfolios with the 2°C limit. The table below shows that results for a sample of 30 asset owners were included in this research: these were chosen based on whether the investor publicly discloses equity holdings on their website, or whether the asset owner agreed to the publishing of results following engagement with WWF.

WWF focused on internally managed assets, for reasons of data accessibility and comparability. However, given the difficulty to access full holdings data it is difficult for WWF to assess what parts of the holdings have been circulated exactly so there may be involuntary differences in scope (e.g. autonomously managed holding lists versus companies owned through funds).

WWF will continue to engage with asset owners, and encourage them to voluntarily disclose the climate alignment of their portfolios. More results are therefore expected over the coming months following these bilateral discussions, and this will potentially lead to an updated publication next year.[11]

TABLE 1. CATEGORISATION OF THE 80 ASSET OWNERS CONTACTED BY WWF ACCORDING TO DISCLOSURE AND DEGREE OF COOPERATION WITH WWF BY 31ST OF MAY 2017.

See Annex 1 for the full list of asset owners.

CLIMATE ALIGNMENT ASSESSMENT FINDINGS INCLUDED IN THE RESEARCH REPORT			CLIMATE ALIGNMENT ASSESSMENT NOT INCLUDED IN THE RESEARCH REPORT	
Disclosure of public equity holdings on a voluntary basis	Disclosure of public equity holdings due to domestic regulation	Undertook 2°C alignment assessment with WWF and agreed to publish findings	Accepted to do 2°C alignment assessment with WWF	Contacted and/ or considering WWF request
15	9	6	7	43

10 WWF did not engage with 6 Swiss asset owners that are part of this 100 largest European group in order not to interfere with an ongoing climate alignment assessment initiative from the Swiss Federal Office for the Environment (FOEN) and the State Secretariat for International Financial Matters (SIF). It also did not engage with 14 UK pension funds, given the large number of asset owners in the UK (27) in the 100 largest European group and WWF's need to prioritise its efforts.

11 WWF does respect asset owners' decisions to have results published or not.

The Sustainable Energy Investment Metrics methodology (SEIM)

The SEIM tool used in this research links a climate scenario with the holdings in an investor's portfolio. More precisely it compares the technology exposure of an investment portfolio to the market production under an IEA 2°C scenario (for 2020) compatible transition, scaled to the portfolio size (called the benchmark exposure).[12] The analysis then generates indicators of under-exposure and over-exposure in terms of percentage points compared to the IEA 2°C scenario. For coal, under-exposure signifies alignment, over-exposure signifies misalignment – and vice versa for renewables.

MOVING TO A SCIENCE-BASED 2°C BENCHMARK

A benchmark is normally seen as a financial metric, i.e. an indication of financial return based on a market index, that is used as a reference indicator. But what if an investor's goals are not purely financial, and require appropriate non-financial metrics to measure progress towards those goals? In this research WWF is recommending that asset owners align their portfolio exposures to three technologies where the benchmark is a physical metric, not a financial one. The measurement of alignment with the benchmark remains a relative one. However the benchmark itself is in absolute terms, as it is based on the IEA 2°C scenario which is rooted in climate science.

Further details of the SEIM tool are as follows:

- SEIM is a scenario analysis model, not only a 2°C model. It is designed to allow investors and financial regulators to apply whatever scenario they prefer. In this research we have applied the model to the IEA 2°C scenario, due to limited availability of other scenarios with sufficient regional and technological granularity. The IEA 2°C scenario lays out an energy system deployment pathway and an emissions trajectory consistent with a 50% chance of limiting the average global temperature increase to 2°C, which is significantly less stringent than the objective to keep global warming below 1.5°C[13]. Concretely if a given portfolio is aligned with the IEA 2°C benchmark for 2020 for e.g. coal mining, this does not mean that it is coal-free: it means that the portfolio reaches the same coal mining exposure as the IEA 2°C benchmark for 2020 (which is not zero). In the IEA 2°C scenario coal mining exposure gradually decreases over time but does not yet reach zero in 2040, while a 1.5°C scenario would be much more stringent on coal. The findings should therefore be considered as representing a **minimum level of ambition in terms of 2°C alignment**, but they do indicate the desired direction of travel: **more ambitious scenarios (e.g. 1.5°C) will be tighter and will require a more rapid transition**. However, these changes will not be based on completely different technologies.
- SEIM is focused on the public equity asset class. The efforts of asset owners that have invested in **alternative asset classes (e.g. renewable energy infrastructure) are not reflected in the results** despite the high relevance of such investment strategies,[14] nor are the report findings necessarily most relevant for asset owners whose strategic asset allocation is dominated by fixed income. In the course of 2017 SEIM will provide 2°C alignment assessment of the corporate fixed income asset class.

12 The SEIM tool provides 2°C alignment assessment for more technologies than coal mining, coal power and renewable power: see Section 7-2.
13 The shortcomings of the IEA 2°C scenario are detailed in Section 7-4.
14 WWF forthcoming recommendations to asset owners on climate change will provide more analysis on alternative asset classes.

- Current results are focused on **companies listed in the MSCI World universe (which corresponds approximately with OECD countries)** and their production within OECD countries.[15] In the course of 2017 SEIM will allow the assessment of a global universe of companies.
- Building on IEA-led milestones, the SEIM assessment generates a point in time portfolio alignment for the year 2020 based on currently available company plans. There is no guarantee for continued alignment beyond this point in time, unless further measures are taken by the investor to maintain the decarbonisation at a speed and scale that is consistent with science-based scenarios.
- The relevance of comparing different asset owners can be limited by the different geographic portfolio exposures (including, for example, any bias towards domestic investments).

SEIM provides a quantitative assessment of holdings data at portfolio level. Further qualitative research would be necessary to evaluate and assess the climate policies of asset owners.

Research findings for coal mining, coal power and renewable power

Results show major differences in terms of alignment according to technologies. For coal mining, almost all asset owners are aligned with the IEA 2°C benchmark for 2020, while the picture is more mixed for coal power and renewable power.

In the following exhibits, the X-axis represents the IEA 2°C benchmark for 2020: 0% is exact alignment. Misalignment with the 2°C benchmark is presented as a negative value (i.e. below the X-axis, in red), and alignment as a positive value (i.e. above the X-axis, in green). A positive percentage means that the given portfolio underweights the coal technology in their portfolio in comparison to the IEA benchmark – and vice versa for renewables.

15 The MSCI World Index is a broad global equity benchmark that represents large and mid-cap equity performance across 23 developed markets countries, with 1,648 constituents as of 28 April 2017. With approximately 85% of the free float-adjusted market capitalization in each country, it covers most of the holdings of a typical public equity portfolio for a European asset owner.

COAL MINING

ALMOST ALL ASSET OWNERS ARE ALIGNED WITH THE IEA 2°C BENCHMARK

Almost all asset owners are aligned with the IEA 2°C benchmark exposure for 2020. Indeed, some leaders even have no coal mining companies at all in their public equity portfolio. While this is in line with the growing number of public coal divestment commitments due to climate considerations, it can also be partly explained by the general decline of the coal mining sector over the last few years, and the collapse of the coal miners' market value, in particular in the US. Experts increasingly consider that the coal mining sector is now in structural decline.[16]
It will be important to continue monitoring asset owners' investment strategy in this sector to ensure that the alignment with the IEA 2°C benchmark is part of a deliberate long-term strategy to gradually reduce exposure to coal mining and not just the result of short-term financial considerations.

FIGURE 1. **COAL MINING: 2°C ALIGNMENT OF EQUITY PORTFOLIO**

Asset owner alignment with the IEA 2°C benchmark (X-axis) for 2020 for coal mining in public equity portfolios. Alignment improves from left to right: asset owners misaligned with the 2°C benchmark are presented as a negative value (i.e. red), and aligned asset owners as a positive value (i.e. green).
Five asset owners (right of the graph) have no coal mining.

16 See e.g. Moody's (2016), Coal industry struggles with structural decline; Goldman Sachs (2015), Thermal coal reaches retirement age; International Energy Agency (2015), Medium-term coal market report; WWF (2015), Global coal: the acceleration of market decline; Bernstein Research (2013), Asian coal and power: less, less, less... The beginning of the end of coal.

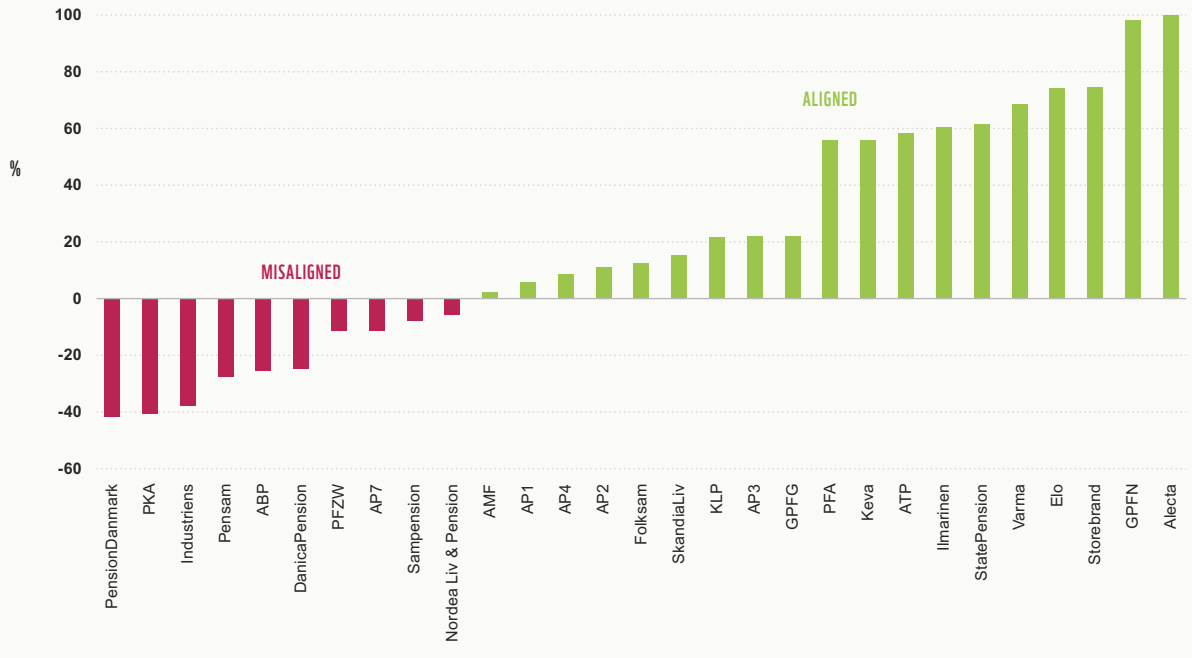
COAL POWER

ALMOST HALF OF THE ASSET OWNERS ARE MISALIGNED WITH THE IEA 2°C BENCHMARK

Almost half of the asset owners are misaligned with the IEA 2°C benchmark for coal power for 2020. This suggests that **asset owners willing to reduce their coal exposure across their full investment portfolio should widen their scope from coal mining to include coal power in the utilities sector.**[17] On the other hand, several asset owners are already well aligned with the IEA 2°C benchmark.

FIGURE 2. COAL POWER: 2°C ALIGNMENT OF EQUITY PORTFOLIO

Asset owner alignment with the IEA 2°C benchmark (X-axis) for 2020 for coal power in public equity portfolios. Alignment improves from left to right: asset owners misaligned with the 2°C benchmark are presented as a negative value (i.e. red), and aligned asset owners as a positive value (i.e. green).



17 Beyond coal mining and coal power other sectors include companies playing a key role in the full coal value chain. For more information see WWF recommendations on coal (forthcoming).

RENEWABLE POWER

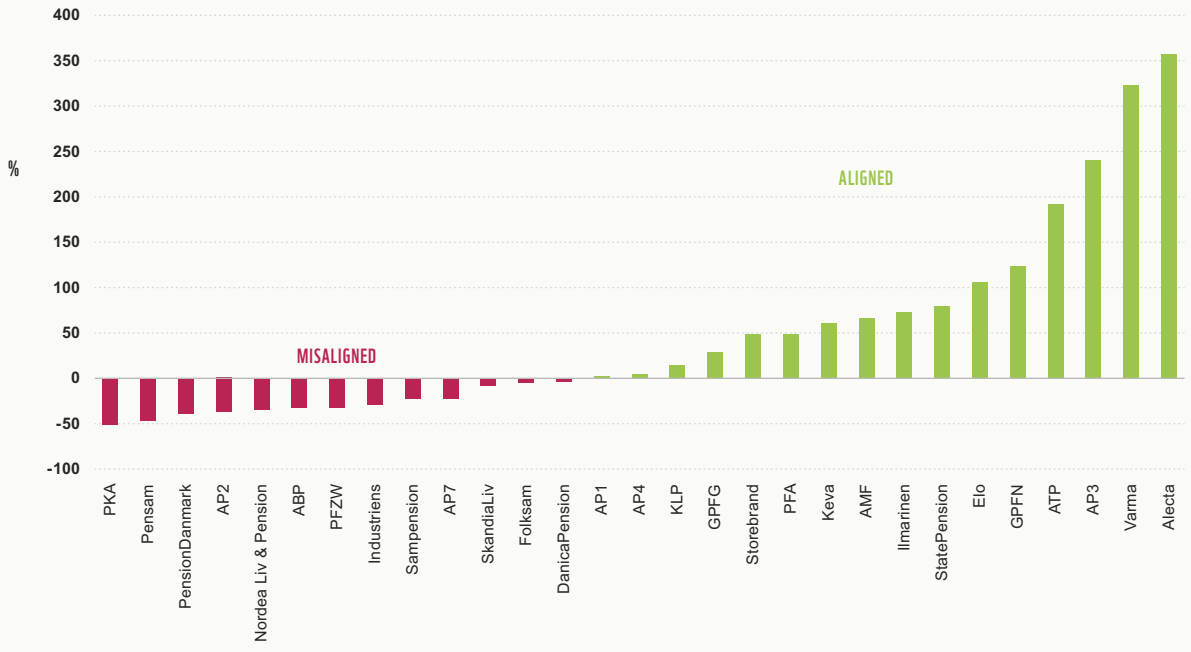
MORE THAN HALF OF THE ASSET OWNERS ARE WELL ALIGNED WITH THE IEA 2°C BENCHMARK

More than half the asset owners are well aligned the IEA 2°C benchmark for 2020 for renewable power, which may well be the result of active strategies to support renewable energy technologies.

Given the focus of the research on public equity, the analysis does not reflect the efforts of several asset owners that have invested in renewable energy via alternative asset classes such as infrastructure, despite the high relevance of such investment strategies to the issue being researched.[18] For instance, a large share of the unlisted infrastructure market (42% in 2015) is constituted by renewable energy projects,[19] and exposure to this asset class is not captured in this report. However, the results of the research highlight that increasing exposure to renewable energy requires action across several asset classes – including public equity; and other asset classes should be assessed separately.

FIGURE 3. **RENEWABLE POWER: 2°C ALIGNMENT OF EQUITY PORTFOLIO**

Asset owner alignment with the IEA 2°C benchmark (X-axis) for 2020 for renewable power in public equity portfolios. Alignment improves from left to right: asset owners misaligned with the 2°C benchmark are presented as a negative value (i.e. red), and aligned asset owners as a positive value (i.e. green).



18 A concrete example is the asset owners that are pooling resources through the Copenhagen Infrastructure Partners initiative. WWF forthcoming recommendations to asset owners on climate change will provide more analysis on alternative asset classes.

19 IEEFA (2017), Making the case for the Norwegian Sovereign Wealth Fund investment in renewable energy infrastructure.

Research findings by asset owner

The following table provides an overview of the IEA 2°C alignment assessment results by asset owner:

- It makes a distinction between asset owners that align with the IEA 2°C benchmark above the median (dark green) and below or equal to the median (green).
- Misalignment with the IEA 2°C benchmark is indicated in red.

It is encouraging to note that almost all the 30 asset owners are aligned with the 2°C benchmark for 2020 for at least one technology. This suggests that it is feasible for asset owners to align their public equity portfolios with the 2°C target for coal mining, coal power and renewable power through appropriate investment strategies and their implementation.

ALMOST ALL THE 30 ASSET OWNERS ARE ALIGNED WITH THE 2 DEGREE BENCHMARK FOR 2020 FOR AT LEAST ONE TECHNOLOGY

At the time of publication, WWF could not yet share results of SEIM climate alignment assessments for 50 asset owners. **WWF considers asset owners whose SEIM climate alignment assessment results are included in the table as best practice examples in terms of disclosure.**

More than half of the 30 asset owners surveyed in this study are favourably positioned in terms of public equity for renewable energy when compared with the IEA 2°C scenario for 2020.

INVEST WELL BELOW 2°C

TABLE 2. ASSESSMENT BY ASSET OWNER OF IEA 2°C ALIGNMENT FOR 2020 FOR COAL MINING, COAL POWER AND RENEWABLE POWER (PUBLIC EQUITY PORTFOLIOS).

INVESTOR NAME	COUNTRY	COAL MINING	COAL POWER	RENEWABLE POWER
ABP	Netherlands			
Alecta	Sweden			
AMF	Sweden			
AP1	Sweden			
AP2	Sweden			
AP3	Sweden			
AP4	Sweden			
AP7	Sweden			
ATP	Denmark			
DanicaPension	Denmark			
Elo	Finland			
Folksam	Sweden			
GPFG	Norway			
GPFN	Norway			
Ilmarinen	Finland			
Industriens	Denmark			
Keva	Finland			
KLP	Norway			
Nordea Liv & Pension	Sweden			
Pensam	Denmark			
PensionDanmark	Denmark			
PFA	Denmark			
PFZW	Netherlands			
PKA	Denmark			
Sampension	Denmark			
SkandiaLiv	Sweden			
StatePension	Finland			
Storebrand	Norway			
Varma	Finland			

LEGEND ALIGNMENT WITH THE IEA 2°C BENCHMARK ABOVE THE MEDIAN ALIGNMENT BELOW OR EQUAL TO THE MEDIAN MISALINGMENT

See Annex 1 for more details on asset owners.

RECOMMENDATIONS

FOR ASSET OWNERS

WWF RECOMMENDS ASSET OWNERS TO:

- **Assess and disclose the degree of alignment of their investment portfolios with the IEA 2°C scenario for key technologies.** Given the limitations of this scenario, alignment with it should be considered as a minimum level of ambition compared to the well below 2°C/1.5°C target of the Paris Agreement.
- **Contribute to the development of, and demand for, climate alignment assessment methodologies** to assess the alignment of investment portfolios against well below 2°C/1.5°C scenarios.[20]
- **Work towards full holdings disclosure across asset classes:** best practice examples show the way forward.[21]

In a forthcoming publication expected in autumn 2017, WWF will also issue detailed recommendations on how asset owners can meaningfully develop their investment strategies with a view to aligning their portfolios with the well below 2°C target from the Paris Agreement.

FOR FINANCIAL POLICY MAKERS AND REGULATORS

WWF RECOMMENDS FINANCIAL POLICY MAKERS AND REGULATORS TO:

- **Swiftly transpose the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) into European and/or national legislation and regulation**, with an emphasis on climate scenario and forward-looking analysis as indicated by the TCFD. The TCFD recommendations are an unprecedented opportunity to improve disclosure and develop climate-related informed decision-making in financial markets.
- **Building on best practice, gradually ensure greater public disclosure of holdings data** across a broad range of asset classes, to the benefit of asset owners, their members and regulators. Climate alignment assessments can be carried out internally, by the regulator or by third parties. Publication of those assessments and the underlying holdings data increases confidence through the transparency of public scrutiny; it also builds momentum across the investor community. There is scope for voluntary requirements to become mandatory overtime.

WWF will continue to expand this dialogue with asset owners, financial policy makers and regulators, and other market participants to stimulate the development and disclosure of climate alignment assessments in the market.

20 It should be noted that there may be relevant tools other than SEIM, and that other types of analysis are and will become available. The fact that WWF uses the SEI methodology in this report does not mean it is the only relevant one: WWF welcomes discussions on other methodologies and tools.

21 23 asset owners in five countries make their public equity holdings public on their website: see Section 7-1.

ANNEX 1: LIST OF 80 EUROPEAN ASSET OWNERS CONTACTED BY WWF

As made clear, WWF wishes to drive the conversation between asset owners, regulators and others towards the investment strategies and policies that will actually deliver a well below 2°C transition.

At the time of publication, WWF has engaged with 80 of the 100 largest asset owners in 12 European countries.[55] It has not engaged with:

- 6 Swiss asset owners that are part of the 100 largest European ones, in order not to interfere with the ongoing work of the Swiss Federal Office for the Environment (FOEN) and the State Secretariat for International Financial Matters (SIF). All Swiss pension funds and insurances are encouraged and provided the opportunity to assess the alignment of their portfolio with the 2°C objective. The aggregated results will be published in autumn 2017.
- 14 UK pension funds, given the large number of asset owners in the UK (27) in the 100 largest European group, and WWF's need to prioritise our efforts.

The names of asset owners for which SEIM assessments were published in this study are indicated in black. WWF encourages other asset owners to get in touch in case they are interested to undertake the SEIM assessment.

ANNEX TABLE 1. LIST OF 80 EUROPEAN ASSET OWNERS CONTACTED BY WWF

INVESTOR NAME	COUNTRY	TYPE
ABN AMRO	Netherlands	Pension Fund (of a bank)
ABP / APG	Netherlands	Pension Fund
Aegon Group	Netherlands	Insurance
Ageas	Belgium	Insurance
Alecta	Sweden	Pension Fund
Allianz Group	Germany	Insurance
AMF Pension	Sweden	Pension Fund
AP Fonden 1	Sweden	Pension Fund (sovereign)
AP Fonden 2	Sweden	Pension Fund (sovereign)
AP Fonden 3	Sweden	Pension Fund (sovereign)
AP Fonden 4	Sweden	Pension Fund (sovereign)
AP Fonden 7	Sweden	Pension Fund (sovereign)
ATP	Denmark	Pension Fund
Aviva	UK	Insurance
AXA Group	France	Insurance
BASF	Germany	Pension Fund (corporate)
Bayerische Versorgungskammer	Germany	Pension Fund (sovereign)
BT Group	UK	Pension Fund (corporate)
BVV	Germany	Pension Fund (corporate)
Caisse des dépôts	France	Sovereign Wealth Fund
CNP Assurances	France	Insurance
Covea Group	France	Insurance
DanicaPension	Denmark	Pension Fund (of a bank)
Delta Lloyd	Netherlands	Insurance

55 Sources: Willis Towers Watson (2016), World 500 largest asset managers in 2015; Willis Towers Watson (2016), 300 largest pension funds in 2015.

INVESTOR NAME	COUNTRY	TYPE
DNB	Norway	Pension Fund (of a bank)
Elo Mutual Pension Insurance	Finland	Pension Fund
ERAFP	France	Pension Fund (sovereign)
Folksam	Sweden	Insurance
Fondo de Reserva Seguridad Social	Spain	Pension Fund (sovereign)
FRR	France	Pension Fund (sovereign)
Generali Group	Italy	Insurance
Government Pension Fund Global (GPFG)	Norway	Sovereign Wealth Fund
Government Pension Fund Norway (GPFN)	Norway	Sovereign Wealth Fund
Greater Manchester (GMPF)	UK	Pension Fund (sovereign)
Groupama France	France	Insurance
HSBC Bank	UK	Pension Fund (of a bank)
Ilmarinen	Finland	Pension Fund
Industriens Pension	Denmark	Pension Fund
ING Pensioenfonds	Netherlands	Pension Fund (of a bank)
Keva	Finland	Pension Fund
Kommunal Landspensjonskasse (KLP)	Norway	Insurance
Legal & General Group	UK	Insurance
Mapfre	Spain	Insurance
Munich RE	Germany	Insurance
Natixis Insurance	France	Insurance (of a bank)
NN Group	Netherlands	Insurance
Nordea Liv & Pension	Sweden	Pension Fund (of a bank)
Nürnberger	Germany	Insurance
Old Mutual	UK	Insurance
Pearl Group	UK	Insurance
Pensam	Denmark	Pension Fund
Pensioenfonds Metaal en Techniek (PMT)	Netherlands	Pension Fund
Pensioenfonds PGB	Netherlands	Pension Fund
Pensioenfonds Vervoer	Netherlands	Pension Fund
Pensioenfonds voor de Bouw (bpfBOUW)	Netherlands	Pension Fund
Pension Protection Fund	UK	Pension Fund
PensionDanmark	Denmark	Pension Fund
PFA Pension	Denmark	Pension Fund
PFZW / PGGM	Netherlands	Pension Fund
Philips	Netherlands	Pension Fund (corporate)
PKA	Denmark	Pension Fund
PME	Netherlands	Pension Fund
Rabobank	Netherlands	Pension Fund (of a bank)
Railway Pensions	UK	Pension Fund (corporate)
Royal Dutch Shell	Netherlands	Pension Fund (corporate)
Royal London Group	UK	Insurance
Sampension	Denmark	Pension Fund
SkandiaLiv	Sweden	Insurance
Standard Life	UK	Insurance
State Pension	Finland	Pension Fund (sovereign)
Storebrand	Norway	Insurance
Swiss Re	Switzerland	Insurance
Syntrus Achmea	Netherlands	Insurance
Talanx Group	Germany	Insurance
Unilever	UK	Pension Fund (corporate)
Universities Superannuation	UK	Pension Fund
Varma	Finland	Pension Fund
VBL (Versorgungsanstalt des Bundes und der Länder)	Germany	Pension Fund (sovereign)
Versicherungskammer Bayern	Germany	Insurance
Zurich Insurance Group	Switzerland	Insurance

Over a ten year period renewable energy could see average annual returns increase modestly, or nearly double, depending on the climate scenario (Mercer).

EUROPEAN ASSET OWNERS: 2°C ALIGNMENT AND MISALIGNMENT OF PUBLIC EQUITY PORTFOLIOS

100% RECYCLED

DISCLOSURE

Lack of disclosure poses difficulties in assessing 2°C alignment of portfolios.

30 ASSET OWNERS

30 European asset owners out of 80 have been assessed.

ALIGNMENT

Almost all asset owners surveyed are aligned with IEA 2°C benchmark for coal mining.

MISALIGNMENT

Almost half of equity portfolios are misaligned with IEA 2°C benchmark for coal power and renewable power.

Why we are here
To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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