InfluenceMap

# Asset Managers and Climate Change

## How the sector performs on portfolios, engagement and resolutions

*November 2019*

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# Executive Summary

- Investors globally are misaligned with the goals of the Paris Agreement in significant portions of their portfolio holdings covering the automotive, electric utilities, and fossil fuel production sectors. These sectors are worth a collective US $8Tn in market value, close to 10% of all global listed equity value. This misalignment is a key finding of FinanceMap, a newly launched platform that examines the asset management sector through a climate lens, looking at portfolios, investor-engagement processes and shareholder resolutions.

- FinanceMap's *Paris Portfolio Alignment* methodology considers the underlying assets controlled by the companies in investment portfolios and compares the future evolution of these assets with IEA climate scenarios.[1] While the Paris-misalignment of oil & gas and coal production should come as no surprise, widely held automotive and electric utilities sectors remain seriously out of line on climate. This is due to the underlying companies being too slow to phase out brown technologies and not fast enough in introducing equivalent green technologies, such as electrified transport and renewables.

- The world's 15 largest asset management groups (with collectively $37Tn in assets in all classes) were found to be - through their equity portfolios - between minus 16% and minus 21% deviated from a Paris Aligned target (against a market average of minus 18%). This implies they are overweight in companies deploying brown technologies, and underweight those deploying green technologies in four key sectors: automotive, oil & gas, electric power and coal production, representing roughly 10% of global equity markets.

- The predominance of index-linked trading strategies employed by the asset managers means outright divestment or even significant underweighting of these at-risk sectors and companies remains challenging given present-day market dynamics. Increasingly, forceful engagement with the companies in these sectors to hasten their transition to low carbon technologies must occur if the finance sector wishes to align its portfolios with Paris climate goals.

- Engagement by investors with companies on climate has evolved from narratives of operational emissions starting a decade ago to one of aligning corporate lobbying and business models with the goals of the Paris Agreement. This shift is evidenced by an increasing number of investor escalations, such as shareholder resolutions on climate lobbying, and the Climate Action 100+ engagement process.

- The investor-company engagement process is often opaque and ill-defined. Given the reliance that numerous stakeholders are now placing on this lever to accelerate the low carbon transition,

[1] The system uses the PACTA tool developed by 2 Degrees Investing Initiative and in widespread use by the financial sector

FinanceMap has, in consultation with key market players, devised a methodology to measure the engagement process. FinanceMap has also collated metrics on the sector's behavior on climate-relevant shareholder resolutions.

- The 15 leading asset management groups show little variation in the Paris alignment of their overall holdings as they are all largely invested in the entire market. There is, however, based on available disclosures, a significant variation in performance on company engagement and resolutions on climate change.

- Leading in robust engagement with companies are European giants Legal & General Investment Management, Allianz and UBS Asset Management. Both are fully transparent in their processes and show specific evidence of engagement with companies on a Paris aligned transition and lobbying practices. Other high scoring companies are the asset management arms of AXA and Credit Agricole. All are signatories to the Climate Action 100+ engagement process.

- The leadership on climate engagement with this European group contrasts with the asset management arms of giants BlackRock, Vanguard, State Street, Fidelity, and JPMorgan Chase. All remain out of the Climate Action 100+ process despite holding collectively more than 10% stakes in the targeted companies. Their transparency on the climate engagement process is poor with minimal references to transitioning companies in line with Paris goals nor governance of lobbying practices.

- Similar leadership is exhibited from the key European players on climate-motivated shareholder resolutions. While the European asset managers noted above show a good record of voting for such motions, US giants voted against such resolutions (and with management) the majority of the time. Capital Group and BlackRock exhibit the lowest scores on this metric, voting against 90% of such resolutions during 2018.

- FinanceMap also examined which asset managers lead in filing/co-filing climate resolutions and found a group of smaller asset managers (Hermes Investment Management, Sarasin & Partners, Walden Asset Management, Trillium Asset Management, and Zevin Asset Management) who appear to be doing the "heavy lifting" for the entire industry and between them filed 20% of all climate-related resolutions in 2018, despite their relatively small size. Trillium stands out with 7 filings. All five also exhibited leadership in robust engagement with companies on climate change.

- If global investors wish to remain active in climate-risk sectors automotive, energy and fossil fuel production and at the same time show Paris alignment in their portfolios, then more robust engagement with the relevant companies should be a priority. This engagement should focus on the twin goals of accelerating the individual corporate transitions to low carbon technologies and getting companies to align their policy lobbying in line with Paris. At present only a portion of leading asset managers are showing evidence of engaging with companies on these two goals and most are part of the Climate Action 100+ process, around which this forceful climate stewardship on business models and lobbying appears to be coalescing.

# Introduction

## Background

The IPCC's October 2018 Special Report on Global Warming of 1.5°C laid out the urgent need to transition the global energy mix and, in particular, speed up the introduction of renewable and transport electrification technologies. However, current Nationally Determined Contributions (NDCs) to the Paris Agreement remain insufficient to meet even the $2^0$C target and governments worldwide are lagging on introducing meaningful and binding climate policy designed to drive this transition.

Given the urgency of the climate crisis, increasing attention has turned to the finance sector to drive meaningful progress. For example, in April 2019, the Governor of the Bank of England Mark Carney published an open letter stating the financial sector has a "crucial role to play" in tackling climate change, calling on the industry to address the significant risks posed to financial stability. In line with these calls, FinanceMap provides a platform that looks at the asset management sector through a climate lens, examining portfolios, investor-engagement processes, and shareholder resolutions. FinanceMap's twin objectives are to allow asset owners and other key stakeholders insights into how the asset management sector is performing on climate change and to drive improvement within the sector by providing benchmarking information.

## How the Asset Management Sector Impacts Climate Change

The following is a breakdown of activities undertaken by the asset management sector and how they may impact actual climate change emissions through their operations, investments, engagements with companies and through policy advocacy/CSR activities. The following is a somewhat subjective view based on numerous discussions by the FinanceMap team with key stakeholders, with two points noteworthy.

- With regards to the impact of portfolios and investments, most observers agree that there is a significant difference in impact on the "real economy" (that is the flow of goods and services as opposed to finance) of primary market activity as compared to secondary market activity. At present, the FinanceMap analysis is limited to secondary market activity but will commence analysis of primary market activity (e.g. uptake of initial offerings, bond issuances, direct investments) in 2020.

- With respect to asset managers directly lobbying on policy relating to climate change, InfluenceMap's own corporate climate analysis platform shows minimal policy engagement by the sector at present. The analysis does show the influencing of sustainable finance policy originating from the EU at present (e.g. the Taxonomy) and analysis of these impacts will be incorporated into the FinanceMap in 2020.

| Activity | FinanceMap Coverage | Impact on Climate at Present & Trend | Transparency & Availability of Data |
|---|---|---|---|
| Own Company & Supply Chain Emissions | Scope 1 and 2 Emissions | **Moderate** | **High** |
| Portfolios & Investment | Secondary Markets | **Moderate** | **High** |
| | Primary Market Activity [2] | **High** | **Moderate** |
| Engagement with Companies & Resolutions | Engagement | **Moderate, likely to increase** | **Low** |
| | Shareholder Resolutions | **Moderate, likely to increase** | **Moderate** |
| Wider Societal Impact and Policy Influencing | Lobbying on Climate Related Policy | **Low, likely to increase** | **Low** |
| | CSR Activities | **Low** | **High** |

| FinanceMap Coverage Key | Covered by other sources | FinanceMap covers at present | FinanceMap to cover in 2020 |
|---|---|---|---|

## About FinanceMap

The FinanceMap platform at present focuses on the asset management sector, as opposed to the asset owners (pension funds, wealth funds, etc.). This is in part due to the more availability of information on portfolios held by the asset management sector. However, it also reflects the prominent role that the asset management industry has in direct engagement with the corporate sector on the governance of issues like climate change. FinanceMap does recognize, however, the important and growing role asset owners are having in shaping portfolios and investments and driving

[2] This includes IPOs, corporate/project issuances and direct investments by asset managers outside of secondary markets

the corporate engagement process on climate change and will likely encompass this part of the finance sector in our assessment in the near future. FinanceMap focuses on activities that have the most impact and/or are likely to grow in importance and where independent and publicly available analysis is lacking. It does not attempt to replicate existing and adequate coverage, for example, in assessing Scope 1 (direct physical emissions) and Scope 2 (supply chain emissions) by financial companies. The latter is well measured by systems such as CDP and direct disclosures by companies themselves. The development of the FinanceMap platform involved three distinct phases.

## Phase 1: Mapping out the Financial System

The term "finance" is used throughout this report to denote investment management activities specifically, rather than banking, insurance, advisory, and other services commonly included under the term. As such, FinanceMap is focused on a chain of ownership and influence wherein physical assets operated by companies (e.g. coal mines) are ultimately owned by beneficiaries in the form of individuals (citizens, savers, pension holders, etc.). In the middle of this chain are institutional asset owners like pension funds and government wealth funds and commercial asset management service providers, the latter of which are the subject of FinanceMap analysis given their dominant role in the ownership chain, as illustrated in the infographic below.

In mapping out the asset management sector, FinanceMap assesses 50,000 listed funds (and their constituent holdings of equities/bonds) managed by 4,000 asset managers globally, the latter of which are part of 150 financial groups (e.g. iShares UK Equity Index Fund is operated by BlackRock Investment Management UK Ltd which is part of the global BlackRock group). The 50,000 funds hold US $ 21.5Tn in listed equity assets (roughly 30% of the total value of all listed companies globally as of December 2018). [3] FinanceMap also identifies the 15 largest asset management groups with a combined US $37 Tn in AUM (across all asset classes, as of 2018), led by US giants BlackRock and Vanguard. The FinanceMap universe thus offers a highly plausible representation of global finance and markets.

FinanceMap's analysis considers the asset management operations of each of these financial groups. It is recognized that many (e.g. AXA, Allianz) have large insurance operations and others (e.g. JPMorgan Chase, Goldman Sachs) have large banking operations. These operations are not included in the portfolio analysis. Unless otherwise stated by the financial group, it is assumed that the company-engagement process as disclosed relates to the entire financial group.

[3] The total market capitalization of global equity was nearly US $75Tn in 2018 according to leading industry body the Securities Industry and Financial Markets Association's 2018 Face Book https://www.sifma.org/resources/research/fact-book/.

## Phase 2: Finance through a Climate Lens

FinanceMap's focus, based on the framework in the table above is on three areas: portfolios, the company engagement process, and direct lobbying on policy areas that could impact climate.

- *Portfolios*: There are no internationally agreed standards for assessing investment portfolios through the lens of climate change. Initial FinanceMap work focused on the intensity of fossil fuels within portfolios (see Who Owns the Fossil Fuels, December 2018) – a useful metric for certain stakeholders, such as asset owners wishing to minimize exposure to these assets. A more granular and valuable analysis is offered by the Paris Agreement Capital Transition Assessment (PACTA) Project from 2 Degrees Investing Initiative, a key FinanceMap partner. The PACTA tool, described in the next section and detailed in the FinanceMap Methodology document, offers a robust means of measuring the alignment of financial portfolios with the goals of the Paris Agreement based on their ownership of companies in climate-sensitive sectors. This methodology provides the basis of FinanceMap's portfolio analysis at present.

- *Company Engagement*: In the absence of a global standard and or consistent disclosure on the quality of the company engagement process on climate change, FinanceMap devised a methodology for measuring this process. FinanceMap's methodology to measure the engagement process on climate was developed in consultation with several of the world's leading asset managers and uses key aspects of the UK Financial Reporting Council's 2020 Stewardship Code. It is noted that FinanceMap includes the shareholder resolution process in the company engagement process as sub-issues with filing and voting behavior assessed based on available disclosures. FinanceMap appreciates that many observers do not include resolution activities within the engagement process and as such, our analysis offers disaggregation of resolution metrics in a stand-alone fashion.

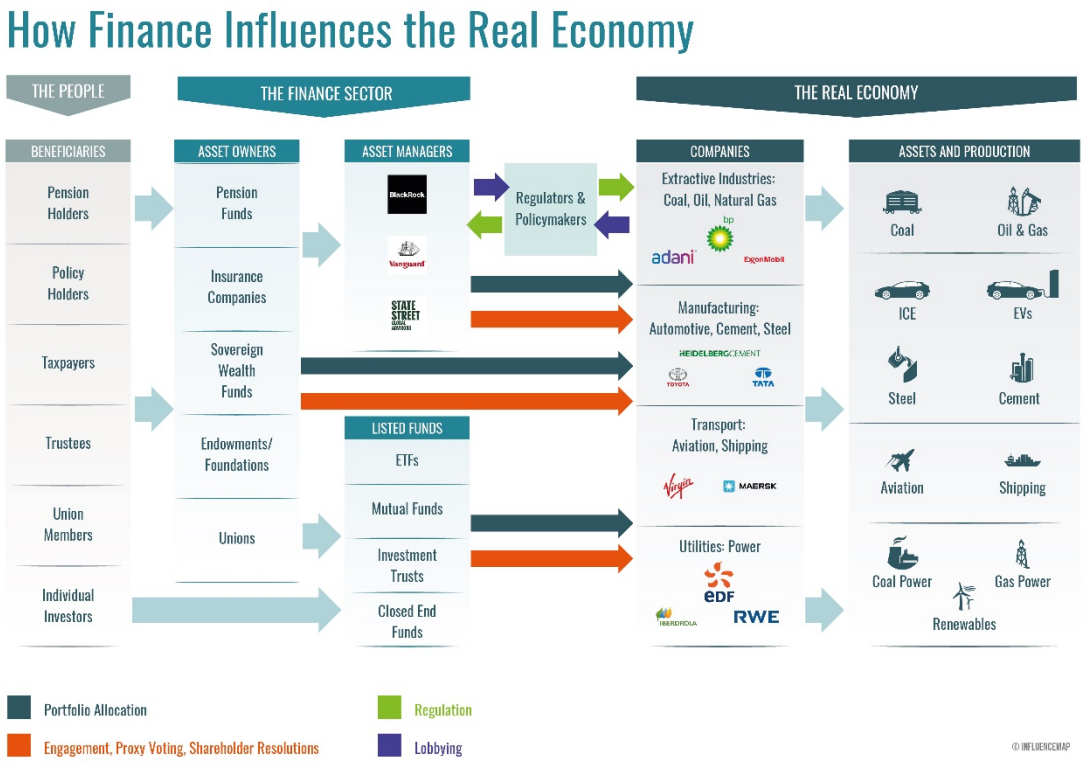
- *Direct Lobbying on Policy:* InfluenceMap pioneered the comparative measurement of the influence companies have on the climate policy agenda in its Lobbying and Corporate Influence platform, launched in 2015, and applied this to companies operating in the real economy (i.e. non-financial companies). This methodology has now been applied to companies and trade associations in the financial sector with an initial focus on the EU's sustainable finance policy push (including the EU Taxonomy for Sustainable Activities). These results will be released on FinanceMap.org in early 2020.

## Phase 3: The FinanceMap Platform

The climate analysis described above is integrated into the mapping of the financial sector in an online platform FinanceMap.org, which represents a key workstream within InfluenceMap whose back end and databases are integrated with InfluenceMap's other platforms. FinanceMap's user

interface will allow search and filtering to easily access the above analysis by the fund, asset manager or financial group in a publicly available manner. The platform will continue to evolve in terms of coverage and methodological improvements based on stakeholder input and access to datasets and disclosures.

Full details of the methodology are available in the FinanceMap Methodology Document plus FAQs with the main site accessible at financemap.org. Derivative reports focusing on issues, regions, and financial groups will be compiled periodically. The following infographic details the FinanceMap framework in terms of the chain between the ultimate beneficiaries of financial assets (individual people) and physical assets in the real economy.



# Portfolios and Climate Change

## Portfolio Analysis

The PACTA analysis employed in the present iteration of FinanceMap uses the IEA-defined 'Beyond 2 Degrees Scenario' (B2DS) – which provides a pathway for a 50% chance of limiting warming to 1.75$^{0}$C – as a target for portfolios to be considered 'Paris Aligned'. The PACTA method provides a 5-year forward-looking analysis using company production data at the asset level based on current and future company production plans. The results indicate the alignment of portfolios with the target up to five years into the future. FinanceMap applies this analysis to 50,000 listed funds in the FinanceMap universe based on the funds' holdings in listed equity and corporate bonds. The analysis is also applied to the asset managers operating these funds by creating an aggregate of the funds managed by each.

FinanceMap generates 'Paris Alignment' (PA) for each portfolio at two levels

- An overall *Portfolio PA*.
- Individual *Sector PA* for climate-sensitive sectors held by the fund

The PA range from minus 100% (highly misaligned) to + 100% (exceeding Paris alignment), with a deviation of 0% being Paris aligned under the IEA scenario used. FinanceMap also provides an indicator of the *Exposure Ratio*, or the portion of a portfolio's value exposed to the sectors covered by the B2DS (Automotive, Coal Mining, Electric Power, Oil & Gas).

The roughly 850 companies covered by the present analysis are available here, along with the aggregate market capitalization of the companies in each sector. They represent a total of over US $8 Tn in shareholder value as of Q3 2019, or roughly 10% of the total market capitalization of listed companies globally.

## The Paris Alignment (PA)

The IEA's B2DS scenario offers a highly granular analysis of four key industrial sectors of huge concern for the climate crisis: Oil & Gas, Coal Mining, Automotive, and Electric Power. Further, the asset-level data employed in the PACTA analysis provides forward-looking production data for these four main sectors. (The PACTA and the online FinanceMap.org tool also includes coverage of shipping, aviation, cement and steel production although this sector analysis is not covered in this report).

Many funds may not be exposed to all or any of these sectors. Therefore, the *Portfolio PA* for funds whose *Exposure Ratio* falls below 2% of the total fund value, or which are exposed to fewer than 3 of the 4 B2DS sectors analyzed are not displayed on the platform. This 2% threshold leaves roughly 75%

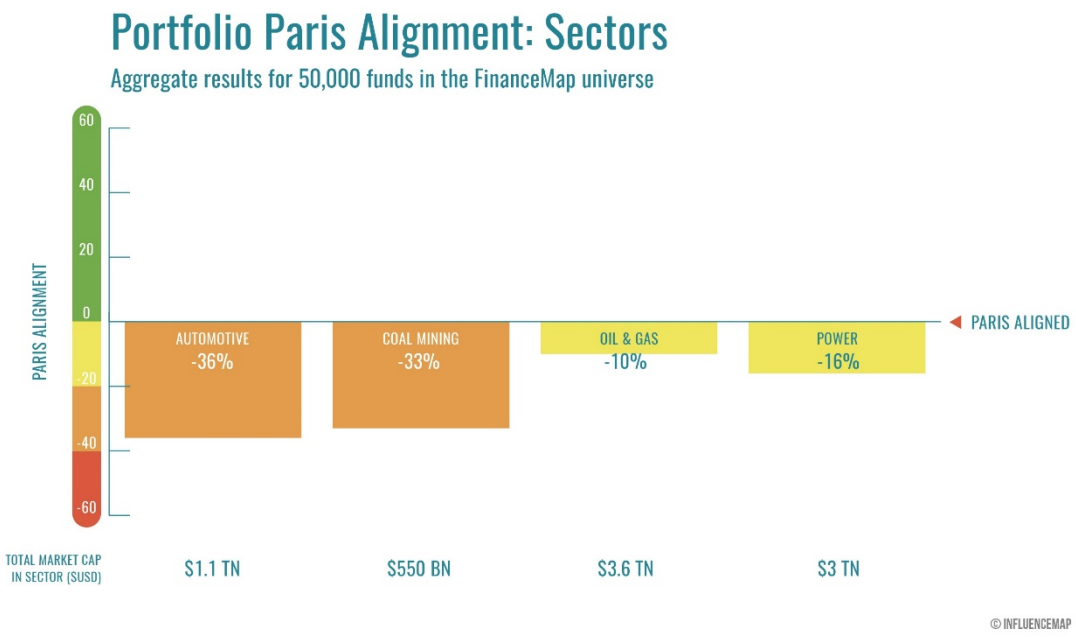
of the funds in the FinanceMap universe remaining with the ones excluded likely to be sector-specific funds focused on non-climate-sensitive sectors (healthcare, retail, etc.).

Within each sector, various 'technologies' are deployed the choices of which have a profound effect on the climate impact of the sectors and companies. For instance, renewable energy and coal-fired generation are technologies within the electric power sector. The methodology allocates ownership of production associated with these technologies based on the fraction of a company the portfolio holds. For example, if a portfolio owns 3% of ExxonMobil, the methodology allocates the ownership of 3% of ExxonMobil's oil and gas production to that portfolio. The analysis then calculates the deviation for each technology between the portfolio's total ownership of production and that of a hypothetical 'target' portfolio that is aligned with the B2DS scenario. Thus, a deviation of 30% in coal power generation, for example, indicates a portfolio owns 30% more coal power capacity than is prescribed by the Paris Aligned scenario over the next five years.

FinanceMap's *PA* builds on this technology-level deviation to calculate Sector and Portfolio-level alignment. The *Sector PA* represents the weighted average of the deviation from the target for all technologies within a sector, while the *Portfolio PA* reflects the weighted average of all *Sector PA*. A complete discussion of the weighting system can be found in the Methodology document (see download at this landing page). It should be noted that FinanceMap uses the most ambitious scenario currently provided by the IEA from a climate perspective. FinanceMap recognizes that these scenarios have been criticized for insufficient ambition. It is noted that the IPCC's October 2018 Global Warming of 1.5°C report provides clear timelines for key technologies covered by the PACTA analysis (coal power, oil, gas, EVs, renewable energy). If these trajectories were applied to FinanceMap's portfolio data, it is likely the misalignments described in this report would be even more extreme. It is also noted that the 2019 IEA World Energy Outlook sets out a pathway for meeting the 1.5°C target. Should this pathway become available for use in the PACTA method, FinanceMap's analysis will be updated to reflect this.

# Sector-Level Analysis

The GHG emissions arising from global primary energy use, which involves the combustion of coal, oil and natural gas for energy, reached over 33Gt in 2018. This is roughly 8% of the remaining global carbon budget to remain within 1.5$^0$C according to the IPCC. Of these emissions, two-thirds came from fuel consumption for electricity generation and vehicle use. In light of this, it is clear that drastic changes to the four B2DS sectors – automotive, coal mining, oil & gas and electric power - are likely to be a priority for finance in addressing climate change. The following graph highlights the aggregate *Sector PA* for the 50,000 listed fund portfolios in the FinanceMap universe (hereafter referred to as the 'market'), spanning approximately 850 companies[4] with over US $8 Tn in total market capitalization as of Q3 2019. The aggregate ownership of these companies by the funds in the FinanceMap universe is likely highly representative of the global mix of production in these sectors, with the possible exception of the Oil & Gas sector, where production remains overwhelmingly controlled by state or privately-owned companies (see 2018 FinanceMap analysis Who Owns the World's Fossil Fuels).




Intuitively, it should come as no surprise that the ownership of these presently highly $CO_2$-intensive sectors among the 50,000 funds in the universe shows significant misalignment with the goals of the Paris Agreement. It should be emphasized that the relatively modest misalignment for the oil & gas

[4] Note this figure includes only those companies for which their primary sector of activity is one of the B2DS sectors. It therefore excludes those companies which own assets in one of the B2DS sectors, but whose primary business activity is elsewhere e.g. conglomerates.

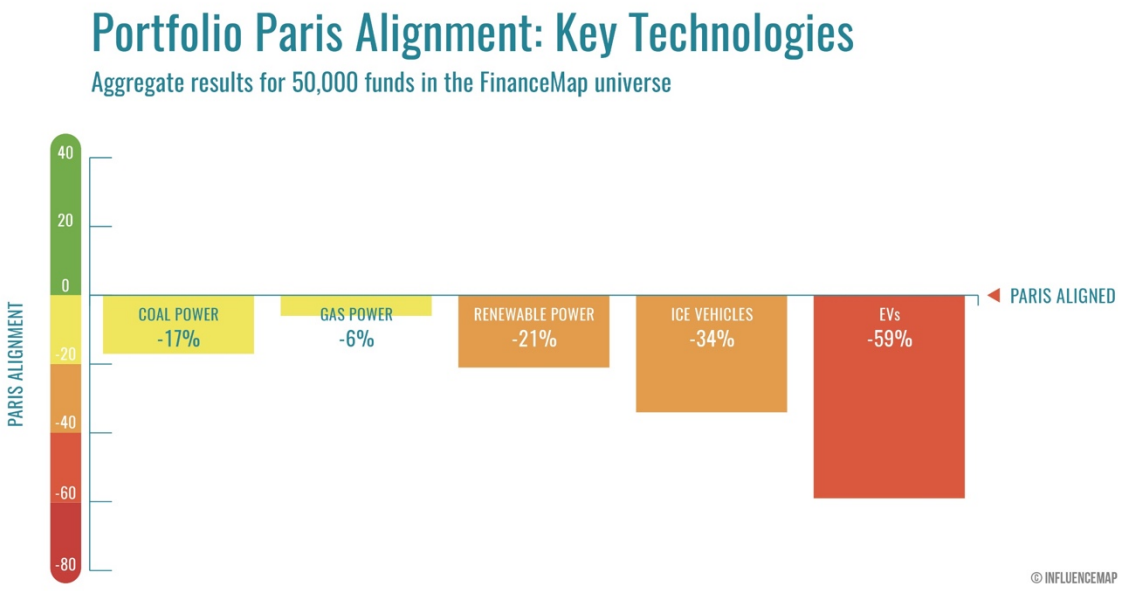
sector compared to auto and power derives from short-term allowances for increased natural gas production in the IEA scenario as the world transitions to lower-carbon energy sources. When oil is considered in isolation from natural gas, the misalignment is nearly twice as large at -17%. Comments on the results as well as a discussion of real-world implications are noted for each sector below, with a particular focus given to InfluenceMap-observed trends in lobbying on climate policy among companies and trade associations in these heavily regulated sectors.

| | |
|---|---|
| Automotive<br><br>minus 36% aligned | **Very Misaligned with Paris**: Vehicle transport emissions are rising globally in both absolute terms as well as their share of total emissions, driven by the expansion of the global internal combustion engine (ICE) fleet. While EVs (and other zero-emission vehicles) are growing quickly, the absolute growth in the size of the vehicle fleet globally means this growth is not enough to compensate for rising ICE numbers. Automotive sector lobbying in the US has prevented Obama-era efficiency standards being implemented, and consequently accelerated growth in US vehicle emissions. For investors, this represents a serious risk. Analysts at US brokerage Sanford Bernstein suggest it is 'game over' for ICE vehicles within a decade, while Moody's estimates that the automotive sector faces a potential hit of US $13bn in fines in the next few years as a result of tightening emissions rules in the EU, China and potentially the US. |
| Coal Mining<br><br>minus 33% aligned | **Very Misaligned with Paris**: While PACTA analysis is based on the IEA B2DS, equivalent trajectories from the IPCC's 2018 Global Warming of 1.5C report warned of dire consequences if thermal coal combustion is not rapidly curtailed, suggesting it should be phased out by 2030, and no new power capacity installed. Clearly, this timeline will have huge impacts on the sector supplying this fuel. These risks have seemingly been understood by the market, with thermal coal production assets now largely in state/private hands or in "pure-play" thermal coal companies. Nonetheless, the data indicate the fund management industry is not transitioning quickly enough to reflect the urgency of phasing out coal, as the funds in the FinanceMap universe in aggregate own over 30% more coal production than prescribed by the B2DS. It should also be noted that coal mining interests continue to lobby aggressively to delay policy which may realize the IPCC's 2030 phaseout timeline. |
| Oil & Gas Production<br>minus 10% aligned | **Misaligned with Paris**: The oil & gas sector is one of the most scrutinized of all from a climate perspective with investors increasingly trying to shape the evolution of the energy mix of the oil & gas majors (i.e. the companies' relative level of activity in oil, gas, and low carbon businesses such as renewables). The sector remains opposed to Paris-aligned climate policy globally, according to InfuenceMap analysis, although there is some evidence of moderately lower opposition from some of the more gas-focused majors. It should be noted that within the -10% misalignment of the sector, oil production is more misaligned than gas, as the B2DS scenario allows for modest increases in natural gas production in the near term, and the PACTA analysis offers a 5-year time horizon. |

| | |
|---|---|
| Electric Power<br><br>minus 16% aligned | **Misaligned with Paris**: The misalignment of this sector is largely reflective of its continued reliance on coal power (over 35% of generation globally) and the inadequate pace of phaseout for this energy source. In contrast to the other sectors highlighted in this table, the global electric power sector is one where there exists a broad range of lobbying positions on climate policy, both regionally and by company. The European power sector now largely supports coal phaseout, with some of the more vocal players like EDP, Iberdrola and ENEL driving this trend. All are highly active and positive climate lobbyists, according to InfluenceMap analysis. On the other hand, US utilities Duke and Southern, with large coal and natural gas capacity, represent some of the most powerful forces globally lobbying against progress on climate policy. |

## Technology-Level Analysis

Within the major industrial sectors, there are certain technologies, such as thermal coal/gas power and internal combustion engine (ICE) vehicles that currently dominate the global economy and are highly problematic from the perspective of global emissions. The rapid proliferation of low carbon counterparts to these technologies (i.e. renewable energy and electric vehicles) is hugely important for meeting the targets of the Paris Agreement. For example, a recent IEA report highlighted the potential for renewable energy to provide the world's total power need, while emphasizing the substantial rise in ambition required for the industry to meet this potential. The chart below details the aggregate alignment of the funds in the FinanceMap universe with a number of climate-critical technologies related to electric power production and vehicle technologies.



The results strongly mirror the sector-based results in the preceding section. Attention should be drawn to the automotive sector, which at present is under substantial pressure to transition from regulatory, technology and consumer-demand forces. However, a glance at the current ownership of both internal combustion engine (ICE) and EV production by the 50,000 funds in the FinanceMap universe shows both are hugely misaligned with Paris. That is, the pace of both ICE phaseout and the proliferation of EV production remains too slow when placed in the context of overall fleet volume growth globally. Despite an almost continuous drumbeat of commitments and pledges from the world's automakers to electrify their fleets, the PACTA analysis projects that growth in publicly listed automakers' EV production is currently not on track to compensate for the absolute growth of ICE vehicle production and, correspondingly, of emissions from the automotive sector. In 2018 the world's automakers produced 96 million vehicles across all platforms, of which 1.4% were electric (EVs). FinanceMap's analysis suggests this will evolve by 2024 to 101 million vehicles in total, of which 4.2m (4.2%) will be electric. However, the IEA's B2DS scenario for achieving warming of 1.75C or less requires at least 9.2M EVs by 2024, pointing to the sector's significant misalignment with this recognized Paris climate scenario. This dynamic is reflected in the sector's strong opposition to binding policy globally that would realize the required dynamics of the ICE/EV evolution for Paris alignment in conjunction with global projected vehicle growth (see InfluenceMap's Sept 2019 analysis).

## Asset Managers and Portfolio Alignment

The 15 largest asset management groups globally, comprised of several hundred subsidiary operating companies, together have nearly US $37 Tn in assets under management (all asset classes), representing 20% of the total value of global capital markets.[5] To assess the portfolios of these 15 groups FinanceMap examined over 7,000 funds managed by the companies representing more than US $13 Tn in AUM, based on publicly available data as of Oct 2019. A significant portion of these assets are managed using passive index-tracking strategies. The sheer size of these groups means analysis of this sub-section of the market likely acts as a close proxy for the entire listed fund universe and equity markets as a whole.

Given the size of these groups as well as the extent of passive strategies among their funds, it is not surprising that the groups all exhibit similar degrees of overall Portfolio Paris Alignment (or, in this case, misalignment), with an average deviation from the Paris Aligned target of -18% and a narrow 5 percentage point range of -16% to -21%. The similarity across these results reflects the pathway of assets and production currently operated by the publicly listed companies in the four sectors analyzed. Large asset management groups tend to be 'universal owners', meaning that they have stakes in all major sectors, including those covered by FinanceMap's analysis. Therefore, given the availability of production in different technologies offered by the listed company universe, to achieve Paris Aligned portfolios in the near term it is likely they would be required to exit a significant part of

[5] Source: Securities Industry and Financial Markets Association (SIFMA), Capital Markets Fact Book, 2019. https://www.sifma.org/wp-content/uploads/2019/09/2019-Capital-Markets-Fact-Book-SIFMA.pdf

the market. This is not a viable option for most, hence the recent focus on the investor-company engagement process to drive accelerated change in the high climate impact sectors highlighted in this study.

## Paris Alignment of Selected Funds

In contrast with the relatively consistent Paris Alignment found among large, universal asset management groups, more variation exists between individual funds. The table lists some of the largest equity funds on offer to investors, led by the giant US $670 Bn Vanguard Total Stock Market Index Fund. These funds are some of the most frequently owned by both retail investors and institutional asset owners, making them important indicators of the market's direction overall. The following table compares the 10 largest equity-focused listed funds. Among these mainstream funds, the *Portfolio Paris Alignment* has a range of -10% to -24%, with an average deviation from the Paris Aligned target of -16%. The table highlights the difference between each fund's *Portfolio PA* and that of the aggregate result for the universe of 50,000 funds.

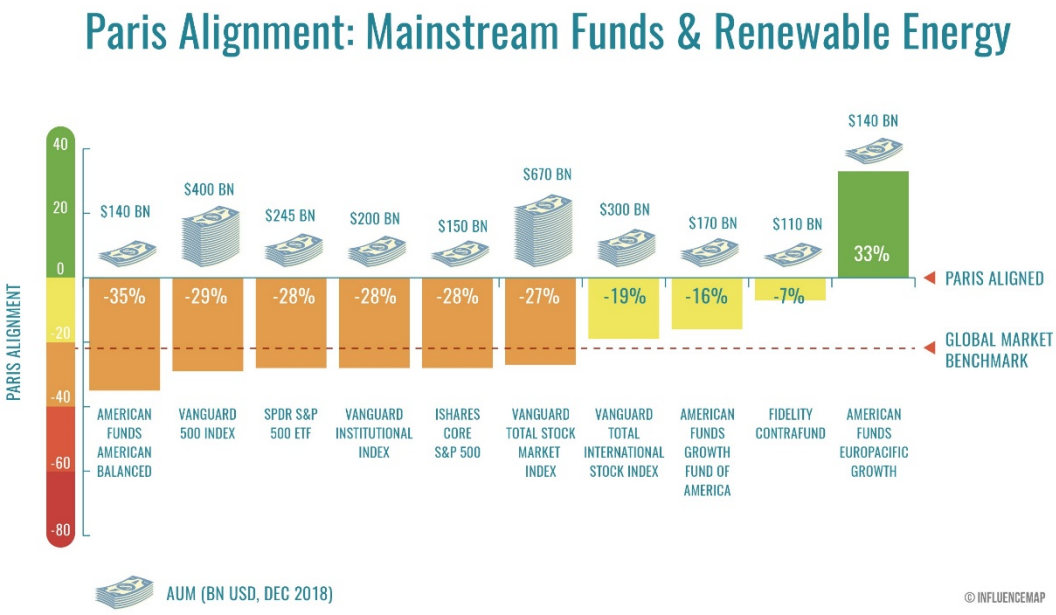
| Major Mainstream Funds | | | | | |
|---|---|---|---|---|---|
| Fund Name | Asset Management Group | Fund AUM (USD, Dec 2018) | Exposure Ratio [6] | Portfolio Paris Alignment | Delta with Market Benchmark [7] |
| **Vanguard Total Stock Market Index Fund** | Vanguard | $670 Bn | 8% | -15% | +3% |
| **Vanguard 500 Index Fund** | Vanguard | $400 Bn | 9% | -16% | +2% |
| **Vanguard Total International Stock Index Fund** | Vanguard | $330 Bn | 12% | -24% | -6% |
| **SPDR S&P 500 ETF Trust** | State Street | $245 Bn | 8% | -16% | +2% |
| **Vanguard Institutional Index Fund** | Vanguard | $200 Bn | 9% | -16% | +2% |
| **American Funds Growth Fund of America** | Capital Group | $170 Bn | 7% | -13% | +5% |
| **iShares Core S&P 500 ETF** | BlackRock | $150 Bn | 9% | -16% | +2% |
| **American Funds EuroPacific Growth Fund** | Capital Group | $140 Bn | 13% | -18% | 0% |
| **American Funds American Balanced Fund** | Capital Group | $130 Bn | 7% | -10% | +8% |
| **Fidelity Contrafund** | Fidelity | $110 Bn | 4% | -21% | -3% |

[6] Ratio of exposure to auto, electric power, oil & gas, coal production sectors cp. value of portfolio, as of Dec 2018

[7] The Delta with Market Benchmark refers to the difference between the *Portfolio PA* of the fund vs. the aggregate result for the 50,000 funds in the FinanceMap universe which is minus 18%.

For these large funds, more variation can be seen at the sector level, particularly with respect to climate-critical sectors such as coal mining. Within the coal mining sector, the range in deviation from the Paris Aligned target of the 10 mainstream funds spans from -49% to +23%, with all funds tracking the S&P 500 index – Vanguard 500 Index Fund, SPDR S&P 500 ETF having very limited coal exposure relative to their size. This likely reflects the lack of major coal mining companies in the S&P 500 index, as they are not among the most valuable companies by market capitalization, a list increasingly dominated by healthcare and technology and shifting away from the four sectors studied (auto, power, oil/gas, coal). As an illustration of this shift, the current combined global US $8.2 Tn market capitalization of the 850 listed companies in these sectors compares with the US $4.2 Tn value of just five US tech giants (Apple, Amazon, Alphabet, Facebook, and Microsoft) as of September 2019.

As shown in the graph below, within the electric power sector, the funds' alignment on renewable energy shows a similarly wide range. In this case, Capital Group's American Funds EuroPacific Growth Fund is a remarkable 33% ahead of the Paris Aligned target with respect to its ownership of renewable capacity. By contrast, the other nine mainstream funds have an average misalignment of 25%, slightly behind the aggregate result of 21% misalignment for the FinanceMap universe of 50,000 funds. Again, the Capital Group's American Funds American Balanced Fund falls farthest behind the target, owning 35% less renewable capacity than is prescribed for a fund of its size by the B2DS. It is not immediately clear whether the variations in the Alignment for renewables in the funds above are the result of intentional portfolio adjustments or simply the result of variations in the indices used to construct the funds.




The FinanceMap tool may be used by asset owners and asset managers alike to benchmark this aspect of climate performance within the fund portfolios and assess which companies and technologies are contributing the most to the Paris alignment. The next section deals with asset manager performance on company engagement on climate change, the other tool available to them to drive better Paris alignment in the portfolio.

# Engagement and Resolutions

## Introduction

Investor engagement with companies on climate change has been underway for a decade or more by a range of leading asset managers and owners, largely those based in Europe and North America. Initial engagement with companies on climate focused on physical emissions (e.g. the "Aiming for A" investor coalition, which targeted an A grade for the companies under CDP's emissions scoring). The TCFD process focuses on climate risk disclosure from companies. The Climate Action 100+ investor-company engagement process (over 370 institutional investors with over US $35Tn under management aims to "drive the clean energy transition" within the targeted 160 companies, representing the most climate-important listed corporations in the world. These include most of the world's leading automotive groups, leading global electric utilities and oil/gas companies, thus the parts of the portfolio clearly misaligned with Paris as evidenced by the Portfolio section of this report.

## Measuring the Engagement Process

As the climate crisis deepens, there is now greater reliance being placed on the ability of shareholders to hasten the energy transition, especially in the oil/gas, auto, and utilities sectors. This is the rationale for an external methodology to measure these engagement processes. Despite the importance being placed on the investor-company engagement process, there is a dearth of publicly available, objective metrics to judge the quality of this process both generally and with respect to climate. FinanceMap's methodology to measure the engagement process on climate was developed in consultation with several of the world's leading asset managers and uses key aspects of the UK Financial Reporting Council's 2020 Stewardship Code. The Stewardship Code was chosen to benchmark engagement quality as it provides an ambitious framework and detailed definitions available of what constitutes effective engagement.

FinanceMap's methodology has been applied to the 15 largest asset manager groups and a select number of smaller asset managers who exhibit leadership in lead or co-filing of shareholder resolutions relevant to climate. The analysis will be extended to the FinanceMap's full universe of asset manager groups throughout 2020.

FinanceMap defines the term 'engagement' as referring to all investor actions undertaken to influence the management strategy of the companies they own.

- Private communications with corporate management and appointed advisors.
- Questions at AGMs/other company meetings.

- Comments on the company in the media and public fora.
- Escalation and the shareholder resolution process (filing, voting behavior).

FinanceMap's methodology breaks the engagement process down into a set of sub-activities and looks for evidence associated with these across publicly available data sources. This results in a scoring matrix, with sample scores (five-point scale of -2,-1,0,1,2) or NA (not applicable)/NS (not scored) as in the sample matrix below. Evidence pieces in the form of publicly available documents or websites are assessed, scored and logged online in this system. Cells are weighted to provide a final score for each asset manager being assessed. Sub-scores for sub-activities (e.g. Resolutions) may be generated in addition to overall Engagement Scores. See Appendix C for more details.

| | | | Data Sources | | | |
|---|---|---|---|---|---|---|
| Engagement/Resolution Categories (Queries) | | Weighting of Query | Company Disclosures | CDP/ AODP | Financial Disclosures | Media Reports |
| **1** | Engagement Transparency | 6% | 2 | NS | NA | NS |
| **2** | Climate Engagement Framework | 9% | 1 | NS | NA | NS |
| **3** | Milestones for Success | 9% | 1 | NS | NA | NS |
| **4** | Engagement on Paris Aligned Business Models | 10% | 2 | NS | NA | NS |
| **5** | Engagement on Climate Lobbying | 10% | 1 | NS | NA | 2 |
| **6** | Climate Engagement Impact | 12% | 2 | 2 | NA | 1 |
| **7** | Collaborative Engagement | 10% | 2 | NS | NA | 2 |
| **8** | Escalation Strategy | 9% | 1 | NS | NA | NS |
| **9** | Resolutions: Voting Transparency | 6% | 1 | NS | NS | NS |
| **10** | Resolutions: Climate-Relevant Voting | 10% | 1 | NS | 1 | 1 |
| **11** | Resolutions: Lead & Co-filing | 10% | 1 | NS | NS | 1 |

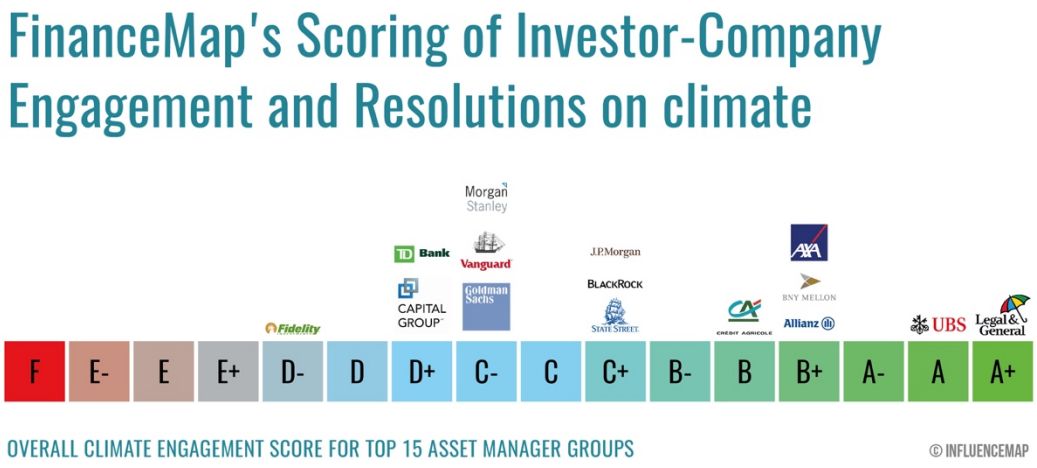
In scoring the 15 largest asset manager groups and the 5 smaller asset managers FinanceMap assessed and scored over 1,000 pieces of evidence in the form of publicly available documents from the sources noted above and archived online. An algorithm accounting for sub-issue and data source weightings derives a final score for the entire matrix as well as sub-scores for the sub-issues.

An example of how this works in practice may be seen in a scoring matrix for an asset management group (see here for BlackRock). In general, FinanceMap combines evidence on company engagement practices for asset management operating companies together within the financial group to which the operating companies belong. In some cases, legal entities or asset management brands within a larger group are scored separately (e.g. PIMCO and Allianz Global Investors are separated out while they are both are part of the Allianz financial group). Full details of our methodology may be found at this landing page.

## How the Asset Managers Score on Engagement

In this report, FinanceMap offers a complete assessment of investor-company engagement for the 15 largest asset management groups (by AUM). Analysis is also provided for five asset managers who score the highest in the number of resolutions leads or co-filed at company AGMs relative to total AUM. These are: Sarasin & Partners, Hermes Asset Management, Walden Asset Management, Zevin Asset Management, and Trillium Asset Management.

The following graphic highlights where the 15 largest asset management groups fall in the Investor-Company Engagement analysis. Top-line results from the analysis and key emergent trends are discussed below, while a detailed breakdown of results can be found in Appendix A.



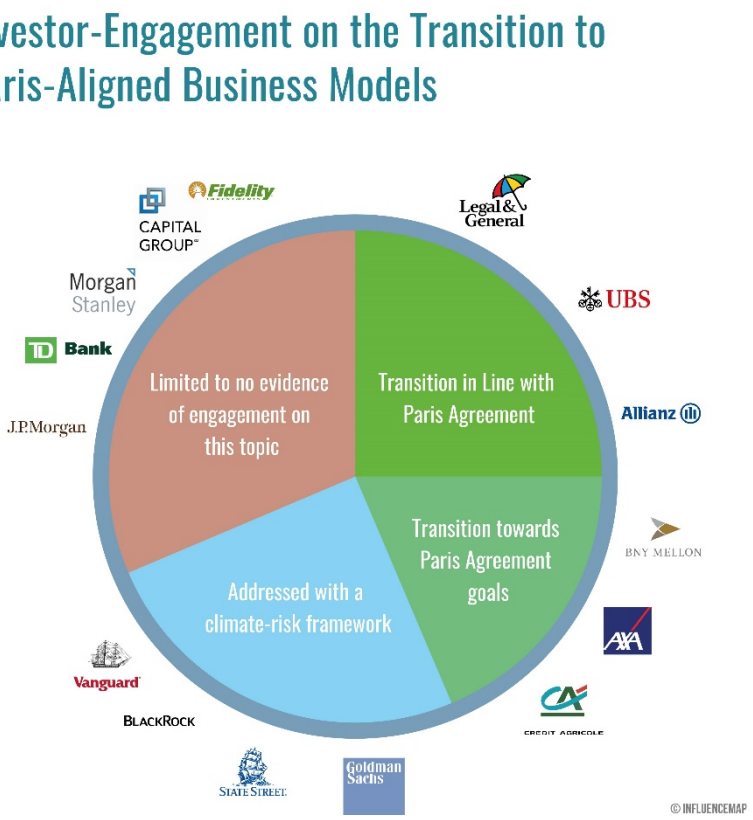
# Discussion of Results

The following discussion highlights those areas where these differences among investors were most prominent.

- **Climate Engagement Framework**: Only 3 of the 15 of the largest asset management groups were found to have a clear and detailed strategy for engagement. Legal and General exhibited best practice in this query through its Climate Impact Pledge, a process that began in 2017 to assess and engage with 84 companies across six sectors on their performance against a detailed climate-specific framework.

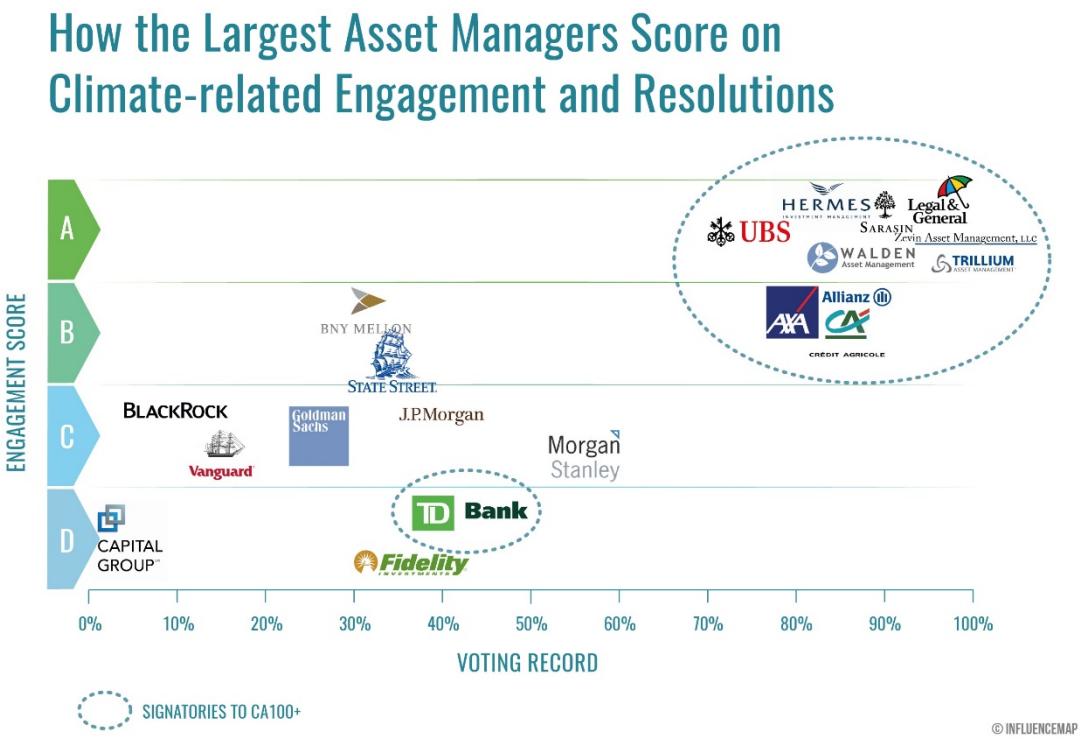
- **Engagement Transparency**: Just 2 of the 15 asset managers analyzed - Legal and General and UBS - were found to be fully transparent in line with the 2020 Stewardship Code. In contrast, Fidelity, TD Bank, and Capital Group provide scant information regarding their corporate engagements.

- **Investor-Engagement on the Transition to Paris-Aligned Business Models**: Whereas AXA, LGIM, and UBS are engaging companies to transition in line with the 1.5C trajectory, most asset managers analyzed are not actively trying to change the business models of high emitting companies. For example, major passive managers such as Vanguard, BlackRock and State Street engage around this issue singularly through a climate risk perspective.



- **Engagement with Companies on Climate Lobbying**: Only AXA, BNY Mellon, LGIM, and UBS and out of the 15 largest asset managers have been directly engaging companies on their lobbying activities and influence over climate change legislation. Much of this engagement has occurred directly through or in coordination with the Climate Action 100+ investor engagement process on climate change, coalition, which has adopted the issue of corporate lobbying on climate as one of its key engagement themes. Leading US asset managers BlackRock, Vanguard, Fidelity and State Street, have not referred to any engagements around corporate lobbying in their disclosures, nor made any comments acknowledging the link between corporate lobbying, climate regulation, and climate risk as a systemic threat to portfolios.

- **Investor-Company Climate Engagement and Voting Score**: The research found a strong positive correlation between the overall Investor-Company Engagement score and asset managers' % support for climate-relevant resolutions at company AGMs. There is also a clear separation of the CA100+ signatory asset managers in the upper right and the US-based players who remain out of this process.



# Voting on Climate-Relevant Shareholder Resolutions

A channel through which asset managers may influence companies aside from communicating with the company directly is proxy voting on shareholder resolutions at the annual general meetings. The research found clear differences among the 15 largest asset managers with respect to both the transparency of voting records and the tendency to vote for climate-relevant resolutions.

In this study, InfluenceMap only analyzed voting on resolutions deemed to be climate-relevant. The climate-relevance categorization is based on the IPCC's Special Report on 1.5C and its statement of the need for "rapid and far-reaching transitions in land, energy, industry, buildings, transport, and cities." InfluenceMap scored voting on any resolution where the intent and likely outcome is consistent with the IPCC's report. For example, a resolution requesting a utility company to increase its renewable energy production would be considered climate-relevant. Votes on resolutions where any climate-impact would be indirect or unclear, for example, requesting a company to disclose on ESG, are not scored. The voting data was drawn from asset managers disclosures to the US Security Exchange Commission (SEC), Asset Managers websites (including third-party websites they link to), and directly from the asset managers.

All resolutions filed at companies owned by one of the top 15 asset managers were considered for climate-relevance. FinanceMap looked at a population of around 250 ESG and other potential climate-related resolutions filed in 2018 and prioritized 53 of these as deemed climate-relevant as measured against the IPCC benchmark. It is noted that this compares with recently released statistics on climate resolution voting, from ShareAction in its 2019 report 'Voting Maters', that considered a wider population of "climate-related" resolutions (across the period 2017-2019) using a very similar definition to FinanceMap.[8] FinanceMap's resolutions data originates from the asset managers' own disclosures and is limited to the following filing and voting geographies: Australia, Canada, Denmark, Japan, Norway, the Netherlands, the UK, and the US. The table below provides a brief summary of the different categories of climate-relevant resolution assessed and the number in each category.

| Description of Share Resolution Category | Number of Climate Resolutions filed globally (2018) |
|---|---|
| $CO_2$ Emissions Disclosure | 6 |
| $CO_2$ Emissions Target Setting | 16 |
| Climate Risk/ Scenario Analysis | 13 |
| Renewable and Energy Efficiency | 7 |
| Deforestation | 2 |
| Climate Policy Lobbying | 8 |
| Disclosure of Voting on Climate-related Resolutions | 1 |

[8] The ShareAction analysis defined climate-related as: "These resolutions cover topics such as climate-related disclosures, companies' lobbying activities and the setting of targets aligned with the goals of the Paris Climate Agreement." 'Voting Maters'. Pg 4. October 2019.

With respect to transparency on voting, all of the asset managers analyzed publish their company AGM voting records each year. However, only four asset managers; AXA, Allianz, Amundi (Credit Agricole group) and Legal & General IM publicly disclose rationales for their voting decisions, in line with the recommendations of the 2020 Stewardship Code. Asset managers such as Legal & General, and Allianz were found to have supported over 80% of the resolutions in which they were eligible to vote. Interestingly, the largest listed fund providers by assets under management were among the least supportive, opposing most climate-relevant resolutions in 2018. They include the asset management arms of Capital Group, BlackRock, Vanguard, JPMorgan Chase and Goldman Sachs. BlackRock opposed 89% of such resolutions. A full summary of the asset managers' % of votes in favor of climate-relevant resolutions is in Appendix B.

# Conclusions

- The Task Force on Climate-Related Disclosures (TCFD) process has articulated the view from global financial regulators that climate change does indeed pose a material risk to the financial system. Since the TCFD's initial report was released in June 2017 the phrase "climate risk" as the public narrative has evolved to the "climate crisis" or "emergency" with accompanying physical manifestations and resulting economic/social costs clearly apparent.

- The IPCC's Global Warming of 1.5°C (2018) provided clear guidance from the world's scientific community on the need for urgent policy action from governments to facilitate a transition from fossil fuel combustion to renewable and zero-emission transport technologies. The lack of meaningful policy progress globally means there is ever-increasing pressure on the financial system to drive more ambition in this energy transition.

- The asset management sector plays a pivotal role in the financial system given the vast portfolios the leading players manage, their interactions with companies in the real economy and power in shaping government policy as a key economic sector in its own right. FinanceMap's analysis shows the sector as a whole is not demonstrating the kind of leadership at present, through any of these levers, that the recent escalation in the urgency of climate change would apparently warrant.

- The portfolios held by the 15 largest asset management groups remain significantly misaligned with the targets of the Paris Agreement even under the fairly conservative IEA 'Beyond 2 Degrees' Scenario (B2DS) within the key auto, electric power and fossil fuel production sectors, (with aggregate market values of at least US $8 Tn in widely held listed companies). This misalignment is reflective of the fact that the majority of companies in these sectors are very far from aligning their business models to meet the goals of Paris and that the 15 leading players all hold diversified global portfolios of equities often using index driven strategies.

- The extent of delay in the introduction of the "green" technologies may be seen in the automotive sector. In 2018 the world's automakers produced 96 million vehicles across all platforms, of which 1.4% were electric (EVs). The FinanceMap/PACTA analysis suggests this will evolve by 2024 to 101 million vehicles in total, of which 4.2m (4.2%) will be electric. However, the IEA's B2DS scenario for achieving warming of 1.75C or less requires at least 9.2M EVs by 2024, pointing to the sector's very significant misalignment with this recognized Paris climate scenario. This sector wide lag in EV uptake by the automakers and their lobbying to delay EV regulations illustrates the difficulties investors will have in using portfolio allocation alone to drive climate goals in finance - hence the focus on changing company behavior by engagement.

- If global investors wish to remain active in these sectors and at the same time show Paris alignment in their portfolios, then more robust engagement with the relevant companies should

be a priority. This engagement should likely focus on the twin goals of accelerating the individual corporate transitions to low carbon technologies and getting the companies to align their policy lobbying in line with Paris.

- At present only a portion of the leading asset managers are showing evidence of engaging with companies on these two goals. Of the largest groups, leadership is being shown by the asset management arms of Legal & General, UBS, AXA, Allianz and Credit Agricole. These players are all participants of the Climate Action 100+ process, around which this forceful climate stewardship on business models and lobbying appears to be coalescing. The collaborative approach appears to show signs of working, especially on driving the issue of climate lobbying governance through the corporate sector.

- US-based giants with significant pools of actively managed funds like the asset management operations of BlackRock, Goldman Sachs, and JPMorgan Chase appear absent from this shift in company engagement on climate from the sector, based on publicly available information. Given their huge clout over markets/companies and risk management resources they command, a swift ramp-up in the ambition of this engagement is likely necessary to achieve the changes in sectors and companies most impacting the global emissions pathway.

- Certainly, participation in global collaborations on engagement and more public disclosure of their expectations of companies on their business models and lobbying alignment with Paris would be a hugely welcome starting point and one which is not apparent at present from the sector in the US. The idea that climate issues are not part of mainstream financial risk is now rapidly being debunked as the extent and speed of impact on the real economy becomes clear.

- Such forceful stewardship on climate is being shown by several smaller but pivotal US players such as Walden Asset Management, Trillium Asset Management, and Zevin Asset Management, all of whom have clearly disclosed corporate climate engagement strategies. They also appear ready and willing to file meaningful shareholder resolutions in conjunction with these strategies. Their giant US peers appear not only unwilling to do this but maintain a poor record on voting positively on such resolutions.

- Another part of the financial system that is providing clear signals of concern on climate and the need for the corporate sector to reform radically are asset owners such as giant pension funds Calpers, NY State Common and large northern European players like the Swedish AP system. Collectively this group owns over US $28 Tn of assets globally (OECD, 2018). In terms of listed equities this group of asset owners is generally invested in the entire market and is concerned with long term risks to the economy and portfolio as 'universal owners'. Thus climate change is an increasing priority and pensions providers are likely to require their own asset manager service providers to demonstrate recognition of this priority. A key function of FinanceMap will be to provide asset owners with a tool to measure their investment service providers through a climate lens.

# Appendix A: Climate Engagement Scores and Portfolio Paris Alignment

*The following table details key results of the Investor-Company Engagement analysis for the 15 largest asset management groups covered by the analysis, as well as five smaller asset managers who lead on a key metric: the filing of shareholder `resolutions related to climate. Association with the CA100+ process is noted as is the average stake held in the companies. It also includes asset management groups' Portfolio Paris Alignment.*

| Asset Management Group (with links to online scoring profile on FinanceMap) | Total Group AUM (USD, 2019) [9] | Portfolio Paris Alignment | Engagement Score | Resolutions Filed 2018/19 | Voting, % Support (2018) | CA100+ Signatory | Ownership of CA100+ Companies [10] |
|---|---|---|---|---|---|---|---|
| Largest Asset Management Groups | | | | | | | |
| BlackRock | $6.3 Tn | -19% | C | 0 | 9 | N | 4% |
| Vanguard | $5.3 Tn | -19% | C- | 0 | 16 | N | 4% |
| UBS | $3.4 Tn | -21% | A- | 1 | 71 | Y | 0.4% |
| State Street | $2.8 Tn | -16% | C+ | 0 | 40 | N | 1.7% |
| Fidelity | $2.4 Tn | -19% | D+ | 0 | 33 | N | 0.9% |
| Allianz | $2.2 Tn | -20% | B+ | 0 | 84 | Y | 0.1% |
| JPMorgan Chase | $2.1 Tn | -18% | C- | 0 | 29 | N | 0.5% |
| Capital Group | $1.9 Tn | -16% | D+ | 0 | 7 | N | 0.8% |
| BNY Mellon | $1.8 Tn | -17% | B+ | 1 | 33 | N [11] | 0.4% |
| Credit Agricole/Amundi | $1.7 Tn | -17% | B | 0 | 82 | Y [12] | 0.3% |
| Morgan Stanley | $1.65 Tn | -16% | C | 0 | 52 | N | 0.2% |
| AXA | $1.6 Tn | -19% | B+ | 1 | 75 | Y | 0.2% |
| Goldman Sachs | $1.5 Tn | -21% | C- | 0 | 31 | N | 0.3% |
| Legal & General | $1.5 Tn | -21% | A | 1 | 93 | Y | 0.3% |
| TD Bank | $1.1 Tn | -13% | C- | 0 | 71 | Y | 0.2% |

[9] AUM in this context refers to all assets held by the financial group (including insurance funds, private trading accounts, wealth management). The AUM data was taken from websites of the asset managers.
[10] This figure is the average % (mean) that the asset managers hold across all 160 CA100+ companies
[11] BNY's primary asset manager Newton Investment Management is a CA100+ member
[12] Credit Agricole's primary asset manager Amundi is a CA100+ member

| Asset Managers Filing the Most Climate-Related Shareholder Resolutions | | | | | | | |
|---|---|---|---|---|---|---|---|
| Hermes Investment Management | $683.6 Bn [13] | - | A+ | 1 | 87 | Y | - |
| Sarasin & Partners | $16.6 Bn | - | A+ | 0 [14] | 89 | Y | - |
| Walden Asset Management | $3.6 Bn | - | A- | 2 | 90 | Y | - |
| Trillium Asset Management | $2.5 Bn | - | A- | 7 | 95 | Y | - |
| Zevin Asset Management | $500 Mn | - | A | 1 | 90 | Y | - |

[13] Includes Hermes Investment Management AUM US $14.3BN + US $637.8BN engagement mandates of Hermes EOS.
[14] Sarasin filed no climate-resolutions in 2018/19, however, they have filed several in previous years. It also voted against companies' Accounts and Statements, Auditors or Directors at 11 company AGMs in 2018 for climate-related reasons.

# Appendix B: Climate Relevant Voting Records

The following table details the voting records of the 15 largest asset management groups on shareholder resolutions defined as climate-relevant by the methodology. Note that figures refer to the % of votes in favor of climate-relevant resolutions in which the investor was eligible to vote (i.e. at the AGMs of companies in which they owned shares at the time of the vote).

| Asset Manager Group | $CO_2$ Emissions Disclosure | $CO_2$ Emissions Target Setting | Climate Risk/ Scenario Analysis | Renewable and Energy Efficiency | Deforestation | Climate Policy Lobbying | Voting on Climate-related Resolutions |
|---|---|---|---|---|---|---|---|
| % of Votes Cast in Favor of Resolutions in Category | | | | | | | |
| Allianz | 83 | 92 | 85 | 83 | 100 | 88 | 100 |
| AXA | 83 | 88 | 64 | 50 | 100 | 100 | 0 |
| BlackRock | 0 | 0 | 42 | 0 | 0 | 0 | 0 |
| Capital Group | 0 | 0 | 33 | NA | 0 | 0 | 0 |
| Credit Agricole | 100 | 90 | 67 | 67 | NA | 100 | 0 |
| Fidelity | 33 | 33 | 70 | 17 | 0 | 13 | 0 |
| Goldman Sachs | 17 | 43 | 50 | 17 | 0 | 25 | 0 |
| JPMorgan Chase | 50 | 13 | 36 | 0 | 0 | 75 | 0 |
| Legal & General | 100 | 90 | 75 | 100 | 100 | 100 | NA |
| Morgan Stanley | 60 | 53 | 64 | 33 | 100 | 50 | 0 |
| State Street | 33 | 56 | 58 | 14 | 0 | 25 | 0 |
| UBS | 83 | 77 | 77 | 43 | 100 | 75 | 100 |
| Vanguard | 0 | 13 | 50 | 0 | 0 | 0 | 0 |
| BNY Mellon | 40 | 29 | 56 | 0 | 0 | 25 | 0 |
| TD Bank | NA | 83 | 0 | 50 | 100 | 67 | NA |
| **Totals** | **47** | **49** | **59** | **28** | **35** | **51** | **11** |

# Appendix C: Scoring Engagement and Resolutions

The following table details the queries used to assess corporate-investor engagement on climate and to generate the engagement score.

| Query Number | Engagement/Resolution Categories | Weighting of Query | Query Description |
|---|---|---|---|
| **1** | Engagement Transparency | 6% | Is the Asset Manager (AM) transparent about who it has been engaging with and on what issues? |
| **2** | Climate Engagement Framework | 9% | Does the AM use a high-level framework that will inform the content and targets of engagement on climate? |
| **3** | Milestones for Success | 9% | Does the AM use a defined structure for engagement and milestones to measure progress against? |
| **4** | Engagement on Paris Aligned Business Models | 10% | Is the AM engaging companies to transition their business models in line with the Paris Agreement? |
| **5** | Engagement on Climate Lobbying | 10% | Is the AM engaging companies to align their climate policy influence with the Paris Agreement? |
| **6** | Climate Engagement Impact | 12% | Has the AM driven climate-related behavior change on climate through engagements? |
| **7** | Collaborative Engagement | 10% | Does the AM use participate in collaborative engagement to transition companies in line with the Paris Agreement? |
| **8** | Escalation Strategy | 9% | Does the AM deploy a robust engagement escalation strategy across its company? |
| **9** | Resolutions: Voting Transparency | 6% | Does the AM disclose its AGM voting records and the rationale for its voting decisions? |
| **10** | Resolutions: Climate-Relevant Voting | 10% | Has the AM voted in support of climate-relevant shareholder resolutions? |
| **11** | Resolutions: Lead & Co-filing | 10% | Has the AM supported the filing of climate-relevant shareholder resolutions? |

# Frequently Asked Questions

*This document should be viewed in conjunction with the FinanceMap Methodology* available as a download at this URL. *We point users to our* Terms and *Conditions for issues relating to the use of and reliance on our data.*

## What is FinanceMap?

FinanceMap.org is an online, publicly available platform that looks at the asset management sector through a climate lens, examining portfolios, investor-engagement processes, and shareholder resolutions. The twin objectives are to give asset owners and other key stakeholders insights into how the asset management sector is performing on climate change and to drive improvement within the sector by providing benchmarking information.

## What metrics and analysis does FinanceMap provide?

FinanceMap applies the market-leading Paris Agreement Capital Transition Assessment (PACTA) methodology managed by 2 Degrees Investing Initiative to a universe of 50,000 listed funds to assess the alignment of portfolios with the Paris Agreement. The platform also provides metrics on investor engagement with companies on climate, using a methodology developed by the FinanceMap team in consultation with leading global asset managers. It also gathers metrics on the filing and voting behavior of asset managers on climate-relevant shareholder resolutions. The methodology is benchmarked against the 2020 UK Stewardship Code published by the UK's Financial Reporting Council.

## How will this information be made available?

The information will be online at FinanceMap.org. Users may search by the financial entity or fund. Information on portfolio analysis will be available on a fund and aggregated up to asset manager or asset manager group level so users may examine trends in the market and within a single financial group. Information on engagement and resolution analysis will be at the asset manager group level. The user interface will be simple, easy to use and focused on financial groups, with drill-down to funds and tabs for portfolio analysis and engagement/resolutions performance. The results will be free to use with site registration required.

## Who is behind this work?

FinanceMap is produced and managed by London based climate think tank InfluenceMap, in cooperation with partners, 2 Degrees Investing Initiative, convener of the Paris Agreement Capital Transition Assessment (PACTA) project that underlies the portfolio analysis, and the WWF European Policy Office. The FinanceMap team is working closely with asset owners and managers and financial data providers/consultants to ensure the FinanceMap is accurate and will be useful. The work is funded by EIT Climate-KIC and the KR Foundation.

## How do you map out the finance sector?

FinanceMap assesses 50,000 listed funds (and their constituent holdings of equities/bonds) managed by 4,000 asset managers globally, the latter of which are part of 150 financial groups (e.g. iShares UK Equity Index Fund is operated by BlackRock Investment Management UK Ltd which is part of the global BlackRock Group). The 50,000 funds hold US $21.5Tn in listed equity assets (roughly 30% of the total value of all listed companies globally) as of December 2018. The FinanceMap universe thus offers a highly plausible representation of global finance and markets. FinanceMap's analysis considers the asset management operations of each of the financial groups only. Unless otherwise stated by the financial group, it is assumed that the company-engagement processes as disclosed relate to the entire group.

## How do you define listed funds and their management?

This research considers "listed funds" as collective pools of capital, managed by investment professionals and traded on markets or offered to institutional/other investors in a regulated manner. The open-ended segment of this market is likely to contain up to 30% of all global market assets, according to the European Fund and Asset Management Association as of 2018, so the dynamics of these markets are highly important. Listed funds are commonly described as passively or actively managed. In reality, there is a spectrum of management strategies used. For example, 'Full Index-Tracking' (defined as funds which hold positions in all securities of the underlying index in proportion to their weightings in the index); 'Optimized Index-Tracking', wherein index replication is achieved by investing in a representative sample of securities.

## How do you identify the largest financial groups?

In assessing the assets held by these large asset management groups, FinanceMap's research aggregates the value of all the assets managed by companies operating under the parent organization. In some cases (e.g. AXA, Legal & General, JPMorgan Chase) the same financial group may contain companies active in (in addition to asset management) other financial-sector activities such as insurance, management of company-own pension funds, banking and advisory work. Portfolio analysis of the financial groups is done via analysis of the listed funds these financial groups operate, for which good data on equity/bond holdings is available.

## How do you obtain fund ownership data and how accurate is it?

FinanceMap's data on the share and bondholders of listed companies derive from a number of disclosure sources, which may be mandatory (e.g. US SEC 13-F filings applying to asset managers with more than US $100mn under management) or voluntary (e.g. the Government Pension Fund of Norway's portfolio disclosure). These disclosures vary by region and share/bondholder type. FinanceMap's data is most accurate and complete for listed funds, followed by asset managers and then by asset owners. By region, the US offers the most complete disclosure on the shareholders of companies. For example, roughly 70% of ExxonMobil's shareholders can be identified, while this figure is significantly lower for Chinese and Russian fossil fuel

companies and investors. The gap in data of any company's shareholders is primarily due to the lack of disclosure requirements for individual investors, special purpose companies, or small-scale asset managers.

### Do you look at bonds?

The initial FinanceMap release focuses on listed equity holdings. Future releases will incorporate analysis of corporate bond holding data as part of the project's gradual rollout of a full set of portfolio metrics.

### How do you assess portfolio alignment with the Paris Agreement?

FinanceMap's portfolio alignment metric is based on the Paris Agreement Capital Transition Assessment (PACTA) managed by the 2 Degrees Investing Initiative. This considers the underlying assets controlled by the companies in the portfolio and their future evolution with IEA climate scenarios. It covers sectors with significant climate risk: auto, electric power, fossil fuel production, shipping, aviation, steel, and cement production. FinanceMap then implements a method to move from these technology-level results to the *Sector* and *Portfolio Paris Alignment (PA).* Each *Sector PA* is a weighted average of the technology-level deviations for every technology within a sector. The technology deviation results are weighted both by the portfolio's exposure to each technology as well as the technology's importance to global emissions as determined by the IEA.

### How did you choose a 'Paris Aligned' scenario?

FinanceMap analysis uses the IEA's 'Beyond 2 Degrees' Scenario (B2DS), which provides a pathway for a 50% chance of limiting warming to 1.75$^{0}$C. With respect to a temperature target, the B2DS is the most ambitious available from the IEA as of October 2019. While there are other climate scenarios with more ambitious temperature targets, the IEA's scenarios are the most granular and span the broadest number of sectors, allowing for a more robust analysis. As other equally useful scenarios become available and are integrated by 2Dii into PACTA, FinanceMap analysis will be updated accordingly.

### How do you measure the investor-company engagement process on climate?

FinanceMap's methodology to measure the engagement process on climate was developed in consultation with several of the world's leading asset managers and uses key aspects of the UK Financial Reporting Council's 2020 Stewardship Code. The Stewardship Code was chosen to benchmark engagement quality as it provides an ambitious framework and detailed definitions of what constitutes effective engagement. FinanceMap defines the term 'engagement' as referring to all investor actions undertaken to influence the management strategy of the companies they own including: private communications with corporate management and appointed advisors; questions at AGMs/other company meetings; comments on the company in the media or public fora; escalation and the shareholder resolution process (filing, voting behaviour). FinanceMap's methodology breaks the engagement process down into a set of sub-activities and looks for evidence associated with these across publicly available data sources (company disclosures, financial

filings, CDP and AODP analysis). Sub-scores are available for these sub-activities: for example, if a user wishes to isolate an asset manager's behavior on shareholder resolutions.

### How do you decide what a "climate-relevant" resolution is?

Climate-relevance categorization of shareholder resolutions is based on the IPCC's Special Report on 1.5°C and its concluded need for "rapid and far-reaching transitions in land, energy, industry, buildings, transport, and cities." FinanceMap scored voting on any resolution where the intent and likely outcome is consistent with this IPCC stated need. For example, a resolution requesting a utility company to increase its renewable energy production would be considered "climate-relevant". A resolution where any climate-impact would be indirect or unclear, for example, requesting a company to disclose on ESG, is not classed as "climate-relevant". The voting data is drawn from asset managers' websites and disclosures to the US Security Exchange Commission (SEC) and to InfluenceMap directly. Resolutions in the following categories were included in the analysis: $CO_2$ Emissions Disclosure; $CO_2$ Emissions Target Setting; Climate Risk/ Scenario Analysis; Renewable and Energy Efficiency; Deforestation; Climate Policy Lobbying; Disclosure of Voting on Climate-related Resolutions.