Engagement Impact Methodology

Our analysis involves three main steps: data generation, impact scoring, and interpretation and analysis.

First, we identify and code how investors have engaged with companies on climate change over the past five years. We do this by writing narrative case studies interpreting the investor-company interplay of every engagement and collecting data-points on a menu of *investor*, *company*, and *systemic* variables based on our starting hypotheses.

Second, we run the findings from our case studies through a series of *scoring heuristics* benchmarked against the Paris Agreement and other widely recognised climate objectives to rank the impact of each engagement. Our impact assessment is based on a composite of weighted factors: the importance of the area the company moves on, the quality and extent of its change on that area, and the responsibility of the engagement for that change.

Third, we use two approaches to interpret this universe of data. We search for *quantitative* associations between the impact of engagements and our investor, company, and systemic variables, scanning the data for patterns, combinations and conjunctures. We then apply a range of *comparative* techniques to simulate the quasi-scientific conditions necessary to isolate causation and to qualitatively assess the role of investor, company, and systemic variables. Moving between these two techniques, we synthesise our results to reach a final set of conclusions.

Case Selection

We initially focused on the **utility sector** because of its foundational role in the fossil fuel economy. International Energy Agency figures suggest that electricity generation accounts for 40% of all energy-related greenhouse gas emissions, or over a quarter of all anthropogenic emissions[1]. Other sectors of the economy can only effectively decarbonise if clean energy is first made available to them by utilities[2]. Road transport, industry and heating all need to be electrified to reach a low-carbon economy, for example. But the size of the emissions reductions achieved by electrification will ultimately depend on the carbon intensity of its generation source. Changes in the utility sector therefore have the potential to ramify across the economy. It is in the utility sector, then, that investors are likely to have the most significant impact on global emissions.

We examine utility companies *across* ***four continents*** — North America, Europe, Asia and Australasia — for several reasons. The first and most simple reason is that the most

[1] IEA, 2019, Tracking the Decoupling of Electricity Demand and Associated CO2 Emissions.
[2] IEA, 2020, Global EV Outlook; McKinsey, 2020, Plugging in: What Electrification Can do For Industry.

extensive utility emitters are not concentrated in any one region. While North America and Europe's coal-powered energy production has dipped over the last thirty years, for example, production across the Asia Pacific region has increased by more than three and a half times.[3] At the same time, investor engagement has concentrated overwhelmingly on Europe and North America. This imbalance calls for urgent redress. Methodological reasons also advise in favour of a global focus. When looking at any region, there are varying *systemic factors* – shareholder rights, investor culture, government regulation — in enabling and constraining investor action. One aim of our research is to identify the role of these variables and control for them.

We selected our sample of twelve utility companies from the **CA100+'s list of targets**, the companies with investable equity that emitted the largest share of global greenhouses gasses. CA100+'s coordinated campaign to influence these companies over the last three years marks a dynamic period, in which we have seen a step-change in the scale and intensity of climate engagement. We focus on companies drawn from this list both so that we can hold constant the influence of this huge, intervening factor in the engagement landscape, and to contrast engagement *before* and *after* the emergence of the coalition. Finally, CA100+ is the focal point of global investor engagement and represents one of our most powerful tools in stewarding the global economy. By aligning our research with their engagement, we hope to be able to inform their work.

Data Generation

We combine two forms of data generation preliminary to our quantitative and comparative analysis.

First, we write narrative case studies reconstructing the interplay between how investors have engaged with our selected utility companies on climate change and how those companies have responded to those pressures. For each company, we set a timeline of how investors have engaged on each ask issue — e.g., stranded assets, target-setting, political lobbying — against a detailed timeline of how companies have moved on those issues. We then overlay these two timelines to isolate the relationship between investor engagements and company changes.

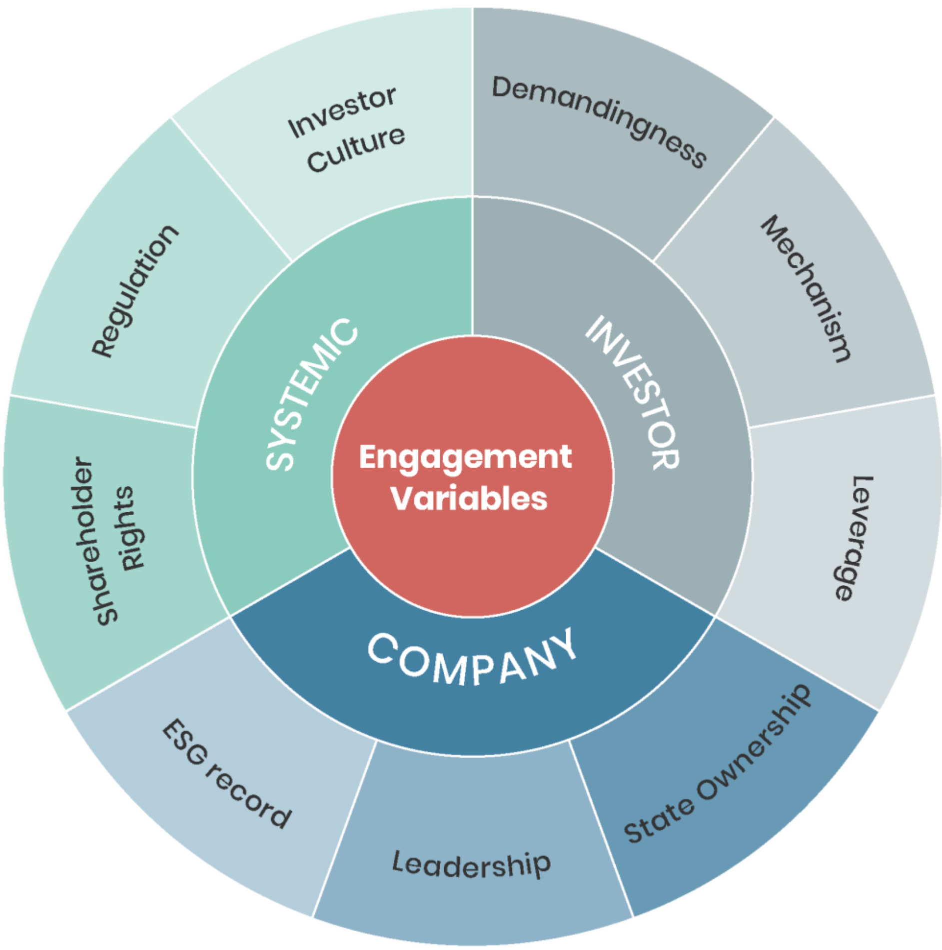
These case studies serve two crucial purposes. We run these findings through a series of scoring heuristics to rank the impact of each engagement, understood as a company's scale of change towards Paris-alignment, and the engager's degree of responsibility for that change. The more an engagement is responsible for moving a company towards Paris-alignment, the greater its impact.

Later, we use these studies as the raw material of our comparative analysis. If our quantitative analysis is built on a data-set where the unit of analysis is each individual

[3] See IEA's region-level data.

investor-company engagement, our case studies give us the qualitative insight necessary to test, deepen, and enrich those findings. This is because our case studies allow us to see the holistic interaction of all engagements and company responses, the causal process of how engagements lead to company changes, and the role of contingent and case-specific factors. By creating an integrative analytical workflow, in which aggregative data analysis and case studies are calibrated in response to one another, we converge on a final result.

Second, we code our engagement data using a menu of investor, company, and systemic indicators. We formulate these indicators on the basis of hypotheses extracted from the small academic literature on investor engagement, expert interviews conducted with asset owners, asset managers and investor activists, and impressionistic findings from our engagement case studies. Our aim is to study the contribution of each coded variable on the impact of an engagement. We record the majority of these variables on interval scales to analyse not only their presence but their extent.



Systemic variables

- ***Shareholder rights*** are how difficult the corporate law of a country makes it for shareholders to influence the behaviour of a company domiciled there. We index this against a country's legal requirements for shareholders to submit a resolution to a general meeting and to appoint and remove directors. Where a company's articles of incorporation and bylaws affect these criteria (e.g. the United States), we also draw on this information.

- ***Investor culture*** is how widespread and established investor engagement is in a country. We use the distribution of CA100+ investor signatories as a proxy for investor culture.
- ***Regulation***, unlike our other variables, is a highly variegated factor that we do not try to evaluate on a generic scale amenable to quantitative analysis. Instead, we use qualitative analysis of the environmental regulations bearing on each company and their specific role in each of our cases.

Company variables

- ***ESG record*** is the company's general performance on environmental, social and governance issues up to the time of the engagement. We index this with year-on-year CDP company impact ratings.
- ***State ownership*** is, of course, the proportion of a company's capital under ownership by a state. This introduces its own unique dynamics into investor-company interactions, moderating the degree of influence an investor can expect to exercise.

Investor variables

- ***Ask mechanisms*** are the channels through which an investor exerts pressure, including resolutions, divestments, the media, and legal action. On a scale of severity (1-5), we record whether resolutions, divestments and legal actions were threatened, and the prominence and type of engager comments in the media.
- ***Ask demandingness*** is the level of change demanded by an investor in their engagement. Some engagements demand modest changes like the disclosure of Scope 1 and 2 emissions, for example, where other engagements demand ambitious changes like the implementation of a full 1.5°C-aligned business model. We understand 'demandingness' as the scale of change towards Paris-alignment requested in an engagement. We evaluate this using the same scale that we employ to judge company change in our assessment of engagement impact. In this sense the *demandingness* of an engagement and the *impact* of an engagement are judged in a self-consistent framework.
- ***Ask leverage*** is the bargaining power an investor brings to an engagement. We record whether an engagement is coordinated by a coalition, such as the CA100+, the dollar value of the engager's holdings in the target company, the engager's assets under management, and the prestige of the personnel conducting the engagement — if they are unaffiliated individuals, non-governmental organisations, sustainability investing teams, portfolio managers, or executive managers.

Impact Scoring

1. What is impact? It is commonly argued that an institutional investor's climate impact is a function of the carbon emissions of the companies in its portfolio. This would suggest that investors can maximise their impact by divesting from egregious carbon emitters. When we speak about 'impact', we are talking about the size of the change one variable exercises on another. This means that the climate impact of an investor's portfolio is not the *net* carbon emissions of the companies in its portfolio, but the *change* that it exercises over those carbon emissions. If an investor exits from its holdings in a company, this by itself tells us nothing about the change this has on the company's emissions.

2. What is the impact of engagement? It is this same logic that speaks in favour of the idea that investors can have the most impact when, instead of dropping their equity in companies in the fossil fuel value chain, they stay and exercise their leverage to positively change the business model of those companies. A growing academic consensus has emerged around this point.[4] But how should we measure the impact of investor engagement?

We regard the impact of an engagement to be the extent to which it changes a company in line with the goals of the Paris agreement. We are therefore interested in tracking the relationship between two variables: investor engagement (independent variable) and company climate performance (dependent variable).

Several organisations host sophisticated databases to track climate performance — or 'company impact' — of the world's largest companies. We draw upon their data wherever possible. 2Dii and the Transition Pathway Initiative (TPI) provide us with our main line of data on the forward-looking greenhouse emissions of companies, InfluenceMap with our main line of data on the climate lobbying of companies. Nevertheless, we have not been able to avoid undertaking our own research into company impact. This is because the demands made by investors in their engagements are often highly specific. If and to what extent companies have implemented those asks cannot be wholly established by high-level data points, but require a granular case-by-case analysis. We draw this information from public records, including annual reports, sustainability reports, CDP disclosures, earnings calls, and policy and academic research.

As discussed in the last section, we use detailed case studies to establish the relationship between investor engagements and company responses. We draw on this analysis to calculate the impact of an engagement, combining two factors.

One factor is the extent of the company's **change** towards the goals of the Paris Agreement. We analyse 'company impact' across six broad areas: disclosure, governance, political lobbying, scenario analysis, target setting and business model

[4] Julian F. Kölbel et al. (2020), 'Can Sustainable Investing Save the World? Reviewing the Mechanisms of Investor Impact', *Organization & Environment*, 33(4), pp.554-574.

changes. We weight these areas to account for the fact improvements in each of them do not move companies an equal distance to Paris-alignment. For example, a company disclosing its emissions or releasing a scenario analysis, by their nature, have less impact than a company setting a net-zero target or decarbonising its business model

Drawing on established climate benchmarks, we then break each of these areas down into five progressive milestones, climbing from the lowest-impact company changes possible, to the highest-impact. Consider three actions a company might take on political lobbying: (1) disclose direct and indirect lobbying activities; (2) disclose climate policy and procedures to align trade associations with the Paris Agreement; (3) take material action to align company trade associations with the Paris Agreement. Each of these actions takes a company progressively closer to the objectives of the Paris Agreement. Using milestones of this kind, we judge the extent of a company's change towards Paris-alignment, as the difference between the milestone it began on, and the milestone it ended on. This means we judge the impact on the basis of how far a company has actually changed in response to an engagement.

If the first factor for calculating impact is the extent of a company's change towards the goals of the Paris Agreement, the second factor is how **responsible** an engagement is for that change. Often a particular engagement is one of several identifiable reasons for a change in company impact. In this case, it could only claim partial responsibility for the impact. Other times it is clear than an engagement is the exhaustive cause of a change in company behaviour, in which case we credit it with full responsibility for the impact. We use a carefully calibrated scale of responsibility 1 through 5.

In summary, then, we calculate the impact of an engagement as the weighting-adjusted change in the company for which the engagement is responsible.

3. Company and Real-World impact. We distinguish between real-world and company. *Real-world impact* refers to material changes in a company's climate performance. Two of the six areas of impact we analyse fall under this category: changes in a company's business model, and changes in a company's political lobbying, towards Paris-alignment. This is the ultimate end-goal of all pressure exerted on a company. Whether a company reduces its capital expenditure in fossil fuels, brings forward the retirement date of a coal plant, or exits from a trade association holding back regulations to limit the carbon-intensity of energy generation — all are examples of changes with real-world effects on anthropogenic emissions.

Company impact refers to changes which help move a company towards these real-world effects, but which do not themselves have those real-world effects. Our four other areas of impact are of this kind: disclosure, scenario analysis, governance, and target-setting. How do these company impacts work? Disclosure and scenario analysis forces a company to confront its exposure to climate risks, allow the market to price-in these risks and drive *real-world impact* through reducing the availability of capital, and give investors, stakeholders and civil society the information to hold companies to account. Climate governance and target-setting are commitment devices, forcing companies to adopt policies, practices and objectives to reduce their real-world impact in the future.

By separating out these two forms of impact, we are able to distinguish between cases in which companies take *preliminary* moves to reduce their impact on the climate, from cases in which they take *material* steps to that directly ameliorate their impact. It is the second of these, which is our ultimate priority. Put more bluntly, we are able to separate talk from action.