



2023 Climate Change Engagement & Voting Report

April 2024

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J.P.Morgan
ASSET MANAGEMENT



This report is as of December 31, 2023 and includes information that was obtained at an earlier date during the course of engagements with companies or in the course of voting proxies. Such information has not been updated, verified or audited. The case studies and examples are provided for illustrative purposes only and may not be updated in the future. While we view engagement as an important part of understanding the risks and opportunities facing companies held in or client portfolios, such engagement may not be effective in identifying such risks and opportunities and we do not guarantee any particular results or company performance as a result of such engagement. The engagement statistics are approximations only and were derived from our internal research notes to help identify engagements related to specific engagement priorities and sub-themes. Such information has not been audited and no assurance can be made with respect to the accuracy or completeness of such information.

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Introduction

The global energy crisis that characterized 2022, and the need for countries to secure affordable energy supply while balancing decarbonisation needs, has continued into 2023. This has been accompanied by high inflation and elevated interest rates causing a cost-of-living crisis in many parts of the world, as well as posing challenges to national and company-level decarbonisation plans through increased costs of financing capital-intensive renewable energy projects.

Global long-term commitment to the low-carbon transition is clear, with more than 140 countries now having set net zero greenhouse gas emissions targets.¹ However, the current challenges and the fact that most countries with net zero targets have not yet established the range of policies that will enable them to reach their targets, creates the risk of a disorderly transition and volatility.² This disconnect between long-term targets and current policy creates uncertainty for investors and companies seeking to benefit from the opportunities or manage the risks that will arise from the shift to a low carbon world.

Navigating this uncertainty is complicated further by risks associated with an increase in the physical impacts of climate change. NASA's scientists declared the summer of 2023 as the earth's hottest since global records began.³ Deadly wildfires in Canada and Hawaii followed extreme rainfall and flooding in Italy and Greece. These events damage assets, disrupt supply chains and hinder the ability of companies to do business. The increasing frequency and intensity of such events could have consequential impacts on investments.

In 2023 we engaged with 517 companies on climate change. Engagement plays an important role in managing risks and opportunities in our client portfolios by understanding if companies are considering the latest climate science and likely policy shifts, building agility into their planning, and

recognising uncertainties which could impact the speed of the transition. We also express our views through our voting activity, holding boards accountable through routine votes as well as supporting resolutions that we feel will support companies toward addressing financially material risks and opportunities.

This report includes excerpts from our 2023 Investment Stewardship Report. It outlines how we use our active ownership to address risks and opportunities through direct engagement with companies on climate change, having engaged with 517 companies on climate change in 2023. Engagement plays an important role in managing risks and opportunities in our client portfolios by understanding if companies are considering the latest climate science and likely policy shifts, building agility into their planning, and recognizing uncertainties which could impact the speed of the transition. This report also demonstrates how we express our views through our voting activity, holding boards accountable through routine votes (having enhanced our Global Proxy-Voting Guidelines this year to address the management of financially material climate risks) as well as supporting resolutions that we feel will support companies toward addressing financially material risks and opportunities.

We hope you find our report useful in understanding the important role our investment stewardship plays as part of managing risk and generating long-term returns for our clients. For a full report into our investment stewardship practices please see our 2023 Annual Investment Stewardship Report. Thank you for your continued feedback, trust and confidence.

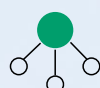
¹ <https://www.un.org/en/climate-change/net-zero-coalition>

² <https://www.mckinsey.com/capabilities/sustainability/our-insights/the-net-zero-transition-what-it-would-cost-what-it-could-bring>

³ <https://climate.nasa.gov/news/3282/nasa-announces-summer-2023-hottest-on-record/>

Engaging companies on climate change

Engaging companies on climate change



517

Number of companies engaged on climate change



41

Number of markets engaged on climate change



27

Number of sectors engaged on climate change

Top markets engaged on climate change

Country	%
United States	26.4%
United Kingdom	12.7%
Japan	11.1%
China	5.7%
Germany	4.4%
India	4.4%
France	3.8%
Australia	2.7%
Switzerland	2.4%
Taiwan	2.4%

Top sectors engaged on climate change

Sectors	%
Capital Goods	15.9%
Materials	14.9%
Utilities	14.2%
Energy	13.3%
Food, Beverage & Tobacco	4.9%
Banks	4.5%
Technology Hardware & Equipment	3.3%
Semiconductors & Semiconductor	3.2%
Commercial & Professional Services	2.9%
Insurance	2.7%

Our Climate Change Engagement Strategy

As a global asset manager, JPMAM believes climate change and the transition to a low-carbon economy present significant risks and opportunities to clients' investment portfolios and to the assets that JPMAM manages on their behalf. As part of our business's strategy to help clients manage climate risks and opportunities, JPMAM became a signatory to The Net Zero Asset Managers initiative (NZAMI) in November 2021, in support of the goal to reach net zero greenhouse gas emissions by 2050 or sooner. JPMAM has included all of its AUM in listed equities and corporate bonds, as well as certain direct investments in forestry, in scope for its targets.⁴

JPMAM will measure its progress towards its targets by the proportion of companies in which it invests that have set their own credible net zero targets. By 2030, JPMAM anticipates that the percentage of its AUM held in companies with science-based targets will increase from 20% to 55%. Investee companies that set and act on credible science-based net zero targets can help manage risk and build and sustain shareholder

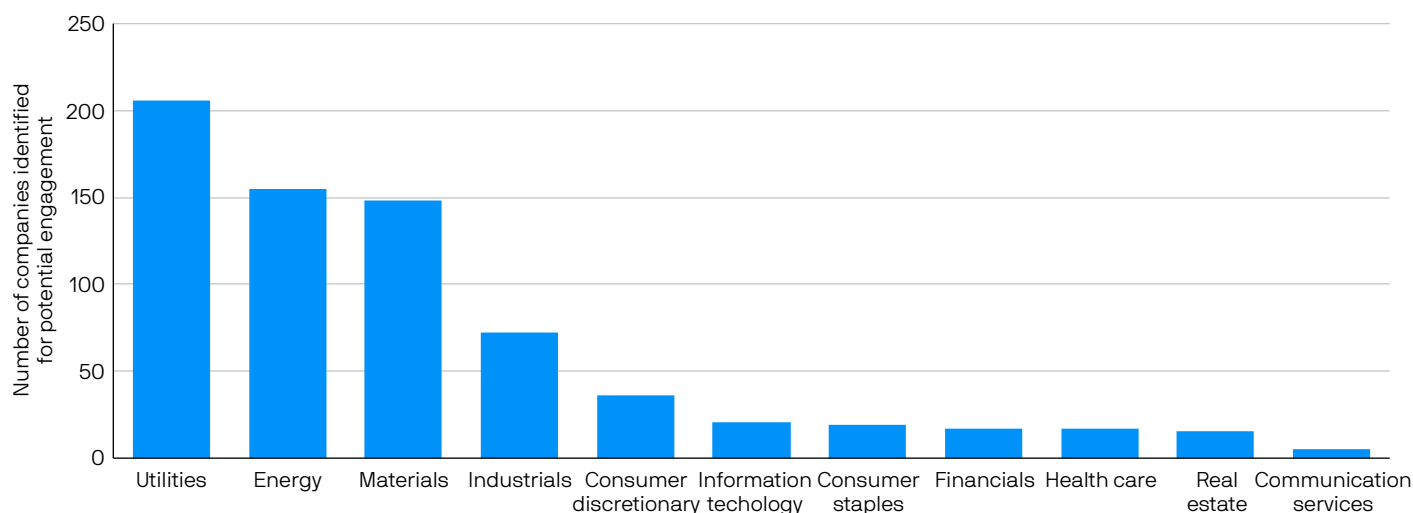
value over time to the benefit of client accounts.⁵

For companies where we assess climate poses a material risk, JPMAM engages with investee companies on the credibility of their target setting, as well as broader aspects of their decarbonisation strategy, and climate risk reporting.

Prioritizing companies for climate engagement

In prioritizing companies for climate engagement, we consider indicators like the company's GHG emissions footprint and the size of our holding of the company's securities, to understand where our investments could be most exposed to transition risks. However, we also use sector-specific knowledge and research to inform our assessment of the materiality of these risks, how these might manifest for particular sectors and companies and where our engagement can most effectively be used to ensure drive investment outcomes.⁶

Analysis to identify companies for potential engagement



Source: J.P. Morgan Asset Management. Prioritizing companies without third-party validated medium-term emissions reduction targets, where both JPMAM 2022 holdings and Weighted-Average Carbon Intensity (WACI) are largest

⁴ <https://www.netzeroassetmanagers.org/signatories/j-p-morgan-asset-management/>

⁵ JPMAM's role remains, first and foremost, as a fiduciary to our clients, with a singular focus on acting in their best interests. Our ability to meet our targets is dependent on sustained and consistent government policy, accelerated technological breakthroughs and substantial adaptation in corporate business models. The ability to meet specific targets is contingent on action from a range of parties.

⁶ For example, the insurance sector does not have significant operational emissions, but physical climate-change impacts will have a significant impact on their property and casualty business.

Our Climate Change Engagement Strategy - continued

We believe that global emissions reductions will ultimately be driven by users of energy and the introduction of policies to limit fossil fuel demand and incentivize the use of lower-carbon alternative sources of energy.

Sectors such as utilities, transport and industrials already face transition risks (and opportunities) including carbon taxes on emissions,⁷ bans on internal combustion engine vehicles,⁸ and mandates around the use of Sustainable Aviation Fuels (SAFs).⁹ These measures are likely to ramp up and could increase the cost of emissions-intensive inputs and compress margins. This may further incentivize the electrification of vehicles and the development of scalable technologies to reduce fossil fuel use in aviation and industrial processes.

We have therefore prioritized demand-side companies (users of fossil fuels) for engagement, as we deem engagement more likely to be effective at mitigating climate-related transition risks and ensuring investment returns, focusing on sectors such as transport which currently account for 53% of oil demand¹⁰ (see Lufthansa example below). We engage these companies guided by our Climate Change Engagement Framework, asking for (among other things):

- (1) clear disclosure of climate-related risks and opportunities facing the company in line with the TCFD recommendations; and
- (2) where necessary to mitigate material risks, that such companies to set their own scientifically credible emissions reductions targets and transition plans, which outline how targets will be met, the investments required and the financial implications for investors.

We acknowledge that for a number of sectors, significant hurdles exist for companies seeking to decarbonize today, ranging from a lack of proven technologies to help reduce emissions to an unhelpful policy environment. Companies should clearly disclose these challenges and the actions being taken to address them, such as partnerships with academic institutions and government entities or investments in research and development.

It is important to also engage energy sector companies around the material risks the sector faces in regard to the low-carbon transition. However, we believe engagement strategies that focus on limiting the supply of fossil fuels will only push supply to producers in other geographies with potentially lower production standards, or cause demand-supply imbalances that will increase price volatility and the need for expensive or unreliable energy imports.¹¹

Our approach of prioritizing engagement with the demand side is designed to help manage investment risk for those companies. As these companies decarbonize, demand for fossil fuels and global emissions will fall. The focus of our engagements with the energy sector therefore ensures that we can assess the companies most likely to deliver returns in a low-carbon future when fossil fuel demand is significantly lower than it is today. Engagement focuses on demonstrating low-cost operational excellence and emissions reduction, the use of the latest methane emissions measurement and management practices and demonstrating how future changes in demand are being incorporated into scenario risk analysis and forward planning.

⁷ https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/scope-eu-emissions-trading-system_en

⁸ <https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030>

⁹ https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2389

¹⁰ <https://iea.blob.core.windows.net/assets/830fe099-5530-48f2-a7c1-11f35d510983/WorldEnergyOutlook2022.pdf>

¹¹ <https://www.brookings.edu/articles/reducing-us-oil-demand-not-production-is-the-way-forward-for-the-climate/>

Our Climate Change Engagement Strategy - continued

Case study



Lufthansa



Germany



Equity, Bonds

Issue

The aviation sector accounts for over 2% of global energy-related CO₂ emissions, having grown faster in recent decades than road, rail or shipping. Lufthansa is the second largest airline in Europe. In addition to holding the company's equities in our client accounts, we hold the company's bonds in certain high yield strategies. The company has set ambitious decarbonisation targets. In light of growing policy developments in Europe, we sought to gain more clarity on the company's targets its decarbonisation strategy and its ability to deliver it in a cost-effective way.

Action

We engaged the company in 2022 and encouraged having its emissions reduction targets validated by a third party to ensure credibility. The company explained that pre-2030 modernisation will account for the lion's share of the emissions reductions targeted. The company also noted that Sustainable Aviation Fuels (SAFs) will play a key role from 2025, noting that the company had announced an investment of USD 250 million in SAFs until 2024. Proposed EU legislation on SAF usage would mandate the inclusion of at least a 2% blend in airline fuel (increasing to 5% in 2030).

We met the company again in 2023, including one meeting with the board chair. The company raised concerns about the lack of SAF availability to meet the EU's blending quota, which became legally binding in September 2023, as well as the high associated costs. There will also be notable costs associated with changes to the EU Emissions Trading System (ETS) rules which will phase out allowances for the aviation sector by 2026. In response to our questions concerning its engagement with policymakers, the company explained that it had advocated for a border adjustment mechanism in the EU to ensure a level playing field on a global basis. We encouraged the company to be transparent about its advocacy on these issues and that of the trade associations it belongs to.

For us to better understand the materiality of the transition risks the company faces, we also encouraged the company to enhance its climate change risk TCFD reporting which remains relatively high level and does not incorporate some of these more recent financial elements discussed.

Outcome and next steps

Since starting our engagement with the company, it has achieved validation of its decarbonisation targets by the Science Based Target initiative (SBTi), making it the first aviation company in Europe to do so. We welcome this and will monitor the evolving transition risks the company faces and its ability to mitigate such risks.



Regional Spotlight: Engaging emerging market debt issuers in Gulf States

We note that climate risks can increase for companies in certain jurisdictions as governments and societal expectations of companies change over time. Ahead of the COP28 Climate Change Conference taking place in UAE in November 2023, we engaged with a number of companies in the region around their plans to meet new or more ambitious national targets set in countries like Saudi Arabia and the UAE in recent years, after a number of years of inaction on climate. We seek to understand how companies are navigating this

evolving context and preparing for measures likely to be cascaded down from the national government. We have encouraged companies to demonstrate how their plans, at a minimum, align with national targets in order to mitigate any potential transition risks. We also ask companies to provide investors with transparent TCFD-aligned reporting and clearer information concerning their capital allocation plans to support the delivery of the targets they have set so that investors can assess the financial implications.

Case study



Saudi Electricity Company (SECO)



Saudi Arabia



Bonds, Equity

Issue

Saudi Electricity Company (SECO) is the biggest producer of electricity in the Kingdom of Saudi Arabia (KSA) and has a monopoly on the transmission and distribution of electric power in the country. The KSA has pledged to reach net zero emissions by 2060, to have 50% of its electricity generated from renewable energy by 2030 and to completely displace liquid fuel for gas. We engaged with SECO to assess its positioning in order to understand how the company would mitigate transition risks associated with the national transition plans.

Action

We sent a letter to the company in early 2023 and followed up with a meeting. The company explained that it is on track to meet its target to reduce its Scope 1 and 2 GHG emissions by 25% by 2025 (vs. a 2016 baseline). We noted the longer-term KSA national targets and recommended the company also consider setting credible medium- and longer-term emissions reductions. The company acknowledged our feedback and its intention to enable the KSA's national targets.

The company has a directly owned generation capacity of 58 GW, centred on diesel- and gas-powered plants. The company intends to transition towards a cleaner energy mix by fully replacing liquid fuel with gas by 2030. We encouraged the company to set its own renewable energy capacity targets to align with the national vision. SECO is the sole transmission and distribution player in the country, and any new renewables projects must be integrated into the grid through it. The company plans to invest USD 3 billion by 2026 for 25 renewable interconnection projects growing the grid's renewable energy capacity to approximately 19 GW by 2025.

The company explained that it is working on the next issuance of its Sustainability Report. We recommended that the report be aligned with the recommendations of the Taskforce for Climate-related Financial Disclosures (TCFD) to provide investors with the necessary information to assess the climate-related risks the company faces.

Outcome and next steps

The company's 2022 ESG report, published later in 2023, included an early attempt at TCFD-aligned reporting, which we welcomed. In order to continue to understand the transition risks facing the company, we will monitor the company's progress with regard to its own target setting and alignment of plans to support the country's decarbonisation ambition.

Regional Spotlight: Engaging emerging market debt issuers in Gulf States - continued

Case study



Abu Dhabi National Energy Company (TAQAUH)



UAE



Bonds

Issue

Ahead of the COP28 Climate Change Conference, the United Arab Emirates (UAE) increased the ambition of its Nationally Determined Contributions (NDCs) as well as its National Energy Strategy, committing to triple renewable power-generation capacity and increasing the share of clean energy in the energy mix to 60%.

In order to understand how Abu Dhabi's energy and utility company TAQAUH would mitigate any potential resulting transition risks, we engaged the company. We sought to understand how the company plans to support the delivery of the UAE's new emissions reduction goals and renewable energy targets including whether it intended to have its own targets validated by the Science Based Target Initiative (SBTI).

Action

We met with the company and questioned whether its stated emissions reduction targets (25% absolute reduction in Scope 1 and 2 emissions by 2030) were sufficient to meet the UAE's more ambitious goals. While the company indicated it was confident it would be able to meet UAE's goals, it was not able to currently commit to having its targets validated by the SBTI. This was due to the company's own assessment that its small amount of coal exposure in Morocco, and its estimation that it would need to achieve a ~40% emissions reduction by 2030, would make it difficult for it to have its targets validated by SBTI.

In terms of its decarbonisation strategy, the company described its plans to first decommission its legacy gas plants, indicating this will largely happen by 2028. The company targets 30% of gross generation capacity coming from renewables by 2030. However, the acquisition of renewable energy developer Masdar meant it had already met the target at the time of engagement. In line with UAE targets anticipated to be applicable to the company, we encouraged the company to update its renewables capacity growth target, noting the national renewable energy ambitions.

The company indicated it plans to invest approximately USD 10 billion by 2030 in transmission and distribution networks to cater for growth in electrification. They also identified a list of high-level climate-related risks and opportunities in the 2022 Sustainability Report. We encouraged the company to provide more information including TCFD aligned scenario analysis to provide investors with a clearer sense of the materiality of the issues.

Outcome

In September 2023, TAQAUH revised its growth targets, aiming for 150 GW of gross power generation by 2030, with around 65% of its generation capacity coming from renewable power sources. The announcements included plans to invest approx. USD 20 billion until 2030, towards power and water capacity expansion and transmission and distribution networks.

Engaging with companies around their climate change policy engagement

Almost half of the world's 2000 largest companies¹² have set some form of net zero emissions reduction targets. Strategies and efforts to meet these targets often come with increasing marginal cost of abatement. Many companies assess these costs as important investments in ensuring their longer-term strategic positioning for the low-carbon transition, i.e. reducing the impact of future policies and regulations aimed at internalizing carbon costs. However, in order for companies to improve the shorter- to medium-term profitability of their low-carbon investments, it is important that companies engage with governments in the regions where they operate, to ensure that the regulatory environment is supportive of their strategy and the investments they will be required to make to meet their goals and, often, national climate targets.

However, in certain industries, we have identified potential material risks where certain companies undertake lobbying activities, either directly or through trade associations, that significantly depart from the company's stated goals. Where companies lobby adversely to their stated positions, they expose themselves to increased risks, such as brand and reputation, and external scrutiny and fines by regulators. For example, the California Public Utilities Commission imposed a fine on a utility company for using customer money (included in their utility rates) to fund lobbying designed to block clean energy legislation.¹³ In light of this, we engage with companies to ensure the transparent disclosure of climate-related lobbying activities and companies' policy positions. We acknowledge that companies are members of trade associations for a variety of reasons and believe it is important that companies are transparent about how and where their own policy positions are different to those of the trade associations to which they belong, noting that these will not always be the same.

¹² <https://zerotracker.net/insights/net-zero-targets-among-worlds-largest-companies-double-but-credibility-gaps-undermine-progress>

¹³ For example, see the recent fine related to climate lobbying faced by SoCalGas, a subsidiary of Sempra: <https://www.latimes.com/business/story/2022-02-04/socalgas-faces-10-million-fine-for-fighting-climate-action>

Examples of engagements and voting on climate change lobbying

Company	Nature of lobbying related risks and actions taken
Coterra Energy	We engaged with the U.S. oil and gas producer ahead of the AGM, where it faced a climate-related shareholder proposal asking it to disclose a report on how its lobbying activities, and those of the trade associations they belong to, align with the goal of the Paris Agreement. The company noted that it already disclosed lobbying and political activities, as well as its trade associations and the amounts those trade associations spend on lobbying. Coterra does not disclose a discussion of alignment between themselves and its trade associations on lobbying. We encourage such transparency, especially where we conclude that climate change is a material financial factor, as is the case for Coterra Energy. The lack of such disclosure could expose the company to reputational and legal risks. The company noted that it is willing to disagree with its trade positions and advocate for different positions and cited examples. We supported the shareholder resolution which received 37% support.
Paccar	The vehicle manufacturer has committed to science-based targets to limit global warming to well below 2°C. The company faced a climate-related shareholder proposal at its 2023 AGM, asking it to disclose a report on how its lobbying aligns with the company's stated targets, as well as being transparent about potential differences between company targets and those of the trade associations it belongs to. Our analysis found that the company disclosed in its CDP (formerly the Carbon Disclosure Project) report that its major trade associations are aligned with its current policy positions. The report also stated that, currently, the company's engagement activities are not in line with the Paris Agreement, but in the next two years it will make a commitment to do so. Meanwhile, the Truck and Engine Manufacturers Association (EMA) has been in the news for opposing the Advanced Clean Truck (ACT) rule and other emissions-related regulations and its commitment to the Paris Agreement is not clear. Noting the likelihood of misalignment with the company's own stated policy positions, we supported the proposal which received 47% support.

Engaging with sovereign issuers about climate risk

As investors in sovereign debt, we believe that integrating climate change risk indicators (as well as other ESG factors) helps promote better investment outcomes. Sovereigns with better ESG performance generally trade at lower spreads in developed and emerging markets.¹⁴ Sovereign disclosure of climate change risk data has improved in recent years, and we continue to engage with issuers to advocate for better disclosure. We are also increasingly engaging with issuers of 'green' sovereign debt about both the monitoring and verification of underlying performance metrics and the wider national decarbonisation plans to ensure issuances are part of a credible strategy (see Indonesia case study).

Case study



The Republic of Indonesia



Indonesia



Sovereign Bonds

Issue

Many sovereign economies have set Nationally Determined Contributions (NDCs) which, in order to achieve them, will require significant financing for green infrastructure. A new and increasing trend in sovereign emerging markets is the restructuring of debt, where proceeds are used to fulfil climate commitments, such as via sustainability-linked bonds (SLB). Indonesia was the first country to issue a sovereign green sukuk, Islamic certificates (similar to bonds) that are used for financing environmental-related projects and designed to comply with Islamic law.

Action

We met with the representatives from the Ministry of Finance and the Ministry of Environment and Forestry from Indonesia. The purpose of the engagement was to understand Indonesia's climate-related plans and its intentions for financing them. We explained the need for JPMAM, as investors, to assess sovereign issuers' climate risk mitigation performance as part of assessing more broadly the integrity of sustainability-linked instruments, and we referenced an environmental assessment of countries conducted by Yale University. The representatives from the ministries highlighted that the assessment did not capture Indonesia's enhanced Nationally Determined Contributions (NDC) targets announced in September 2022. The representatives also expected that the planned pollution tax, and the new energy-efficient infrastructure projects, will improve Indonesia's air quality going forward.

We also sought an update on Indonesia's plan in the Just Energy Transition Partnership (JETP), a climate financing program for developing countries backed by the G7 advanced nations. Noticeably, Indonesia has recently released the final draft of its Comprehensive Investment and Policy Plan (CIPP) to support the USD 20 billion climate financing pledge made by the G7 in November 2022. We welcomed Indonesia's medium-term targets of 44% renewable energy generation by 2030, total on-grid power sector emissions peak by 2030 and the 2050 net zero emission for the power sector. That said, only the on-grid power sector is in the scope of these targets, which do not cover the off-grid captive coal-fired power plants built by industrial users. We also asked about the long-term financing plan to meet the total estimated investment cost of USD 97 billion, which is higher than the USD 20 billion initial commitment of the CIPP.

Outcome and next steps

We appreciate the dialogue with the Indonesian government's representatives with respect to its green bond financing programs, an important step for us to understand the sovereign sukuk and its use of proceeds. To gain further insight into how such investments are used to forward the country's medium-term targets, we will monitor the situation and engage, as appropriate, with the sovereign in 2024.

¹⁴ <https://am.jpmorgan.com/content/dam/jpm-am-aem/global/en/insights/portfolio-insights/fixed%20income-sovereigns-and-esg-full-whitepaper.pdf>

Climate Change Stewardship in Alternative Markets

In 2021, JPMAM acquired Campbell Global, LLC, a timberland investment and management company, as part of providing investment opportunities related to climate, conservation, and biodiversity for clients who are looking for such opportunities. Within Campbell Global, we provide investment advisory services to longstanding commercial forestry businesses in the U.S. and globally. Campbell Global aims to have harvested trees replanted, open managed forests for recreational purposes, and report on our activities with precision and transparency. Campbell Global also tracks and discloses key performance indicators across many facets including GHG (greenhouse gas) accounting metrics and nature based KPIs. This helps to monitor and manage ESG considerations over the active management phase of the investment horizon and is critical to help ensure the long-term sustainability of our clients' and beneficiaries' assets. To further demonstrate the commitment to responsible investing, Campbell Global ensures that 100% of our managed investments are certified by a third party forest certification provider.

Case study



Campbell Global



USA



Alternatives

Issue

As Campbell Global is an advisor to clients who own commercial forestry businesses, the foundation of our clients' capital value is tied to the sustainable management of forests, carbon, biodiversity, soil, species, and clean water. Assessing, measuring, and disclosing carbon sequestered by the forests is important to the long-term sustainable management of assets for our clients.

Action

Campbell Global manages over 1.5 million acres of forestland across the globe, a scale which compels us to continuously evaluate and incorporate technologies into our forest inventory measurement capabilities. Forest inventory is the understanding of how much wood (i.e., volume of biomass) is present in forests. Trees grow, or increase in volume, by breathing in carbon dioxide, releasing oxygen into the atmosphere and storing carbon into its biomass. Subsequently, the year over year change in biomass is an important data point in calculating the amount of carbon sequestered by forests.

Traditional forest inventory measurement methods involve ground based methods whereby humans directly sample points in the forests and measure the height, width, and diameter of trees to build models and estimate the volume of the surrounding forest. While Campbell Global still employs this method, we piloted various remote sensing methods, i.e., airborne technologies such as lidar, drones, and photogrammetry, at one of our properties in the Pacific Northwest of the United States in 2023. Airborne technology results were cross referenced with ground based sampling to not only evaluate how accurately technologies could visualize and measure biomass through tree canopies and varied topographies, but also understand the cost of utilization as ground based sampling requires more time and personnel to sample, collect, and analyse data.

Outcome and next steps

Results from 2023's pilot suggest that the use and incorporation of remote sensing in digitizing forest inventory promote gains in cost efficiency, more complete mapping of the forest, and improved precision in carbon accounting. Following these promising results, Campbell Global is conducting another pilot in 2024 in the southern United States to understand and evaluate how the use of remote sensing may vary across different topographies/climates/tree species.

Engaging around Climate Opportunities

It is important to note that while these engagements may be unsuccessful, securities of companies may be purchased and retained for reasons other than financially material ESG factors.

We will escalate concerns having reviewed the potential benefits of such action on our objectives, while ensuring we are always acting in the best long-term interests of our clients. Our approach to escalation considers the facts and circumstances of each specific case. However, we note that voting escalation is principally aimed at equity holdings rather than other asset classes where the opportunity to vote is far rarer. We do not generally differentiate our approach to escalation based on geography or fund type – unless there is a valid reason (e.g., our approach to proxy voting for Russian companies following the 2022 invasion of Ukraine or certain votes specific to sustainable strategies). The transition to a low-carbon economy presents an unprecedented opportunity for companies that are responding to the challenges of climate change, investing in innovative solutions and benefiting from shifts in market and consumer preferences. Energy storage, grid resilience, low-carbon transportation and energy efficiency enhancements that enable the transition to create additional investment opportunities. Companies that develop best-in-class solutions in these areas will be well positioned for growth due to the increasing urgency around mitigating climate change; growing policy and regulatory support; and competitive advantages due to increasing customer preferences for energy efficiency and low-carbon solutions. Given the scale of the opportunity for companies within this space, it is important for us to understand whether a company's proposed solutions are likely to effectively deliver their promised outcomes. As disclosure standards are lacking for many of these emerging technologies and are uneven across jurisdictions, we seek to understand how products and services deliver their promised climate outcomes and understand if companies are evidencing their claims.

Avoided emissions

Avoided emissions refer to the emissions avoided through the introduction of a solution (e.g. products, services, technology, projects).¹⁵ This metric seeks to measure the decarbonizing impact of the products and services sold by a company, and so quantifies the emission reductions for the customer purchasing the products/service. While GHG accounting across Scopes 1, 2 and 3 measures a company's historical emissions, avoided emissions instead measure the hypothetical future emission reduction in society due to the introduction of a solution, compared to a reference scenario. Avoided emissions are complementary, but separate, from traditional GHG accounting.

There has been growing interest in the concept of avoided emissions as a way to measure product impact and identify companies which are enabling the low-carbon transition. Companies in a range of sectors have started to report their avoided emissions. If a company is claiming that a core part of its product/service offers a meaningful solution to climate change, we encourage the substantiation of this claim; depending on the facts and circumstances, avoided emissions may be an appropriate way of doing so. Evidencing these claims may allow companies to gain a competitive advantage with customers seeking emission reductions, as well as help avoid accusations of greenwashing if avoided emissions are calculated in a robust and transparent manner. In 2023, the World Business Council for Sustainable Development (WBCSD) published a 'Guidance on Avoided Emissions', which provides a set of requirements for companies to consider when assessing avoided emissions, but the industry has not yet coalesced around a single methodology. While standards for measuring avoided emissions are still at a nascent stage, we are engaging with companies that are reporting this metric to encourage transparency of methodologies, including disclosure of reference scenarios and separate reporting of avoided emissions from GHG footprints.

¹⁵ Guidance on avoided emissions, WBCSD. <https://www.wbcsd.org/Imperatives/Climate-Action/Resources/Guidance-on-Avoided-Emissions>

Engaging around Climate Opportunities - continued

Case study



Infineon



Germany



Equities, Bonds

Issue

Semiconductors are used in green applications across renewable energy technologies and electric vehicles. Advancements in semiconductors are also driving improved energy efficiency across many applications. Some semiconductor companies are beginning to seek ways to measure this positive impact but there is a lack of industry standardisation. Meanwhile, semiconductor manufacturing and product use remain emissions-intensive and are set to rise as production increases globally.

Infineon, a German semiconductor company, offers solutions across green energy, clean mobility and the Internet of Things. The company advertises 'CO₂ savings' of 100m tons CO₂e from products to demonstrate positive product impact and presents this as a 1:33 ratio to the company's CO₂ footprint. Infineon has not set science-based targets covering its own material emissions.

Action

We met with the Global Head of Sustainability to encourage Infineon to increase transparency on the calculation of the company's avoided emissions and decarbonisation strategy.

Infineon reports on CO₂ saved through product use and breaks this down by end use (industrial drives, automotive electronics, wind and photovoltaics), advertising the emissions savings enabled by Infineon solutions. We appreciate that Infineon is measuring emission reductions and provides explanatory notes. We encouraged further transparency on the assumptions underpinning these calculations and consideration of the WBCSD guidance on calculating avoided emissions. We believe such transparency would help evidence Infineon's claims against greenwashing risk, allow investors to better understand this calculation, and potentially move towards greater industry comparability.

We also discussed Infineon's decarbonisation strategy and encouraged the company to establish its own science-based targets verified by a third party. We believe science-based targets will continue to gain importance to customers seeking to decarbonize their own supply chains and is also important to demonstrate the credibility of Infineon's claims to investors.

Outcome

In December 2023, Infineon committed to set third-party verified science-based targets covering material emissions, which strengthens its proposition to customers seeking sustainable solutions and to investors evaluating the financial risks and opportunities of investing in the company. Infineon provided more detail on how CO₂ savings are attributed, accounting for market share and the value of the semiconductor in the equipment.

Climate Change Voting

Considering climate change in routine votes

Our voting policies are designed to promote the best long-term interests of our client accounts. As such, we may consider climate risk when voting in director elections, executive compensation or other management resolutions, where we are not satisfied with the steps taken by the company to address the material risks it faces because of climate change, the quality of the engagement discussion or its progress.

Effective April 1, 2024, we added a new section to our Global Proxy-Voting Guidelines, addressing our voting policies related to the management of financially material climate risks. This reflects our conviction that climate change could pose a material risk to our clients' accounts, as well as our experience evaluating climate risk as part of voting proxies in recent years. The additions make clear that we encourage disclosures of minimum climate-related indicators by companies in sectors particularly exposed to financially material climate risks. JPMAM may vote against the directors of relevant committees of companies where these are not available or meaningful.

These criteria include:

- We encourage disclosures aligned with the reporting framework developed by the Task Force on Climate-related Financial Disclosures (TCFD) addressing all the four pillars of the TCFD – (i) governance, (ii) strategy, (iii) risk management and (iv) metrics and targets related to any performance indicators used to manage such risks.
- For industries where we believe climate change risks pose material financial risks, we encourage comprehensive TCFD reporting (or equivalent) including

scenario analysis to help us understand the resilience of a company's strategy.

- We encourage disclosures of Scope 1 and 2 GHG emission targets, where decarbonization of a company's operations and purchased energy has been identified by the company as a key part of the company's strategy to manage climate change risks.
- We note many companies have chosen to set long-term net zero targets. In order for us to evaluate the long-term credibility of transition plans, where such long-term targets are set, we encourage the company to disclose the scope of emissions included in such targets. We recognize the many challenges associated with reporting Scope 3 emissions. While we understand the limitations associated with reporting Scope 3 emissions, we would expect companies that have included such emissions in their net zero targets to disclose their Scope 3 emissions. We also expect disclosures of interim emission reduction targets where the company has set long-term net zero targets.
- We encourage disclosure on past performance against emission reduction goals, and forward-looking strategy to achieve emission reduction goals, including use of offsets and corporate transactions.

We believe that providing meaningful disclosure is important to help investors evaluate whether companies are managing material climate risks that could impact returns over time. For more information see our Global Proxy Voting Guidelines [here](#).

Escalation

Engagements with targeted companies are documented, allowing us to monitor the stage of engagement. There will be times when, despite prolonged engagement, our concerns around managing risks and increasing and preserving the long-term value of our client accounts have not been addressed. Under such circumstances, we may undertake the following forms of escalation depending on the circumstances:

- meetings with non-executive directors, a lead independent director or chair;
- voting against management and the non-executive directors;
- communication to the chair or lead independent director disclosing our voting rationale;
- collaboration with other investors or public statements with other investors as appropriate; and
- reduction in holdings or divestment in certain cases.

Case study – Routine Climate Votes



Kinder Morgan



U.S.



Equities

Issue

Kinder Morgan (KMI), a U.S. oil and gas company, is unusual among its peers in its lack of Scope 1 and 2 emissions reduction targets. Targets to reduce Scope 1 and 2 emissions, which partially concern energy use, would demonstrate the company is seeking to lower long-term energy costs and mitigate transition risks. The concern that KMI was therefore not appropriately managing climate transition risks led to us voting against the re-election of the Chair of the Board's Environmental, Health, and Safety Committee. We wanted to understand how the company is managing financially material climate risks, and what opportunities it sees to reduce those emissions.

Action

We engaged with KMI in August and October, which followed the publication of the company's updated sustainability report in July and conveyed our rationale for the vote against the director. The engagement helped us to understand that the company was more actively pursuing emissions reductions than it first appeared. While KMI has not officially set a target, the company expects to reduce its Scopes 1 and 2 emissions intensity by 30%.

KMI explained the process of completing the Scope 1 and 2 emissions inventory; now that it has the data, it indicated that its focus was on economic ways to reduce emissions. Over 70% of KMI's Scope 1 emissions are from compressor stations. There is no good technology that they can add to existing compressor stations to reduce or capture those emissions; currently, it would have to replace a gas-fired engine with an electric/hybrid engine. If they did that for its entire compressor station base, the total replacement cost would be USD 20 billion. In addition to significant costs, the company explained that the emission reductions are not guaranteed. Using an electrified engine would lower Scope 1 emissions but increase Scope 2 emissions significantly, as the company operates in areas where the local grid relies on emission-intensive coal generation.

For methane, it is investing in improved monitoring to increase the frequency of leak detection from annually to quarterly. The company indicated that the improved monitoring would go a long way to reducing methane emissions, but it will take until 2028 before more frequent monitoring is fully implemented.

Outcome

We will continue to encourage the company to provide more transparency concerning its emissions reduction efforts and any targets it establishes.

Climate-related shareholder resolutions

Voting on climate change shareholder proposals is another important way of expressing our views, where we think management could better manage climate-related financial risk. In 2023, we saw an increase in the overall number of resolutions being filed and an increase in overly prescriptive shareholder proposals, dictating specific actions by the company and creating the potential for unintended consequences for long-term shareholders. We noted that shareholder proposals in previous years focused on enhanced reporting, such as TCFD reporting, that we tended to support as we believed such reporting provided meaningful information to shareholders to evaluate risks and opportunities at a particular company. As a result, in 2023, we voted in favour of 39 climate-related shareholder resolutions, reflecting a decrease in overall % support for these resolutions.

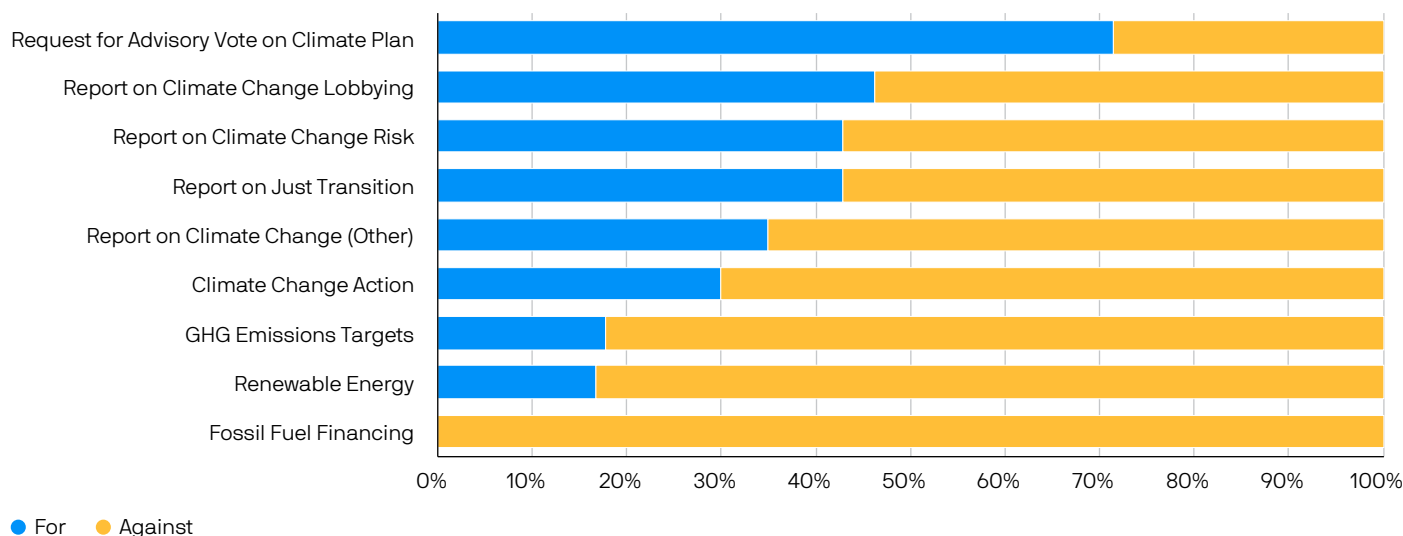
Our starting consideration is whether the resolution is focused on an issue that is material to the best economic interest of our clients. In many cases, successfully managing climate change is important for the future success of the company and resolutions around it merit our in-depth attention. We consider most helpful, resolutions which are worded in a way that gives the company the ability to select the strategy it considers will most effectively achieve the resolution's

intended outcome. Increasingly, we see climate-related resolutions which are overly prescriptive, and/or not tailored to the company's specific risks.

For example, we continue to see similar resolutions asking energy companies to set absolute Scope 3 emissions targets or to voluntarily cease oil and gas production, which would lead to unintended consequences. As outlined in our engagement prioritisation strategy earlier in this chapter, certain of these resolutions do not reflect a complete understanding of the energy system. As a result, JPMAM supported more climate-related shareholder proposals at companies that are users of fossil fuels (11% higher) than for those at energy sector companies.

We tend to support shareholder resolutions on climate-risk disclosure, requests for reporting on climate lobbying as well as on the potential social impacts of the transition (often categorized as 'Just Transition') if we believe reporting is important for investors to evaluate reputational and other financial risks to the company (see UPS example). Where we believe that climate change poses financially material implications to the business, we support shareholder resolutions which call for greater details from companies that have set their own long term aspirational goals.

JPMAM voting on climate-related proposals in 2023



Source: J.P. Morgan Asset Management.

Case study – Climate-related Shareholder Resolution



UPS



U.S.



Equities

Issue

American package and document delivery company UPS received a shareholder resolution asking for it to prepare a report addressing the impact of its climate change strategy on relevant stakeholders, including but not limited to its employees, workers in its supply chain, and communities in which it operates, consistent with the 'Just Transition' guidelines of the International Labor Organization and indicators of the World Benchmarking Association.

Action

UPS has set its own targets to be carbon neutral across Scopes 1, 2, and 3 by 2050. Noting that the company's decarbonisation targets will lead to substantial changes in the business and supply chain, we assessed it to be important for the company to consider where there could be risks of disruptions to the unionized workforce and how these would be addressed in order to avoid reputational risks from distressed employees, and potential falls in productivity. We voted 'for' the proposal.

Outcome

The proposal received 24% support.

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