



PIMCO

# ESG Investing Report 2021



A company of Allianz 

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**BONDS FOR CHANGE**



# Bonds for Change

Sustainable investing, already a global megatrend, is entering a new era, presenting a range of opportunities and challenges for investors interested in environmental, social and governance (ESG) strategies. In this new landscape, active fixed income continues to have a unique role in our view.

First, the global pandemic has elevated the importance of sustainable investing, revealing and even magnifying social problems and imbalances such as economic inequality, employment insecurity and the plight of vulnerable people and communities. In other words, in our view the “S” in ESG has taken on much greater importance for investors and stakeholders.

Secondly, climate change presents an escalating existential threat to our planet, economies, markets and societies. The recent UN Climate Change Conference (COP26) in Glasgow, which PIMCO attended, highlighted the urgency with respect

to global action to achieve net zero emissions by mid-century. Developing strategies and transition plans to help achieve this objective will require incredible effort by both the public and private sectors – and here, private finance and investment can play a critical role.

Thirdly, the ESG market – which Bloomberg predicts will top \$50 trillion in AUM by 2025 – is being heavily scrutinized for evidence of “greenwashing,” that is, exaggerated or misleading claims in ESG investing, which includes products, labeling and marketing. In many ways, this is a natural phase of any fast-growing market that, driven by regulatory or stakeholder pressure and inspection, can help ensure the legitimacy and sustainability of the overall ESG market.

PIMCO’s ESG platform is evolving to respond to these and other changing dynamics to allow us not only to lead, but also to learn.



**Emmanuel Roman**  
CEO of PIMCO

As the report highlights, we integrate ESG analysis in the firm's investment process. We recognize that sustainability and ESG risk factors can be increasingly material inputs in evaluating risks inherent in global economies, markets, industries, and issuers' business models. We are aware that our investee assets are operating in a highly interconnected and complex world, and we believe the consideration of ESG factors will be important to optimizing outcomes over the long-term.

Climate change is a major example. We are aware that current trends in global warming are already having a profound impact on the global economy, financial markets and issuers. We are spending more time evaluating this at our secular and cyclical economic forums. We believe it is important to consider climate risk evaluations in our investment decisions where relevant, which is why these risks are considered in our proprietary ESG scores for the issuers we assess.

We are supportive of the global ambition to achieve net zero emissions by 2050,<sup>1</sup> but also recognize the diversity of strategies, approaches and commitments to get there. As a fiduciary, PIMCO will continue to work with interested clients on investment strategies and considerations to help achieve climate-related objectives, including decarbonization and net zero emissions. Indeed, we manage significant assets on behalf of 34 of the 71 asset owners who have committed to transition their portfolios to net zero GHG emissions by 2050<sup>2</sup>. We are building tools and capabilities to evaluate the impact of the climate transition as well as physical risks to issuers, which can help our portfolio managers make investment decisions where relevant based on investment guidelines and restrictions.

<sup>1</sup> Includes PIMCO clients who are listed as members of the PRI Net Zero Alliance, available here: <https://www.unepfi.org/net-zero-alliance/alliance-members/>

<sup>2</sup> As of 31 December 2021.

Consistent engagement with issuers is another hallmark of our ESG approach and where, we believe, fixed income asset management has a unique role to play. While ESG stewardship on the equity side is largely accomplished through proxy voting, bondholders – as a source of regular financing – can engage directly with issuers and corporations. In these discussions we advocate to understand ESG strategies and risks, and encourage innovations such as the issuance of sustainability-linked and green bonds, where PIMCO is helping to lead the market as co-chair of the UN Global Compact's "CFO Coalition for the Sustainable Development Goals (SDGs)" initiative.

But learning is equally important in such a fast-moving market segment. We participate in many third-party sponsored sustainability organizations to dialogue with peers and stakeholders to understand emerging trends and issues which will enable us to anticipate and respond to new market dynamics.

At the end of the day, PIMCO believes sustainable investing is about leadership, but also humility. We welcome your thoughts and reflections on this ESG Investing Report, and thank you for your interest in our work.

Sincerely,

# ESG at PIMCO

PIMCO believes that the global bond market and its investors will be essential in meeting current ambitious global goals on climate and achieving the SDGs, and we aim to play a crucial role in financing a sustainable future.

## PIMCO'S TWO-PILLAR APPROACH TO ESG INVESTING:

1

We integrate ESG analysis in our broad investment process because we believe incorporating ESG factors is important for a robust investment process and recognize that ESG factors are increasingly important to our understanding of global economies, markets, industries and business models.

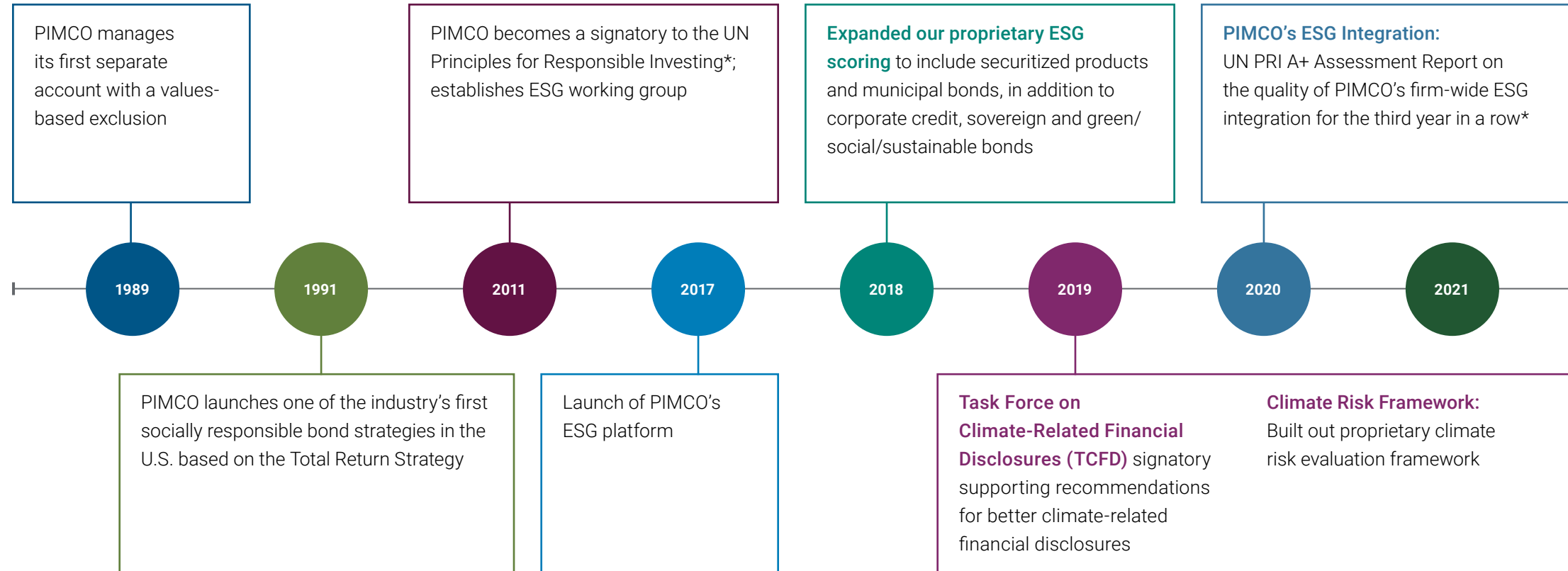
2

We offer a suite of ESG-optimized products and work with clients to create solutions that have sustainability objectives in addition to their financial objectives.

## OUR SUSTAINABILITY PHILOSOPHY

- **Stewards of our clients' capital:** Our greatest commitment is to our clients, and for over 50 years, we have helped them address their financial goals.
- **Growth must be sustainable:** For financial markets to prosper over the super-secular horizon, growth cannot come at the cost of society.
- **A fiduciary duty to manage risk:** We recognize that ESG factors may be increasingly essential inputs when evaluating long-term investment opportunities and risks for all asset classes across public and private markets.
- **A special platform to engage with issuers:** We believe PIMCO's size, scale and history as a premier fixed income manager give us a special platform to engage with issuers, help lead the industry and drive positive change.
- **A long sustainability journey:** The investment industry is in the early stages of its sustainability journey and will continue to evolve, as should PIMCO's capabilities and resources.
- **Not just a capital markets solution:** Policy will need to do some heavy lifting, too.

# Our Sustainability Investing Journey



**Past performance is not a guarantee or a reliable indicator of future results.**

\* UNPRI assessment reports are limited to asset managers signed up to the Principles for Responsible Investment (PRI) and primarily focus on a signatory's responsible investment implementation across their overall investment process, among other factors. **UNPRI Transparency Reports** are available at [https://stpublic.blob.core.windows.net/pri-ra/2020/Investor/Public-TR/\(Merged\)\\_Public\\_Transparency\\_Report\\_PIMCO\\_2020.pdf](https://stpublic.blob.core.windows.net/pri-ra/2020/Investor/Public-TR/(Merged)_Public_Transparency_Report_PIMCO_2020.pdf). **Prior to 2021**, PRI assessments were awarded scores based on A+ - E scale. A+ being highest score, while E being the lowest. PRI Assessments awarded from 2021 onward are based on a scale of 1-5 Stars. 1 Star being the lowest score, 5 Stars being the highest. **For 2021 Methodology**, please refer to [https://dwtyzx6upklss.cloudfront.net/Uploads/v/g/y/2021\\_assessmentmethodology\\_jan\\_2021\\_403875.pdf](https://dwtyzx6upklss.cloudfront.net/Uploads/v/g/y/2021_assessmentmethodology_jan_2021_403875.pdf). **For additional information regarding how UNPRI assesses signatory reporting**, please refer to <https://www.unpri.org/reporting-and-assessment/how-investors-are-assessed-on-their-reporting/3066.article>.

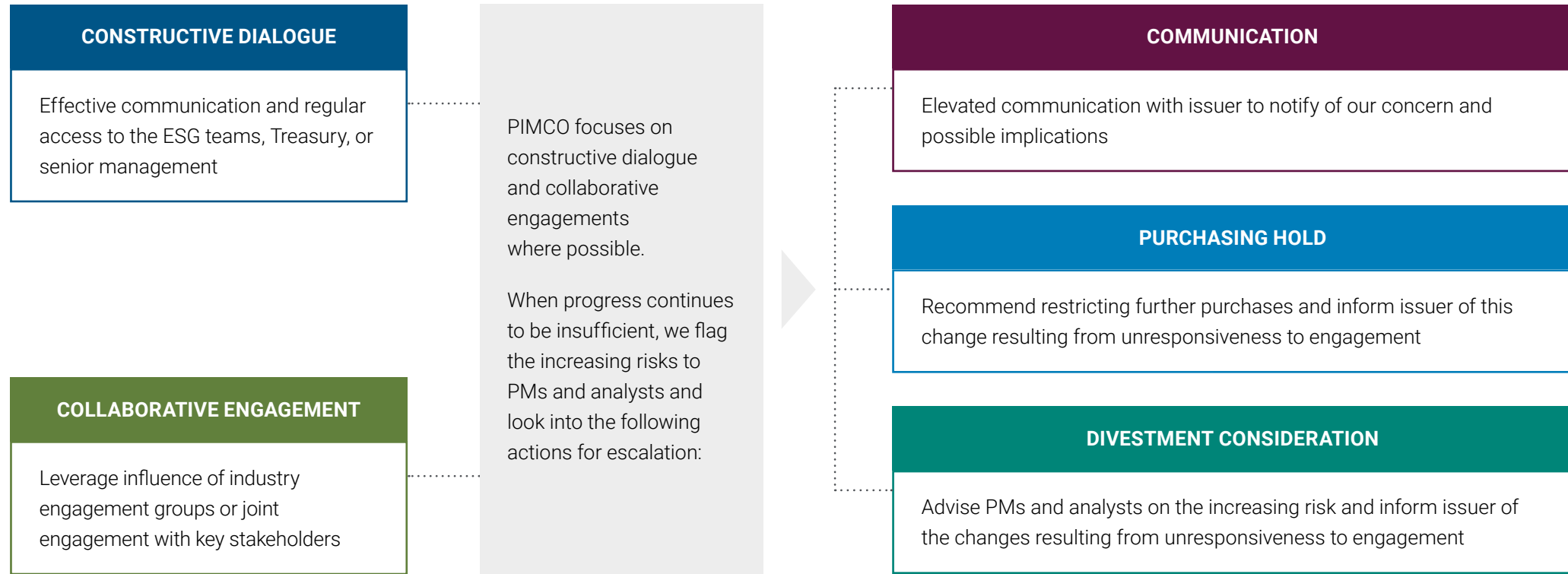
# HOW WE ENGAGED



# How we engaged in 2021

As a global leader in active fixed income, PIMCO aims to have a premier issuer engagement program. We view engagement as a long-term and dynamic process that evolves over several years. Our goal is to maintain a constructive and ongoing dialogue with issuers by providing specific recommendations and references and setting regular follow-up where appropriate – we also use collaborative engagement, where we jointly engage with issuers and with other investors on a specific ESG topic, to help amplify our reach and reinforce our message. Ultimately, the persistent lack of response or progress from issuers and prevailing evidence of ESG risks are reflected in our internal issuer ESG assessment, labeled ESG bond assessment, and investment recommendations for PIMCO strategies, including dedicated ESG portfolios.

### PIMCO ESG ENGAGEMENT AND ESCALATION APPROACH



Source: PIMCO.

## EVALUATION & ENGAGEMENT IN ACTION: EVALUATION OF EM SLB BOND

- **Background:** A paper and pulp producer in an emerging market country issued a sustainability-linked bond (SLB) with a sustainability performance target (SPT) for a reduction in carbon intensity of only 10.9% by 2025 versus a 2015 baseline – and an only 5% improvement versus the 2019 baseline. PIMCO sees the SLB as exhibiting limited ambition and a connection to the company's most crucial sustainability issues such as biodiversity and deforestation.
- **Engagement:** PIMCO decided not to participate in the bond offering. Our team met with company management to discuss their ESG action plan and provided recommendations for their sustainability strategy. We also held in-depth discussions on the company's commitment, oversight and action plan for issues most material to the firm and provided recommendations for improvement for future issuances and overall sustainability strategy.
- **Progress to Date:** Following our discussion, the company announced more ambitious ESG targets and issued a second SLB, where we participated. We continue to engage with the company on its long-term ESG objectives.

**The example above is presented for illustrative purposes only**, as a general example of PIMCO's ESG research and engagement capability and is not intended to represent any specific portfolio's performance or how a portfolio will be invested or allocated at any particular time. PIMCO's ESG processes may yield different results than other investment managers' and a company's ESG rankings and factors may change over time. All data is as of December 31st 2021, unless otherwise stated.

## ENGAGING WITH SOVEREIGNS

Engagement is an important component of PIMCO's sovereign ESG analysis – it enhances our understanding of underlying credit risks and opportunities and also enables a constructive dialogue with issuers on their sustainability journey.

We take a multi-pronged approach to engagement. As one of the largest bond investors in the world with a time-tested history in sovereign bond investment, we have several touch points for interacting with sovereign issuers. These include one-to-one meetings with senior government officials during bespoke country assessments and roadshows; coordination with our peers on critical ESG themes for sovereigns; active participation in industry groups via the UN PRI Sovereign Working Group, for example, and collaboration and coordination with international financial institutions such as the World Bank and United Nations. These enable us to have a coordinated approach across many prominent actors.

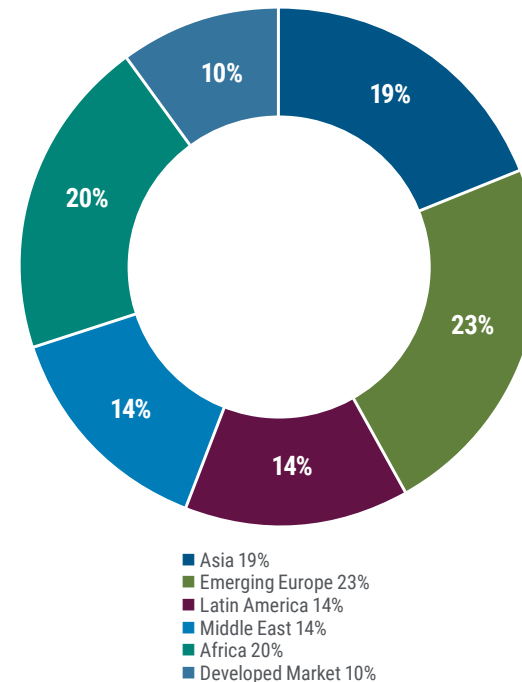
Our overarching engagement themes cover climate risk policies, meeting the sustainable development goals, and ensuring good governance practices. We also focus on green, social and sustainability frameworks that sovereigns are putting in place, encouraging premier frameworks, with high standards of transparency and accountability. With the growth of the green, social and sustainability-linked bond markets we have played a role in encouraging sovereigns to build out their ESG frameworks, to issue in the ESG bond market and to set up the infrastructure to achieve the SDG targets and issue SDG-linked instruments. As significant lenders of capital, our engagement with developed market (DM) and emerging market (EM) sovereigns who have yet to issue bonds in this space has allowed candid discussions of what is required from issuers and increased the comfort level of sovereigns to successfully enter this market.

The chart on the right shows the various themes we engaged on in 2021. In practice we go beyond these themes, tailoring each engagement to each country depending on the criticality of the issue and the ability to implement change. For example, in countries facing high physical risk from climate change the objective could be to shore up savings and safeguard local incomes from these shocks; in countries where transition risk is the key environmental issue the objectives may focus on adjusting the energy mix or carbon pricing policies. Likewise, discussions with countries where minority groups are facing discrimination from official institutions may focus on corrective policies, or on improved monitoring where corruption in procurement is an issue. Regarding climate ambition, we encourage governments to strengthen formal commitments backed by domestic policies and increased disclosure of information regarding progress. To support this engagement, PIMCO is a signatory of the 2021 Global Investor Statement to Governments on the Climate Crisis, reflecting the need for further government action to most effectively facilitate the allocation of capital to support the net zero transition.

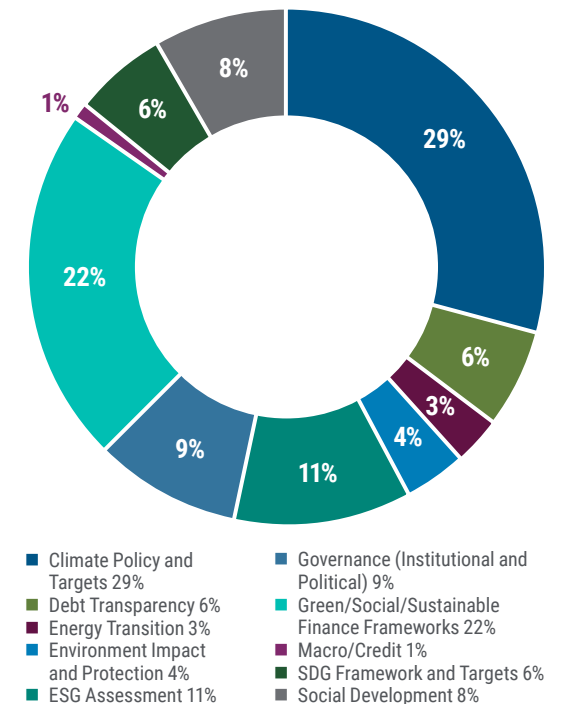
Through our interaction with sovereigns, we seek to improve the evaluation of ESG and credit risks and influence policies. This engagement ultimately enables us to evaluate how the issuer is likely to address ESG risk factors going forward, as well as their trajectory and aspirations.

**Being a significant debt holder in sovereign fixed income, PIMCO is well-positioned to engage with sovereign management teams on ESG topics related to climate issues such as energy transitions and green financing frameworks, as well as issues concerning debt transparency and social development financing.**

2021 Sovereign engagement by region\*



2021 Sovereign engagement by topic\*\*



As of 31 December 2021. Source: PIMCO. PIMCO firm-wide ESG engagement activities by ESG specialists, 1 January 2021-31 December 2021.

\* For tracked engagements conducted by ESG or sovereign analysts.

\*\* For tracked in-depth and standard engagements conducted by the ESG analyst team.

Engagement by topic information is based on the total number of topics identified by PIMCO ESG analysts in one or more PIMCO systems and reflect only a subset of the total engagement activities conducted by PIMCO. Engagements may cover more than one topic per issuer. The engagement breakdown by topic, region and industry is intended to provide more general trend information as we do not currently require that each engagement be tracked for industry, topic or region.

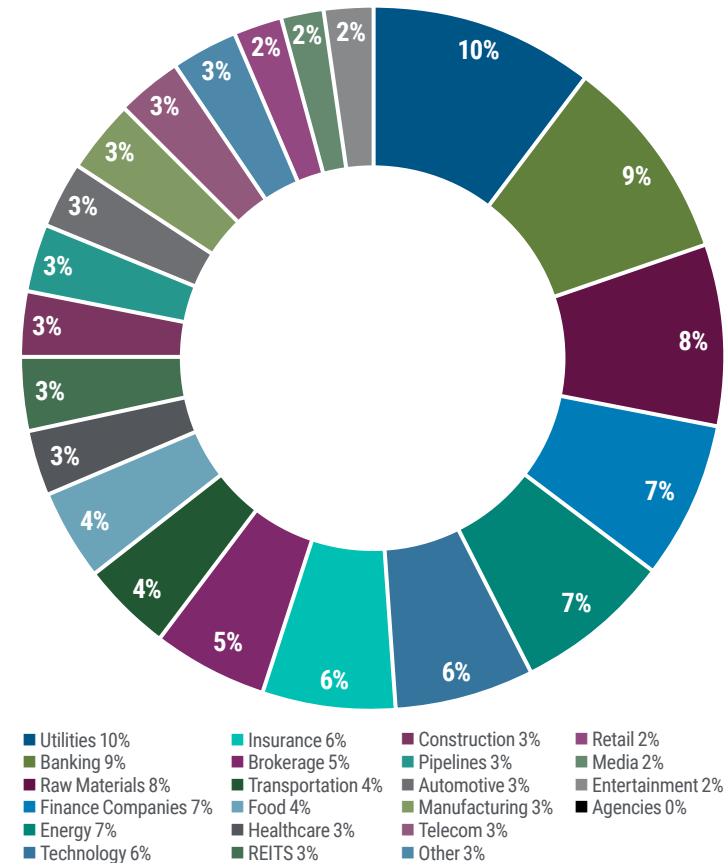
# PIMCO's engagement efforts by the numbers

Issuers were engaged on ESG topics by our global team of 75+ credit analysts and our dedicated ESG analysts in 2021.

## EXPANDING ENGAGEMENT IN 2021

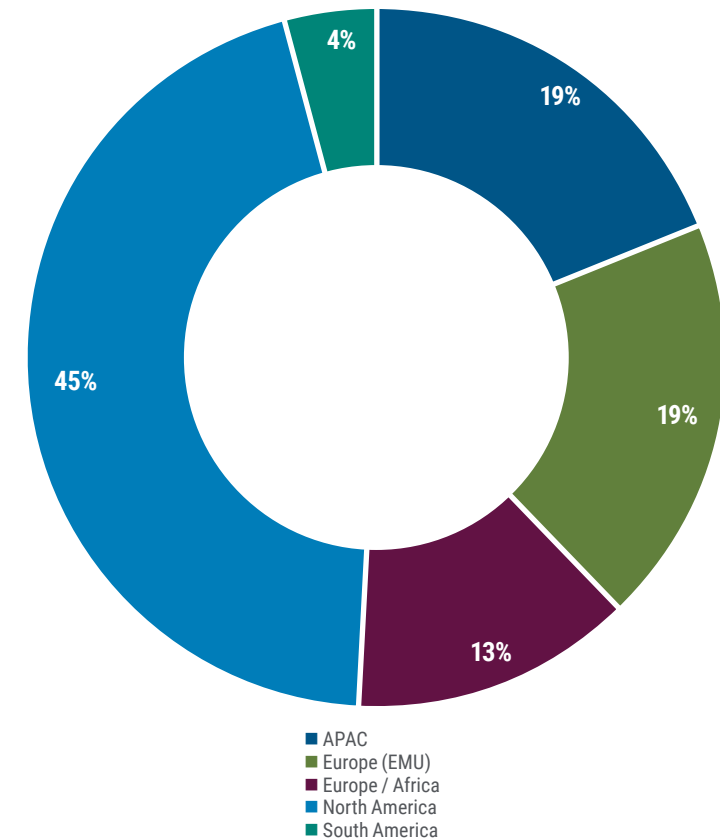
PIMCO analysts engaged **1,585 corporate bond issuers** in 2021 across a range of industries and regions. More than **650** of those 1,585 issuers were **engaged in depth**, meaning that PIMCO held in-depth discussions with the issuer on ESG topics and provided specific recommendations on ESG performance.

PIMCO Engaged Corporate Issuers Across All Major Industries



Source: ESG engagement activities by PIMCO analysts, Jan 1-Dec 31, 2021.

PIMCO Engaged Globally Across Developed and Emerging Markets

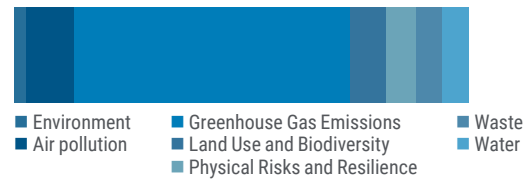


Source: ESG engagement activities by PIMCO analysts, Jan 1-Dec 31, 2021.



PIMCO Engaged Corporate Issuers Across a Range of ESG Topics

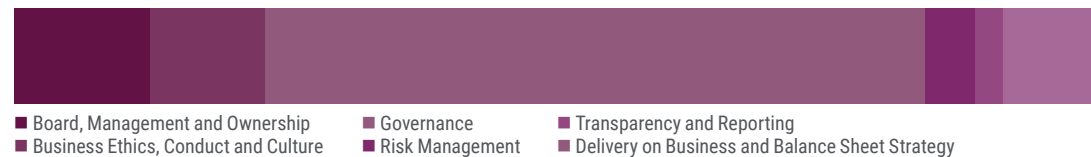
**ENVIRONMENT 23%**



**ESG BONDS 11%**



**GOVERNANCE 56%**



**SOCIAL 10%**



Source: ESG engagement activities by PIMCO analysts, 1 January 2021-31 December 2021.

Note: Engagements may cover more than one theme per issuer.

# Our engagement priorities: what we are focused on

PIMCO prioritizes its engagement efforts on issuers where our financial exposure, influence and thematic exposure are the greatest. While **climate change** and **ESG bonds** continue to be our ongoing primary engagement targets, we expanded our bilateral and collaborative engagement to several new themes and initiatives in 2021, which will continue to be our thematic focus in the coming years:

## **Net Zero: Portfolio Emissions and Alignment with the Paris Agreement for Banks**

PIMCO has been engaging with more than 20 global banks on implementing their carbon emission strategy and alignment with the Paris Agreement. We shared our view and recommendations on committing to net zero, setting time-bound expectations in lending policy in line with the Paris Agreement, timeline and scope of interim targets, linking targets to compensation, and so on. By partnering with investors affiliated with the Institutional Investors Group on Climate Change (IIGCC), we reinforced our expectations on climate strategy with some of these banks. Several banks have already made progress in line with our expectations on setting or implementing climate strategy. We expect more announcements from banks on interim progress in 2022.

## **Deforestation: Commitment, Traceability and Disclosure on Forest Risks**

Halting and reversing land degradation is crucial to limiting global warming and mitigating a wide variety of risks, such as biodiversity loss and human rights violations. While our direct exposure to forest-risk commodities is limited, we engaged more than 20 companies, including food manufacturers, retailers, and banks, on their commitment to eliminating deforestation in their value chain. We emphasized the importance of supply chain traceability, independent verification and grievance mechanisms to form a robust due diligence process. We found some companies moving gradually towards physical certification and full traceability of commodities while the link between zero deforestation and net zero commitment could be further solidified in banks' climate strategy.

## **Nutrition: Encouraging Transparency, Ambition and Accessibility of Healthy Diets**

Food companies play a key role in mitigating the long-term economic and social risks of malnutrition and many have signed the Access to Nutrition Initiative (ATNI). PIMCO engaged with at least eight global food and beverages companies. We met with nutrition and sustainability specialists of these companies and discussed investors' expectations on their nutrition strategy and disclosure. We are delighted to see some companies actively investigate our recommendations and will continue to engage with them on progress and challenges.

### **Methane Emissions: Engaging Extensively with Energy Companies to Drive Reduction**

Methane is the second-largest cause of global warming.<sup>3</sup> The energy sector is the second-largest source of methane emissions after agriculture.<sup>4</sup> Existing technology could cut methane emissions in half by 2030, slow global warming by 30%, and avoid a quarter of a degree Celsius in global warming by 2050.<sup>5</sup> PIMCO has been engaging extensively with more than 50 energy companies on reducing methane emissions. We shared our view and recommendations on measurement-based emissions reporting, best practices in target setting, and adopting industry standards for disclosure. Various companies acknowledged the importance and benefits of better methane management and are assessing the next steps based on our discussions. We have also engaged with the US EPA by endorsing robust regulatory support for methane emissions abatement.

### **National Oil Companies (NOCs): Enhancing Climate Disclosure and Strategy**

NOCs are responsible for approximately half of global oil production,<sup>6</sup> yet often lag International Oil Companies (IOCs) regarding sustainability performance. NOCs also tend to be more challenging for investors to engage given their state-owned nature. Leveraging our unique position as a major investor in sovereign debt, PIMCO has been engaging with NOCs and sovereign counterparts to discuss their climate strategies, methane emissions reduction and measurement, health & safety, biodiversity, disclosure and transparency at both the company and national level. PIMCO also participates in collaborative engagement with NOCs to amplify our suggestions in parallel. In 2021, we have seen some NOCs making progress in climate commitments, transparency on climate risks, transition strategy and investment, with increasing openness for dialogue with investors.

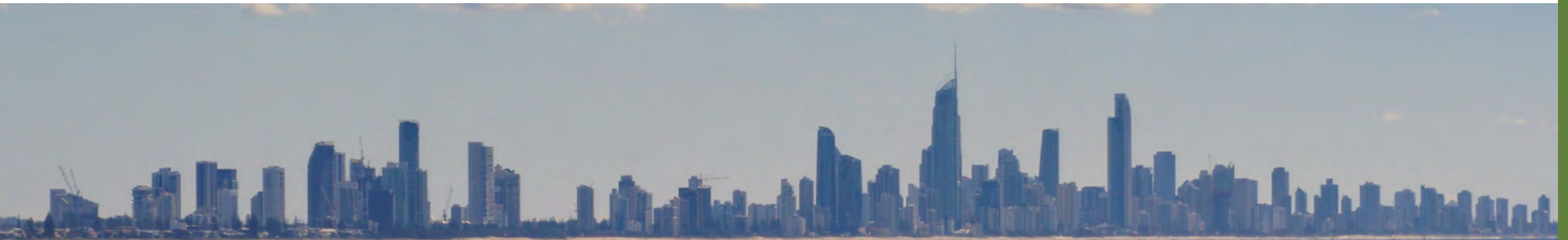
We continue to participate in several collaborative engagement initiatives such as Climate Action 100+, an investor-led initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. PIMCO also participates in Farm Animal Investment Risk & Return (FAIRR), the world's fastest-growing investor network focusing on ESG risks in the global food sector.

3 <https://www.iea.org/reports/methane-emissions-from-oil-and-gas>

4 <https://www.iea.org/reports/methane-emissions-from-oil-and-gas>

5 <https://iopscience.iop.org/article/10.1088/1748-9326/abf9c8/pdf>

6 <https://www.iea.org/reports/the-oil-and-gas-industry-in-energy-transitions>







### CASE STUDY: ENGAGING EQT CORPORATION ON METHANE EMISSIONS

- **Background:** The largest natural gas producer in the United States, EQT is actively working on methane emissions tracking and reduction. EQT committed to The Oil & Gas Methane Partnership 2.0, a multi-stakeholder initiative launched by UN Environment Programme and the Climate and Clean Air Coalition. We believe EQT is well-positioned to meet new upcoming regulations issued by the US Environmental Protection Agency.
- **Engagement:** PIMCO engaged with the company regarding measurement-based methane reduction targets and disclosure. We also encouraged them to use direct measurements for methane emissions reporting and target setting and to adopt an absolute emissions target in addition to their intensity-based target alone. Our engagement also covered our view and best practices on sustainability-linked bonds such as using methane tracking and targets as a potential key performance indicator (KPI) for the coupon trigger mechanism.
- **Progress to Date:** In early 2022, EQT became the largest producer of responsibly sourced natural gas (RSG) certified under EO100TM, a distinction set by Equitable Origin, the world's first independent environmental standards system. We consider this certification of EQT a premier approach to meeting the global challenge of reducing GHG emissions. While there is still some debate regarding the RSG certification process and its dependability, this effort by EQT indicates the company is committed to direct measurement and transparency of their methane emissions.

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# Case Studies: ESG engagement focused on progress

Throughout 2021, PIMCO undertook a wide range of ESG-focused engagements with debt issuers.



## ENGAGED CK HUTCHISON ON PARIS ALIGNMENT, ESG DISCLOSURE, AND DIVERSITY AND INCLUSION IN THEIR WORKFORCE

- **Background:** A global conglomerate based in Hong Kong, CK Hutchison operates in four areas: ports, retail, infrastructure, and telecommunications. The company published its first ESG report in 2020, covering its ESG strategy.
- **Engagement:** PIMCO provided feedback on their latest ESG report and suggested disclosing more details on GHG emissions, transition plan and Paris-aligned capital expenditure. We also shared suggestions on expanding diversity and inclusion efforts beyond gender representation to pay equity.
- **Progress to Date:** Expansion in ESG disclosures evidenced in their 2020 ESG report. The company is also planning to set diversity and inclusion targets, set science-based targets and report progress based on the Task Force on Climate-Related Financial Disclosures (TCFD) framework across business segments.



#### ENGAGED KEURIG DR. PEPPER ON THEIR NUTRITION STRATEGY AND DISCLOSURE

- **Background:** A diversified beverage manufacturer and distributor in the US, Keurig Dr. Pepper (KDP) was assessed by the Global Access to Nutrition Index for the first time in 2021.
- **Engagement:** As part of our participation in the Access to Nutrition Initiative (ATNI), PIMCO engaged with the company on their approach to defining healthy products, setting measurable nutrient targets, practicing responsible marketing, and lobbying. PIMCO encouraged them to align current practices with industry guidelines on nutrient profiling and responsible lobbying.
- **Progress to Date:** KDP is reviewing its work on lobbying policy, affordability, and responsible marketing with the aim of improved data disclosure in the next few years. PIMCO will continue to engage the company as part of our ATNI collaborative effort as well as on other ESG topics.



#### GUIDED CPI PROPERTY GROUP ON CLIMATE STRATEGY AND EXPANDING THEIR ESG-LABELLED BOND ISSUANCE

- **Background:** A German-Czech Republic commercial real estate company, CPI Property invests mainly in Central and Eastern Europe, a region that is still in the early stages of ESG investing compared to Western Europe.
- **Engagement:** Following interactions on CPI's green bond program and ESG strategy, PIMCO shared guidance on best practices when issuing sustainability-linked bonds, including an explicit link to ambitious GHG emissions reduction targets.
- **Progress to Date:** In January 2022, CPI issued its inaugural Sustainability-Linked Bond, with a strong focus and comprehensive scope on reduction in carbon emissions. The company is currently obtaining validation by the Science Based Targets initiative (SBTi) that its emissions reduction goal is aligned with the Paris Agreement.



### ENGAGED A US-BASED PHARMACEUTICAL COMPANY ON SOCIAL BOND ISSUANCE

- **Background:** A U.S. based human pharmaceutical manufacturer with key products including Diabetes, Immunology, Neuroscience and Oncology therapeutics.
- **Engagement:** PIMCO engaged with the company ahead of their sustainability-linked bond issuance to discuss their plans for value-based care, diversity, equity & inclusion, and improvements on drug pricing transparency. We encouraged the issuer to consider an ESG issuance focused on the company value proposition (i.e., access to medicine, value-based care). We also discussed the extent to which their Racial Equity commitments from 2020 are integrated into their access to medicine program, and encouraged them to increase transparency in that regard.
- **Progress to Date:** Following our conversation, the company came to market with a sustainability-linked bond, intending a significant percentage of proceeds focused on access to medicines programs. Although not a stated target, the company is aiming to increase the share of its commercial arrangements towards a “value-based care” approach to healthcare, wherein companies are compensated on health outcomes and not solely on product volumes. Moreover, following our engagement disclosures on drug pricing transparency, diversity, and equity & inclusion transparency have improved substantially. This progress has been reflected in our ESG assessment of the issuer, and we participated in their inaugural ESG issuance. We also plan to continue to engage with the company this year on progress around value-based care, drug pricing and their Racial Equity commitments.



### ENGAGED UBS ON EXPANDING ESG-LABELLED BOND ISSUANCE

- **Background:** A G-SIB (Global systemically important bank) headquartered in Switzerland, UBS commands a leading market share in global wealth management. Despite their advanced climate and ESG disclosure policies, UBS was still lagging on ESG-labelled debt issuance.
- **Engagement:** At the end of 2020, PIMCO shared with UBS best practices when issuing an ESG-labelled bond while also discussing their climate strategy following the Net Zero commitment by one of their subsidiaries. Given UBS’s focus on global wealth management, PIMCO has also begun engaging on topics around fighting financial crimes, such as anti-money laundering compliance.
- **Progress to Date:** In June 2021, UBS issued its inaugural green bond where proceeds will finance Swiss real estate projects demonstrating the strongest energy performance credentials. Their issuance followed the commitment unveiled in 2021 to achieve net zero emissions for all of its activities and to set interim targets validated by the SBTi.



### JOINED CDP'S NON-DISCLOSURE CAMPAIGN IN 2021 TO ENCOURAGE BETTER ESG DISCLOSURE

- **Background:** Formerly the Carbon Disclosure Project, CDP is the world's largest, most comprehensive dataset on environmental action empowering investors to make more informed decisions. Each year CDP supports thousands of companies and state entities to measure and manage their ESG risks and opportunities.
- **Engagement:** PIMCO supports the development of enhanced corporate disclosure regarding alignment with the Paris Agreement and the UN's Sustainable Development Goals (SDGs). We see CDP as a key source of data on opportunities for ESG investment and how corporates respond to ESG trends.
- **Progress to Date:** Following participation in CDP's pilot fixed income investor campaign in 2020 (an investor-backed pilot program focused on a small group of unlisted bond-issuing companies), PIMCO joined the CDP's Non-Disclosure Campaign in 2021. This campaign offers investors the opportunity to engage companies that have received a CDP disclosure request but have not provided a response. CDP's 2021 Results report stated the disclosure rate for companies targeted by this initiative increased from 21% in last year's campaign to 25%, including renewed disclosure by Nextera Energy.



### MOBILIZED CHIEF FINANCIAL OFFICERS COALITION FOR SUSTAINABLE DEVELOPMENT GOALS

- **Background:** In late 2021, the UN Global Compact officially launched its "CFO Coalition for the Sustainable Development Goals." The objective of the initiative is to create a global movement of Chief Financial Officers committed to SDG-aligned investment and financing. The Coalition aims to secure the endorsement of approximately 1,000 CFOs by the end of 2024.
- **Engagement:** PIMCO is co-chair of the CFO Coalition, helping to oversee the development of the global strategy and outreach, while engaging with CFO members on efforts such as setting KPIs and issuing sustainability-linked bonds. This supports the development of enhanced corporate disclosure regarding alignment with the Paris Agreement and the UN's Sustainable Development Goals (SDGs).
- **Progress to Date:** Core SDG investment and financing principles have been developed, along with guidance on KPIs. PIMCO will assist in the global outreach strategy, while also engaging with member companies on SDG-aligned bond issuance.

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The image shows three large, three-bladed offshore wind turbines standing on a dark, calm sea. The sky is a deep, dark blue, and the overall scene is dimly lit, suggesting dusk or dawn. The turbines are positioned at different intervals across the horizon. The central turbine is the largest and most prominent, with its blades spread out. The other two turbines are smaller and positioned to the left and right of the central one.

**PARTNERING FOR CHANGE**

# Partnerships play a critical role



**Mark Carney**  
UN special envoy on climate action and finance, and a member of PIMCO's Global Advisory Board

Not a week goes by that we are not reminded of the world-altering impacts of climate change.

In the past few months alone – and following the COP26 Climate Summit in Glasgow – we have been confronted with new scientific evidence of rapidly melting polar ice as well as receding glaciers on the highest points of the planet.

Meanwhile, extreme weather events are becoming a new normal, with links now being made between temperature fluctuations and disease transmission.

No doubt, the climate crisis will trigger profound economic – and market – crises unless drastic steps are taken to transition to a low-carbon economy, with the aim of global net zero emissions by 2050.

Investors have woken up to this reality. In Glasgow, I was encouraged by the commitments and presence of the international investment community, representing assets totaling \$130 trillion. Long-term investors understand that climate change represents a systemic risk to global economic and financial systems.

In this, PIMCO and other asset managers have a critical role to play, as stewards of capital. Whether engaging with companies on climate strategies, backing current and new technologies, or working with policy makers on the proper regulatory and enabling frameworks – investors will be essential in any effective and lasting climate solutions.

While global mobilization is required, it is at the country level where investments must be made – matching the enormous amounts of global capital with viable climate-related projects, and not forgetting the special needs of emerging markets and developing countries.

As investors, we must unite and partner as never before.



# Demonstrating leadership through meaningful partnerships

As a leading global asset manager, PIMCO receives requests to join different 3rd party organizations that span from partnerships with the United Nations to working with industry groups. Typically each initiative that PIMCO joins is reviewed by our ESG team to ensure it aligns with our global ESG strategy.

We seek to leverage our size and expertise to support ESG-focused change and innovation in capital markets. Through our participation in global initiatives, such as the UN Global Compact's CFO Coalition for the SDGs, we can drive global sustainability efforts, define ESG standards and encourage greater disclosure from issuers. PIMCO is part of the International Capital Market Association (ICMA) Green Bond Principles (GBP) and Social Bond Principles (SBP) Executive Committee. We are committed to supporting the evolution of the ESG bond market. In establishing a leadership role in the global capital markets, PIMCO has made clear that sustainable economic development is essential to our clients' financial objectives.

## INDUSTRY LEADERSHIP SPOTLIGHT



The International Capital Market Association (ICMA) sets out guiding principles that shape and enhance the market for green, social, sustainability, and sustainability-linked bonds.

### PIMCO's Involvement

PIMCO is an elected member of the Green Bond Principles (GBP) and Social Sustainable Bond Principles Executive Committee. The focus is on upholding the credibility of the market and engaging policymakers on sustainable bonds.

### How PIMCO helped advance ICMA's goals

Supported by the release of ICMA's Sustainability-Linked Bonds Principles in June 2020, the sustainability-linked bonds (SLB) market took off and experienced strong growth in 2021 (\$109.1 billion of total issuance according to Bloomberg New Energy Finance).

As additional guidance, ICMA published in 2021 a new Q&A for sustainability-linked bonds as well as illustrative examples for the selection of key performance indicators (KPIs) for sustainability-linked bond issuers. PIMCO is one of the coordinators of the SLB working group and contributed to both documents.

## PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI) ASSESSMENT REPORT



PIMCO has received A+ ratings across all fixed income categories in the PRI Assessment Report for three consecutive years.

Category	2020		2019		2018	
	PIMCO	Median (Peer Group)	PIMCO	Median (Peer Group)	PIMCO	Median (Peer Group)
Strategy & Governance	A+	A (2127)	A+	A (1728)	A+	A (1462)
Fixed Income – SSA	A+	B (592)	A+	B (515)	A+	B (438)
Fixed Income – Corporate Financial	A+	B (577)	A+	B (475)	A+	B (401)
Fixed Income – Corporate Non-Financial	A+	B (694)	A+	B (564)	A+	B (457)
Fixed Income – Securitized	A+	B (270)	A+	C (242)	A+	C (190)








### Past performance is not a guarantee or a reliable indicator of future results.

UNPRI assessment reports are limited to asset managers signed up to the Principles for Responsible Investment (PRI) and primarily focus on a signatory's responsible investment implementation across their overall investment process, among other factors. **UNPRI Transparency Reports** are available at [https://stpublic.blob.core.windows.net/pri-ra/2020/Investor/Public-TR/\(Merged\)\\_Public\\_Transparency\\_Report\\_PIMCO\\_2020.pdf](https://stpublic.blob.core.windows.net/pri-ra/2020/Investor/Public-TR/(Merged)_Public_Transparency_Report_PIMCO_2020.pdf). **Prior to 2021**, PRI assessments were awarded scores based on A+ - E scale. A+ being highest score, while E being the lowest. PRI Assessments awarded from 2021 onward are based on a scale of 1-5 Stars. 1 Star being the lowest score, 5 Stars being the highest. **For 2021 Methodology**, please refer to [https://dwtyzx6upklss.cloudfront.net/Uploads/v/g/y/2021\\_assessmentmethodology\\_jan\\_2021\\_403875.pdf](https://dwtyzx6upklss.cloudfront.net/Uploads/v/g/y/2021_assessmentmethodology_jan_2021_403875.pdf). **For additional information regarding how UNPRI assesses signatory reporting**, please refer to <https://www.unpri.org/reporting-and-assessment/how-investors-are-assessed-on-their-reporting/3066.article>.



# Collaborating with industry groups

To help drive a more globally coordinated ESG effort, we also partner closely with key industry groups.

Industry Leadership	Overview
 <p><b>PRI Sovereign Working Group (SWG)</b> PIMCO is a Member</p>	<ul style="list-style-type: none"> <li>The purpose of this working group is to provide practical guidance for ESG integration and effective engagement in sovereign debt investing, by i) analyzing material ESG risks and opportunities for sovereign bonds, ii) identifying main obstacles to further integration practices, and iii) establishing rationale and boundaries to bondholder engagement.</li> </ul>
 <p><b>PRI SDG Advisory Committee</b> PIMCO is a Member</p>	<ul style="list-style-type: none"> <li>The purpose of this committee is to advise the PRI Association Executive on what activities PRI could undertake to stimulate, support and potentially monitor signatories who seek to align their investment strategy, policy, asset allocation, mandates, selection processes, investment decisions or active ownership with the ambitions of the SDGs.</li> </ul>
 <p><b>PRI Fixed Income Advisory Committee</b> PIMCO is a Member</p>	<ul style="list-style-type: none"> <li>This steering committee comprised of asset owners and managers oversees work streams related to raising awareness and understanding of responsible investing, helping investors develop robust processes for implementing the PRI, engaging with credit rating agencies on ESG integration, and identifying and sharing best practices among PRI signatories.</li> </ul>
 <p><b>PRI Sub-Sovereign Debt Advisory Committee</b> PIMCO is a Chair and Member</p>	<ul style="list-style-type: none"> <li>Aims to identify how investors consider ESG factors when allocating capital to sub-sovereign debt.</li> <li>Promotes systematic and transparent incorporation of ESG factors in investment decisions for sub-sovereign debt.</li> </ul>
 <p><b>UN Global Compact</b> PIMCO is a Participant</p>	<ul style="list-style-type: none"> <li>This is a principle-based framework for businesses worldwide that is aimed to adopt sustainable and socially responsible policies and report on their implementation.</li> <li>PIMCO supports the ten principles of the Global Compact with respect to human rights, labor, environment, and anti-corruption and is committed to incorporating them into our strategy, culture, and day-to-day operations.</li> </ul>
 <p><b>UN Global Compact SDG Finance Lab</b> PIMCO is a Member</p>	<ul style="list-style-type: none"> <li>This brings together a multi-disciplinary group of finance practitioners and experts to develop innovative private financial instruments that have the potential to direct private finance toward critical sustainability solutions.</li> <li>The goal is to improve the risk /return profile of SDG instruments to attract institutional investors.</li> </ul>
 <p><b>UNGC CFO Taskforce</b> PIMCO is a co-Founder</p>	<ul style="list-style-type: none"> <li>PIMCO, in partnership with the UN Global Compact and energy utility ENEL, launched the CFO Taskforce.</li> <li>The aim of the taskforce is to mobilize hundreds of CFOs to tackle the financing needs around the Sustainable Development Goals.</li> </ul>

## Affiliation

## Overview



**Carbon Disclosure Project (CDP)**  
PIMCO is a Signatory

- Organization that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.
- It is backed by over 650 investors totaling \$87 trillion in assets.



**Sustainability Accounting Standards Board – Investor Advisory Group (IAG)**  
PIMCO is a Founding Member

- This group comprises leading asset owners and managers who recognize the need for consistent, comparable, and reliable disclosure of material and decision-useful ESG information.
- The group participates in the ongoing standards development process and encourages companies to participate in the development process.



**Climate Action 100+**  
PIMCO is an Investor

- This is a pledge made by investors to push 100 of the highest-emitting companies globally to do more to tackle the threat of climate change.
- More than 200 institutional investors with \$26 trillion in assets under management pledged to support this initiative.



**FSB's Task Force on Climate-Related Financial Disclosures (TCFD)**  
PIMCO is a Signatory

- This task force has created a set of non-binding, voluntary recommendations for better climate-related financial disclosures.
- Its goal is to help firms understand what financial markets want from disclosure in order to measure and respond to climate change risks, and encourage firms to align their disclosures with investors' needs.

## Affiliation

## Overview



**Institutional Investors Group on Climate Change (IIGCC)**  
PIMCO is a Member

- The leading investors coalition on climate change with more than 170 members across 13 countries, with over €23 trillion in assets.
- The IIGCC is the membership body for investor collaboration on climate change and the voice of investors taking action for a prosperous, low carbon future.



**Global Investors for Sustainable Development Alliance (GISD)**  
PIMCO is a Member

- The GISD will focus on accelerating long-term investment into sustainable development.
- In partnership with investors, governments and multilateral institutions around the world, the GISD will deliver concrete solutions to scale up long-term finance and investment which will specifically contribute to the realization of the UN's Sustainable Development Goals (SDGs).



**International Capital Market Association (ICMA)**  
PIMCO is a Member of the Executive Committee

- The Association promotes building internationally accepted standards of best practice in markets through the development of appropriate, broadly accepted guidelines, rules, recommendations, and standard documentation in order to maintain and enhance the framework of cross-border issuing, trade, and investing in debt securities.
- The Executive Committee is responsible for the executive management and administration of the Association, including addressing all matters relating to the ICMA's Principles: the Green Bond Principles (GBP), Social Bond Principles (SBP), and Sustainability Bond Guidelines (SBG). PIMCO portfolio manager, Ketish Pothalingam, is on the Executive Committee.

## Affiliation

## Overview



**Transition Pathway Initiative (TPI)**  
PIMCO is a Supporter

- A global asset owner-led initiative (including clients and investment consultants) that assesses companies' preparedness for the transition to a low-carbon economy.
- TPI data and tools help inform our assessment of climate risks and engagement with bond issuers.

## Climate Bonds

**Climate Bonds Initiative (CBI)**  
PIMCO is a Partner

- A leading organization focused on fixed income and climate change solutions.
- CBI has been instrumental in supporting more robust data and standards to propel the Green bond market, and remains heavily involved in shaping new Green bond-related regulations.



**FAIRR**  
PIMCO is a Member

- A global network of investors addressing ESG issues in protein supply chains, with over \$23 trillion in member AUM.
- The aim of the initiative is to build a network of investors who are aware of the issues linked to intensive animal production and seek to minimize the risks within the broader food system.



**One Planet  
Asset Management Initiative**  
PIMCO is a Member

- Initiative created following the 2015 Paris Agreement to collectively mitigate the effects of climate change.
- Aims to help Sovereign Wealth Funds foster a shared understanding of key principles, methodologies, and indicators related to climate change; identify climate-related risks and opportunities in their investments; and enhance their decision-making frameworks to better inform their priorities as investors and financial market participants.

## Affiliation

## Overview



**Investor Group on Climate Change (IGCC)**  
PIMCO is a Member

- Collaboration of institutional investors from Australia and New Zealand focused on the impact of climate change on investments.
- Represents investors with total funds under management of over \$2 trillion in Australia and New Zealand and \$20 trillion around the world. IGCC members cover over 7.5 million people in Australia and New Zealand.



**BANK OF ENGLAND**

**Bank of England Climate Financial Risk Forum (CFRF)**  
PIMCO is a working group member

- Aims to build capacity and share best practices across industry and financial regulators to advance our sector's responses to the financial risks from climate change.
- Brings together senior representatives from across the financial sector, including banks, insurers, and asset managers and also includes observers from trade bodies to represent a broader range of firms and ensure the outputs of the CFRF are communicated to their members.



**Access to Nutrition Initiative**  
PIMCO is a Signatory

- Aims to drive change by tracking and driving the food industry's attempts to tackle undernutrition, obesity and diet-related chronic diseases at the local and global levels.
- Collaborative engagement facilitated by ATNI; goal is to persuade the companies rated by ATNI to improve their performance on nutrition and demonstrate their positive impact on consumers' health by improving their products and business practices.

## Industry Leadership

## Overview



**The Investor Agenda - Global Investor Statement to Governments on the Climate Crisis**  
PIMCO is a Signatory

- Coordinated by the seven Founding Partners of The Investor Agenda, Asia Investor Group on Climate Change, CDP, Ceres, Investor Group on Climate Change, Institutional Investors Group on Climate Change, Principles for Responsible Investment and UNEP Finance Initiative.
- Signed by 456 investors representing over USD \$41 trillion in assets.



**Sustainable Markets Initiative (SMI)**  
PIMCO is a Member

- Aims to use the framework of sustainable markets and rapid decarbonization to change our current sustainability trajectory.
- Relies on the 10 key areas as outlined in HRH The Prince of Wales's 10-point action plan.



**Sustainable Bond Network (NASDAQ)**  
PIMCO is an Advisory board member

- Connects issuers of sustainable bonds with investors looking to source detailed sustainable bond information for investment due diligence, selection, reporting and monitoring.
- Provides all the documents, data and qualitative information investors need, and holds data on allocation, impact, frameworks, certifications, targeted sustainable development goals and bonds.



**Milken Public Finance Advisory Council**  
PIMCO is a Member

- Aims to solidify the fragmented municipal securities market, lift public sector capacity for financial innovation, and develop policies, partnerships, and financial products to support essential and equitable public services that will accelerate post-COVID-19 economic recovery and job creation.





**FOCUS FEATURES**

# The Path to Net Zero

In 2021, more unprecedented extreme weather events, from Hurricane Ida to flooding throughout Europe and Asia, reminded us of the threat climate change poses to global economies. With carbon dioxide (CO<sub>2</sub>) emissions concentrations reaching new record levels,<sup>7</sup> world leaders announced new and somewhat more ambitious Nationally Determined Contributions (NDCs). Governments also announced a flurry of pledges to support climate action across an unprecedented number of areas, such as methane emission reduction and ending deforestation.

On the private side, the Glasgow Financial Alliance for Net Zero (GFANZ) includes over 450 firms representing over \$130 trillion<sup>8</sup> in private capital. (GFANZ is led by Mark Carney, UN special envoy on climate action and finance, and a member of PIMCO's Global Advisory Board.) This coalition is focused on fleshing out the role of the finance sector to help limit global temperature rise to 1.5 degrees Celsius above pre-industrial levels, in line with the Paris Agreement.

<sup>7</sup> <https://public.wmo.int/en/media/press-release/greenhouse-gas-bulletin-another-year-another-record>

<sup>8</sup> GFANZ: <https://www.gfanzero.com/about/>

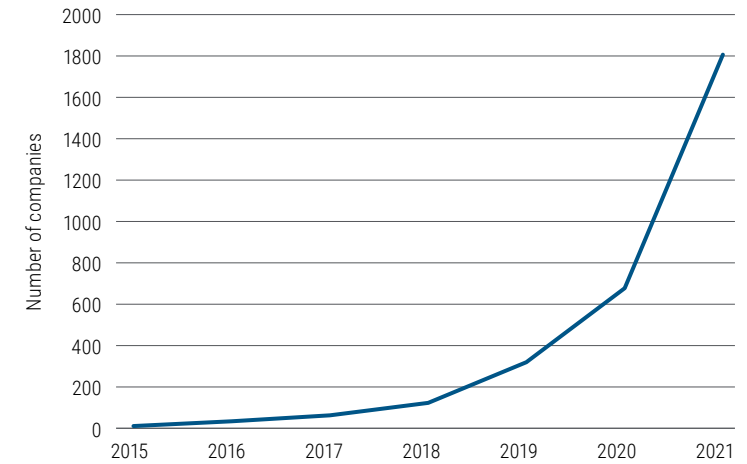


Our team at Allianz highly appreciates PIMCO's insights and collaboration as we journey to becoming carbon neutral by 2050.



**Günther Thallinger**  
Member of the Board of Management of Allianz SE, Investment Management, ESG Chair, Net Zero Asset Owner's Alliance

### Growth in emission commitments from companies



Companies classified as "Committed" or "Target Set" by the Science-Based Target initiative. Source: Science-Based Target initiative.

These pledges, from both nations and corporations, serve as roadmaps to mitigate climate risk and highlight their plans to achieve net zero carbon emissions. The 2015 Paris Agreement also set a deadline to achieve net zero carbon emissions by the second half of the century, to limit global warming to 2.0 degrees Celsius above the pre-industrial average (while pursuing efforts to limit global warming to 1.5 degrees). While the current pathway is far off the 1.5°C target and there are uncertainties about the pledges, we believe the implementation of these new commitments could shift capital allocations and open up opportunities for climate-oriented investors.

## NET ZERO AND THE MARKETS

With governments, businesses, and asset managers buying and selling trillions of dollars of investments linked to clean energy and broader ESG initiatives, the move towards net zero will increasingly influence the market pricing of assets, both green and otherwise. Regulation, carbon pricing, and other public policies, as well as shifts in consumer sentiment and business models, will also have a material impact on market pricing. It is crucial for investors to be cognizant of the risks and opportunities created by the transition to a net zero economy. In our view, the market repricing associated with the transition to net zero is already a matter of when, where and how, not if. Investors need to consider how well their portfolios are prepared to navigate climate related risks (including abrupt regulatory changes, supply chain disruptions, and political and social backlash). Investors also need to capitalize on the opportunities that are going to benefit from dedicated policy support, and increasing consumer and investor demand going forward.

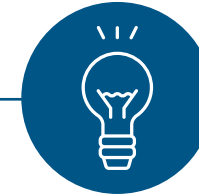
## PIMCO'S PERSPECTIVE ON NET ZERO

PIMCO is committed to providing the best advice and solutions for clients on a range of sustainability and ESG issues, including climate change. We are

keenly aware of the market and societal trends that are reshaping what it means to manage a global sustainable business in the 21st century – and believe strongly in science-based evidence and scenarios. To that end, we are working with interested clients<sup>9</sup> on their decarbonization goals to help them reach net zero emissions by 2050 or sooner. In fact, we manage significant assets on behalf of 34 of the 71 asset owners<sup>10</sup> who have committed to transition their portfolios to net zero GHG emissions by 2050. Through our partnership with these forward thinking investors, we have developed capabilities to help clients reach their net zero goals by decarbonizing their portfolios.

We would note an important point around net zero, which is that “zero” is a very specific concept, while the ability to calculate and account for emissions at the molecular level and allocate to companies, countries and all other issued securities is a much less precise concept. As a result, there are likely to be different interpretations for how those calculations and allocations are implemented, leading to differences in opinion on when “net zero” is actually achieved for a particular portfolio.

## PIMCO'S FOUR DIMENSION FOCUS:



### CLIENT SOLUTIONS

Providing education, advice and investment solutions



### PORTFOLIO ANALYTICS

Developing tools to help clients and portfolio managers make investment decisions incorporating climate outcomes



### ENGAGEMENT

Working with fixed income issuers to make sure they are appropriately positioning their enterprises for a net zero world



### INDUSTRY COLLABORATION

Partner with other financial institutions to set standards, learn from our peers and develop best practices

For illustrative purposes only. Source: PIMCO.

<sup>9</sup> <https://www.unepfi.org/net-zero-alliance/alliance-members/>

<sup>10</sup> As of 31 December 2021.





### ENGAGING NATIONWIDE BUILDING SOCIETY ON CLIMATE CHANGE

- **Background:** Nationwide Building Society is a British mutual financial institution, and currently the largest building society in the world. The bulk of their indirect GHG emissions, known as Scope 3, created across their value chain relates largely to their mortgage portfolio.
- **Engagement:** PIMCO engaged with management to help shape their new sustainability KPIs, specifically on setting targets for net zero portfolio emissions and improving the Energy Performance Certificates ratings (EPCs) for the assets secured by their mortgage lending.
- **Progress to Date:** In 2021 Nationwide pledged to go net zero by 2050, joining the Net Zero Banking Alliance (NZBA) and the Glasgow Financial Alliance for Net Zero (GFANZ). They also set a target for their mortgage portfolio to reach 50% C-rated or above by 2030 in line with our recommendations.



### ENGAGING XCEL TO IMPROVE NET ZERO DATA AVAILABILITY

- **Background:** A major U.S. utility holding company with operations in eight Western and Midwestern states, Xcel serves 3.7 million electricity customers and 2.1 million natural gas customers. The company has committed to generating 100% carbon-free electricity by 2050 as well as an 80% reduction in GHG emissions by 2030.
- **Engagement:** PIMCO has engaged company management over several years regarding their green bond program, climate disclosure, and climate strategy. PIMCO encouraged alignment with the International Capital Market Association Green Bond Principles as well as PIMCO's Best Practice Guidance for Sustainable Bond Issuance. We emphasized the importance of data transparency in green bond issuances and alignment with the Paris Agreement.
- **Progress to Date:** In fall 2020, Xcel published its first green bond impact report largely following suggested best practices. In fall 2021, Xcel published its first standalone sustainable financing framework setting the full list of eligible categories, criteria and examples, along with a second-party opinion provided by S&P.

**The examples above are presented for illustrative purposes only**, as a general example of PIMCO's ESG research and engagement capability and are not intended to represent any specific portfolio's performance or how a portfolio will be invested or allocated at any particular time. PIMCO's ESG processes may yield different results than other investment managers' and a company's ESG rankings and factors may change over time. All data is as of December 2021, unless otherwise stated.

### PIMCO'S FRAMEWORK FOR CLIENTS SEEKING TO ALIGN FIXED INCOME PORTFOLIOS TO THEIR DECARBONIZATION GOALS, INCLUDING NET ZERO OBJECTIVES (PIMCO'S NET ZERO FRAMEWORK)

PIMCO's Net Zero Framework<sup>11</sup> provides clients with an approach for decarbonizing portfolios over time that is based on current assumptions (including science-based pathways), increasing investments in climate solutions and leaders, and suggests metrics for evaluating the portfolio relative to these objectives. We recognize that there is no standard definition of a "net zero" portfolio, and PIMCO makes no representation that portfolios utilizing this framework are currently achieving net zero emissions. Moreover, there can be no guarantee that portfolios utilizing the framework will achieve net zero emissions in the future. Many clients have defined their own approach, targets and methodologies for decarbonizing their portfolios. PIMCO's Net Zero Framework is one we would suggest to support the implementation of their roadmap, and be adapted as necessary to manage their criteria and accommodate their preferences, and also for investors who may not have developed or opted to follow a specific approach.

PIMCO's approach leverages a toolkit consisting broadly of four core pillars to help decarbonize a portfolio, which can all be sub-targets:

- 1. Reduce Carbon Intensity:** Move away from issuers with no ambition to transition, in particular in high carbon intensive sectors (e.g., fossil fuels) and reduce the overall exposure to areas that are in contrast with the objectives set by the Paris Agreement on Climate Change.
- 2. Invest in Climate Leaders:** Allocate to issuers that we deem to be at the forefront of the net zero transition. These issuers have demonstrated commitment to mitigating carbon emissions and their broader environmental footprint, in sectors that may involve water, plastic, air pollution, or biodiversity.
- 3. Support Climate Solutions:** Invest in labelled green bonds, as well as unlabelled bonds of issuers that are materially exposed to climate solutions, such as a solar company or an electrified passenger rail transport company, rather than an explicit green project.

- 4. Influence Change:** Increase the exposure to issuers that PIMCO expects to engage with on net zero strategies or targets. We expect that our engagement activity will focus on bolstering issuers' alignment with the Paris Agreement on Climate Change targets, supporting companies to improve their management of the underlying credit risks by moving from an awareness of the theme to readiness and ultimately commitment to be consistent with global climate goals (e.g., setting science-based GHG emissions reduction targets, with a focus on the most ambitious pathway).

PIMCO's methodology has been developed to reflect the specific characteristics of the underlying fixed income sectors in terms of carbon accounting, data availability and quality, types of instruments (e.g., role for ESG-labelled debt) or levers to influence issuers. The main focus of the current framework is on corporate credit given the relative degree of advancement of the underlying metrics and methods.

<sup>11</sup> When evaluating how an issuer addresses risks and opportunities around climate related change, PIMCO may consider a variety of factors, such as whether an issuer provides low carbon solutions, has implemented or prepared a transition plan to a low carbon economy or such other factors as PIMCO may determine are relevant. In doing so, PIMCO is dependent upon information and data obtained through voluntary or third-party reporting that may be incomplete, inaccurate or unavailable, or present conflicting information and data with respect to an issuer, which in each case could cause PIMCO to incorrectly assess an issuer's business practices with respect to its climate-related practices. Climate-related investing is qualitative and subjective by nature, and there is no guarantee that the factors utilized by PIMCO or any judgment exercised by PIMCO will reflect the opinions of any particular investor, and an issuer's climate risk practices or PIMCO's assessment of an issuer's climate risk practices may change over time.

## CONTEXTUALIZING PIMCO'S NET ZERO FRAMEWORK

The table provides a high-level comparison between PIMCO's Net Zero Framework for fixed income assets and the approaches suggested by emerging industry standards, such as the Institutional Investors Group on Climate Change's (IIGCC) Paris Aligned Investment Initiative, the Net Zero Asset Owner Alliance (NZAOA), and the Science Based Targets initiative (SBTi). We view these initiatives as complementary, suggesting different approaches and paths to get to a common destination.

Category	Suggested Metrics/KPIs	Method/Standard			Implementation toolkit for a fixed income portfolio
		Net Zero Asset Owner Alliance	Net Zero Investment Framework (IIGCC)	Science Based Target initiative (SBTi)	PIMCO's Framework
<b>Decarbonization</b>	<ul style="list-style-type: none"> <li>Weighted average carbon intensity</li> <li>Total Carbon Emissions</li> <li>Carbon Footprint</li> </ul>	X	X	X	X
<b>Climate leaders</b>	<ul style="list-style-type: none"> <li>Allocation to issuers with set science-based carbon emission reduction target</li> </ul>		X	X	X
<b>Climate solutions</b>	<ul style="list-style-type: none"> <li>Allocation to green bonds and climate solutions</li> </ul>	X	X		X
<b>Engagement</b>	<ul style="list-style-type: none"> <li>Issuers engaged on climate change</li> </ul>	X	X	X	X

Source: PIMCO, IIGCC, SBTi, NZAOA.

**For illustrative purposes only.**



## CLIMATE-FOCUSED BOND SOLUTIONS: A CASE STUDY

Climate change is catalyzing innovative ideas from experts in every field. At PIMCO, we aim to do one thing exceptionally well: build fixed income portfolios to help clients meet their financial and nonfinancial objectives; increasingly, climate risk mitigation is an explicit objective for global investors.

In 2019, we launched PIMCO Climate Bond Strategy – a global, multi-sector fixed income strategy, which opportunistically invests in those issuers demonstrating global leadership of climate action through labeled and unlabeled green bonds targeting specific low-carbon investments, as well as the bonds of issuers demonstrating innovative approaches to climate risk mitigation. The strategy is managed with a thematic focus on environmental sustainability, and thus the strategy is a useful example to use to illustrate the principles of PIMCO’s Net Zero Framework described above.<sup>12</sup>

<sup>12</sup> The Climate Bond Strategy was launched in 2019 prior to PIMCO developing its Net Zero Framework. Accordingly, portfolios following this strategy may incorporate aspects of the framework but may not necessarily implement each element of the Net Zero Framework and do not necessarily have net zero or decarbonization objectives.

## 1. REDUCE CARBON EMISSIONS:

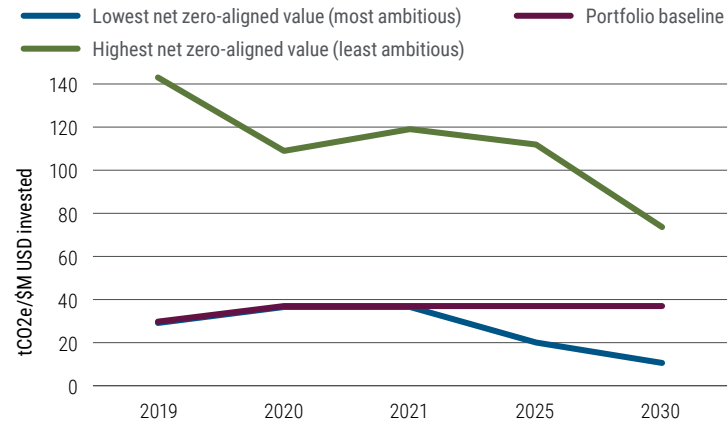
The corporate holdings of a sample Climate Bond portfolio currently have 60% lower carbon emissions than the average credit benchmark.<sup>13</sup> An ambitious decarbonization pathway in line with the Paris Agreement on Climate Change would entail lowering portfolio emissions metrics by at least 22% by 2025 and 49% by 2030 compared to 2019<sup>14</sup> levels or around 5 to 7% per year on average. While the sample Climate Bond portfolio already has lower-than-average carbon emissions, for portfolios utilizing a Net Zero Framework, our expectation is that over time an active portfolio manager would continue to look for more and more opportunities to invest in lower emitting issuers to continue to lower the emissions profile even further, whether that is evaluated on an absolute emissions or Weighted Average Carbon Intensity (WACI) basis, each illustrated on the right for the sample portfolio.<sup>15</sup>

<sup>13</sup> As of 31 December 2021. Comparing with the Bloomberg Global Agg Credit Index. See the charts in the TCFD section for more details on the sources and assumptions linked to our carbon reporting.

<sup>14</sup> Minimum CO<sub>2</sub>e reduction based on Net Zero Asset Owner Alliance's Inaugural 2025 Target Setting Protocol's interpretation of the IPCC special report Global Warming of 1.5°C applied to portfolio emissions.

<sup>15</sup> The case study reflects a hypothetical projection of the future carbon emissions profile of the sample portfolio and is based on the assumptions described in this document. There can be no guarantee as to the actual results that will be achieved.

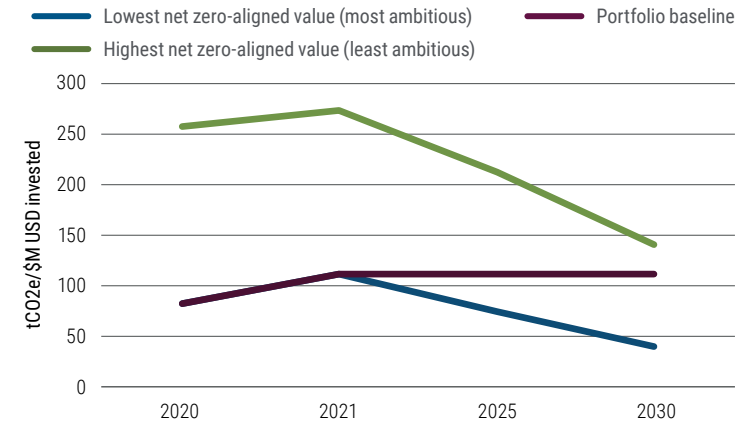
### Carbon footprint pathway based on net zero scenarios in sample PIMCO portfolio



Source: PIMCO, Bloomberg, MSCI as of 31 December 2021. **For illustrative purposes only.** Absolute corporate carbon emissions attributed to the portfolio divided by the market value, expressed as tCO<sub>2</sub>e/\$M invested (Scope 1 and Scope 2). The highest net zero-aligned value is based on a benchmark-relative approach while the lowest net zero-aligned value is based on a self-decarbonization approach (source: 'Net Zero Investment Framework: IIGCC's Supplementary Guidance on Target Setting'). Forward looking data are based on the science-based pathways presently available that are consistent with achieving net zero global emissions by 2050 (or sooner below). Those are not forecasts or predictions. Data coverage is ~89% of total sample climate bond portfolio corporate market value as of 31 December 2021. Portfolio Baseline projects current conditions forward. The Greenhouse Gas Protocol defines Scope 3 emissions as all indirect emissions in the value chain of a company not captured in Scope 2, indirect emissions from the generation of purchased energy, or Scope 1, direct emissions from owned or controlled sources. Green bonds from Utilities that have aligned their business models to meet the Paris Agreement targets are treated as zero carbon emissions and therefore, zero carbon intensity given the focus of their financing on renewable projects and issuer commitments. Green bonds from non-Paris aligned Utilities receive 10% of the issuer's carbon metrics given the focus of their financing on renewable energy, while recognizing the issuer's more limited commitments. For all other green bonds, carbon metrics from the issuer are passed to the green bond.

The index may materially vary from the composition of the portfolios. The portfolio structure is a representation of a sample portfolio and no guarantee is being made that the structure of the portfolio will remain the same or that similar returns will be achieved. This Figure is provided for information purposes and should not be construed as a solicitation or offer to buy or sell any PIMCO or other securities or related financial instruments in any jurisdiction.

### Weighted Average Carbon Intensity (WACI) pathway based on net zero scenarios in sample PIMCO portfolio

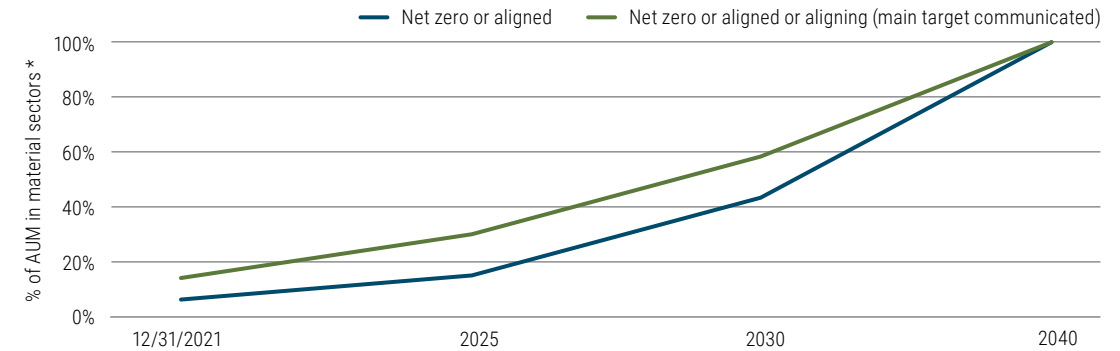


Source: PIMCO, Bloomberg, MSCI as of 31 December 2021. **For illustrative purposes only.** Portfolio's exposure to carbon-intensive companies, expressed as tCO<sub>2</sub>e/\$M company revenue (Scope 1 and Scope 2). The highest net zero-aligned value is based on a benchmark-relative approach while the lowest net zero-aligned value is based on a self-decarbonization approach (Source: 'Net Zero Investment Framework: IIGCC's Supplementary Guidance on Target Setting'). Forward looking data are based on the science-based pathways presently available that are consistent with achieving net zero global emissions by 2050 (or sooner below). Those are not forecasts or predictions. Data coverage is ~90% of total sample climate bond portfolio corporate market value as of 31 December 2021.

## 2. INVEST IN CLIMATE LEADERS:

Seek to invest opportunistically in issuers demonstrating global leadership of climate action with net zero strategies or targets.<sup>16</sup> PIMCO sample Climate Bond portfolio's corporate holdings are currently 50% invested in issuers that have set or are committed to setting science-based carbon emission reduction targets. A portfolio manager looking to stay aligned with PIMCO's Net Zero Framework would try to stay on or ahead of the glidepath illustrated below getting to 100% portfolio coverage by 2040.

### Share of issuers in material sectors aligning to net zero pathways in sample PIMCO portfolio



As of 31 December 2021. Source: PIMCO, Bloomberg, MSCI. **For illustrative purposes only.** Estimated share of sample climate bond portfolio's corporate market value in material sectors either assessed as net zero, 'aligned' with a net zero pathway, or 'aligning' to net zeros<sup>16</sup>. Material sectors are defined as those in NACE (an industry standard classification system for economic activities) code categories A-H and J-L and selected based on their climate impact (including highly emitting sectors).

Typically those include sectors like mining, manufacturing and transport and exclude sectors in services such as education, health and professional services.

Hypothetical pathway based on the target recommended in the 'Net Zero Investment Framework: IIGCC's Supplementary Guidance on Target Setting'. Similarly, SBTi recommends financial institutions commit to "having a portion of their investees set their own SBTi-approved science-based targets such that the financial institution is on a linear path to 100% portfolio coverage by 2040 (in consistent emissions or monetary terms)." Those are not forecasts or predictions. This portfolio is being shown as a sampling with enough corporate credit exposure to meaningfully represent the portfolio given the underlying data is only for corporate credit.

The portfolio structure is a representation of a sample portfolio and no guarantee is being made that the structure of the portfolio will remain the same or that similar returns will be achieved. This Figure is provided for information purposes and should not be construed as a solicitation or offer to buy or sell any PIMCO or other securities or related financial instruments in any jurisdiction.

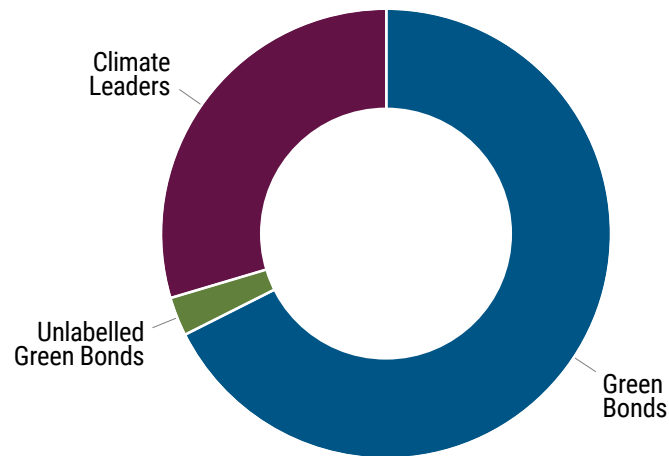
<sup>16</sup> Details on the methodology and definitions: [https://www.parisalignedinvestment.org/media/2021/03/PAII-Net-Zero-Investment-Framework\\_Implementation-Guide.pdf](https://www.parisalignedinvestment.org/media/2021/03/PAII-Net-Zero-Investment-Framework_Implementation-Guide.pdf)

Criteria are based on the Climate Action 100 benchmark, Transition Pathways Initiative, and Science Based Targets Initiative. The determination of the criteria met per issuer involves different assumptions based on companies' disclosure and available benchmarks. It should not be interpreted as a claim that the issuers will necessarily achieve 'net zero'.

### 3. FOCUS ON CLIMATE SOLUTIONS:

Seek to invest opportunistically in 'climate solutions,' including high quality green bonds and unlabeled green bonds (i.e., debt securities of issuers materially exposed to climate solutions). PIMCO's sample Climate Bond portfolio allocation to labelled and unlabelled green bonds is approximately 60%. A portfolio manager looking to stay aligned with PIMCO's Net Zero Framework would seek to target a larger allocation to these issuers over time.

#### Breakdown of sample portfolio by climate category

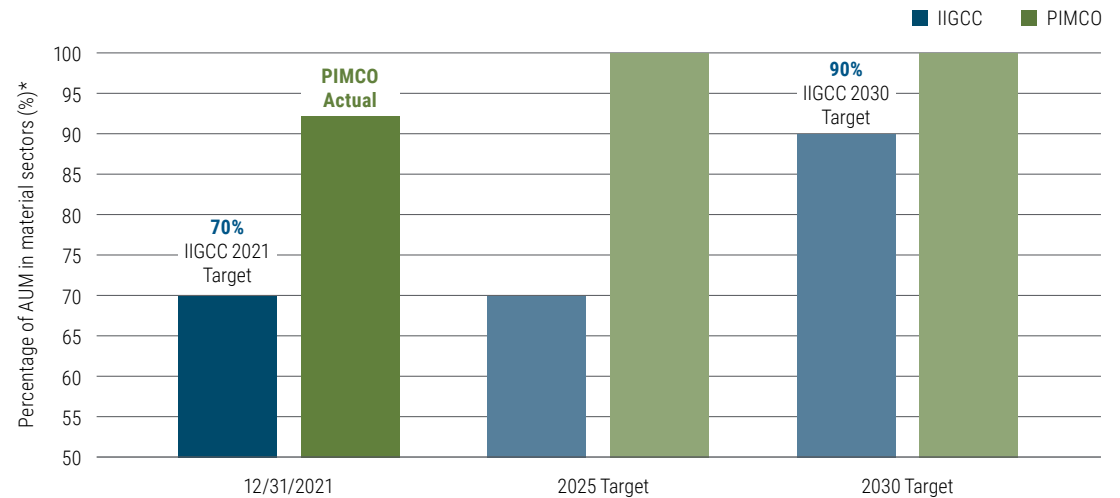


\*Sample Climate Bond Portfolio. Portfolio rebased to exclude holdings used for duration and cash management, e.g., futures. As such, green bonds are shown as a % of the market value of securities to which the climate-related breakdown applies. As of 31 December 2021.

### 4. ENGAGE ISSUERS ON NET ZERO:

Engage with the large majority of issuers in the portfolio on net zero strategies and targets. Within the sample Climate Bond portfolio, we engaged with more than 90% of issuers in material sectors. The expectation is that this will be maintained or increased over time for an account utilizing PIMCO's Net Zero Framework.

#### Sample Climate Bond Portfolio shares of issuers engaged on net zero



As of 31 December 2021. **For illustrative purposes only.** Share of financed emissions in material corporate sectors either assessed as net zero, aligned with a net zero pathway, or the subject of direct or collective engagement and stewardship actions. This chart compares the expectation of this strategy to engage with all corporate issuers in material sectors on net zero ('PIMCO' bars) with the pathway recommended in the "Net Zero Investment Framework: IIGCC's Supplementary Guidance on Target Setting." ('IIGCC' bars refer to these recommendations.) Those are not forecasts or predictions. Data coverage is ~89% of total sample climate bond portfolio corporate market value as of 31 December 2021.

This Figure is provided for information purposes and should not be construed as a solicitation or offer to buy or sell any PIMCO or other securities or related financial instruments in any jurisdiction. The portfolio structure is a representation of a sample portfolio and no guarantee is being made that the structure of the portfolio will remain the same or that similar results will be achieved.

\*Material sectors are defined as those in NACE (The Statistical Classification of Economic Activities in the European Community) and selected based on their climate impact (including highly emitting sectors). These sectors include, but are not limited to, agriculture, manufacturing, and construction. Net zero topics refer to the criteria that help assess the alignment of companies with the Paris Agreement, such as greenhouse gas emission reduction targets, strategies, disclosure and capital allocation, including via ESG-labelled bonds.



PIMCO's commitment to the green energy transition on the African continent is the reason we have joined forces in the SDG7 Initiative. Africa's sustainable development challenges are real and serious, and we must leverage public and private investment in new ways, and at scale.



**Vera Songwe**  
United Nations Under-Secretary-General,  
Executive Secretary of  
the Economic Commission  
for Africa

## THE BOND MARKET PLAYS A PIVOTAL ROLE

We believe that the bond market plays a pivotal role in driving the transition to a net zero emissions economy, thanks to its size and the diversity and number of sectors, as well as the dedicated ESG-labeled instruments available to bond investors which foster near-term decarbonization. As one of the world's largest fixed income managers, we believe we are well-positioned to partner with bond issuers and our clients to help them achieve climate and sustainability goals over the long term.

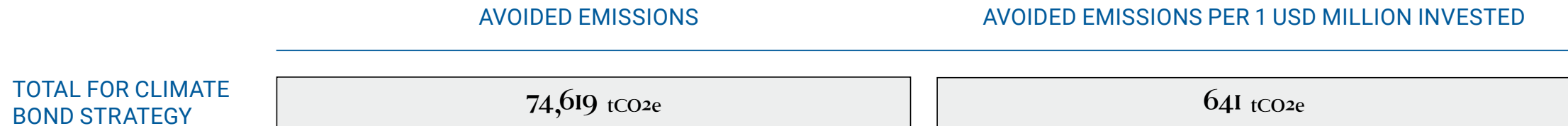
We encourage investors to consider allocating a portion of their bond portfolios to high quality issuers in the rapidly expanding ESG bond market, particularly if their long-term objectives include targeting sustainability and aligning with the goal of net zero, as well as investment returns and prudent risk management.



# Investing in Climate Solutions

PIMCO Climate Bond Strategy is designed to focus on the risks and, importantly, the opportunities associated with the momentum for greater climate action and supports the pathway to a green and resilient economy.

In 2021, the Sample Climate Bond Portfolio owned **green and sustainable bonds** linked to projects or products supporting nearly **74,619 of avoided emissions** in tCO<sub>2</sub>e (tons of carbon dioxide equivalent) meaning every **\$1 million** invested in the strategy is linked to **641 tCO<sub>2</sub>e** avoided emissions.



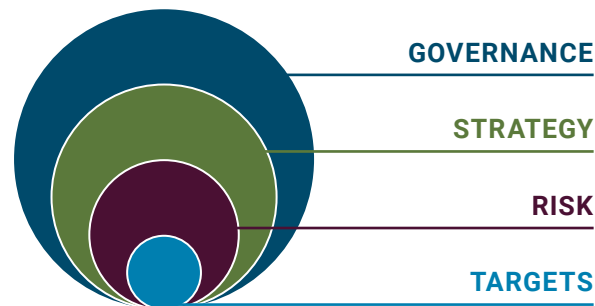
**74,619 tCO<sub>2</sub>e (tons of carbon dioxide equivalent) is similar to:**



Source: Issuers, US EPA, PIMCO as of 31 December 2021. **For illustrative purposes only.** This chart displays the potential avoided carbon emissions driven by use of the proceeds of bonds held in this portfolio, and estimation of avoided emissions is based on PIMCO's sample portfolio ownership of these bonds. We define avoided carbon emissions as the estimated greenhouse gas (GHG) emissions impact (expressed in carbon dioxide equivalent) of a product (good or service), project or investment financed by the bond relative to the situation where that product, project or investment does not exist (business as usual). We use several assumptions to derive the annual 'avoided emissions' number given the varying levels of disclosure. There are a number of methodological considerations associated with the concept and calculation of avoided emissions and we do not make a claim that these emissions would not have been saved without PIMCO investments.

# Climate risk management and TCFD

In support of the Task Force on Climate-related Financial Disclosures (TCFD), which we signed in June 2019, we outlined PIMCO's process for monitoring and managing climate risk in investment portfolios. This includes governance, strategy (including integration and scenario analysis), the risk management framework, and finally our climate-related metrics and targets (including climate solutions investment exposure, carbon emissions, and impact measurement).



## I. GOVERNANCE – ROLES AND RESPONSIBILITIES

### ESG Leadership team and Executive Committee overseeing climate risks

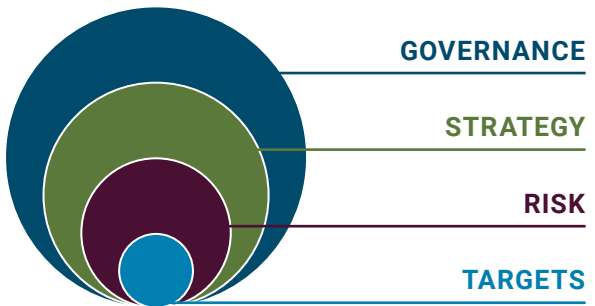
The ESG Leadership team, including Grover Burthey, PIMCO's Head of ESG Portfolio Management, manages PIMCO's ESG investment process that seeks to factor in climate change risks across selected portfolio management teams, from credit and sovereign research to mortgage and municipal analysis.

PIMCO's Executive Committee is fundamentally in charge of PIMCO's strategic direction and management firmwide, while PIMCO's investment strategy is established by our Investment Committee, which is guided by our secular and cyclical economic forums and subsequent strategy sessions. Notably, in 2021, the Investment Committee covered the topic of "stranded assets," defined as those that turn out to be worth less than expected as a result of changes associated with the energy transition.

### PIMCO's Global Advisory Board, Forums and specialized Committees

During our annual Secular Forums, we formulate our outlook for global bond markets over the next five years, considering relevant climate-related issues. PIMCO's Global Advisory Board, which comprises macroeconomic thinkers and former policymakers, participates in our economic forums and typically provides insights on global economic, political and strategic developments and their relevance to financial markets.

These topics are also analyzed in the context of PIMCO's quarterly Cyclical Forums, where we examine how they affect our bottom-up perspective, growth, and inflation over the next six to 12 months. Our forums build on PIMCO's research and economic data presented by our three regional portfolio committees and the environmental, social, and governance (ESG) analyst team, among others.



## II. STRATEGY – CLIMATE RISK INTEGRATION

### Climate-related risks and opportunities: potential impacts and time frames

PIMCO recognizes that climate change will likely have a profound impact on the global economy, financial markets, and issuers. While the horizon of climate models can span a very long period, the pace of change can be swift. Risks and opportunities related to climate change may materialize in unexpected ways, and can affect investments across asset classes, including a wide range of fixed income securities, such as corporate credit, mortgage-backed securities, sovereign debt and municipalities. The impact on financial markets and bond prices may be abrupt and sudden.

When evaluating climate-related risks and opportunities of specific sectors and issuers, we begin with two broad categories:

- 1. Transition risks**, including policy, legal, technology, market and reputation risks (e.g., tighter regulations on carbon emissions).
- 2. Physical risks**, including both acute and chronic. Acute are event-driven, such as hurricanes and wildfires. Chronic risks are longer-term shifts in climate patterns, such as how the rising intensity and frequency of extreme weather events affects critical assets and natural resources used by the issuer.



PIMCO has developed a climate risk scoring methodology that evaluates sectors' exposure to these two types of climate risk over different time horizons: the cyclical (0-1 year), secular (1-5 years), and supersecular (>5 years). This assessment serves as a starting point before drilling down into specific issuers. The table below provides an illustration of this scoring methodology, examining two different corporate credit focused benchmarks.

	Cyclical (0-1 year)						Secular (1-5 years)						Supersecular (>5 years)					
	Physical Risk		Transition Risk				Physical Risk		Transition Risk				Physical Risk		Transition Risk			
	Acute	Chronic	Policy and legal	Technology	Market	Reputation	Acute	Chronic	Policy and legal	Technology	Market	Reputation	Acute	Chronic	Policy and legal	Technology	Market	Reputation
Bloomberg Global Agg Corporate Index	Green	Green	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Orange
ICE BofAML US High Yield Energy Index	Yellow	Yellow	Yellow	Yellow	Yellow	Orange	Orange	Orange	Orange	Orange	Orange	Red	Red	Red	Red	Red	Red	Red

**For illustrative purposes only.**

As of 31 December 2021. Source: Moody's, PIMCO.

## CLIMATE-SCENARIO ANALYSIS MODELS: FROM TOP-DOWN TO BOTTOM-UP

### Top-down model

Below we show illustrative results from two different models taking a top-down macroeconomic approach to climate scenario analysis. The first is an off-the-shelf model developed by the Network for Greening the Financial System (NGFS), a coalition of central banks dedicated to assessing the impact of climate change<sup>17</sup>. Their approach tries to capture all the major components of the global economy including government policy, labor, capital markets, and trade flows. This model has a significant amount of assumptions and calibrated parameters as it incorporates numerous predicted variables and countries.

The second is the PIMCO model, which leverages data on environmental taxes, real GDP growth, inflation, and renewable use. This bespoke approach abstracts away from modeling all components of the economy and chooses instead to focus on the key mechanisms that are linked to climate change.

Using the two models, we demonstrate the cumulative impact climate change could have on real GDP for the world, the U.S., and Europe over the years 2020-2050. The models focus on three scenarios from the NGFS<sup>18</sup>:

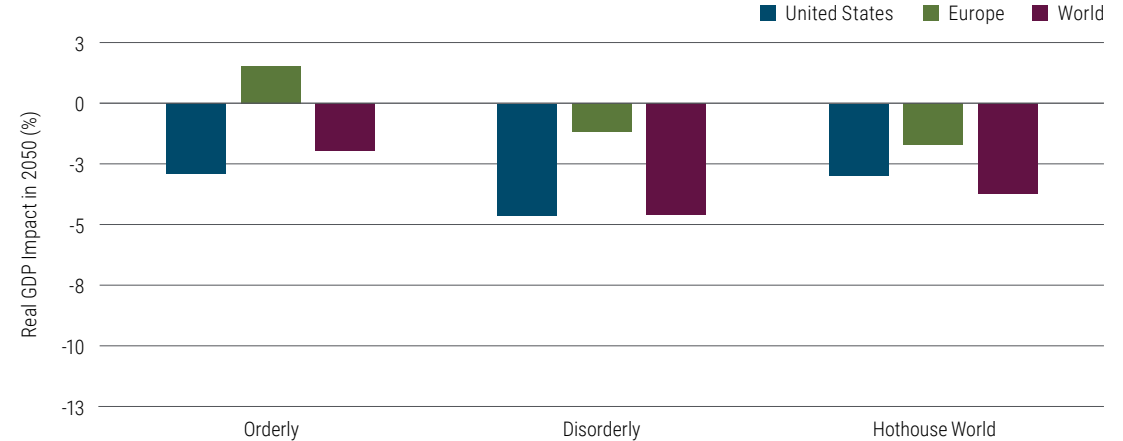
1. Orderly transition: Net zero (medium transition risks, low physical risks).
2. Disorderly: Delayed transition (high transition risks, medium physical risks).
3. Hothouse world: Continuation of current policies (low transition risks, very high physical risk).

<sup>17</sup> The model combines "REMIND," an integrated assessment model, and "NIGEM," a large global macroeconomic model. NGFS home page is <https://www.ngfs.net/en>. MAGICC home page is <http://www.magicc.org/>. NIGEM home page is <https://nimodel.niesr.ac.uk/>

<sup>18</sup> Orderly scenarios assume climate policies are introduced early and become gradually more stringent. Disorderly scenarios explore higher transition risk due to policies being delayed or divergent across countries and sectors. Hothouse world scenarios assume that some climate policies are implemented in some jurisdictions, but globally efforts are insufficient to halt significant global warming. The scenarios result in severe physical risk including irreversible impacts, such as sea-level rise.

[https://www.ngfs.net/sites/default/files/media/2021/08/27/ngfs\\_climate\\_scenarios\\_phase2\\_june2021.pdf](https://www.ngfs.net/sites/default/files/media/2021/08/27/ngfs_climate_scenarios_phase2_june2021.pdf)

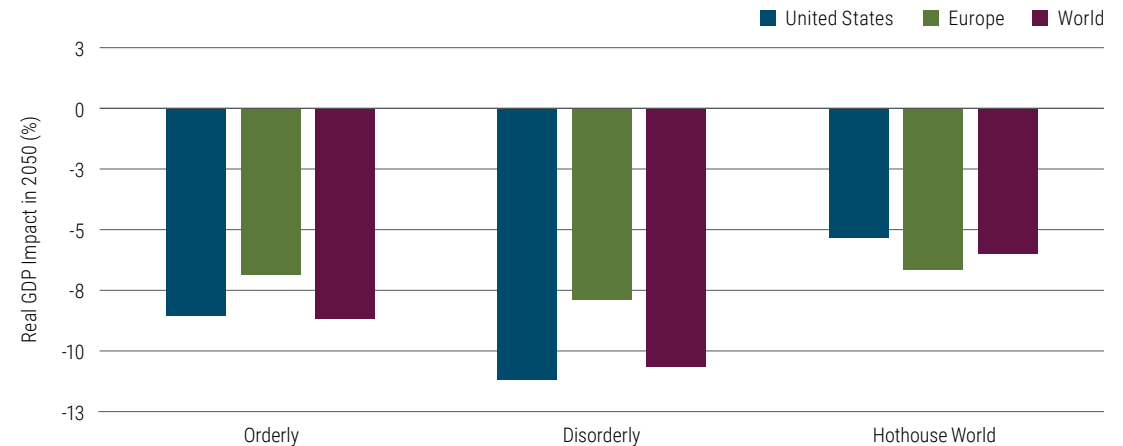
### NGFS model predictions for real GDP impact per region and scenario



As of 31 December 2021. Source: NGFS, PIMCO. **For illustrative purposes only.**

Represents NIGEM|Gross Domestic Product (GDP) figures for the NGFS's REMIND-MAGPIE 2.1-4.2 inputs model. Source: NGFS version two as of June 2021.

### PIMCO model predictions for real GDP impact per region and scenario



As of 31 December 2021. Source: Burke and Tanutama (2019), Bloomberg, BP, IMF, OECD, Our World in Data, PIMCO. **For illustrative purposes only.**

The NGFS model predicts anywhere between a -2% to -4% cumulative impact on real GDP for the world by 2050, whereas the PIMCO model predicts a -6% to -11% cumulative real GDP impact for the world. For the orderly and disorderly scenarios, the negative impact is driven by transition risk. Carbon taxes help the world to transition to a greener economy; however, they have a negative impact on real GDP along the way. For the hothouse world scenario, the loss in GDP comes from physical risk; increasing temperatures impact output through losses in productivity and increased disaster risk.

In both of the models, the largest negative impact to real GDP occurs in the disorderly scenario. This effect is driven by how a late transition causes larger and more sudden increases in carbon policy. An orderly transition is less disruptive, causing less deadweight loss and less inflation.

The models diverge in their predictions of magnitude and relative ordering. The NGFS model predicts much smaller impacts on real GDP due to more supportive assumptions on renewable investments stimulating growth. The PIMCO model predicts less synergy and a lower government spending multiplier based on the historical relationship between renewable investment and real GDP growth.

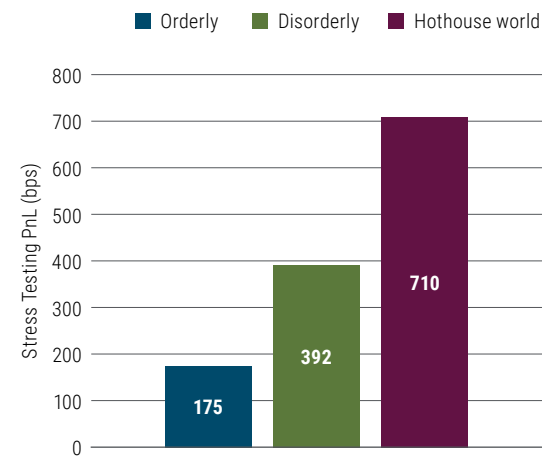
Another difference is the results in the hothouse world scenario. The NGFS predicts that real GDP impacts will be worse than in the orderly scenario. Temperatures begin to diverge for the scenarios meaningfully only after 2050, and the PIMCO model estimates physical effects of climate change by combining the projected temperatures for each scenario from the NGFS with estimates of damages of increased temperature on real GDP growth from Burke and Tanutama (2019).

The results suggest somewhere between -6 to -38 bps, annualized, of impact on real GDP growth over the 2020-2050 period. It is important to note the worst of climate change will occur after 2050 if temperatures continue to rise and the effects of sustained carbon concentration begin to appear. The results suggest that between 2020 and 2050 the immediate effect of

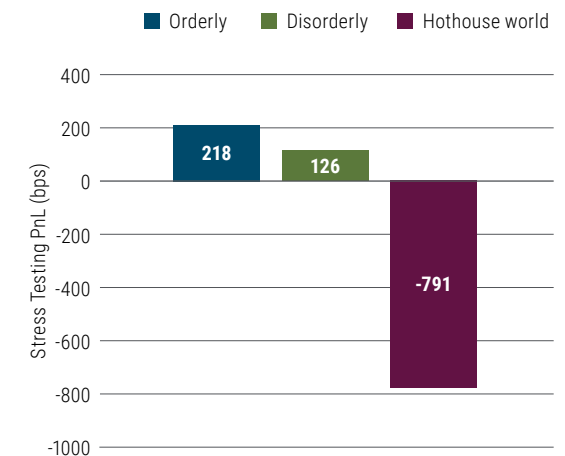
climate change may be moderate, which implies that it pays to pay attention to climate change now, before damages in the future become irreversible and much more severe.

To determine the impact of climate scenarios on asset prices, we map the loss in real GDP onto real equity returns and real rates. The results for a global fixed income benchmark and a global equity index are shown below.

**PIMCO top-down model implied impact on benchmark returns by scenario (Bloomberg Global Agg Corporate index)**



**PIMCO top-down model implied impact on benchmark returns by scenario (MSCI All Country World Index)**



As of 31 December 2021. Source: Burke and Tanutama (2019), Bloomberg, BP, IMF, OECD, Our World in Data, PIMCO. **For illustrative purposes only.**

Source: PIMCO Proteus model output as of 31 December 2021 for the MSCI ACWI Net Total Return USD Index. **For illustrative purposes only.** The top-down macro model maps a NGFS climate scenario to two types of outputs: macroeconomic and risk factor. The outputs are a panel with country and time dimensions. The time series dimension is annual over the same horizon as the input scenario. We assume the climate scenario affects the macroeconomic outputs through two channels: 1) Physical risks: Loss in productivity due to human-driven increase in global temperature; 2) Transition risks: Increased inflation and loss in growth from taxing carbon and subsidizing renewable investment. These macroeconomic shocks flow through to asset prices which we capture using a set of risk factors. The risk factor outputs are then plugged into PIMCO's risk model (PROTEUS) and then applied to the desired account, index or security to generate the final return impact of the climate scenario. Given the uncertainties linked to climate models and data, this work inherently includes a host of assumptions and is exploratory and iterative. Scenarios are not forecasts or predictions. Sources: NGFS, IMF, OECD, BloombergNEF, World Bank, FRED, Our World in Data, Burke and Tanutama (2019).



In the orderly and disorderly scenarios, the implementation of a carbon tax causes lower real GDP and higher inflation. Our model predicts that the inflation impact dominates, causing real GDP to fall but nominal GDP to rise slightly. Based on our mapping to asset prices, this implies that both equities and rates rise. For the Bloomberg Global Aggregate Corporate index, we find the positive return on equity also means credit spreads tighten. The decrease in spreads more than offsets the rise in rates, giving the fixed income benchmark a positive return.

The disorderly scenario features a delayed transition and larger losses in real GDP due to transitioning later, but also larger inflation. The net effect is a smaller increase in equities but also less of a rise in rates causing a higher return for the fixed income benchmark compared to the orderly scenario.

In the hothouse world scenario, there is no inflation to offset the large losses in real GDP due to physical risk. As a result, equities and rates fall leading to large losses in the equity benchmark and large gains in the fixed income benchmark due to duration.

While this simplified modelling inherently does not capture the specific impacts on fixed income sectors and securities given their characteristics and respective vulnerability to climate risks, it is useful as a first step to shed light on the connections between climate-induced GDP shocks and portfolio returns, all else being equal.

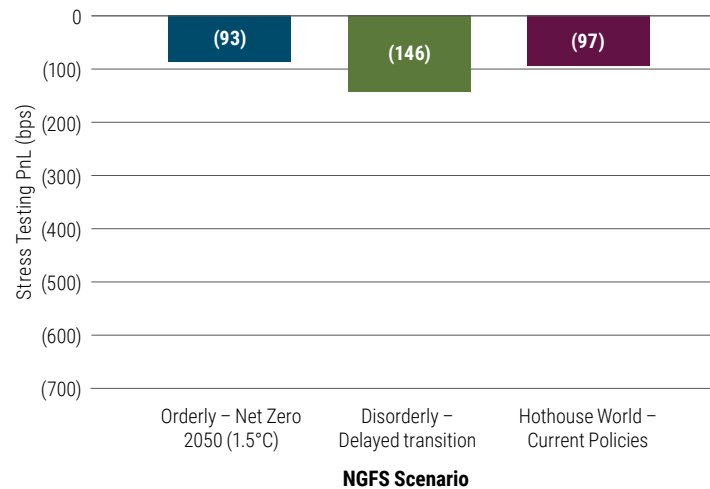
## BOTTOM-UP MODEL

PIMCO has developed a bottom-up sector stress-testing model using a distinct set of assumptions separate from those of the top-down approach. This model builds upon internal research and central bank stress testing exercises to determine equity price shocks for material sectors. These shocks incorporate both physical and transition risks across the NGFS's six scenarios. PIMCO then translates these equity shocks into fixed income shocks and can apply them to corporate bonds in a portfolio.

The charts below illustrate the impact climate change could have on two different corporate credit benchmarks, the Bloomberg Global Aggregate Corporate Index and the ICE BofAML US High Yield Energy Index. The latter tends to have a higher allocation to materially exposed sectors (e.g., energy), which increases the severity of losses across scenarios. The disorderly scenario produces the most severe outcome for the benchmark, as the world's abrupt transition materially affects the equity valuations of high carbon emitting sectors.

While the model does not account for a company's specific dynamics, which we address via a complementary bottom-up research approach, it provides insights into sector selection that can help structure more climate resilient portfolios.

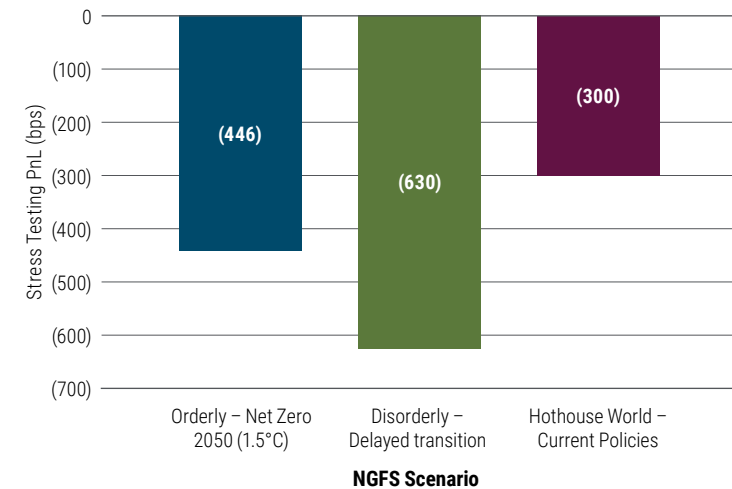
PIMCO's bottom-up model's impact on benchmark's return per scenario (Bloomberg Global Agg Corporate Index)



As of 31 December 2021. Source: Bank of England, NGFS, PIMCO. **For illustrative purposes only.**

Source: PIMCO Bottom-up model output as of 31 December 2021 for the Bloomberg Global Aggregate Corporate unhedged USD index. Output represents the impact on corporate bonds for both transition and physical risk. **For illustrative purposes only.** This model draws on a simplified method suggested by the Bank of England to assess the potential corporate sector shocks (equity and bond prices change under each climate scenario) for climate-relevant sectors, including both transition and physical risk. These sectors are then mapped to their equivalent subsectors. The Bank of England's three climate scenarios (Orderly, Disorderly, and Hot House) are expanded to include the three new NGFS scenarios released in 2021. Each new scenario is calculated as a change compared to the original three scenarios. Expansion from three to six scenarios is accomplished by using multipliers for transition and physical risk. The transition risk multiplier is based on the NGFS carbon price for a given base and new scenario. The physical risk multiplier is based on temperature differences under each scenario. Bond price impact is estimated to be 15% of equity impact. Given the uncertainties linked to climate models and data, this work inherently includes a host of assumptions and is exploratory and iterative. Sources: NGFS, Bank of England, Merrill Lynch.

PIMCO's bottom-up model's impact on benchmark's return per scenario (ICE BofAML US High Yield Energy Index)



As of 31 December 2021. Source: Bank of England, NGFS, PIMCO. **For illustrative purposes only.**

PIMCO bottom-up model output as of 31 December 2021 for the ICE BofAML US High Yield Energy index. Output represents the impact on corporate bonds for both transition and physical risk. **For illustrative purposes only.**





## CLIMATE RISKS AND IMPACT EMBEDDED INTO PIMCO'S ESG PORTFOLIOS

In PIMCO's portfolios with ESG objectives, we embed climate change into our three-step approach of exclusion, evaluation and engagement to assess both the portfolio's contribution to climate change, and the impact of climate change from a credit risk perspective. These portfolios look to be better positioned than their respective benchmarks with respect to their exposure and management of climate risks, given their relative focus on issuers with stronger climate characteristics overall (e.g., lower carbon intensity, science-based carbon emission reduction targets).

In PIMCO's non-ESG portfolios, climate risks are also evaluated as part of our credit research process via our proprietary ESG scoring where appropriate, including an environmental assessment. This involves flagging which issuers are better or worse positioned to cope with the transition to a low-carbon economy.

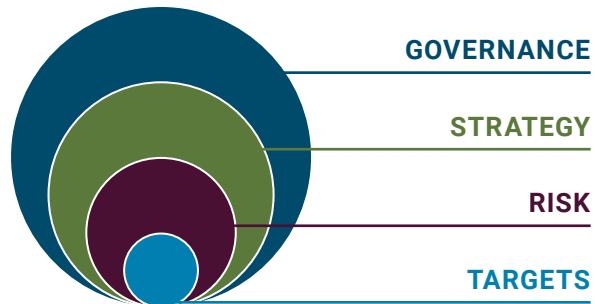
We support the TCFD and engage with issuers for enhanced corporate disclosure on climate change. We also partake in a range of industry initiatives that are linked to the implementations of the TCFD, such as the Bank of England's Climate Financial Risk Forum's scenario analysis working group. This group published last year their second guide to climate-related financial risk management. The guide aims to help financial firms understand the risks and opportunities that arise from climate change, and provides support for how to integrate them into their risk, strategy and decision-making processes.

**The examples above are presented for illustrative purposes only**, as a general example of PIMCO's ESG research and engagement capability and are not intended to represent any specific portfolio's performance or how a portfolio will be invested or allocated at any particular time. PIMCO's ESG processes may yield different results than other investment managers' and a company's ESG rankings and factors may change over time. All data is as of December 2021, unless otherwise stated.



## ENGAGED WITH LIBERTY MUTUAL TO ENHANCE CORPORATE DISCLOSURE ON CLIMATE CHANGE

- **Background:** Liberty Mutual is the fourth-largest property and casualty insurer in the U.S. and the first among peers to sign onto the UN Principles for Responsible Investment. Liberty Mutual has actively engaged with PIMCO and significantly strengthened its ESG disclosure and climate strategy.
- **Engagement:** PIMCO engaged with Liberty Mutual to advise on strengthening its GHG emissions reporting and enhancing climate strategy by adopting a net zero strategy.
- **Progress to Date:** In 2021, Liberty Mutual published its first report detailing its alignment with recommendations outlined by the Task Force on Climate-related Financial Disclosures (TCFD). The company has also committed to a 50% reduction of GHG emissions by 2030.



### III. RISK MANAGEMENT – FRAMEWORK TO IDENTIFY, ASSESS AND MANAGE CLIMATE RISKS

PIMCO's climate research is led by credit analysts – experts in their market sectors – who build on the structure of our broader ESG specialist desk for coordination and consistency. Climate risk now features in our proprietary ESG scores for the issuers we evaluate where applicable. In this way, PIMCO leverages the expertise of our analyst teams, while harmonizing climate risk analysis across asset classes and sectors. Our ESG scores inform broad PIMCO portfolios, not only portfolios with specific sustainability or ESG objectives.

To help analysts evaluate climate risk, PIMCO's ESG specialists designed seven proprietary tools, drawing on our decades of experience in fixed income analysis. The insights these tools provide are intended to help portfolio managers to manage and mitigate climate-related credit risks and align portfolios with ESG objectives to the Paris Agreement targets – as always, working within specific portfolio objectives and guidelines.

These analytical frameworks serve the whole spectrum of PIMCO's ESG and broader investment strategies and enable PIMCO's strategies with ESG objectives to align with the recommendations of the TCFD.



#### ENGAGED WEYERHAEUSER ON CLIMATE CHANGE AND TCFD

- **Background:** Weyerhaeuser Company is the world's largest private owner of timberland and a leading wood products producer in North America.
- **Engagement:** PIMCO initiated a dialogue with Weyerhaeuser in 2019, focused on enhancing its environmental disclosure and overall strategy. The interaction covered the implementation of the TCFD recommendations, including scenario analysis, as well as the consideration to set science-based targets, which involve carbon emission reductions verified as being in line with the Paris Agreement goals. The dialogue with the company also focused on other relevant environmental targets, such as reducing water withdrawal.
- **Progress to Date:** After the publication of their alignment with the TCFD recommendations in 2020, the company unveiled their environmental strategy enhancements, which included science-based targets (SBTi) aligned with the most ambitious scenario (1.5°C), the publication of a carbon-record methodology, and the launch of a new natural-climate-solutions business, including activities such as renewable energy or conservation. We plan to further engage with the company and monitor progress and implementation of their sustainability strategy.

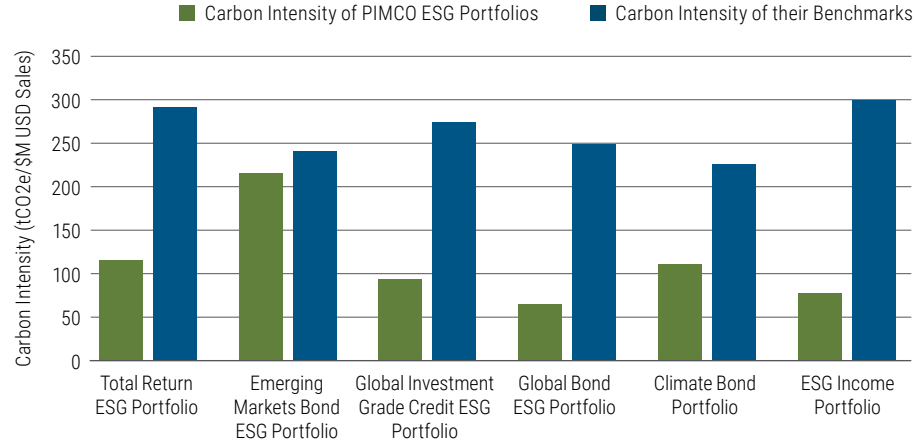
**The examples above are presented for illustrative purposes only**, as a general example of PIMCO's ESG research and engagement capability and are not intended to represent any specific portfolio's performance or how a portfolio will be invested or allocated at any particular time. PIMCO's ESG processes may yield different results than other investment managers' and a company's ESG rankings and factors may change over time. All data is as of December 2021, unless otherwise stated.

#### IV. SAMPLE METRICS AND TARGETS: CLIMATE-FOCUSED INVESTMENT EXPOSURE OF SAMPLE PIMCO PORTFOLIOS

As the world economy evolves toward a net zero future, investments within the sample PIMCO portfolios are exposed to a fraction of the carbon emissions within the broader global bond market.

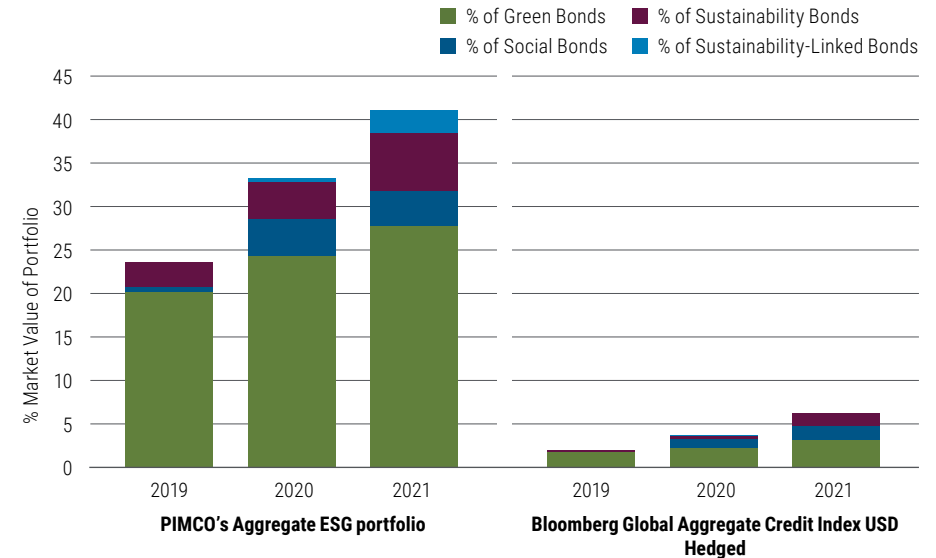
This section shows – for sample PIMCO portfolios and benchmarks – selected metrics linked to the recommendations of the Task Force on Climate-Related Financial Disclosures and similar disclosure frameworks.

#### Carbon intensity in sample PIMCO portfolios



As of 31 December 2021. Source: MSCI. **For illustrative purposes only.** Note: Benchmarks used include (from left to right, in first order of appearance) Bloomberg U.S. Aggregate Index, JPM JESG EMBI Global Diversified, Bloomberg Global Credit 3-10y USDH, Bloomberg Global Aggregate Credit Index USD Hedged, Bloomberg Global Aggregate US Hedged, 50-50 ICE ML High Yield and Bloomberg US Credit, Bloomberg Global Credit 3-10y CADH. The benchmarks may materially vary from the composition of the portfolios. Carbon intensity: Is intended to reflect how an issuer's greenhouse gas (GHG) emissions (expressed as tons of CO2 equivalent (tCO2e)) compare to its overall revenues. The carbon intensity of the securities portfolio is defined as the weighted average carbon emissions (Scope 1 + Scope 2 emissions (tCO2e))/Revenues in USD of corporate bond holdings only in the portfolio (for issuers with available data). As defined by the U.S. Environmental Protection Agency (EPA), Scope 1 emissions are direct GHG emissions that occur from sources owned or controlled by a company (for example, company vehicles and facilities), and Scope 2 emissions are indirect GHG emissions from the purchase of electricity, steam, heating or cooling. Data used by PIMCO to calculate carbon intensity is (i) sourced from MSCI based on data reported by companies, a company specific model, or an industry specific model (MSCI's methodology is available here: <https://www.msci.com/index-carbon-footprint-metrics>), or (ii) estimated by PIMCO for "use of proceeds" bonds not covered by MSCI. PIMCO's estimates generally apply absolute emissions of the issuer's parent company/companies to its subsidiaries. Green bonds issued by utility companies, however, are generally assumed at 10% of the parent company's CO2e intensity. Green bonds from Paris-aligned utility issuers (i.e., those who have represented that their current and future carbon emissions targets are consistent with the global accord to limit the global temperature rise by year 2100 to 1.5°C – 2°C above pre-industrial levels, notably based on methods validating that such targets are 'science-based') are treated as having zero carbon emissions and, therefore, zero carbon intensity. Paris-aligned utility issuers of sustainability bonds with use of proceeds partly (but not exclusively) dedicated to renewable energy receive 50% of the issuer's carbon metrics (while they receive 60% if issued by a non-Paris aligned utility). Scope 3 emissions (Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions; source: GHG Protocol) are excluded from this chart but included separately in the summary table at the end of this section. This Figure is provided for information purposes and should not be construed as a solicitation or offer to buy or sell any PIMCO or other securities or related financial instruments in any jurisdiction. The portfolio structure is a representation of a sample portfolio and no guarantee is being made that the structure of the portfolio will remain the same or that similar results will be achieved.

#### Sample portfolios' exposure to green, social, and sustainability bonds (PIMCO portfolios vs. benchmark)



As of 31 December 2021. Source: PIMCO, Bloomberg, MSCI. **For illustrative purposes only.** Green, social, and sustainability bonds are identified based on Bloomberg definitions (issuer or underwriter must clearly and publicly demonstrate in issuance documentation that 100% of all proceeds will be used to finance or refinance acceptable green projects or activities) and includes issuers that may not comply with the Green Bond Principles. These portfolios are being shown to illustrate the difference between ESG portfolios and the broad global credit market (represented by the Bloomberg Global Aggregate Credit Index USD Hedged). Note: "PIMCO's Aggregate ESG Portfolio" refers to the weighted average mix using seven sample ESG portfolios based on market value (Low Duration ESG Portfolio, Total Return ESG Portfolio, Emerging Markets Bond ESG Portfolio, Enhanced Short Maturity Active ESG Portfolio, Climate Bond Portfolio, Global Investment Grade Credit ESG Portfolio, Global Bond ESG Portfolio). 2021 data include four new ESG Portfolios (two Climate Bond Portfolios and two PIMCO ESG Income Portfolios) whose impact on the aggregate values is small. The portfolio structure is a representation of a sample of portfolios and no guarantee is being made that the structure of the portfolio or portfolios will remain the same or that similar returns will be achieved. The benchmark may materially vary from the composition of the portfolios. This Figure is provided for information purposes and should not be construed as a solicitation or offer to buy or sell any PIMCO or other securities or related financial instruments in any jurisdiction. Total sustainable bond issuances grew from \$340 billion to \$1.1 trillion during this period (232% growth).

## SUMMARY TABLE FOR PIMCO'S ESG PORTFOLIOS

This table includes the aggregated value for PIMCO's ESG portfolio for selected climate-related metrics based on the recommendations of the TCFD and other initiatives providing guidance on carbon measurement and reporting from financial institutions (e.g., Partnership for Carbon Accounting Financials or PCAF, Science-Based Target initiative or SBTi).

Metric	Asset class covered	Units	Value	Definition
Weighted Average Carbon Intensity*	Corporates	tCO2e / \$M USD Sales	113	Portfolios' exposure to carbon-intensive companies (Scope 1 absolute emissions + Scope 2 absolute greenhouse gas emissions)/issuers' revenues in \$M USD (weighted based on Market Value).
Total Carbon Emissions*	Corporates	tCO2e	111,697	Proxy for the carbon emissions that the position in the security is responsible for. Total GHG emissions for portfolios (scope 1 and 2 emissions). Based on enterprise value including cash.
Carbon Footprint*	Corporates	tCO2e / \$M USD invested	28	Total GHG emissions for a portfolio normalized by the market value of the corporates in the portfolio with Scope 1+2 GHG emissions data, expressed in tons CO2e/\$M invested. Based on enterprise value including cash.
Weighted Average Carbon Intensity (incl. Scope 3)**	Corporates	tCO2e / \$M USD Sales	379	Portfolios' exposure to carbon-intensive companies (Scope 1 absolute emissions + Scope 2 absolute + Scope 3 absolute greenhouse gas emissions)/ issuers' revenues in \$M USD (weighted based on Market Value).
Total Carbon Emissions (incl. Scope 3)*	Corporates	tCO2e	344,659	Proxy for the carbon emissions that the position in the security is responsible for. Total GHG emissions for portfolios (scope 1, 2 and 3 emissions). Based on enterprise value including cash.
Carbon Footprint (incl. Scope 3)**	Corporates	tCO2e / \$M USD invested	124	Total GHG emissions for a portfolio normalized by the market value of the corporates in the portfolio with Scope 1+2+3 GHG emissions data, expressed in tons CO2e/\$M invested. Based on enterprise value including cash.
Carbon Intensity***	Sovereigns	tCO2 / \$M USD GDP	218	CO2 Emissions from Energy Use divided by GDP. Territorial emissions. Excluding biomass burning or land-use change (weighted based on Market Value).
Share of issuers with a Science Based Target set	Corporates	%	17%	% of Corporate Market Value of portfolios invested in issuers with a Science Based Target set.
Share of Carbon Sensitive Sectors	Corporates	%	25%	% of Corporate Market Value of portfolios invested in sectors deemed particularly sensitive to risks brought about by the energy transition (Energy; Materials and Buildings; Transportation; Forest products), except Agriculture and Food.
Share of Green Bonds	Corporates, Supranational, Sovereign and Agency, Municipal Bond, Collateralized Mortgage Obligation, Asset Backed Security, Local Authority	%	28%	% Market Value of portfolios invested in Green Bonds.
Share of ESG-Labelled Bonds	Corporates, Supranational, Sovereign and Agency, Municipal Bond, Collateralized Mortgage Obligation, Asset Backed Security, Local Authority	%	41%	% Market Value of portfolios invested in Green, Social, Sustainability or Sustainability-linked Bonds.

All data as of 31 December 2021. Sources: MSCI, Maplecroft, PIMCO, TCFD, SBT, TPI, Trucost, Bloomberg, EDGAR. **For illustrative purposes only.** Calculations for carbon metrics are based on the guidance developed by the TCFD and the Partnership for Carbon Accounting Financials (PCAF), and PIMCO's estimates for green and sustainability bonds as described in the note of the 'Carbon intensity in sample PIMCO portfolios.'

\* Coverage of these metrics is 85% of corporate market value, and 41% of sample portfolios' total market value (assets under management) in 2021.

\*\* Coverage of these metrics is 59% of corporate market value, and 28% of sample portfolios' total market value (assets under management) in 2021.

\*\*\* Coverage is 98% of sovereign market value, and 34% of sample portfolios' total market value in 2021.

PIMCO's Aggregate ESG Portfolio: Low Duration ESG Portfolio, Total Return ESG Portfolio, Emerging Markets Bond ESG Portfolio, Enhanced Short Maturity Active ESG Portfolio, three Climate Bond Portfolios, Global Investment Grade Credit ESG, Global Bond ESG Portfolio, two PIMCO ESG Income Portfolios and PIMCO RAFI ESG U.S. Portfolio. The data included in this table show the aggregated value across these 12 ESG accounts, subject to data availability.

## OUR ESG PROCESS

A person is standing on a vast, flat, reflective surface, likely a salt flat or a very calm body of water. The surface is perfectly still, creating a clear reflection of the sky and the person. The sky is a vibrant blue with scattered white clouds. The person is a small silhouette in the center of the frame, looking out over the horizon. The overall scene is serene and expansive.

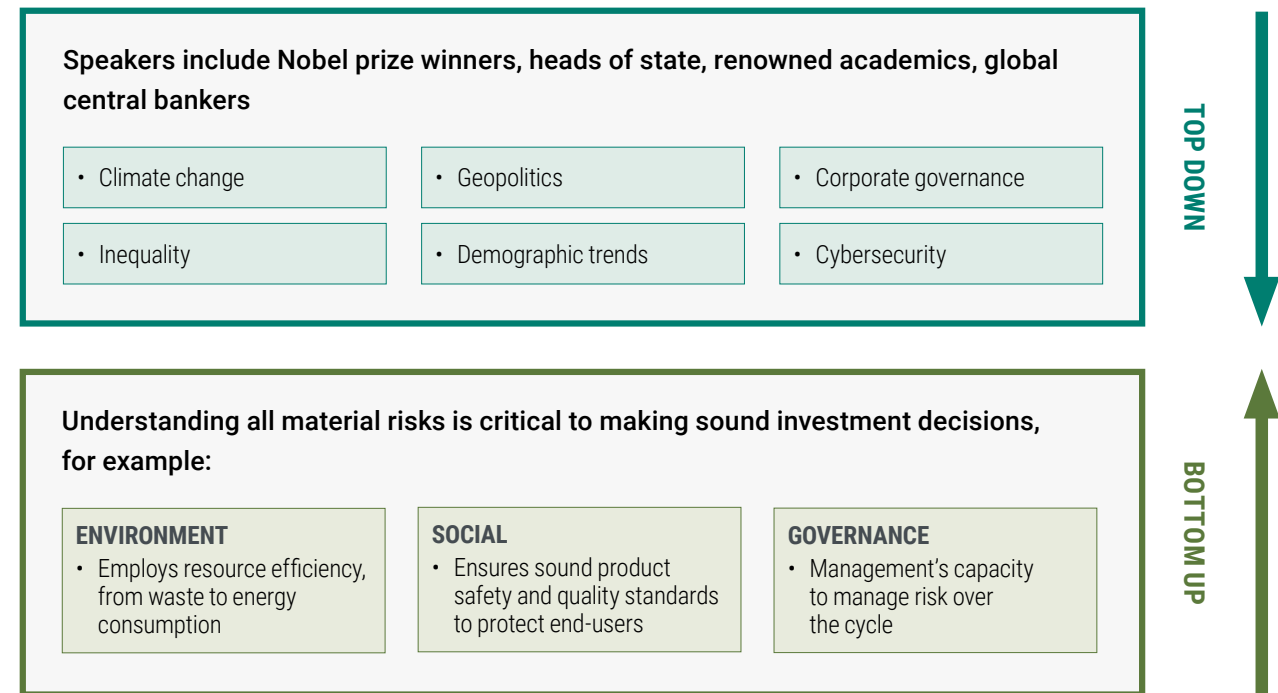
# Our ESG investment approach: Top down meets bottom up

We believe incorporating relevant ESG factors should be part of a robust investment process – and is an important consideration when evaluating long-term investment opportunities and risks across asset classes in both public and private markets.

At the firm level, PIMCO incorporates material ESG factors into the investment research process where applicable to better assess issuer risks.

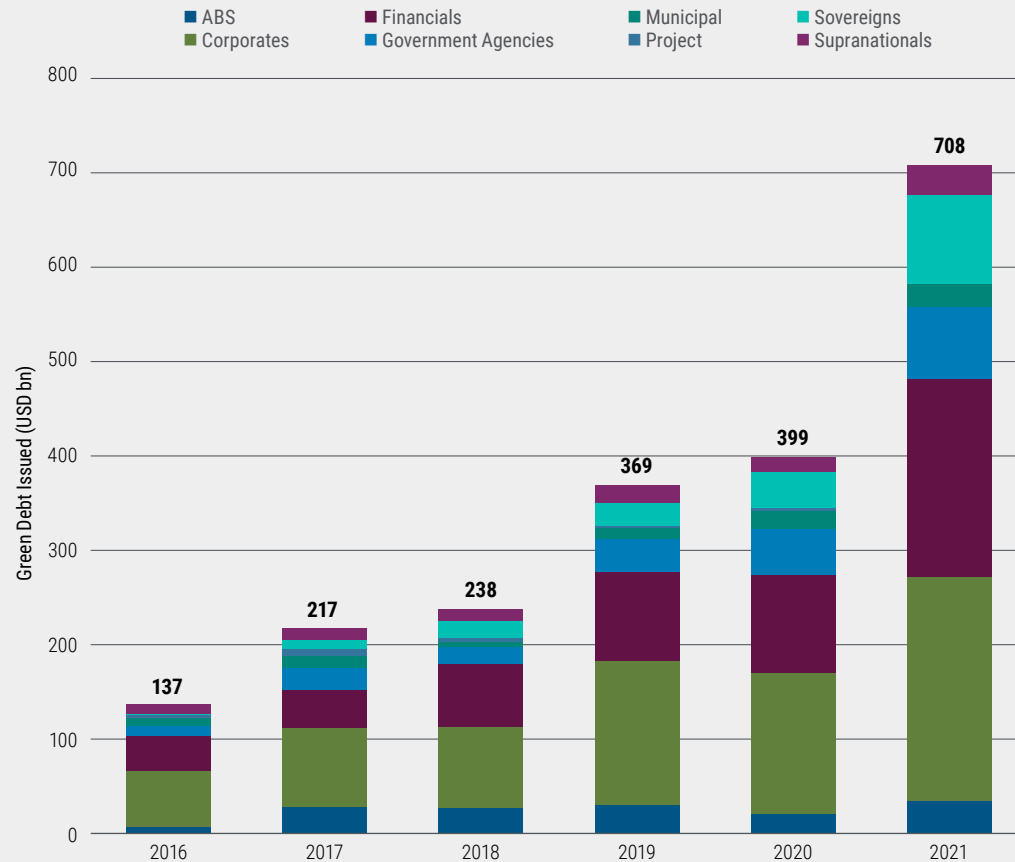
Our process emphasizes rigorous analysis of broad secular trends, which are at the core of both global ESG trends and long-term asset returns. PIMCO has developed a robust platform specialized in supporting ESG-focused investment solutions based on our belief that ESG integration is essential to optimizing outcomes over the long-term. For this reason, our investment process evaluates ESG risk factors from both the top-down (i.e., macro) and bottom-up (i.e., security specific) where applicable.

#### ESG factors integrated



Source: PIMCO. For illustrative purposes only.

Growth In The Green Bond Market – The transition towards a greener economy is one of the drivers leading the exponential growth in the green bond market. At the end of 2021, total outstanding green bonds stood at approximately \$1.35 trillion.



As of 31 December 2021. Source: PIMCO, Bloomberg New Energy Finance (BNEF)

## FROM THE TOP DOWN: ESG RISK ASSESSMENT IN OUR MACROECONOMIC OUTLOOK

The first and most important step in PIMCO's process is to identify the major long-term themes that will affect the global economy and financial markets. The firm's annual Secular Forums are devoted to identifying and analyzing these longer-term trends, and the analysis of ESG-related issues fits directly into that process.

PIMCO's 2021 Secular Forum, "Age of Transformation," identified two broad trends that are inherently related to broad ESG themes that are likely to transform the global economy and markets:

- 1. The transition from a brown to a green economy:** Governments, regulators, and the corporate sector are stepping up their efforts to decarbonize and achieve net zero emissions by 2050. Over the secular horizon, there will be a significant increase in investment in renewable sources of energy. This will be from both the private and public sector, e.g., the EU Next Generation fund which will support the transition with sizable spending on green infrastructure over the coming years. It is important to note that the transition will lead to related risks, including but not limited to:
  - a. supply disruption
  - b. spikes in energy prices
  - c. political and social backlash
- 2. Sharing the gains from growth more widely:** There is a heightened focus by policymakers and society at large on addressing widening income and wealth inequality and making growth more inclusive. We have seen this with China's recent focus on "common prosperity," aimed at narrowing the private wealth and income gap. Addressing social issues is also becoming an increasingly important priority for private companies. Firms are focused on improving pay structures and working conditions, driven in part by investor pressure.

These two trends were material drivers in formulating our macroeconomic forecasts and investment conclusions over the secular horizon.



## ESG CONSIDERATIONS OVER OUR CYCLICAL OUTLOOK

Another major input to our top-down investment process is our Cyclical Forum. Occurring three times per year, our team gathers to evaluate material macroeconomic investment implications over the business cycle for the next six to 12 months, including relevant ESG themes.

In a recent Cyclical Forum, an ESG module, led by ESG portfolio managers and credit analysts, discussed sustainability themes that are set to have near term material market implications, including the supply of ESG bonds, COP26 and central bank action on sustainability. These ESG modules take place in every Cyclical Forum, although the themes of focus will develop and differ every session as ESG trends continue to grow and evolve.

Incorporating sustainability themes into our Cyclical Forum ensures that our team has a good understanding of significant ESG investment implications affecting the market over an intermediate time horizon. This is then complemented by the ESG implications from our Secular Forum, helping our team understand the potential trends that will shape markets over a longer period.

## FROM THE BOTTOM UP: ESG RESEARCH INTEGRATED INTO CREDIT RESEARCH

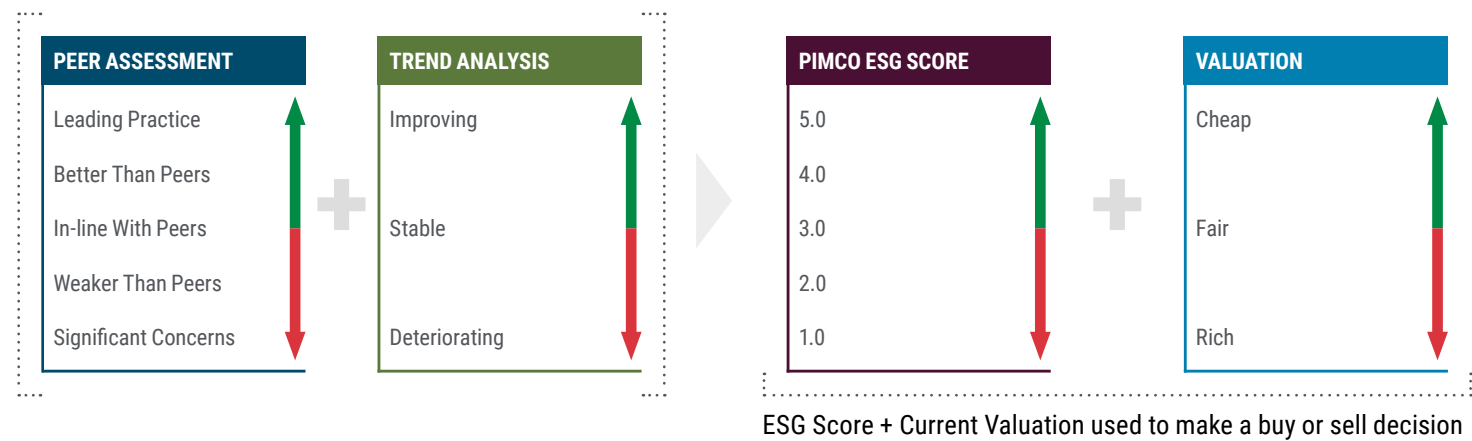
The integration of ESG factors is part of PIMCO's robust investment process, and strengthens our understanding of markets as ESG risk analysis is an essential input in evaluating securities. By integrating ESG factors into the

evaluation process across asset classes where applicable, PIMCO broadens the total amount of information assessed in the security selection process, ultimately seeking to deliver the best performance for clients.

## PUBLIC ASSET CLASS-SPECIFIC ESG SCORING FRAMEWORKS

Over the past decade, PIMCO has leveraged our deep research expertise to develop proprietary ESG scoring frameworks across asset classes. Our enhanced research process incorporates a detailed ESG assessment that complements the traditional credit ratings assigned by analysts, enabling us to evaluate corporate, sovereign, securitized and municipal issuers, as well as green, social and sustainable bond issuances.

### PIMCO's ESG scoring system



Source: PIMCO. **For illustrative purposes only.**

PIMCO assesses the ESG profile of issuers with the goal of separating leading issuers from those less advanced in their sustainability journeys, in addition to analyzing an issuer's forward-looking trend to determine how ESG performance is changing over time.

Analysts review ESG performance based on a wide variety of inputs as well as regular engagement with executive management. In determining the efficacy of ESG practices, PIMCO uses proprietary methods developed and refined in-house. Our resulting assessments are distinct from those provided by ESG rating providers. PIMCO's ESG rating methodologies and issuer scores are updated regularly and made available to portfolio managers across the firm.

## ESG EVALUATION OF CORPORATES

PIMCO's ESG scoring framework for corporate issuers is based on the issuer's sector and business profile. Our ESG ratings are sector-specific and provide an evaluation of the issuer relative to industry standards and capture key metrics to indicate changes in ESG scoring over time. Each sector has a slightly different scoring methodology. For example, the environmental pillar has the highest weight for issuers in energy and natural resources. The social pillar has the highest weight for pharmaceutical issuers, and the governance pillar has the highest weight for financial services.

## ESG EVALUATION OF SOVEREIGN DEBT MARKETS

PIMCO has developed an ESG scoring framework for sovereign debt. In addition to analyzing traditional financial metrics for sovereign debt, we also calculate an ESG assessment. ESG scores provide valuable input into risk assessments and valuation decisions in constructing portfolios with ESG objectives.

## ESG EVALUATION OF SECURITIZED PRODUCTS

### Mortgage-Backed Securities (MBS)

With access to vast loan-level data, we developed a proprietary responsible lending scoring model for MBS consistent with our ESG scoring frameworks used across debt markets.

In supporting ESG-focused lending practices, PIMCO adheres to these objectives:

- Support homeownership. Homeownership is a key path to wealth building. Connecting borrowers with capital markets can dramatically facilitate the journey to homeownership.
- Increase access for underserved communities. PIMCO believes a focus on underserved communities and low-income borrowers can broaden homeownership without increasing credit risk.
- Promote responsible lending. ESG-focused mortgage investing should penalize firms who engage in unfair lending practices that prove detrimental to homeowners – and often bondholders as well.

For agency mortgage-backed securities (MBS), our ESG research model is based on pool-level data we have collected over decades. For non-government-guaranteed mortgages (non-agency MBS), our analysis is loan-level-based and again draws on a huge set of data PIMCO has gathered since before the 2008 global financial crisis.

### Commercial Mortgage-Backed Securities

In the CMBS market, PIMCO focuses on environmental criteria such as LEED and Green certifications. LEED, or Leadership in Energy and Environmental Design, is a global building certification program developed by the

U.S. Green Building Council. We look at both health and safety measures taken for commercial tenants as well as underlying ESG scores of the property owners. ESG-focused securitizations remain a small part of the market. However, there are increasingly more "Green Loans" securitized by the agencies, Fannie Mae and Freddie Mac.

### Asset Backed Securities

Our ESG scoring framework for ABS promotes investment across the entire renewable energy sector, including electric vehicles. For property-related ABS, our goal is to improve affordability and home ownership through responsible lending. We look to encourage responsible lending to consumers and small businesses, and identify and limit investment in predatory lending practices. Lastly, for governance, we aim to avoid ABS with high risk servicer behavior.

### Collateralized Loan Obligations

For ESG scoring of CLOs, we discourage overly-aggressive management and non-transparent structures when constructing a portfolio with ESG objectives. As CLOs are not a static pool of loans, we continue to monitor the underlying loans over time and work to create pools that maintain positive ESG scores.

## ESG EVALUATION IN THE U.S. MUNICIPAL BOND MARKET

The municipal market is vast and diverse, with issuers ranging from states and cities to enterprises such as higher education institutions, airports, and continuing care facilities. Given the fragmentation of the market, less data is available compared to other asset classes. PIMCO aggregates municipals data from a variety of sources including governance data from financial audits and disclosures. We also use ESG scoring frameworks to evaluate issuer-specific ESG risks and ESG leaders within each sector.

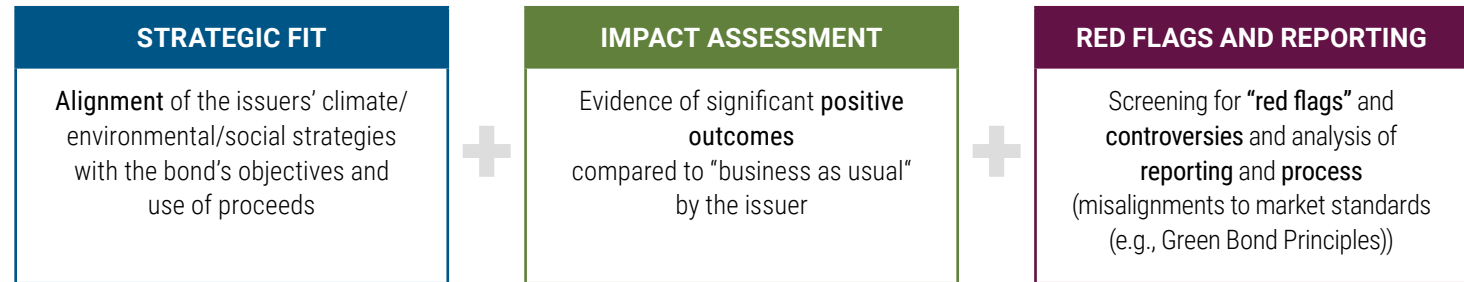
## EVALUATION OF ESG LABELED BONDS

Beyond asset class-specific ESG scoring frameworks, PIMCO also evaluates ESG-labeled bonds, mapping them across a spectrum based on strategic fit, potential impact, and red flags and reporting, resulting in PIMCO's proprietary impact score for green, social or sustainability bonds. Scoring begins at the time of issuance and includes continued research coverage in order to improve the security selection processes. Ongoing monitoring of ESG labeled bonds gives investors a better understanding of ESG scores between different issuers and across sectors.

## ESG EVALUATION IN PRIVATE INVESTMENTS

PIMCO's Alternative Credit and Private Investment Strategies will generally assess material ESG factors relevant to potential investment opportunities within private markets. ESG-related risk factors present both risks and opportunities, where applicable ESG factors can help to create or maximize long-

## PIMCO'S PROPRIETARY ESG BOND SCORING FRAMEWORK



For illustrative purposes only. Source: PIMCO.

term value or help to provide a measure of downside protection. This includes but is not limited to investment sourcing, due diligence, asset management & monitoring, and disposition decisions.

Guided by sector-specific ESG factors and key performance indicators (KPIs), sector specialists integrate material ESG considerations into the investment due diligence process across relevant transactions, identifying appropriate financial risks/opportunities and associated risk mitigation measures and/or value-creation opportunities. Where appropriate, ESG deal diligence questionnaires are disseminated to potential operating partners and key transaction counterparties to complete, as part of the fundamental research process.

PIMCO's ESG portfolio management team supports sector specialists as needed, providing guidance and support in areas of significant materiality identified during the due diligence process. Should an investment be approved, portfolio managers will continue to track changes in key sector specific ESG metrics, where applicable, in addition to engaging with companies as appropriate. As potential exit options are considered, PM teams will continue to incorporate an evaluation of relevant risk factors including ESG.

In addition, PIMCO has established an ESG Alts Advisory Group to collaborate with the deal teams and portfolio managers across PIMCO's Alternative Credit and Private Investment Strategies.

**Onboarding & Due Diligence**

**Investment Decisions**

**Asset Management & Monitoring**

For illustrative purposes only. Source: PIMCO.

## FOCUSING ON THE “S” IN ESG

The global pandemic and the worsening physical impacts of climate change have exacerbated social hardships across the planet. These acute shocks have had compounding effects on challenges such as economic inequality, food insecurity, unemployment and housing uncertainty. In response, 2021 saw a rise in social and sustainability bond issuances from corporate and sovereign issuers alike. PIMCO participated in these issuances, significantly increasing our exposure to social bonds and sustainability bonds with social use of proceeds since 2019. We saw increased social KPIs tied to sustainability-linked bonds as well. PIMCO assesses these bonds based on the level of ambition and materiality when it comes to social category spending and targeted outcomes. We take human capital management, labor and human rights, occupational health & safety and supply chain management into consideration when considering the quality of each social and sustainability bond framework.

For corporate issuers, social use of proceeds and KPIs encompassed categories related to expanding access to healthcare and finance, as well as increasing diversity and responsible sourcing from suppliers. Sovereign and quasi-sovereign issuers came to market with bond frameworks completely integrated with their countries’ commitments to the UN Sustainable Development Goals. These issuances were largely focused on alleviating poverty and expanding access to healthcare and education, as well as job creation.

PIMCO views the municipal market as at the center of social impact, given that proceeds are often disbursed at a local level and can have compounding positive social effects. Investments made into affordable housing, K-12 school districts, local health infrastructure and community college districts have the potential to positively impact local economic and quality of life conditions. Social factors that PIMCO considers include municipal issuers’ commitments to social leadership in areas such as accessibility, affordability and racial justice concerns.



# High quality ESG data is the foundation for a robust ESG platform

Access to high quality ESG data has always been one of the biggest challenges to ESG investing. While traditional financial statements are readily available, high-quality ESG data is only just now being reported by the largest companies. Unlike accounting data, ESG data is usually qualitative and often not comparable across issuers.

In recent years, ESG data has improved rapidly as stakeholders across the globe push companies to disclose more ESG information. More disclosure will improve ESG-related investment decision-making and support regulatory compliance initiatives. PIMCO has been investing in the team and technology to incorporate ESG data into our investment process for many years. One key area of focus for us has been the integration of climate-related information in our investment process. Our dedicated ESG technology team has developed tools to enable portfolio managers across the firm to integrate third-party data and proprietary ESG data into our overall investment process where relevant.

## TRANSLATING DATA INTO DECISIONS

PIMCO leverages third-party provided data as well as our own data. We centralize ESG data for easy access across the entire firm and implementation into our research and investment processes.

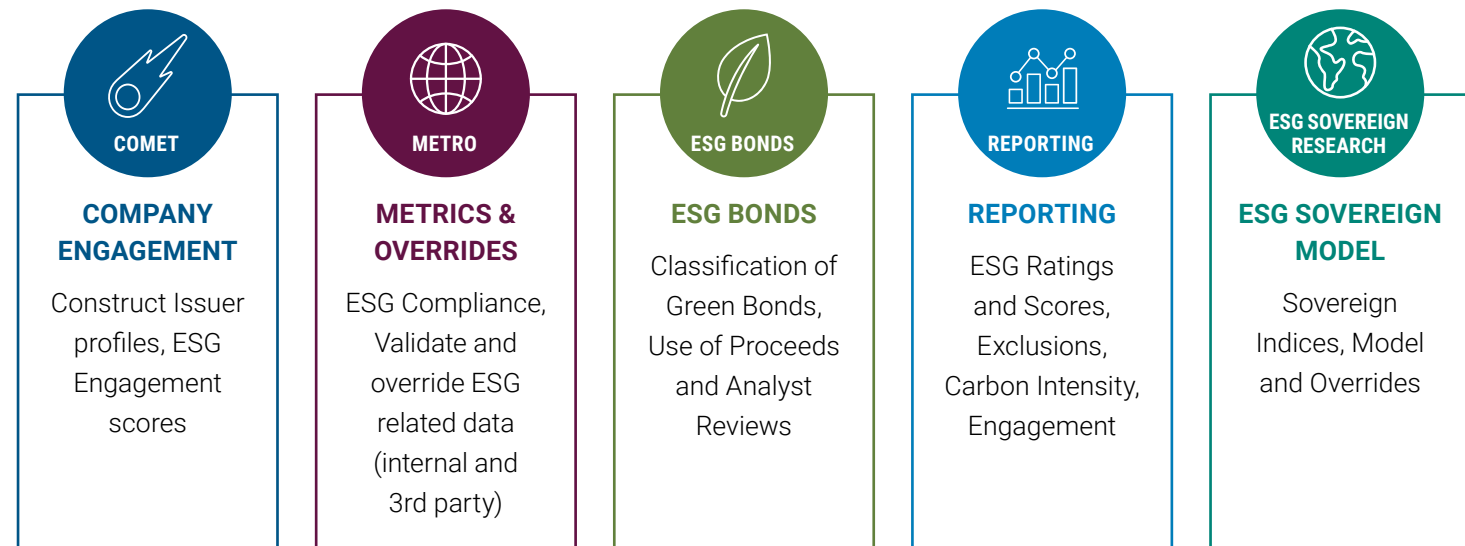
## GREENIUM TRACKER:

Our Greenium tracker tool compares green bonds against similar non-green bonds. The pricing difference between

the green bond and the matching non-green bond we call the Greenium. The Greenium tracker is published daily and complements our entire robust investment process. We can better analyze and compare green and non-green bonds across regions, industries, and currencies.

## PORTFOLIO SCREENER:

As part of the ESG portfolio management process, we use an analytics program that scans portfolios to identify areas where ESG sensitivities exist. The screening process covers a wide range of ESG risk factors across asset classes.



As of December 31 2021. Source: PIMCO.

# Our ESG team

Aligned with our sustainability philosophy, PIMCO's ESG team is not a separate business unit. It is integrated across all firm functions to ensure that ESG is fully integrated into our broad research process.

For sustainability and engagement efforts specifically, there are several key committees and individual leaders that support these efforts. Grover Burthey, PIMCO's Head of ESG Portfolio Management, leads all of PIMCO's ESG investment activity and oversees our team of ESG research analysts. In 2021, we created a new role, global head of sustainability, which oversees all of the business management of our ESG and sustainability initiatives and reports directly to the CEO. Finally, our product strategy group has a head of ESG who oversees all of our efforts for client solutions in the space.

To help set the priorities for our ESG platform, we have a dedicated ESG leadership team in place that is responsible for leading firmwide ESG integration, enhancing our sustainable investing capabilities and supporting the development of ESG-dedicated portfolios. The group sets objectives and evaluates strategic initiatives on a continuous basis throughout the year, including those tied to engagement activities.

## GLOBAL ESG LEADERSHIP TEAM



**Grover Burthey**  
Head of ESG Portfolio Management, EVP  
*Leads ESG investment activity and the ESG analyst team*



**Lupin Rahman**  
Portfolio Manager, EVP



**Gavin Power**  
Chief of Sustainable Development and International Affairs, EVP



**Ryan Korinke**  
Global Head of Sustainability, Managing Director



**Del Anderson**  
Credit Analyst, SVP



**Kwame Anochie**  
Account Manager, EVP



**Tina Adatia**  
Fixed Income Strategist, EVP  
*Leads Global ESG Product Strategy*



PIMCO's ESG team spans 50+ investment professionals specifically responsible for building the ESG platform. The team is broadly integrated across the firm with leaders taking on more ESG investing responsibility, including over 20 portfolio managers and using the expertise of our 75+-person credit analyst team. PIMCO also has a team of 10 ESG analysts dedicated to ESG research, engagement and integration across portfolio management groups. We believe it is important to have all of our expert analysts monitor the ESG risks that are relevant to their particular sector and universe of securities to ensure that ESG risk factors and opportunities are fully integrated, as opposed to being an "add-on" separate from our financial analysis.

To support our ESG investment professionals, PIMCO has a dedicated team of ESG information technology specialists to support further integration of ESG data, as well as other related projects and requests.

### **ACCOUNTABILITY**

The first and most important step in our process is to get the long-run view right. We believe that analyzing secular economic and political influences is fundamental to sound portfolio decisions. This is why PIMCO's investment process includes both top-down and bottom-up decision-making.

PIMCO uses stress testing to capture and quantify the potential impact of market-wide and systemic risk to a client's portfolio. Portfolios are subject to frequent stress testing based on the guidance of our Investment Committee, the firm's macro views and historical market movements. PIMCO also engages with central bankers, politicians, academics and industry practitioners to gain insight on global economic and political issues and their relevance for the financial markets, incorporating potential future outcomes in this stress testing.

Finally, our legal and compliance teams conduct periodic monitoring and testing of relevant compliance policies and procedures, at least annually. Here we assess the adequacy of written policies and procedures and the effectiveness of their implementation.

Changes to our compliance policies and procedures are reported on a quarterly basis and material changes to compliance policies are subject to review and approval by the relevant governance bodies of PIMCO entities. This helps to confirm senior management oversight and accountability in each jurisdiction in which PIMCO operates.

OUR FIRM

PIMCO



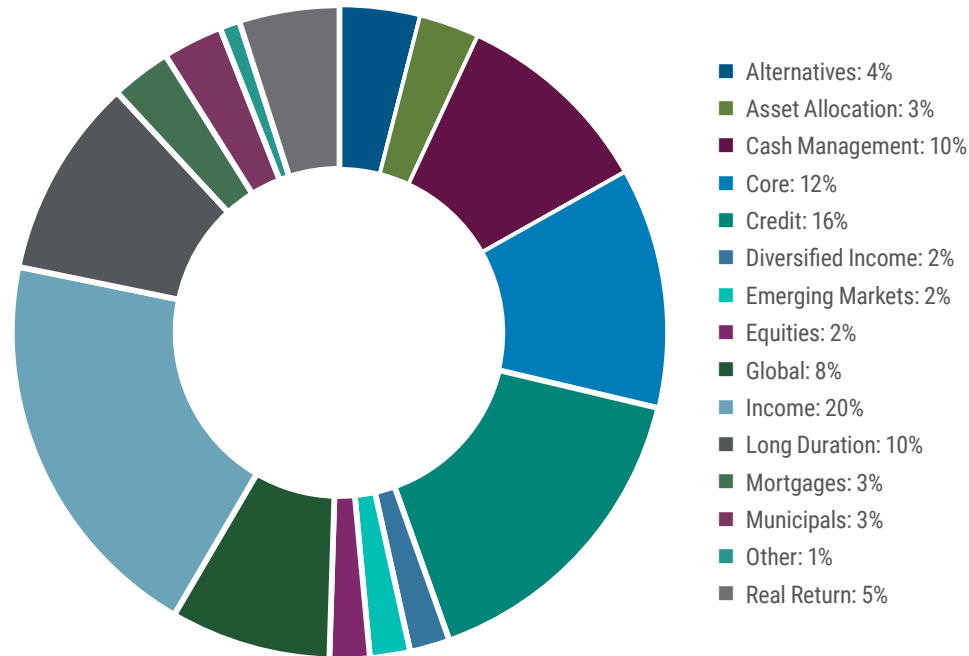
# PIMCO at a glance

**WE BELIEVE THAT ACTIVE MANAGEMENT IS THE RESPONSIBLE WAY TO INVEST OUR CLIENTS' ASSETS IN FIXED INCOME.**

PIMCO is one of the world's premier investment managers. Launched in 1971 in Newport Beach, California, PIMCO has worked relentlessly for over 50 years to help millions of investors pursue their objectives through shifting market conditions. PIMCO's investment process is designed to promote fresh ideas and differing points of view, and our active approach starts with an unparalleled understanding of every investment we make for our clients, with the goal of not just finding opportunities, but creating them.

To this end, we remain firmly committed to the pursuit of our mission: delivering superior investment returns, solutions and service to our clients. In our commitment to our clients and firm wide mission we strive to integrate ESG factors into our broad research process and engage with issuers on sustainability goals and climate change to drive long-term value for clients, leading to sustainable benefits for the economy, the environment and society.

# Assets under management (AUM)<sup>19</sup>



## PIMCO IS RESPONSIBLE FOR MANAGING \$2.0 TRILLION ENTRUSTED TO US BY:

- Central banks
- Sovereign wealth funds
- Public and private pension funds
- Financial and nonfinancial corporations
- Foundations and endowments
- Financial advisors
- Family offices
- Individual investors

## PIMCO HIGHLIGHTS

- PIMCO is one of the **world's premier fixed income investment managers**
- PIMCO has managed socially responsible investments since **1989**
- **3,120+** Employees around the world
- **22** Global offices throughout the Americas, Europe, and Asia
- **50+** Countries in which clients are based
- **930+** Global investment professionals
- **290+** Portfolio managers with an average of 17 years of experience
- **320+** Investment professionals who have been at PIMCO for 10 years or more
- **85+** Global credit analysts
- **14** Sector specialty desks
- **95+** Analytics/asset experts
- **MILLIONS** of investors worldwide

<sup>19</sup> PIMCO manages \$2.0 trillion in assets, including \$1.61 trillion in third-party client assets as of 31 March 2022. Assets include \$19.2 billion in assets of clients contracted with Gurtin Fixed Income Management, LLC and \$84.2 billion (as of 31 December 2021) in assets of clients contracted with Allianz Real Estate, affiliates and wholly-owned subsidiaries of PIMCO and PIMCO Europe GmbH.

## Diverse perspectives drive better results

For 50+ years, PIMCO has leveraged the power of diverse perspectives in our investment process. This inclusive approach has enabled us to deliver a long-term return on trust for our clients, mitigate risk and create opportunities.

PIMCO firmly believes that a diverse team is key to driving returns. Our philosophy acknowledges a wide range of identity dimensions such as race, ethnicity, gender, sexual orientation, gender identity, disability and military status but also focuses on dimensions and concepts such as culture, business segments, geographical diversity, unconscious bias, cognitive diversity and inclusive leadership. Each of us has a unique and evolving set of perspectives, experiences, backgrounds and styles to contribute.

We are committed to holding ourselves accountable and aspire to be an innovative thought leader for inclusion and diversity best practices in our industry and beyond. Our Managing Director Inclusion and Diversity (I&D) Advisory Council actively participates in the strategic planning, design and implementation of our I&D agenda. Leadership accountability is an important focus for us and highlights our commitment to inclusion and diversity across our global business and people processes.

PIMCO released our inaugural Inclusion and Diversity Report for 2021, which further details our ongoing commitment to a creating a more open, collaborative and inclusive culture.

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Inclusion and diversity is integral to the way we do business, serve our clients, and develop our people. Looking back, we are proud of our long history of building a culture that embraces diverse points of view. We remain committed to continuing this journey and evolving our approach to meet the changing needs of our stakeholders.



**Sabrin Chowdhury,**  
Global Head of Inclusion  
and Diversity



# Looking Forward: Our ongoing commitment to ESG

2021 was a year of tremendous growth across the industry and for PIMCO specifically. We are excited about the progress we made this year, which includes:

- All of the issuers and industry coalitions that we were able to engage with this year
- Continuing to build out frameworks and processes across the many asset classes that we invest in on behalf of our clients
- Beginning the development of the next generation of portfolio analytics and client reporting tools
- Formalizing PIMCO's framework for clients seeking solutions to align their fixed income portfolio to their net zero goals
- Partnering with issuers to support the continued evolution of ESG-labeled public securities

That said, the sustainability journey is a long one and we appreciate the need to continuously evolve, learn and develop. Russia's invasion of Ukraine in early 2022 has been a stark reminder of the importance of focusing on the "S" and the "G" in ESG, and will likely reframe where many investors want to invest their capital going forward.

As we look out over the next twelve months, we plan to continue to focus on social and governance issues as well as continuing to develop environmental frameworks outside of climate, such as biodiversity and natural capital. We also plan to roll out our new analytical tools across our investor base. Finally, we are revisiting some of our own corporate commitments and hope to make additional ones in 2022.

This report contains examples of the firm's internal ESG engagement and research capabilities. The data contained within the report may be stale and should not be relied upon as investment advice or a recommendation of any particular security, strategy or investment product. In selecting case studies, PIMCO considers multiple factors, including, but not limited to, whether the example illustrates the particular investment strategy being featured and processes applied by PIMCO to making investment decisions. Information contained herein has been obtained from sources believed to be reliable, but not guaranteed.

PIMCO is committed to the integration of Environmental, Social and Governance ("ESG") factors into our broad research process and engaging with issuers on sustainability factors and our climate change investment analysis. At PIMCO, we define ESG integration as the consistent consideration of material ESG factors into our investment research process, which may include, but are not limited to, climate change risks, diversity, inclusion and social equality, regulatory risks, human capital management, and others. Further information is available in PIMCO's Environmental, Social and Governance (ESG) Investment Policy Statement.

With respect to comingled funds with sustainability objectives ("ESG-dedicated funds"), we have built on PIMCO's 50-year core investment processes and utilize three guiding principles: Exclude, Evaluate and Engage. In this way, PIMCO's ESG-dedicated funds seek to deliver attractive returns while also seeking to achieve positive ESG outcomes through its investments. Please see each ESG-dedicated fund's prospectus for more detailed information related to its investment objectives, investment strategies and approach to ESG.

**All investments** contain risk and may lose value. Investing in the **bond market** is subject to risks, including market, interest rate, issuer, credit, inflation risk, and liquidity risk. The value of most bonds and bond strategies are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and volatile than those with shorter durations; bond prices generally fall as interest rates rise, and low interest rate environments increase this risk. Reductions in bond counterparty capacity may contribute to decreased market liquidity and increased price volatility. Bond investments may be worth more or less than the original cost when redeemed. Investing in **foreign denominated and/or domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. **Mortgage and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and their value may fluctuate in response to the markets perception of issuer creditworthiness; while generally supported by some form of government or private guarantee there is no assurance that private guarantors will meet their obligations. **High-yield, lower-rated, securities** involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. **Equities** may decline in value due to both real and perceived general market, economic, and industry conditions. **Derivatives** may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested. **Diversification** does not ensure against loss. **Management risk** is the risk that the investment techniques and risk analyses applied by an investment manager will not produce the desired results, and that certain policies or developments may affect the investment techniques available to the manager in connection with managing the strategy.

**ESG investing is qualitative and subjective by nature**, and there is no guarantee that the factors utilized by PIMCO or any judgment exercised by PIMCO will reflect the opinions of any particular investor, and the factors utilized by PIMCO may differ from the factors that any particular investor considers relevant in evaluating an issuer's ESG practices. In evaluating an issuer, PIMCO is dependent upon information and data obtained through voluntary or third-party reporting that may be incomplete, inaccurate or unavailable, or present conflicting information and data with respect to an issuer, which in each case could cause PIMCO to incorrectly assess an issuer's business practices with respect to its ESG practices. Socially responsible norms differ by region, and an issuer's ESG practices or PIMCO's assessment of an issuer's ESG practices may change over time. There is no standardized industry definition or certification for certain ESG categories, for example "green bonds"; as such, the inclusion of securities in these statistics involves PIMCO's subjectivity and discretion. There is no assurance that the ESG investing strategy or techniques employed will be successful. **Past performance is not a guarantee or reliable indicator of future results.**

**PIMCO ESG RATINGS:** PIMCO's credit research analysts assess the Environmental, Social, and Governance ("ESG") profile of corporate, municipal, and sovereign issuers relative to peer issuers with a goal of separating leaders from laggards. Using industry-specific ESG frameworks, analysts review issuers' ESG performance based on information available in public filings, recent ESG news and controversies, as well as through engagement with company management teams. Analysts assign three separate numerical scores from 1 to 5 (with 5 being the highest) to their environmental, social and governance-based business practices. The score in each category is related to an issuer's rank relative to industry peers, and the relative weights of the E, S, and G scores in the composite score vary based on industries, as each industry is assigned a different factor weight. For example, the environmental category has the greatest weight for issuers in extractive industries (e.g., oil, gas, and mining), the social category has the greatest weight for pharmaceutical issuers, and the governance category has the greatest weight for financial issuers. Analysts also include a forward-looking ESG trend assessment, which recognizes companies whose ESG performance is significantly improving or deteriorating. These factors are combined to create a proprietary composite ESG score. We use the MSCI and other third-party ratings for reference but make our own assessment based on our own, independent analysis of the industry and relevant ESG factors. PIMCO's resulting assessments are proprietary and distinct from those provided by ESG rating providers. Inclusion of a proprietary PIMCO ESG rating creates a conflict of interest because PIMCO and its affiliates benefit when PIMCO assigns a particular security a high score, or assigns a benchmark index or security a low score.

Statements concerning financial market trends or portfolio strategies are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions or are appropriate for all investors and each investor should evaluate their ability to invest for the long term, especially during periods of downturn in the market. Investors should consult their investment professional prior to making an investment decision. Outlook and strategies are subject to change without notice.

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