

PIMCO®

Sustainable Investing Report

» 2024



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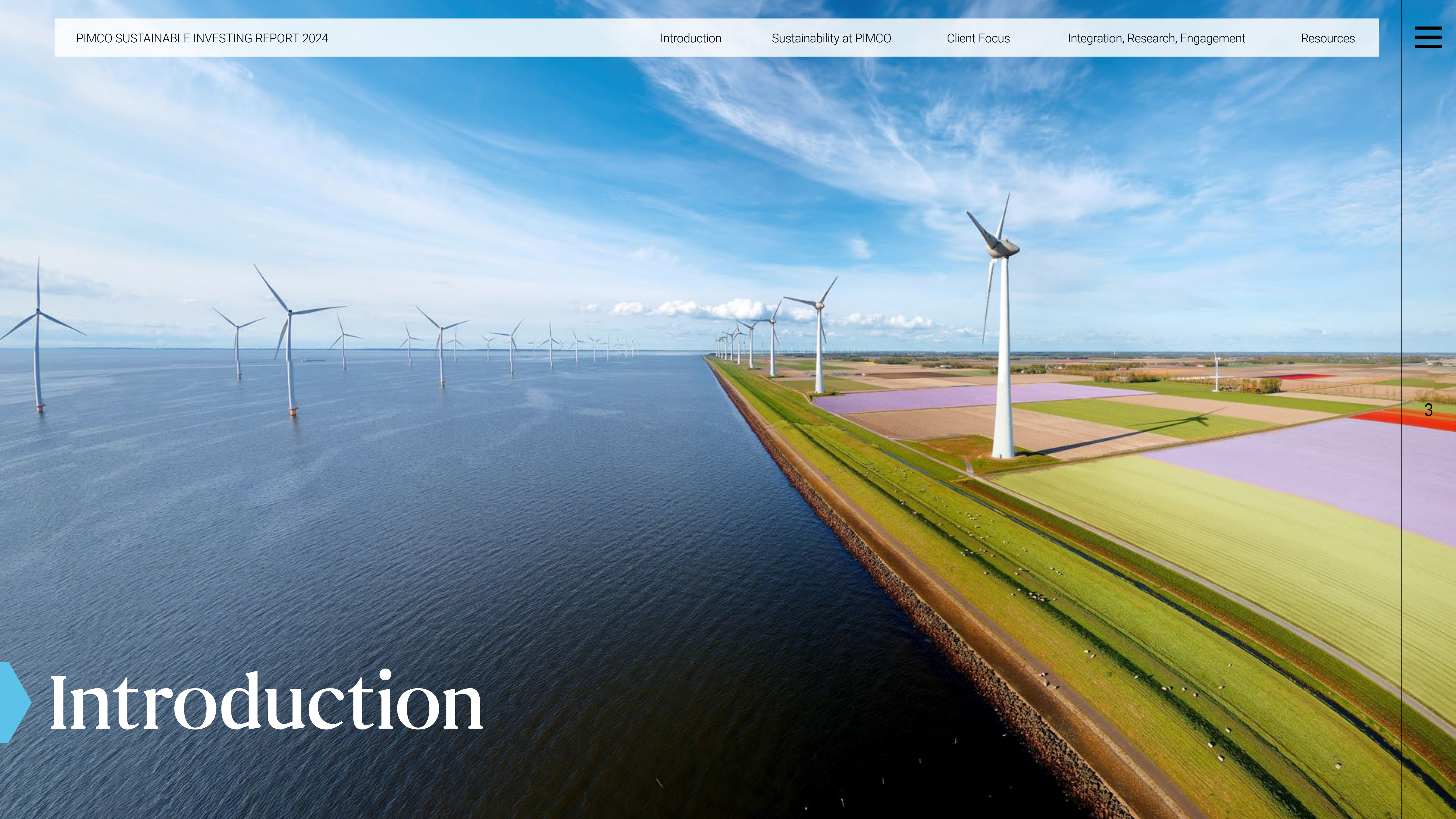
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Introduction

Sustainability at PIMCO

A leading investment solutions provider

\$585bn¹

AUM in Sustainability Strategies²

Influencing change to benefit investment outcomes

Engagement

1500+

engagements⁶

75%+

of PIMCO's firmwide market value in corporate assets⁷

Proprietary frameworks

- PIMCO credit research and ESG analysts have scored **over 4000³** corporate issuers with a proprietary ESG score
- With **~85%** of the green, social, sustainable, and sustainability-linked (GSSS+)⁴ bonds in the market index assessed⁵

Continued development of proprietary frameworks across multiple asset classes and themes, including:

- **Enhanced corporate sector frameworks for insurance, healthcare, banks, and telecoms**; expanded analysis of structured products including collateralized loan obligations (CLOs) for a broader range of ESG metrics, and residential mortgage-backed securities (RMBS) for loans backed by properties with attractive environmental or social characteristics.
- **Expanded analysis of relevant alternative asset classes**, where applicable, based on a proprietary taxonomy to determine an investment's alignment with sustainable economic activities.
- **Ongoing advancement of analytics to evaluate portfolios** and facilitate recommendations to portfolio managers, including a heatmap of exposure in our flagship accounts to carbon sensitive sectors and investment relative value opportunities.
- **Conducted in-depth climate risk analysis**, including an additional framework specifically for auto-asset backed securities (ABS), and new carbon measurement for commercial real estate.

**Emmanuel Roman**

CEO of PIMCO

Foreword

In last year's *Sustainable Investing Report*, we highlighted several secular and market drivers that we believed were reshaping the investment landscape – including new regulatory frameworks, the energy transition, and the emergence of new investment solutions and vehicles.

These same trends have continued in 2024 – and indeed, in many instances, are intensifying.

We observed that the energy transition stands as a topic of increasing priority in both global policy and sustainable investing. The urgency is clear: surface temperatures hit a record high in 2024 – exceeding on average 1.5 degrees Celsius compared to pre-industrial levels, according to the World Meteorological Organization (WMO). Business models across industries and regions must be proactive in considering implications for operations and performance.

Increasingly, our clients are seeking investment strategies to enhance their exposure to lower-carbon solutions. Their interests span clean energy; energy efficiency and industrial decarbonization; sustainable transportation; and adaptation and resilience to climate physical risks.

PIMCO's climate investing frameworks continue to assist our clients in navigating this transition even as we explore new areas of opportunity. Through regular engagement with investee companies – on climate change and other sustainability themes – we work to understand and influence their sustainability practices, fostering collaborative solutions with the aim of benefiting all stakeholders. In this report, you will find examples of our engagement activities related to the energy transition and from across the sustainability spectrum.

Amid a surge in global conflicts – over 50 according to the Global Peace Index, the highest number since World War II – the private sector's role in upholding human rights is essential for social, economic, and market stability. Our adherence to the UN Global Compact's human rights principles reflects this priority: we use these same principles when engaging with and evaluating both corporates and sovereigns to provide investment outcomes for clients.

This role, which includes the provision of good quality jobs and living wages, is increasingly relevant as workers and communities adjust to economic, political and energy transitions. As new challenges and opportunities emerge, we are helping our clients stay alert and respond to these dynamics in both developed and emerging economies.

In the following pages, we outline how the firm translates our commitment to sustainable investing into strategies and solutions that maximize risk-adjusted returns for all clients, including those seeking sustainable objectives, while fostering stable and resilient markets.

Thank you for your interest.

A handwritten signature in black ink, reading "E. Roman". The signature is stylized with a large, sweeping initial "E" and a long horizontal line extending from the end.



Sustainability at PIMCO

PIMCO's Sustainability Philosophy

Stewards of our clients' capital

PIMCO seeks to deliver compelling investment returns, solutions, and service to our clients. For over 50 years, our global presence, extensive resources, and time-tested investment process have helped clients meet their financial goals and investment objectives.

Client-centric sustainability approach

For clients who want to meet sustainability goals alongside financial targets, we offer a suite of dedicated investment solutions that incorporate our proprietary ESG optimization criteria. We understand that sustainable objectives vary by client, and we work closely to customize sustainability solutions.

Fiduciary duty to assess relevant risks

Consideration of sustainability factors is important for evaluating long-term investment opportunities and risks across asset classes in both public and private markets. We integrate sustainability into our investment process for actively managed assets as a key risk management strategy, where applicable. This integration may occur during both bottom-up analysis of issuers and the top-down analysis of cyclical and secular trends.

Engagement platform with issuers

As a leading fixed income manager, PIMCO has the scale to engage issuers on matters that we believe are essential to achieving strong risk-adjusted returns. We believe our size, history, and involvement in industry initiatives enables us to collaborate with issuers as they enhance their operational practices.

Walking the talk

At PIMCO, we take a comprehensive view of what it means to manage a sustainable business in an increasingly complex world. Environmental management and climate-related efforts within business operations are no doubt essential, but so too are workforce management issues – encompassing the workplace, employee wellness, and general human resources. These corporate sustainability priorities are reflected in our commitment to the UN Global Compact and its Ten Principles.



Shaping Market Convention

Transitioning to a sustainable economy with fixed income investing

Bond investors play a pivotal role in financing the transition to a sustainable economy with capital that can shape sustainable growth for generations.

At PIMCO, we integrate this view within our research, engagement, and investment activities, seeking compelling risk-adjusted investment outcomes for our clients and helping to foster a resilient global economy. This approach enhances investment insight, while promoting sustainable practices and contributing to long-term economic stability.

PIMCO's active influence in shaping the primary market

PIMCO's size and experience across markets enables us to play a vital role in creating economically resilient opportunities within public markets (corporate bonds, structured credit, sovereigns, municipals), and alternative investments where applicable. PIMCO's advice has been sought after by regulators, sovereigns, and central banks on

sustainability-related policies and macroeconomic considerations. More broadly, PIMCO CIOs and investment leadership team serve as members on various advisory committees and industry boards across the global financial sector⁸. Additionally, The PIMCO Global Advisory Board is a team of world-renowned experts on economic and political issues. The Board members contribute their insights to the firm on global economic, political, and strategic developments and their relevance for financial markets. Our leadership in various finance and sustainable finance industry groups underscores our commitment to shaping a resilient future.

As one of the largest investors in GSSS+ bonds, PIMCO has a significant and measurable impact on the market. We leverage our position to promote market adoption and facilitate the creation of high-quality frameworks for all investors seeking GSSS+ transactions. As a member of the ICMA Principles Executive Committee since 2019, PIMCO has helped shape industry guidance through this pivotal role in collaborative efforts to develop standard guidelines of practice for capital seekers and capital providers⁹. For over a decade, we have been a leading supporter of the GSSS+ bond market and are committed to developing both primary and secondary markets for these labeled bonds.



For GSSS+ bonds to succeed, it is essential to create a market environment that benefits all stakeholders while effectively managing ESG risks and identifying opportunities.

Creating sustainable supply

We see tremendous value in the GSSS+ bond market, which facilitates capital flow as issuers transition to more efficient and resilient operations. These transactions also promote greater transparency and accountability in how issuers deploy capital to achieve their goals.

For successful GSSS+ bond issuance and effective ESG risk management, global standard-setting is essential. Our portfolio managers and analysts actively engage with peers, clients, capital seekers, and major banking syndicates to advocate for robust bond frameworks and meaningful targets¹⁰.

We are committed to broadening the market through activity in growing areas for GSSS+ issuance, such as asset-backed securities (notably in autos), and transition finance. We continually seek fundamentally attractive investment opportunities for clients looking to finance environmental and social improvements across sectors and markets at the frontier of sustainability.

Encouraging GSSS+ supply through engagement

Our credit research and ESG analysts regularly engage with corporate, sovereign, and quasi-sovereign entities to discuss bond issuance and encourage effective balance sheet management. This engagement provides valuable insights into management quality and governance.

In cases where sustainability topics are material, our ESG and credit research analysts collaborate to advise issuers on the types of financing they should seek, optimal structures, and our recommended criteria for CapEx/OpEx expenditures that deliver on long-term investor value and sustainable investment outcomes. We offer candid feedback, helping issuers align with best market practices. These discussions provide feedback on GSSS+ bonds, advising on how to strengthen issuer commitments and align them with global standards. Our teams conduct due diligence throughout the issuance process, actively questioning issuers and their advisors on the objectives and structure of their frameworks.

PIMCO’s size, scale, and collaborative approach enable us to anchor deals for both GSSS+ and general corporate purpose (GCP) bonds, potentially benefiting our clients through favorable allocations and pricing. Our long-term relationships have influenced corporate strategies, such as encouraging green bonds from utilities to support renewable energy generation.

Financing improved sustainability and resilience

As a fiduciary, our goal is to encourage our portfolio companies to execute their growth to the benefit of our clients. This includes improvements to sustainability practices which may both save on spending and prepare the issuer to increase its competitive advantage relative to emerging secular, consumer, and regulatory trends. We believe this creates meaningful outcomes and long-term value for our clients. Our robust research process guides our integration and determination of engagement targets, executed through discussions with companies and subsequent investment decisions. Our analysts and portfolio managers maintain consistent communication with senior leadership across our investee entities, guiding the development of the sustainable bond market.

In addition to identifying specific engagement targets, we engage issuers on various elements of their sustainability strategies to support the ambition of the GSSS+ bonds they issue. These long-term relationships often include reverse inquiries for new issuance, providing investment insights and mobilizing finance for progress.

¹⁰ 24c 324c 524c 5B

Engagement Approach

Engagement

As one of the world's leading bondholders, we engage with issuers on matters we believe are essential to risk and return considerations. Our goal is to uncover investment insights, mitigate risk, and capitalize on prospective opportunities that can influence investment outcomes.

We believe that collaborating with issuers to enhance their operational practices can significantly affect those with higher exposure to ESG-related risks. By engaging with companies at various stages of their sustainability journey, particularly in historically hard-to-abate sectors, we aim to create value and drive momentum forward. Our engagement practices, spanning diverse asset classes and types of issuers, are designed to promote efficiencies that may benefit additional stakeholders. Ultimately, our engagements are structured to help create investment value for our clients.

Purpose

We engage to gain investment insights, mitigate risks, and potentially contribute to investment outcomes. We believe that working with issuers can enhance their operational practices.

Consistent issuer engagement is essential, in our view, for a thorough understanding of an investment's risk-reward composition, which is critical to making informed buy or sell decisions. Thus, we believe consistent engagement enhances active investment management.

Our goal is to provide value for clients, and that goal informs how we structure engagement.

Structure

We pursue two types of engagement: bilateral and collaborative.

Our bilateral engagements are direct interactions with issuers conducted by our global team of credit research analysts, portfolio managers, and ESG analysts. We follow three principles: thinking like a treasurer, engaging like a partner, and managing risk as a lender. These principles help us identify issuers that may benefit from engagement, develop tailored engagement objectives, foster productive dialogue, and measure progress against pre-defined internal benchmarks.

By offering best practices for issuers to consider, we aim to enhance their risk management strategies, strengthen their credibility through increased transparency, and mitigate potential controversies. We prioritize issuers where we have meaningful financial and ESG risk exposure, focusing on what we believe are material topics.

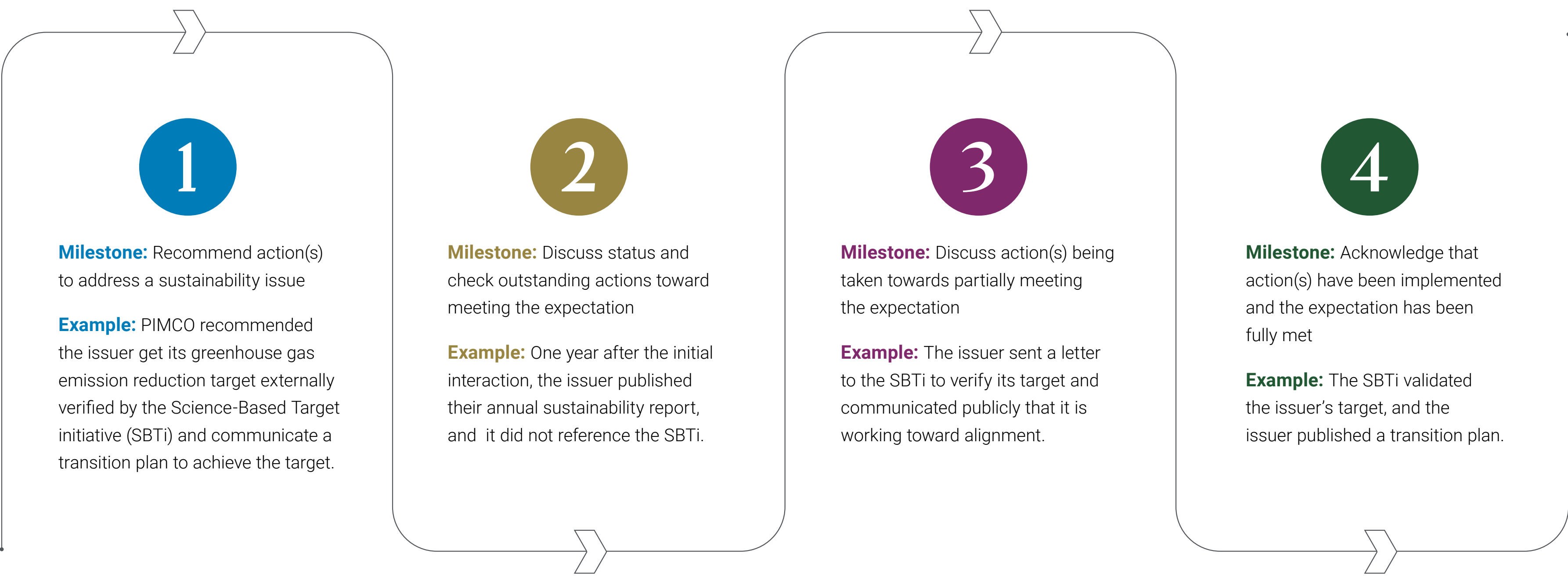
In our collaborative engagement, we actively participate in a wide range of industry initiatives and working groups. These efforts seek to advance sustainability efforts, help define global standards, encourage greater disclosure from issuers, and promote a more resilient marketplace.

Setting objectives, tracking progress

PIMCO views stewardship as a long-term and dynamic process. Stewardship typically begins with setting engagement priorities and objectives that build on recognized industry benchmarks and are customized to issuers where appropriate. Our framework to track the progress of our engagement activities encompasses key milestones that correspond to different stages of interaction with the issuer and subsequent progress.

Please see [Engagement at PIMCO](#) for further information.

Key engagement milestones and examples



Select PIMCO Partnerships

As a leading global investment manager, we partner with a number of key industry groups, including those listed, to help drive a coordinated global approach.

Industry Affiliations	Overview
Access to Nutrition Initiative (ATNI) 8N6FYTW^	• PIMCO is a member of the Access to Nutrition Initiative (ATNI), a global coalition of leading organizations working to improve nutrition and health outcomes for vulnerable populations. For more information, visit atni.org.
Bank of England Climate Financial Risk Forum (CFRF) Member	• PIMCO is a member of the Bank of England Climate Financial Risk Forum (CFRF), a leading global forum for climate financial risk. For more information, visit boeforum.org. • PIMCO is a member of the Bank of England Climate Financial Risk Forum (CFRF), a leading global forum for climate financial risk. For more information, visit boeforum.org.
Carbon Disclosure Project (CDP) 8N6FYTW^	• PIMCO is a member of the Carbon Disclosure Project (CDP), a leading global organization for climate disclosure. For more information, visit cdp.com.
Climate Bonds Initiative (CBI) 5FWYSW	• PIMCO is a member of the Climate Bonds Initiative (CBI), a leading global organization for climate bonds. For more information, visit climatebonds.org.
The ESG Integrated Disclosure Project (ESG IDP) *HYNQTRRNY2BGW	• PIMCO is a member of the ESG Integrated Disclosure Project (ESG IDP), a leading global organization for ESG disclosure. For more information, visit esgidp.org. • PIMCO is a member of the ESG Integrated Disclosure Project (ESG IDP), a leading global organization for ESG disclosure. For more information, visit esgidp.org.
Farm Animal Investment Risk and Return (FAIRR) Member	• PIMCO is a member of the Farm Animal Investment Risk and Return (FAIRR), a leading global organization for farm animal investment. For more information, visit fairr.org. • PIMCO is a member of the Farm Animal Investment Risk and Return (FAIRR), a leading global organization for farm animal investment. For more information, visit fairr.org.
Global Investor Commission on Mining 2030 .SXTW8ZUUTWYW	• PIMCO is a member of the Global Investor Commission on Mining 2030, a leading global organization for mining investment. For more information, visit gicm2030.org. • PIMCO is a member of the Global Investor Commission on Mining 2030, a leading global organization for mining investment. For more information, visit gicm2030.org. • PIMCO is a member of the Global Investor Commission on Mining 2030, a leading global organization for mining investment. For more information, visit gicm2030.org.
Global Investors for Sustainable Development Alliance (GISD) Member	• PIMCO is a member of the Global Investors for Sustainable Development Alliance (GISD), a leading global organization for sustainable development. For more information, visit gisd.org.

Select PIMCO Partnerships

(continued)

Supporting industry standards

We believe it is important to foster an ecosystem to demonstrate the efficacy of these initiatives by improving the data quality of sustainable themes for the broader market. Through our participation in the Core Team of the Partnership for Carbon Accounting Financials (PCAF), and the Integrated Disclosure Project, we address the demand for consistent data on greenhouse gas emissions across sectors and asset classes. Additionally, PIMCO supports international climate-related disclosure standards and guidance, like the IIGCC and TCFD¹¹, to enhance transparency and management of climate risks.

Industry Affiliations	Overview
International Capital Markets Association (ICMA) Principles *NYNTRRNY2BGW	2014-2023, PIMCO was a member of the ICMA Principles, which is a global standard for sustainable investment. PIMCO was a member of the ICMA Principles from 2014 to 2023. 9M2023, PIMCO was a member of the ICMA Principles, which is a global standard for sustainable investment. PIMCO was a member of the ICMA Principles from 2014 to 2023.
Investor Group on Climate Change (IGCC) Member	2013-2023, PIMCO was a member of the IGCC, which is a global standard for sustainable investment. PIMCO was a member of the IGCC from 2013 to 2023. 7M2023, PIMCO was a member of the IGCC, which is a global standard for sustainable investment. PIMCO was a member of the IGCC from 2013 to 2023.
ISSB Investor Advisory Group (IIAG) FZSINSL Member	2023-2023, PIMCO was a member of the IIAG, which is a global standard for sustainable investment. PIMCO was a member of the IIAG from 2023 to 2023. 2023-2023, PIMCO was a member of the IIAG, which is a global standard for sustainable investment. PIMCO was a member of the IIAG from 2023 to 2023.
Institutional Investors Group on Climate Change (IIGCC) Member	2023-2023, PIMCO was a member of the IIGCC, which is a global standard for sustainable investment. PIMCO was a member of the IIGCC from 2023 to 2023. 9M2023, PIMCO was a member of the IIGCC, which is a global standard for sustainable investment. PIMCO was a member of the IIGCC from 2023 to 2023.
One Planet Asset Management (OPAM) Initiative Member	2023-2023, PIMCO was a member of the OPAM, which is a global standard for sustainable investment. PIMCO was a member of the OPAM from 2023 to 2023. 2023-2023, PIMCO was a member of the OPAM, which is a global standard for sustainable investment. PIMCO was a member of the OPAM from 2023 to 2023.
The Partnership for Carbon Accounting Financials (PCAF)	5M2023, PIMCO was a member of the PCAF, which is a global standard for sustainable investment. PIMCO was a member of the PCAF from 2023 to 2023. 9M2023, PIMCO was a member of the PCAF, which is a global standard for sustainable investment. PIMCO was a member of the PCAF from 2023 to 2023.

¹¹ 2023-2023, PIMCO was a member of the TCFD, which is a global standard for sustainable investment. PIMCO was a member of the TCFD from 2023 to 2023.

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Client Focus

Sustainable Investment Solutions

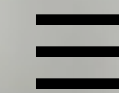
PIMCO recognizes that clients worldwide have diverse sustainability objectives and require tailored solutions to meet these objectives. We provide a range of fixed income strategies for clients seeking risk-adjusted returns while incorporating sustainability factors into their investment selection process.

These strategies¹² use PIMCO's sustainability portfolio construction process, which involves limiting exposure to sectors and issuers with high ESG risks while prioritizing those with strong or improving sustainability practices, especially in GSSS+ bonds. In addition to seeking risk-adjusted returns, these portfolios may also manage carbon footprints, actively engage with issuers, and allocate to green or social bonds, favoring issuers with higher quality or improving sustainability characteristics.

We also partner with clients to explore custom mandates with sustainable investment guidelines and restrictions tailored to their needs and risk-return profiles. We aim to find solutions that best fit their investment objectives, which may include negative screening; proactive asset selection based on favorable ESG factors (e.g., positive screening); and, in some cases, selecting investments that support broader goals like the Paris Agreement, the Sustainable Development Goals (SDGs), or overall societal contributions, while maintaining our fiduciary responsibility.

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Integrating sustainability across the investment and portfolio implementation process

For clients with mandates that incorporate explicit sustainability objectives, we have added sustainability metrics across key portfolio analysis and risk management systems. For example, PIMCO's internal solution to support the portfolio optimization and implementation process allows the investment team to integrate sustainability objectives and constraints, alongside relative value and risk-return targets.

PIMCO's portfolio optimization employs bottom-up screens and signals to drive more efficient portfolios.

Optimization capabilities supplement fundamental portfolio construction



Climate Analysis Capabilities

We remain committed to enhancing and expanding our capabilities for managing climate risks, and collaborating with clients to meet their climate-related investment goals and objectives. This includes deepening our analytical tools and reporting capabilities to assess impacts and progress at the portfolio level. PIMCO's proprietary tools can analyze climate exposures for both climate solutions and client portfolios with specific climate objectives, such as managing carbon intensity or applying carbon reduction targets.

Key advancements were further utilized in 2024 including a portfolio carbon projection tool, a carbon footprint attribution tool, climate scenario analysis and stress testing, and the reporting of metrics aligned with TCFD and PCAF standards. Additionally, we are focused on refining our engagement tracking and milestones process, seeking to confirm effective monitoring and accountability.

The carbon projection tool enables us to evaluate potential future carbon emissions associated with a portfolio, allowing us to work with clients to customize assumptions and explore possible pathways that meet their objectives. Complementing this, the carbon footprint attribution tool measures and reports the contributions of different factors to emissions within a bond portfolio over time, helping us distinguish between fundamental sustainability performance and other factors. These analytical capabilities, combined with PIMCO's industry-leading ESG evaluation best practices, empower us to provide clients with in-depth insights into the risks and opportunities in their portfolios, in addition to climate-related objectives.





CASE STUDY

Climate-related portfolio targets

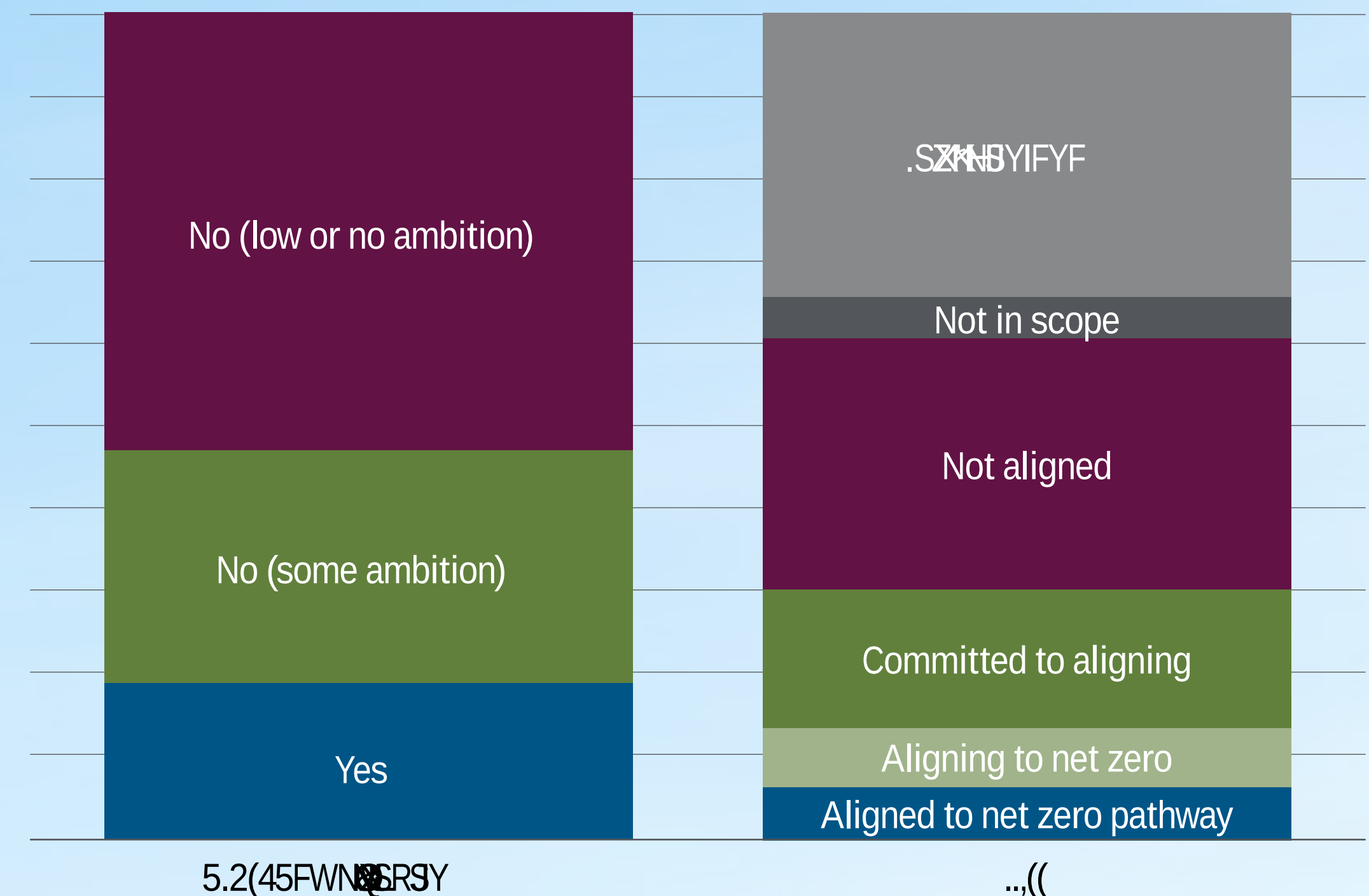
Last year, PIMCO worked with a UK based institutional client to explore the potential implementation of a range of climate-related portfolio targets, primarily aimed at aligning their portfolio with their GHG emissions goal. The client was open to discussing implementation options, including timeframes, emissions intensity targets, and various pathways to reach their committed goals.

PIMCO's approach to creating a portfolio aligned with the client's emissions reductions objective structured around three key pillars:

1

Allocating to climate leaders: The first pillar focused on investing in companies at the forefront of sustainable practices and that demonstrate ambitious decarbonization strategies. PIMCO assessed how well issuers aligned with the Paris Agreement targets using a structured framework, which considered a step-by-step process that incorporated various data sources, including the Transition Pathway Initiative Institutional Investors Group on Climate Change (IIGCC), Science Based Targets initiative (SBTi), and other criteria. We also assess and categorize issuers based on the Institutional Investors Group on Climate Change (IIGCC) Net Zero Investment framework (see Exhibit 1). Using PIMCO's technology systems, we were able to track exposure to SBTi-verified issuers, determine whether this exposure was higher or lower than the benchmark, and observe trends over time.

Exhibit 1: Net zero categorization – illustrative portfolio



2 Investing in climate solutions: The second pillar involved investing in high-quality GSSS+ bonds. Our assessment of corporate issuers and industry leaders or laggards has been refined over time to be sector-specific and highly granular, enabling us to allocate to credible and robust labeled bonds (see exhibit 2 for an example of our peer comparison for one sector).

Exhibit 2: Case study – evaluating the environmental profile of water utilities

Issuer	PIMCO ESG Issuer Score	PIMCO ESG Bond Score	PIMCO Environmental Score	Last update of its framework	Use of proceeds (stringency of the criteria)	Use of proceeds (transparency pre-issuance)	Use of proceeds (allocation and impact report)	Science-based decarbonisation target	Environmental performance assessment (UK Environment Agency)	Ofwat performance report	Pollution incidents performance
ater utility A				2024				3T			Poor
				2022							
				2021			Poor	3T			Poor
				2020		Poor					
				2022				3T			Poor
				2023		Poor	Poor	3T			

The above is presented for illustrative purposes only, and is not intended to be relied upon as a basis for investment decisions. The information is not intended to be used as a basis for investment decisions. The information is not intended to be used as a basis for investment decisions.

3 Reducing exposure to carbon

intensive issuers: The third pillar focused on minimizing exposure to laggards in companies and sectors that had high carbon emissions, which enabled a decrease in the overall carbon footprint of the portfolio.

This example illustrates PIMCO's capability in conducting customized analysis across various ways to potentially implement a client's targets, aiming to align with net zero while minimizing the impact on the portfolio, including transaction costs and limitations on the investment universe (see exhibit 3).

Exhibit 3: Case study – sample portfolio for illustrative purposes

Pillar	Main metric (corporates only)	Sample portfolio	Market average*	Improvement vs. market average	Net Zero pathway	
					2025	2030
	Reduce carbon intensity	79	175			
	42	76				

Pillar	Main metric (corporates only)	Sample portfolio	Market average*	Improvement vs. market average	Net Zero pathway	
					2025	2030
 Identify climate leaders	31/31		31			53

Pillar	Main metric (corporates only)	Sample portfolio	Market average*	Improvement vs. market average	Net Zero pathway	
					2025	2030
 Invest in climate solutions	WTSIX	74	7	]	#	#
	SPX			5		

For illustrative purposes only.



Client Reporting Capabilities

PIMCO combines robust analytics with industry-leading sustainability best practices to provide in-depth insights on portfolios' sustainability objectives and guidelines. Our systems provide a range of sustainability metrics at the portfolio level, with the option to analyze these metrics by sector and issuer.

Key elements of PIMCO's sustainability reporting capabilities include comprehensive statistics, climate-themed reporting, and engagement information. Depending on clients' needs and goals, this may encompass portfolio-level ESG scores, allocations to GSSS+ bonds, portfolio carbon footprint and intensity, avoided emissions, and engagement metrics that track progress versus expectations across the portfolio.

In addition to PIMCO's standard capabilities, we can provide tailored insights and metrics to ensure reporting is relevant, transparent, and aligned with the specific needs and priorities of our clients.

As PIMCO's sustainability efforts evolve, we will continue investing in our infrastructure and high-quality reporting capabilities. We will work closely with clients to identify opportunities where we can add value and enhance servicing.



A large, close-up photograph of a blue flower, possibly a lily, with its petals spread out, filling the entire background of the page. The lighting is soft, highlighting the texture of the petals.

Integration, Research, Engagement: Our Active Edge

Frameworks Across Asset Classes

PIMCO continues to deepen and strengthen its proprietary ESG frameworks and tools to support investment decisions, including:

- Refined methodologies for specific asset classes and sectors, incorporating additional metrics to assess the impact of sustainability factors on the credit quality and pricing of securities.
- Tools that empower portfolio managers across the firm to incorporate sustainability factors into the investment process, based on credit recommendations and relative valuations.

Enhancements across asset classes

Asset class	Enhancement	Description	7 J X J F W H M G J S J * Y X F S I U T Y J S Y N
Corporate H W J I N Y	Enhanced sector frameworks	(M F S L J X Y T T Z W * 8 , for Property & Casualty (P&C) insurers' catastrophe exposure. Historically, our ESG framework for P&C insurance viewed exposure to property catastrophe risk negatively. We updated this criterion to consider the positive externalities for insured clients created when insurers provide coverage of catastrophe risk. *] U F S I J I K W for Health and telecoms with an extended set of KPIs and sources to benchmark companies. 7 J [N X J I \ J N L M Y X Y T T Z W G F S P X J X J H Y T W M J K W S R W J T W K P I R F Y J W N F Q N Y ^ T K J S [N W T S R J S Y F Q K F H Y T W X F S I ^ N S H T W U T W F Y J S J \ N S I Z X Y W ^ X U J H N * H I F Y F G F X J X Y T J [F Q Z F Y J G F S P X c Y W F S X N Y N T S W N X P J] U T X Z W J F	U * S J I * 8 , X H T W J X Y M F Y G J Y Y J W W J + J K T I O F N S F G N Q N Y ^ K F H Y T W X T S N X X Z J
	ESG X J S X N Y N [J + F L	8 Y F S I F W I N _ J I H Q F X X N * H F Y N T S T K H Based on widely used criteria among sustainability extended consideration of sustainability factors that may affect the eligibility or pricing of securities.	
	Sustainable investments relative value tool	- J F Y R F U T K 5 . 2 (4 + F L X M N U F H H T Z S Y X c J] U T X Z W J Y T H F W G T S on J S X N W T J J K J H K Y H W X S F S I T W J H S T R J W S F Q Y N T	climate laggards to climate leaders based on PIMCO's credit recommendations and relative valuations. manage exposure to transition risks.
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& L J S H ^ 7 2 ' 8	ESG metrics availability	3 J \ J S [N W T S R J S Y F Q F S I X T H N F Q R J Y W N H X K T H Z X J I T S L W J J S	



Climate Research

Many of these enhancements relate to climate factors, given the relative degree of advancement of data availability and quality, as well as their materiality. These can be categorized into two groups:

- 1 Climate risk methodology (transition and physical risk scoring) that is part of the integration of sustainability risks into our investment process.
- 2 Climate measurement and reporting capabilities that support both ESG integration and sustainable investment solutions. For the latter, this includes a focus on mitigating the climate impact of portfolios via greenhouse gas emissions reductions.

Climate evaluation across key metrics

The table below expands on these specific developments, highlighting their breadth and depth.

[illegible]

Relationship with external initiatives

CASE STUDY

Carbon data and frameworks

PIMCO is committed to actively engaging with external initiatives and market participants to enhance the data that underpins these frameworks and methodologies. In this section, we outline key considerations for corporate credit and structured products, representing assets at both ends of the spectrum, concerning data availability and quality.

Corporate: Access to credible ESG data, particularly high-quality carbon data, has historically posed challenges in sustainable investing. However, in recent years, the quality and quantity of climate data have rapidly improved as stakeholders worldwide push companies to disclose more climate information, aiding investment decision-making. This trend is especially evident in investment grade corporate credit and, to a lesser extent, in broader corporate sectors, including high yield. Sustainability disclosure requirements, based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the International Sustainability Standards Board (ISSB), have been, or are set to be, introduced in many jurisdictions worldwide.

These requirements are key drivers that will likely enhance the availability and quality of carbon data for corporates in the coming years. Additionally, industry harmonization regarding the treatment of use of proceeds bonds (specifically green and sustainability bonds) in carbon reporting is another anticipated development. PIMCO, as co-chair of the PCAF working group, is actively engaged in this area.

Structured products: The asset class at the earliest stage of carbon accounting is structured products, where carbon data is limited. This includes asset-backed securities (ABS), residential mortgage-backed securities (RMBS), agency mortgages, commercial mortgage-backed securities (CMBS), collateralized loan obligations (CLOs), and covered bonds. Currently, only mortgages originated by banks (not explicitly securitized) are included in Partnership for Carbon Accounting Financials (PCAF) reporting. However, PIMCO, as a sponsor of the PCAF Core team for the securitized products and covered bond working group, is actively developing guidance for securitizations. Residential mortgages and private debt are addressed by the Science Based Targets Initiative (SBTI) as optional.

PIMCO’s mortgage analytics team has contributed to the estimate emissions figures for RMBS and have established emissions data for CLOs. The market is still evolving, with goals to 1) agree on methodology, 2) calculate issuers’ GHG emissions, and 3) incorporate these into their broader ESG frameworks.

Regarding broader ESG disclosure within structured products, the Structured Finance Association (SFA) published its Best Practice Guidance on Structured Products ESG Disclosure in 2023.

Although not explicitly focused on climate reporting, this guidance encourages greater transparency and consistency in climate-related and broader sustainability disclosures across various sub-asset classes, including RMBS and auto ABS, which were the primary focus of the publication. PIMCO collaborated with the SFA on this initiative and views it as a positive step forward for ESG integration in these sub-asset classes and as a foundation for further enhancements. In future iterations, we expect inclusion of additional sustainability factors and a wider range of sub-asset classes.



Integration, Research, Engagement

The table below summarizes the status of various asset classes and instruments in relation to coverage by external frameworks and disclosures on carbon optimization.

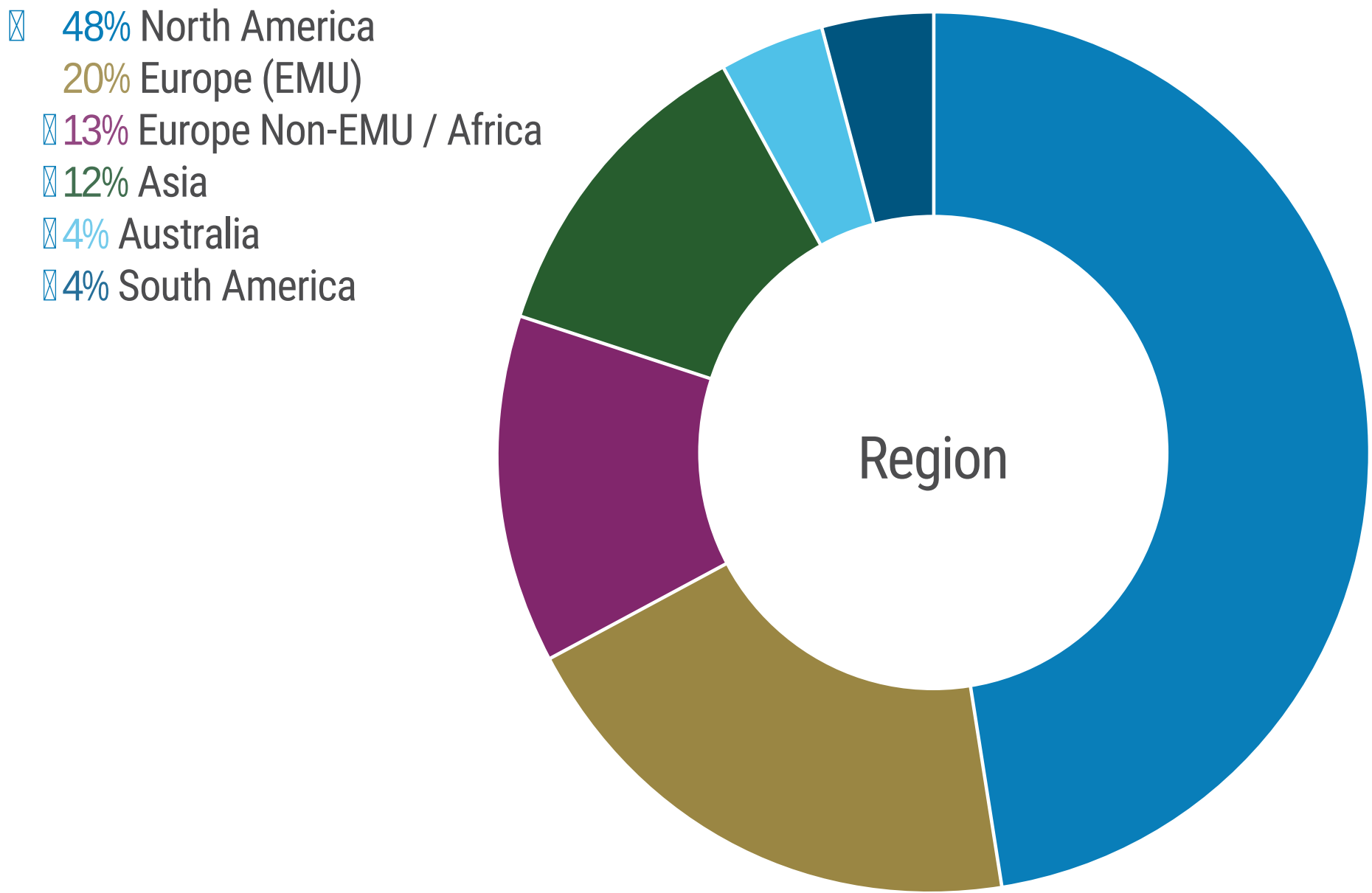
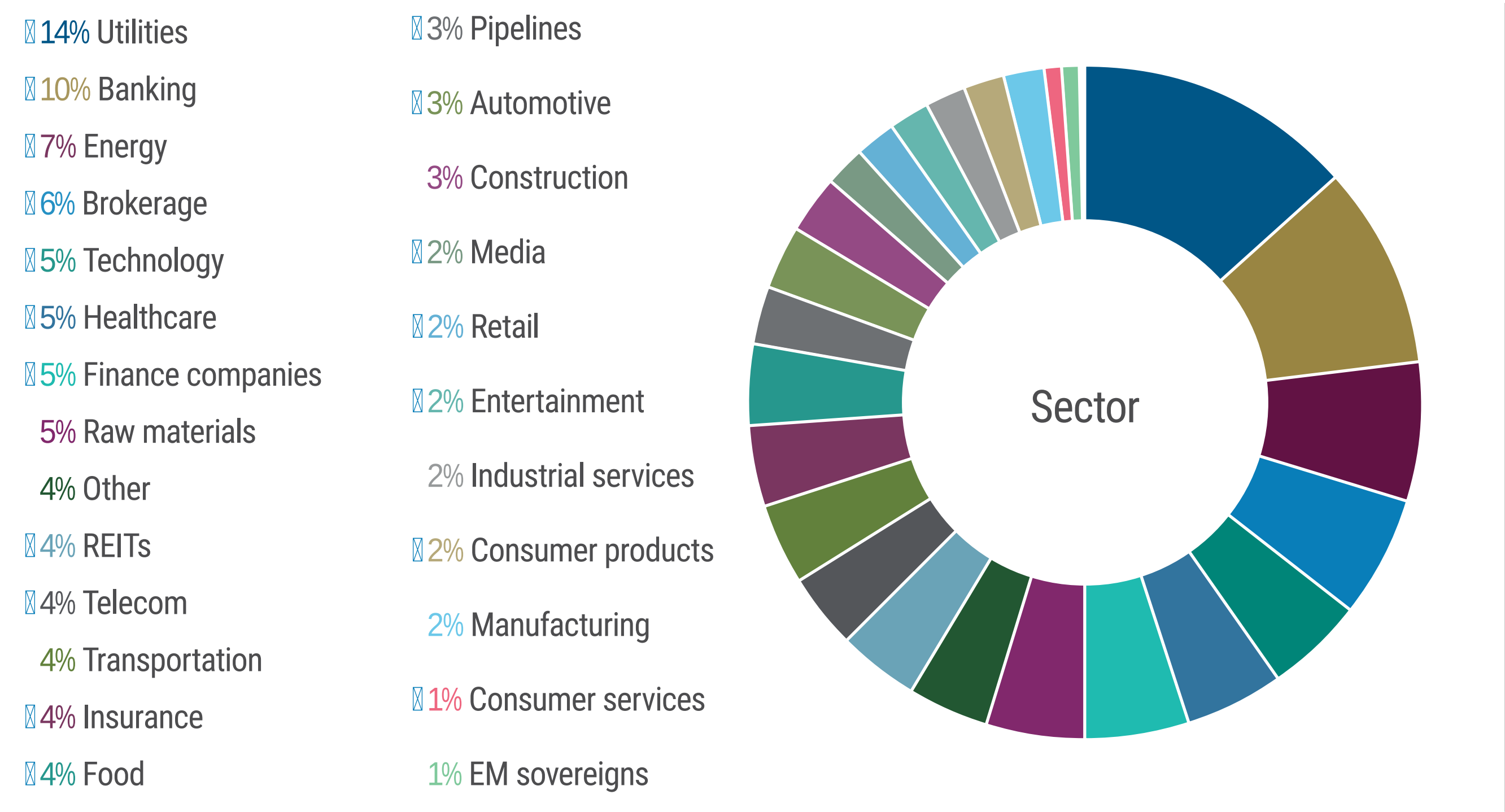
Asset class or instrument type	Release date of carbon accounting guidance (PCAF)	Paris/Net Zero alignment guidance (NZAO, IIGCC, and/or SBTi)	Data availability	Data quality
Corporate credit	2020	Covered in detail	Z	Z
Investment grade	2020	Covered in detail	Z	Z
High yield	2020	Covered in detail	Z	Y
Emerging market	2020	Covered in detail	Z	Y
Use of proceeds bonds	Consultation launched in November 2023	Not directly covered in detail although linked to climate solutions	Y	Y
Sovereign	2022	Covered	Z	Z
Municipals and SSA	Consultation launched in November 2024 for sub-sovereigns	Not covered	Y	Y
Asset-backed securities (ABS)	Under development (auto loans originated by banks not covered since 2020)	Not covered	Y	Y
Residential mortgage-backed securities (RMBS)	No (mortgages originated by banks not covered since 2020)	Not covered	Y	Y
Agency mortgage	Consultation launched in November 2024	Not covered	Y	Y
Commercial mortgage-backed securities (CMBS)	Consultation launched in November 2024	Not covered	Y	Y
Collateralized loan obligation (CLO)	Consultation launched in November 2024	Not covered	Y	Y
Covered bonds	Consultation launched in November 2024	Not covered	Y	Y
Derivatives	No	Partially covered	Y	Y
Private credit	Partial since 2020	Partially covered	Y	Y
Real estate	Yes (CRE since 2020)	Partially covered	Z	Z

Data availability and data quality guide				
Z	High quality data	Y	Partial data	Y
Z	Low quality data	Y	Partial data	Y

The above is presented for illustrative purposes only. Past performance is not indicative of future results.

Activities and Action

Corporate engagement data



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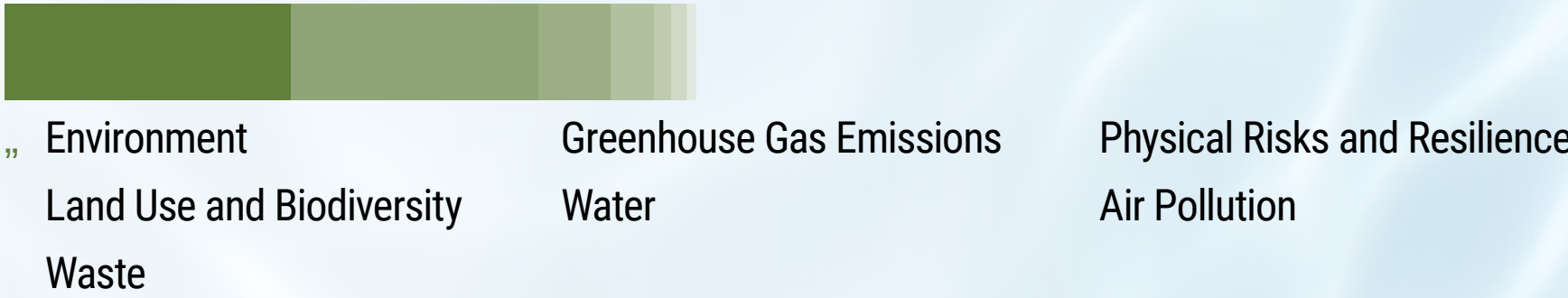


Corporate engagement data: % of engagements by topic

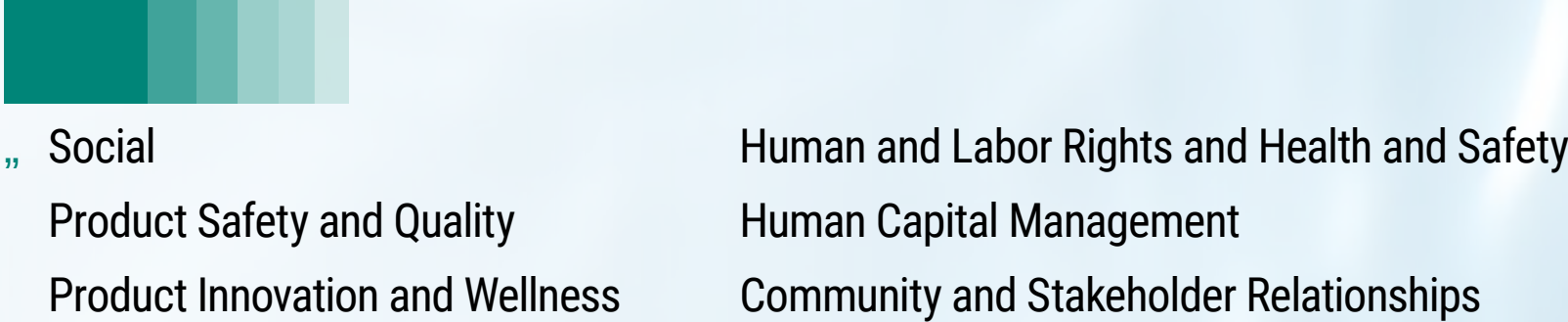
Governance
62%



Environment
26%



Social
12%



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CASE STUDY



European real estate company: GHG emissions and climate risks disclosure

Background

- The company is a central European retail real estate firm focused on Poland and Romania, recognized as a repeat issuer of green bonds.
- PIMCO engaged with the company to understand how they are managing risks and capturing opportunities arising from the increasing expectations of favorable sustainability characteristics in European commercial real estate.
- Several years ago, PIMCO provided recommendations to enhance transparency and accountability in ESG reporting. These included providing third-party assurance for sustainability data, aligning decarbonization targets with the most ambitious science-based pathways, fully adhering to recommendations of the Taskforce on Climate-Related Financial Disclosures (TCFD), and clearly communicating the scope of their planned responsible sourcing policy, along with relevant verification and remediation measures.

Engagement

- The company provided an interim update in 2023, and their head of sustainability contacted us in the first half of 2024 to request additional feedback via a workshop focused on the topic of double materiality.
- PIMCO shared its views on the materiality levels of various sustainability topics, based on our internal mapping.

Progress on milestones and future outlook

- The issuer took concrete steps to address our suggestions, including setting a target in 2024 that is externally verified as aligned with the 1.5°C pathway, and publishing its inaugural TCFD report.
- We plan to follow up this year on the details and implementation of the company's transition plan.

The above is presented for illustrative purposes only. PIMCO does not provide investment advice. Past performance is not indicative of future results.



CASE STUDY



Asian sovereign: GSSS+ bond issuance

Background

- PIMCO has previously engaged with an Asian government to discuss best practices for labeled bond issuances, with a focus on green bonds.
- The government issued its inaugural climate transition bond in 2024.

Engagement

- PIMCO provided recommendations for making disclosures in the issuer’s impact report that encouraged transparency about expected avoided emissions from selected R&D projects and broader Life Cycle Assessment (LCA) considerations.
- PIMCO also expressed support for publishing an impact and allocation report one year after the bond issuance date, rather than after two years.
- PIMCO engaged with the issuer and index providers, ensuring the instrument aligns with both the ICMA Green Bond Principles and the guidance outlined in the Climate Transition Finance Handbook.

Progress on milestones
and future outlook

- PIMCO inquired about the issuer’s plans to continue obtaining Climate Bonds Initiative (CBI) certification for future labeled bond issuances. The government explained that while CBI was crucial for the credibility of their initial transaction, factors such as costs and uncertainties associated with some projects have led them to forgo pursuing CBI certification for subsequent transactions.
- The issuer has now adopted PIMCO’s recommendation, consistent with ICMA guidance, by stating that transition labels are a subset of green labels, provided the issuer explicitly demonstrates alignment with both ICMA’s Green Bond Principles and the Climate Transition Finance Handbook guidance.
- We plan to follow up this year on its subsequent issuances, gathering details on both allocation and impact.

The above is presented for illustrative purposes only. Past performance is not indicative of future results.



CASE STUDY



European energy company: Climate strategy, enhanced disclosures

Background

- PIMCO has engaged with the company over several years on a range of topics, including climate strategy, readiness to navigate the energy transition, and the need for transparency.

Engagement

- We recommended that the company set up an absolute scope 3 emissions target and consider setting an interim target for these emissions to align with industry peers.
- We encouraged the company to include non-operational assets using the equity logic in their scope 1 and 2 decarbonization targets.
- We advised the company to clarify how its future production and exploration investments align with its net zero commitments.

Progress on milestones and future outlook

- As an initial step, the issuer established an absolute scope 3 emissions target for their oil products.
- The company has announced that it will not pursue new frontier exploration entries after 2025 and has published a chart illustrating the alignment of its scope 3 net carbon intensity target with the Net Zero Scenario from the International Energy Agency.



CASE STUDY



U.S. government-sponsored enterprise (GSE): Affordable housing

Background

Fannie Mae, under the supervision of the Federal Housing Finance Agency (FHFA), purchases, securitizes, and backs mortgage loans, thereby providing liquidity and stability to the U.S. mortgage market.

- While single-family agency MBS are a significant component of the fixed income investment universe, social labeling was absent prior to 2024. This was due, in part, to a lack of standardization in the marketplace for these types of disclosures.

Engagement

- In 2020 and 2021, Fannie Mae and PIMCO initiated a multi-year dialogue on Fannie Mae’s affordable housing strategy and how the policy interacts with its disclosure standards. As part of these efforts, PIMCO advocated for enhanced data sustainability disclosure and transparency.

- In 2022, PIMCO provided feedback to enhance Fannie Mae’s methodology, including advocating for consistency and minimal impact across vintages. PIMCO also recommended adjusting Area Median Income (AMI) criteria for borrower and property categories.
- In 2023, as one of the few institutional investors to submit an independent RFI response, PIMCO emphasized that a social bond program could potentially improve financing access for various borrowers, thereby supporting home ownership. PIMCO also highlighted that such a program could attract private investors, increasing liquidity in the U.S. housing finance market. PIMCO’s input helped design a private market solution to support affordable lending.



Progress on milestones and future outlook

2022

In 2022, Fannie Mae and Freddie Mac (the GSEs) published their inaugural Mission Index disclosure methodology, which captures certain characteristics of single-family MBS across income, borrower, and property.

2023

In 2023, the FHFA issued a Request for Input (RFI) regarding an Enterprise Single-Family Social Bond Program.

2024

In 2024, Fannie Mae and Freddie Mac revised their Mission Index methodology and published their inaugural single-family social bond frameworks, incorporating PIMCO’s suggestions. In March, Fannie Mae launched single-family social bonds, with issuance of \$14.5 billion as of 31 December 2024.

Going forward, PIMCO will encourage Fannie Mae to carefully monitor the impact of methodology changes on the Mission Index, enhance security-level impact reporting, and seek economic benefits to the ultimate borrower related to market activity.



CASE STUDY



European supranational: GSSS+ bond issuance

Background

- The European Union issues EU bonds as its primary funding instrument under a unified funding approach.
- PIMCO has engaged with the issuer regarding its labeled debt issuance.
- In the fourth quarter of 2021 engagement, we provided the issuer with our best practice guidance for labeled debt, emphasizing the importance of detailed case studies, reporting relevant indicators beyond carbon, and obtaining external assurance for the impact and allocation report.

Engagement

- In the first quarter of 2024, PIMCO provided additional recommendations after the issuer reiterated its commitment to continue issuing green bonds. We emphasized the need for clarity in several areas, including details about projects that are not aligned with the EU taxonomy and a breakdown of impact data at the bond level.
- The EU is developing a new collective public goods strategy that may address the sustainable development goals, with details expected in 2026 or 2027.

Progress on milestones and future outlook

- The issuer’s impact and allocation report published in November 2023 demonstrated that it had implemented our earlier recommendations. The issuer secured third-party assurance, detailed its methodology for calculating avoided emissions, and included a set of case studies in the report.
- The November 2024 version of their post-issuance report included disclosures of several impact indicators in addition to avoided emissions, in line with the recommendations we provided earlier in 2024.
- We will review the next version of the issuer’s impact report to assess the extent to which our other recommendations have been implemented.



CASE STUDY



Asian bank: GSSS+ bonds, physical risks, environmental disclosures

Background

- PIMCO evaluates the ESG profile of covered bonds and engages with issuers, particularly emphasizing standardization of environmental-related KPIs, such as energy efficiency of buildings, given a lack of data availability and quality.

Engagement

- We engaged with the issuer's head of treasury in the first quarter of 2024 during meetings for the bank's inaugural green covered bond.
- We recommended they align their disclosure with the HTT (Harmonized Transparency Template) of the ECBL (European Covered Bond Label) to obtain standardized ESG metrics for benchmarking against other covered bonds.

Progress on milestones and future outlook

- Pre-issuance, the bank aligned disclosure of its covered bond program with the HTT.
- Post-issuance, PIMCO emphasized that best practice involves publishing the templates on the ECBL website on a quarterly basis.
- PIMCO also provided broader feedback on the green covered bond issuance, highlighting best practices in the market. This included assessing alignment with the EU taxonomy, or equivalent country certification schemes such as G-SEED, and assessing physical climate change risk at the loan pool level.



CASE STUDY



U.S. exploration and production company: Emissions reduction, transparency and reporting

Background

- Natural gas consists of as much as 90% methane (CH4). In its unburned form, methane can be up to 80 times more effective than carbon dioxide at trapping heat in the atmosphere. Researchers have estimated that containing methane released during oil and gas production could help reduce global warming by approximately 0.15 degrees C by 2050.¹⁴
- Oil & Gas companies do not report their methane emissions with high data quality, leaving these emissions open to regulatory scrutiny by the EU, Japan, and other major Liquified Natural Gas (LNG) import markets.
- PIMCO has engaged many issuers in the oil and gas value chain on the importance of disclosing high quality emissions data along the Oil & Gas Methane Partnership (OGMP) 2.0 guidelines since 2021. High quality data may improve an issuer’s competitive advantage as the EU and other import markets seek to regulate emissions profiles as part of their carbon border adjustment mechanisms and criteria for future LNG cargo contracts.

Engagement

- In 2024, this issuer became the first company to report its methane emissions along the OGMP 2.0 guidelines, and to achieve “Level 5” status for data and reporting quality.
- Our subsequent conversations have focused on how the company plans to implement its emissions reductions targets in light of a completely new set of current and historical emissions data.

Progress on milestones and future outlook

- Since our dialogues began, the company has met the following milestones:
 - Joined OGMP in 2022.
- Shared more details of emissions measurement program in 2022 and 2023 engagements and reporting, including its partnerships with non-operated assets.

- 2024: Disclosed data accuracy in accordance with “Level 5” of the OGMP guidelines, becoming the first company in the sector to do so. This has significantly raised the bar for all other oil and gas producers globally.
- Looking forward:
 - OGMP methodology revealed that the company’s emissions were meaningfully higher than previously disclosed.
 - Now that the company has an accurate picture of its emissions profile, it can deepen its already robust approach to emissions reductions.
 - Engagements have and will continue to focus on how/if financing by an external partner can facilitate quicker reductions for assets the company operates as well as assets operated by partners and non-operated joint ventures.



Engagement with external data providers on biodiversity and natural capital

Data is crucial for natural capital analysis. It enables informed decision-making by identifying sustainable practices, mitigating environmental risks, and enhancing conservation efforts. Data supports the integration of natural capital into our investment process, allowing for a comprehensive evaluation of the impacts and dependencies between business and the environment. PIMCO believes that providing feedback and supporting development of new data and tools is essential for incorporating environmental risks and opportunities in financial portfolios. Engaging with data and tool providers is particularly important, as nature-related issues are still evolving compared to more established topics like climate change.

For example, in 2023 we provided feedback to the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) related to ENCORE (a web-based tool, known as Exploring Natural Capital Opportunities, Risks and Exposure, developed by Global Canopy, the UNEP Finance Initiative and UNEP-WCMC). Finalized in 2024, the new version of ENCORE incorporated essential sections that detail the upstream and downstream value chain, link to natural capital accounting, and provide additional granularity on location and biomes.

In the lead-up to the COP16 in Cali, Colombia, we participated in a pilot program with NatureFinance focused on NatureAlign, a suite of analytical tools designed to help financial stakeholders align their financial activities with nature-positive outcomes. The initial module is a free web application, now in beta, designed for financial institutions. By using existing biophysical, spatial, and financial datasets, the application offers a baseline analysis of investments and loans in relation to nature. This equips institutions with the knowledge and tools to understand their environmental impacts and dependencies.

Lastly, we participated in a financial data provider's "biodiversity beta testing program", where we tested and provided feedback on methodology, data, and aggregation methods for integrating natural capital data into the assessment of risks and opportunities related to environmental themes. We subsequently provided feedback about tools for assessing corporate issuers, which can facilitate analysis at the time of trade.

We are exploring ways to use these new tools in our research and assessment of portfolio risk exposure and impacts related to biodiversity.

Global Integration Highlights

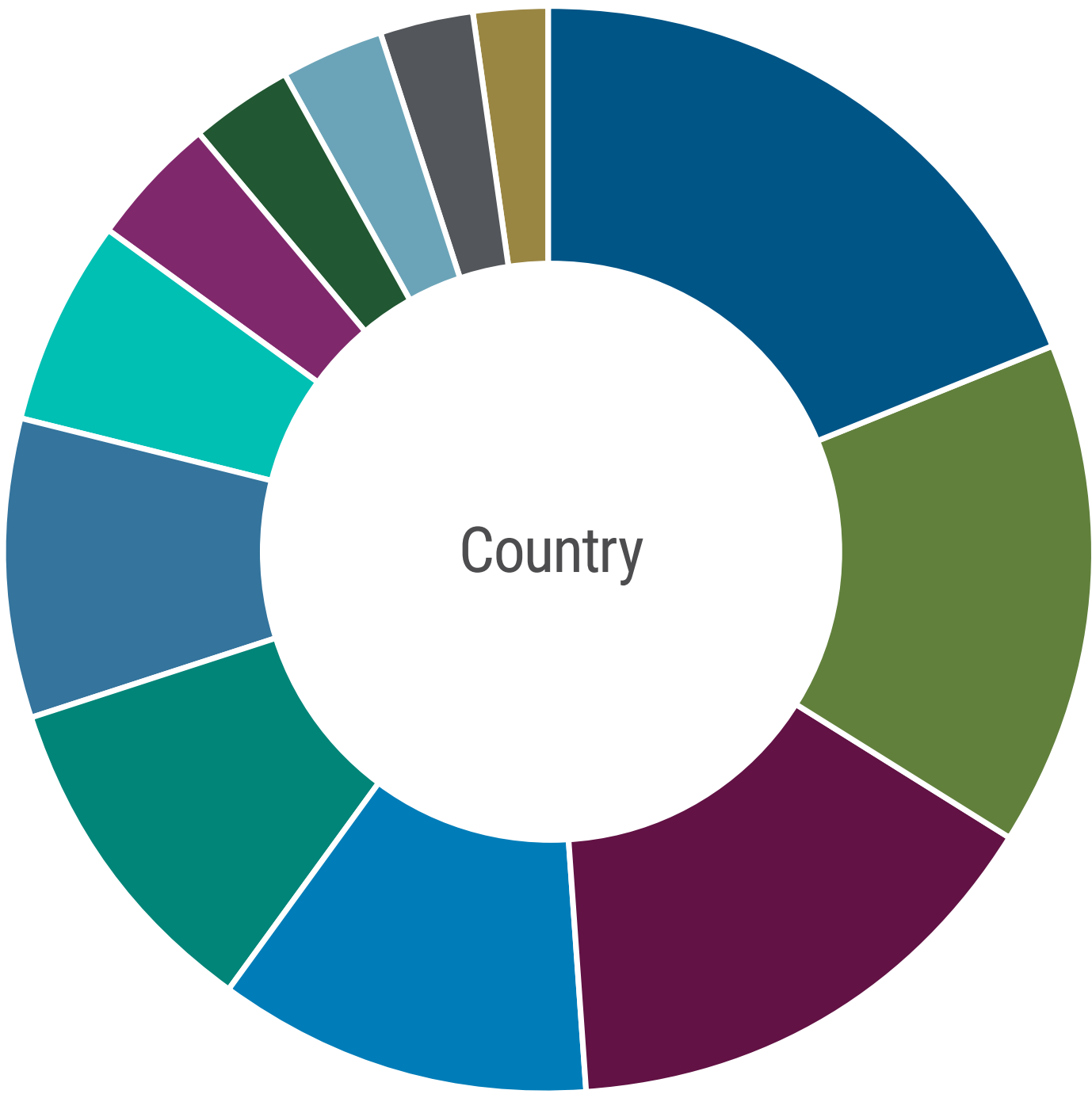
Global collaboration

ESG analysts collaborate globally to develop tailored integration and engagement strategies for the markets PIMCO invests in. Given PIMCO's worldwide footprint, local ESG and credit teams frequently meet in person with management and sustainability teams to foster a shared understanding of our partnership in long-term, sustainable growth. While ESG risks and opportunities may manifest in idiosyncratic ways across different geographies, it is essential for analysts to exchange thematic and sector expertise across regions. As we expand our global engagement efforts, it is critical to delve deeper into the unique challenges and opportunities presented in different regions, where our strategies can be tailored to meet specific local climate and investment dynamics.

Regional example: Asia-Pacific

In 2024, the global team concentrated its APAC issuer engagement on energy transition and corporate governance themes. Given that the materiality of ESG risks varies by market, context-driven engagements are critical for enhancing investment insights.

APAC engagements by region



- 19% Japan
- 15% Australia
- 15% China
- 11% India
- 10% South Korea
- 9% Hong Kong
- 6% Indonesia
- 4% Philippines
- 3% Malaysia
- 3% Singapore
- 3% Thailand
- 2% Taiwan



Key APAC developed market (DM) engagement highlights

1

Australian financial services sector: Analysts met in person with the major Australian commercial and retail banks to discuss recent regulatory compliance controversies and fossil fuel lending strategies.

Engagement targets discussed:

- **Enhancing internal controls:** We emphasized the importance of improving internal controls related to KYC, AML, and AFC procedures to maintain public and investor trust and safeguard the integrity of the financial system.
- **Lending for decarbonization:** We discussed structuring loans that encourage fossil fuel industry borrowers to decarbonize their production and manage transition risks. Understanding that fossil fuel producers will continue to seek capital, incorporating provisions around scope 1 and 2 emissions reductions may have a more direct impact on real economy emissions reductions compared to outright divestment. Further, local banks may be able to exert additional influence as oil and gas producers are critical to the Australian economy, and can play a constructive role in remaining important credit providers to the sector.

2

Japanese car makers: Analysts met in person to discuss the impact of overseas EV demand on the workforce.

Key takeaways:

Contrasting strategies among original equipment manufacturers (OEMs): Two prominent Japanese OEMs showcased different strategies for labor force retention amid challenging economic conditions. We emphasized balancing short-term financial performance with strategic goals, particularly in the context of labor relations and long-term growth.

Concerns over share repurchase plans: One OEM announced plans for substantial share repurchases and increased dividends while reducing its labor force, raising concerns about the company’s long-term strategy and the impact of the workforce reduction on institutional knowledge, innovation, and employee morale.

Commitment to workforce stability: In stark contrast, the second OEM, despite facing a more distressed balance sheet, committed to retaining its labor force, particularly in its U.S. operations. This strategy resonated with our perspective as long-term investors, highlighting the importance of workforce stability and the potential benefits of investing in a dedicated employee base.

These engagements offer an example of our integration strategy and philosophy, since a key outcome of these discussions is to gain insight into management quality. These differing approaches to retained earnings management may impact the view of the credit profiles across maturities.

Increasing influence of Japanese climate ambitions

Between April 2023 and May 2024, PIMCO analysts and portfolio managers met with the Japanese Ministry of Finance six times to discuss Japan’s inaugural “Transition Bonds,” the first sovereign issuance of its kind. The Transition Framework facilitates investments in technologies and practices essential for reducing emissions, even if on the surface they do not meet the current criteria of “green investments.”

Japan faces unique challenges in scaling renewable energy due to its geography, topography, and increasing energy demand compared to the EU and U.S. However, investing in energy efficiency and decarbonizing traditional fuel sources could meaningfully reduce real economy emissions.

Our analysts continue to engage with sovereign and energy-intensive Japanese issuers on strategies to increase investments in energy efficiency and decarbonization. For example, as Japan becomes one of the largest LNG importers, it can concentrate on importing cargoes with lower embedded lifecycle emissions. This focus guides our engagements with power companies, rail companies, and other fossil-fuel importers.

APAC emerging market (EM) engagement philosophy and highlights

Despite being vital enablers of improving development indicators, EM issuers are often perceived as laggards in sustainability compared to their counterparts in developed markets.

The interconnectedness of the global economy means that DM have, in many cases, offshored their negative environmental and social externalities to EM countries. This reality underscores the importance of engaging with EM issuers, since they have the capacity to drive meaningful change and avoid the pitfalls of DM economic growth across a range of sustainability themes. Despite EM issuers lacking regulatory support and access to capital relative to their DM peers, many have shown increasing ambition and progress across the issues which materially affect their business models.

Indian banking and infrastructure: Our engagements with Indian issuers focus on encouraging the prioritization of what is material for their stakeholders – both local and international.

Engagement themes discussed:

- **Infrastructure projects:** Often have substantial environmental impacts yet are crucial for basic social need, including access to health and education services, as well as greater access to markets. We encourage the continued integration of sustainability criteria into construction and operations that not only create jobs but also protect the natural resources that are essential for long-term economic viability.
- **Import-export banks:** Play a pivotal role in facilitating international trade. By engaging in sustainability practices, they can promote responsible sourcing and production, which may, in turn, increase India’s competitive advantage in export markets.
- **Consumer finance in India:** The growth of consumer finance in India is inextricably tied to financial inclusion and microfinance initiatives. By providing services to populations previously excluded from the formal economy, the value proposition is strengthened. This helps fortify the country’s growing banking system, which is essential for improving quality of life indicators.

2024 focus on EM energy: In 2024, we engaged substantially with EM national oil companies (NOCs) - please see following section on ‘Global methane emissions focus’. These entities are not only vital for generating tax revenues that support public services and infrastructure, but they also have a unique opportunity to improve asset quality and reduce emissions. By investing in the decarbonization of their current asset base, NOCs can enhance their operational efficiency while mitigating impacts on water, land, and air quality. This dual focus on economic and environmental health can lead to expanded access to capital, increased balance sheet stability, and quality of life benefits for adjacent communities.

Global methane emissions focus

Initially chosen for its materiality to the energy sector, analysts have identified investment and emissions reduction gaps where PIMCO lends its voice to global dialogues.

Natural gas is composed of up to 90% methane (CH4). In its gaseous, unburned state, methane is a greenhouse gas 80 times more potent than carbon dioxide in trapping heat in the atmosphere. Capturing methane from oil and gas production for practical use could mitigate about 0.25 degrees Celsius of warming by 2050¹⁵. Given methane’s global warming potential, regulatory risks and additional scrutiny have begun to materialize in various LNG import markets. To mitigate these risks to both the climate and our clients’ invested capital, PIMCO has pursued various strategies aimed at reducing methane emissions through engagement and investment.

PIMCO has routinely engaged issuers across the oil and gas industry to reduce their production emissions, conducting about 1,500 engagements in the sector since 2020. During this time, we have seen dozens of companies commit to improved data quality through OGMP 2.0 and pledge to meaningfully reduce these emissions.

In our 2023 Sustainable Investing Report, we wrote about our experience at COP 28 in Dubai, where 50 companies responsible for 40% of global oil production announced their commitment to significantly reduce methane pollution through the Oil & Gas Decarbonization Agenda and Charter. Among the signatories were 29 national oil companies (NOCs). While these commitments are laudable, it is crucial to consider how capital, and whose capital, will be deployed to bring these emissions down.

Despite producing more than half of global oil and gas production, NOCs have been notably absent from the emission reduction initiatives of their international oil company (IOC) counterparts, which are also not reducing methane emissions at the required pace. While only some companies in the oil and gas value chain are publicly traded, most, regardless of size or country, routinely seek financing from global debt markets. This presents an opportunity for global capital providers, like PIMCO, to engage this hard-to-abate sector from the debt side.

Based on our position in the market, we have held discussions with issuers, financial intermediaries, sovereign representatives, technical experts, and climate scientists to discuss how debt capital markets can address methane emissions abatement through dedicated structures and provisions. In 2024, PIMCO presented these ideas through working groups, conference presentations, and global roundtables at high-profile conferences and events.

Key takeaways

- **Inclusion of hard-to-abate sectors:** The transition and decarbonization finance discussions must actively include hard-to-abate sectors globally to have a meaningful impact on real economy emissions reductions.
- **Role of oil-producing states:** GCC Countries, North African, South American, and APAC oil-producing and LNG-importing states have a substantial role to play in decarbonization and are looking for ways to efficiently deploy capital for this purpose.
- **Investor appetite:** There is strong appetite among global investors for opportunities to finance emissions reductions in the real economy, as opposed to blanket divestments and exclusions. However, guardrails should be established at the transaction level to guard against greenwashing.
- **Evaluating the suitability of sustainable and transition finance:** To capture the full climate benefits of reducing methane emissions, global investors should consider the potential for financing emissions mitigation – even from issuers whose past performance is lagging from hard to abate sectors.

¹⁵ MYUWVBNFXZIEYNSEJMFSDNXTSXNPEZQCFYBWRNSWIFYJ
The above is presented for illustrative purposes only. Past performance is not indicative of future results.8TZW42(4)F8GZSQMNNFYU
WFSNPSKFTVXNMFSDJNRJ

Resources

- [Engagement at PIMCO](#)
- [Global TCFD Report](#)
- [Sustainable Investment Policy Statement](#)
- [PIMCO Guidance for Corporate Sustainable Bond Issuance](#)
- [PIMCO Guidance for Sovereign Sustainable Bond Issuance](#)
- [PIMCO Guidance for Municipal Sustainable Bond Issuance](#)
- [Corporate Sustainability Report](#)
- [Statement on Human Rights](#)



All investments contain risk and may lose value. ESG investing is qualitative and subjective by nature

ESG-labeled Bonds

Weighted Average Carbon Intensity (WACI)

Carbon Discounting Methodology:

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

net zero

ESG-labeled Bonds

Weighted Average Carbon Intensity (WACI)

Carbon Discounting Methodology:



Carbon Footprint WXYTYMPTNTSTKMTYFYQJXNTKSKSIFURWUTWFMYSYMJ
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