PIMCO

Sustainable Investing Report 2022

A company of Allianz

Contents

Sustainable Investing at PIMCO

A LEADING INVESTMENT SOLUTIONS PROVIDER

$502bn AUM

in Sustainability Strategies[1]

SEEKING TO INFLUENCE CHANGE

1300+

engagements[2],

75%+

of PIMCO's firm-wide market value in corporate assets engaged on ESG topics[3] in 2022

New partnerships:

Member of the Signatory Advisory Committee at PRI Advance; this is a new stewardship initiative on human rights and social issues

PROPRIETARY ESG FRAMEWORKS

PIMCO credit analysts have scored

OVER 3800

corporate issuers with a proprietary ESG score

Deep analytical capabilities:

Development of our structured product frameworks (e.g. covered bonds), expansion of our ESG scoring coverage of both structured products and sovereigns, supranationals and agencies (SSA)

HELPING SHAPE THE MARKET

5★ SCORES

across 4 of the 5 relevant 2021 PRI Modules[4]

28% SHARE OF ESG

labeled bonds in PIMCO ESG labeled funds[5]

Setting best practices:

Updated and expanded public ESG bond issuance best practice document framework for corporates, sovereign and municipals

As of 31 December 2022

Additional information and methodology regarding proprietary ESG scores can be found on final page.

1 The figure includes Third party and Allianz AUM with strategies that include (i) minimum standards that refine the investment opportunity set based on client directed exclusions criteria ("exclusionary" portfolios); (ii) a focus on enhancing the sustainable characteristics of the portfolio in comparison to its investment universe ("enhanced" portfolios) or (iii) a focus on achieving a specific environmental/ social objective in addition to a financial objective ("thematic" portfolios).

2 PIMCO engaged with 1,370 corporate issuers in 2022, referring to all tracked engagements that discussed ESG topics.

3 About 75% of PIMCO's firm-wide market value of corporate issuers engaged on ESG topics from Jan 1 - Dec 31, 2022. Includes all engagements conducted by ESG and credit analysts. Calculated as % by par-adjusted AUM as of 31 December 2022. Corporate issuers are credits covered by PIMCO's corporate analyst team.

4 PRI Assessment Reports are limited to signatories' of the Principles for Responsible Investment (PRI), and consider a signatory's responsible investment implementation across its overall investment process, among other factors. PRI Assessment scores are provided per module or asset class, with no overall organization score given. PIMCO's scores reflect information and data reported by PIMCO to PRI in the 2021 reporting cycle (as of December 31, 2020). Please note that publication of the 2021 public transparency reports was delayed due to changes in PRI's reporting and assessment process. PRI's 2021 scoring methodology has changed to reflect the new Reporting Framework. Scores for the 2021 reporting cycle are not comparable to previous years. Prior to 2021, PRI assessments were awarded scores based on a scale from A+ to E, with A+ being highest score and 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. PRI Assessments are based on a scale of 1 (lowest)-5 (highest) Stars. **For 2021 Methodology** and an overview of the PRI Reporting Framework, please refer to dwtyzx6upklss.cloudfront.net/Uploads/j/l/f/assessmentmethodology2021_302746.pdf. **For additional information regarding how PRI assesses signatory reporting**, please refer to www.unpri.org/reporting-and-assessment/how-investors-are-assessed-on-their-reporting/3066.article. **PIMCO's 2021 PRI Transparency Report** is available on PRI's website at ctp.unpri.org/dataportalv2/transparency and includes PIMCO's responses to all mandatory indicators, as well as responses to voluntary indicators that PIMCO has agreed to make public. **PIMCO's PRI Assessment Report is available upon request**. The PRI is an investor initiative in partnership with UNEP Finance Initiative and UN Global Compact.

5 **ESG labeled bonds** refer to green, social, sustainability or sustainability-linked bonds based on issuer as classified by the issuer, 3rd parties or PIMCO through use of a framework and/or legal documentation. **ESG labeled funds** include all PIMCO sponsored funds that follow sustainability strategies and guidelines.

Foreword

Emmanuel Roman
CEO of PIMCO

Astute readers of this annual report will observe a meaningful change to the title – "Sustainable Investing"– rather than Environmental, Social and Governance (ESG).

This is not merely a cosmetic decision – but rather an important recognition of the rapidly evolving landscape that PIMCO continues to regard as a global megatrend.

Sustainable investing has gone through several evolutionary stages. What began as a largely equities-oriented negative screening approach for socially responsible investors, has diffused into a global multi-asset class investing movement based on the materiality of an increasing number of environmental, social, and governance risks.

For PIMCO, sustainable investing represents an approach that seeks to appropriately consider material ESG factors in investment decision-making and portfolio construction. This includes an issuer's impact on the environment and society, as well as how environmental and social factors may impact the issuer more broadly. Our approach involves integrating ESG across our research process, as well as providing bespoke sustainable investment solutions designed to help meet client objectives.

Engaging with issuers consistently is a key part of our sustainable investing approach, and fixed income asset management has a unique role to play. Bondholders, as a source of regular financing, can have direct conversations with issuers and corporations. We use these conversations to learn and discuss issuers' sustainability strategies. PIMCO is co-chair of the UN Global Compact's "CFO Coalition for the Sustainable Development Goals (SDGs)" initiative, and we are helping to lead the market in this area.

We also recognize the importance of staying up-to-date in this rapidly changing market segment. To ensure we are well-informed, we take part in a number of third-party sponsored sustainability organizations to gain insight into emerging trends and issues.

In this year's report, you will find information about our engagement, and insights about our commitment and investment research process. The report also features articles on key topical themes: Human Rights, Human Capital, Natural Capital and Carbon Analytics. We welcome your feedback and reflections on our Sustainable Investing Report, and thank you for your interest in our work.

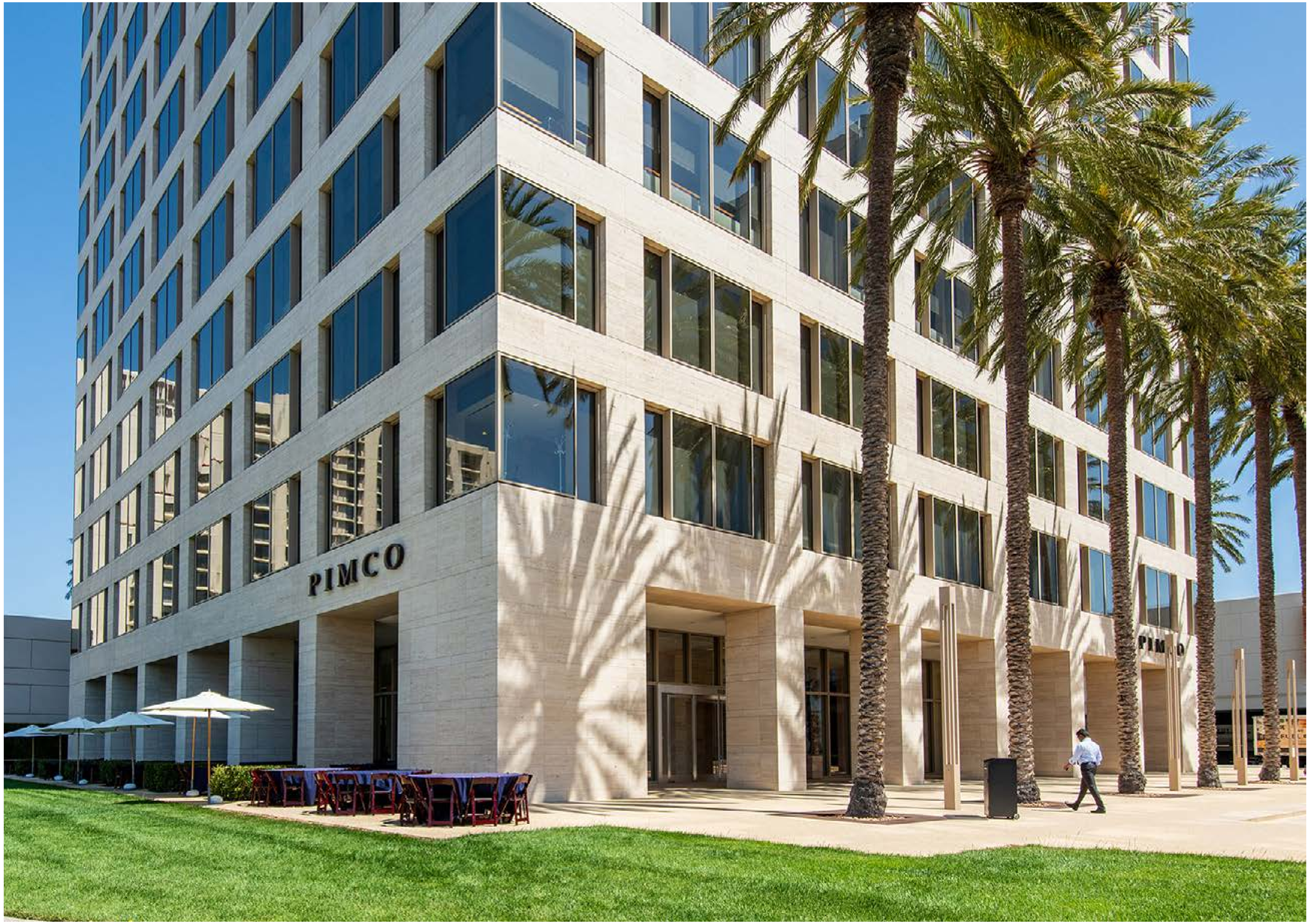
E. Roman

About PIMCO

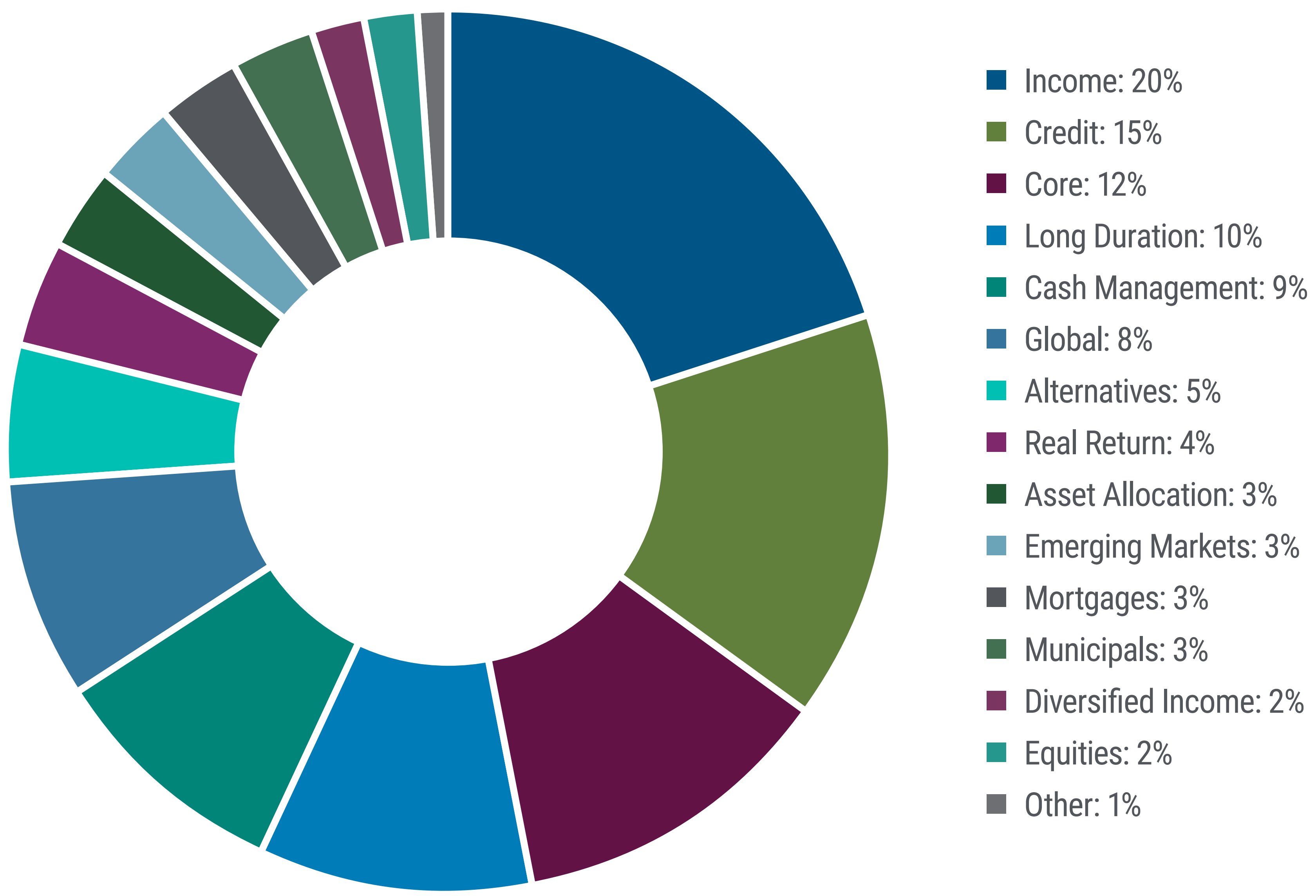
WE BELIEVE THAT ACTIVE MANAGEMENT IS THE RESPONSIBLE WAY TO INVEST OUR CLIENTS' ASSETS IN FIXED INCOME.

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. Leadership in sustainable investing is essential to deliver on our clients' financial objectives while sustainable long term economic growth is essential to maintain healthy markets.

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



Assets Under Management (AUM)



PIMCO IS RESPONSIBLE FOR MANAGING $1.74 TRILLION[6] 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[7]

PIMCO is one of the **world's premier fixed income investment managers**

PIMCO has managed **socially responsible investments** since **1989**

3,390+
Employees around the world

23
Global offices throughout the Americas, Europe, and Asia

50+
Countries in which clients are based

965+
Global investment professionals

310+
Portfolio managers with an average of 17 years of experience

330+
Investment professionals who have been at PIMCO for 10 years or more

80+
Global credit analysts

14
Sector specialty desks

110+
Analytics/asset experts

6 PIMCO manages $1.74 trillion in assets, including $1.38 trillion in third-party client assets as of 31 December 2022. Assets include $81.8 billion (as of 30 September 2022) in assets managed by PIMCO Prime Real Estate (formerly Allianz Real Estate), an affiliate and wholly-owned subsidiary of PIMCO and PIMCO Europe GmbH that includes PIMCO Prime Real Estate GmbH, PIMCO Prime Real Estate LLC and their subsidiaries and affiliates. PIMCO Prime Real Estate LLC investment professionals provide investment management and other services as dual personnel through Pacific Investment Management Company LLC. PIMCO Prime Real Estate GmbH operates separately from PIMCO.

7 As of 31st December 2022. Source: PIMCO.

SUSTAINABILITY AT PIMCO

PIMCO's Sustainability Philosophy

STEWARDS OF OUR CLIENTS' CAPITAL

- PIMCO seeks to deliver superior investment returns, solutions and service to our clients.
- For over 50 years, we have worked relentlessly to help millions of investors pursue their objectives – regardless of shifting market conditions.
- We believe leadership in sustainable investing is essential to help deliver on our clients' financial objectives.

FIDUCIARY DUTY TO CONSIDER RELEVANT RISKS IN OUR INVESTMENT PROCESS

- Where applicable, we aim to integrate ESG risks in our investment process for our actively managed assets as a key risk management tool.
- The consideration of ESG factors may be appropriate when evaluating long-term investment opportunities and risks for certain asset classes across public and private markets.
- This integration of ESG risks can take place during both the bottom-up analysis of issuers and the top-down analysis of cyclical and secular trends.

CLIENT-CENTRIC APPROACH TO SUSTAINABILITY

- In addition to integrating ESG risks in our broad investment process, for clients who seek to achieve specific sustainability outcomes alongside financial objectives, we offer a suite of dedicated investment solutions which incorporate the firm's proprietary ESG optimization criteria.
- Further, PIMCO recognizes that sustainability solutions are not one-size-fits-all and we are well equipped to partner with clients in their separately managed accounts to identify and customize sustainability objectives that satisfy their specific needs.

SPECIAL PLATFORM TO ENGAGE WITH ISSUERS

- As a premier fixed income manager, PIMCO has a large and significant platform with which to engage issuers on sustainability matters; we believe engagement is an essential tool for pursuing positive change in sustainable investing.
- Sustainable investing is not only about partnering with issuers that already demonstrate a deeply unified approach to sustainability, but also about engaging with those issuers who are continuing to evolve their sustainability practices.
- This can be a direct way for PIMCO to help influence changes intended to benefit investors, and may also benefit additional stakeholders, including employees, society and the environment. We aim to have an industry leading engagement program among fixed income asset managers.

Our Sustainability Team and Resources

Aligned with our sustainability philosophy, PIMCO's Sustainability Team is not a separate business unit. ESG is integrated across all firm functions from credit research and portfolio management to client-facing, executive office to product strategy, legal and compliance to marketing. This ensures that ESG is fully integrated into our broad research process and value chain.

PIMCO's Sustainability Team includes more than 50 investment professionals with specific responsibility for building the sustainability platform. The team is broadly integrated across the firm with existing leaders taking on greater sustainable investing responsibility, including 20+ portfolio managers, and leverages the expertise of our 75+ person credit analyst team[8]. Additionally, PIMCO has a global team of 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 considerations that are relevant to their particular sector and universe of securities to confirm that ESG risk factors and opportunities are integrated into our investment decision-making, rather than being an "add-on" separate from our financial analysis.

To help set the priorities for our sustainability platform, PIMCO has a focused Sustainability Leadership Team responsible for leading firm-wide ESG integration, enhancing our sustainable investing capabilities and supporting the development of portfolios that follow sustainability-related investment guidelines and restrictions. The group sets strategic priorities and evaluates the firm's participation in certain third-party sustainability sponsorships on a continuous basis throughout the year. In 2022, we added two rotating spots to the Sustainability Leadership Team to broaden our perspectives and give additional individuals a chance to provide input.

PIMCO SUSTAINABILITY GLOBAL AND INDUSTRY LEADERSHIP*

Kimberley Stafford
Sustainability Oversight, MD
Oversees PIMCO's sustainable investment efforts

Julie Meggers
Head of Strategy and Corporate Sustainability, MD

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

Gavin Power
Chief of Sustainable Development and International Affairs, EVP

Lupin Rahman
Portfolio Manager, EVP

Jelle Brons
Portfolio Manager, EVP

Del Anderson
Credit Analyst, EVP

Kwame Anochie
Account Manager, EVP

*As of February 2024

Our ESG Integrated Investment Approach

As outlined in PIMCO's sustainable investment philosophy, we believe the consideration of relevant ESG factors is part of a robust investment research process. Where material, ESG factors can be important considerations when evaluating long-term investment opportunities and risks across asset classes in both public and private markets.

ESG factors may include but are not limited to: climate change risks, resource efficiency, natural capital, human capital management, human rights, regulatory risks, and reputational risk at an issuer level, among others. We recognize that ESG factors are increasingly essential inputs when evaluating global economies, markets, industries and business models – for example, the effect of stranded assets on the energy sector. The materiality of ESG considerations to investment decisions varies across asset classes, strategies, products and valuations.

Integrating relevant factors into the evaluation process does not mean that ESG related information is the sole or primary consideration for an investment decision; instead, PIMCO's portfolio managers and analyst teams consider a variety of factors, including the materiality of those factors, to make investment decisions. By increasing and diversifying the information available to the portfolio management team we are able to provide a more holistic view of an investment, which we believe will benefit our clients.

TOP-DOWN

Themes identified through annual Secular Forum process	Speakers include Nobel prize winners, heads of state, renowned academics and global central bankers

Climate change	Geopolitics	Corporate governance	Inequality	Demographics trends	Cybersecurity

Specialty desks and credit analysts	Asset class and sector specific frameworks

Environment	Social	Governance
Employs resource efficiency, from waste to energy consumption	Ensures sound product safety and quality standards to protect end-users	Maintains management's capacity to manage risk over the cycle

BOTTOM-UP

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

ESG Integration in Private Investments

PIMCO's Alternative Credit and Private Investment Strategies may consider ESG factors with varying degrees of relevance when evaluating potential investment opportunities within private markets. ESG-related considerations present both risks and opportunities. Where applicable, the consideration of ESG factors is intended to optimize risk-adjusted returns. This includes but is not limited to: investment sourcing, due diligence, asset management and monitoring, and disposition decisions.

Onboarding and Due Diligence	Asset Management and Monitoring
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. PIMCO's ESG analysts support sector specialists as needed, providing guidance in areas identified during the due diligence process.	PIMCO's portfolio management team collaborates with sector specialists as needed, providing guidance and support in areas of 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, portfolio management teams will continue to incorporate an evaluation of relevant risk factors including ESG.

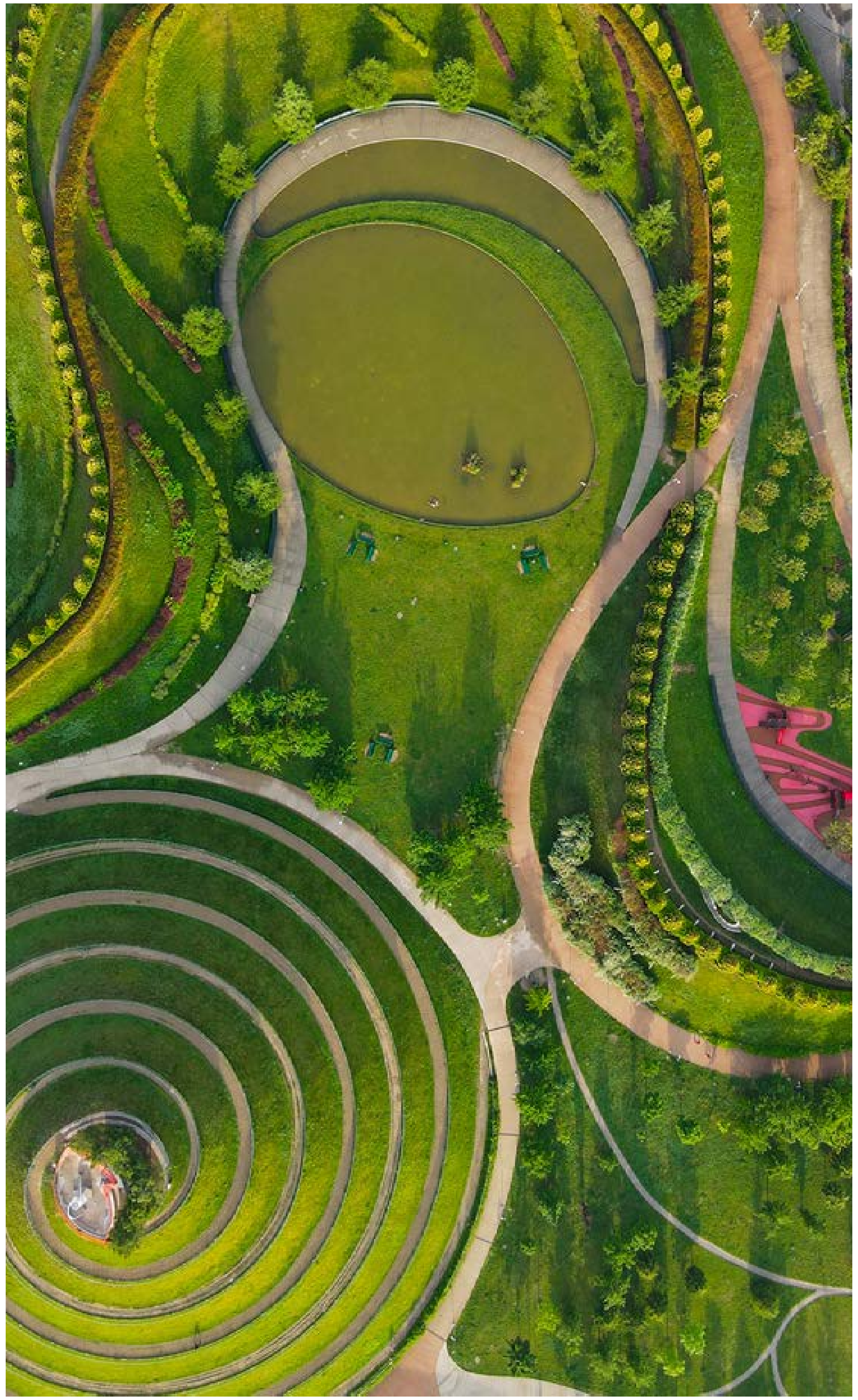
Source: PIMCO. **For illustrative purposes only.**

PIMCO's Sustainable Investment Solutions

For clients who want greater sustainability orientation in their portfolio, PIMCO has a dedicated suite of strategies that can follow investment guidelines and restrictions utilizing three building blocks of PIMCO's ESG process.

1	**Limit sectors and issuers misaligned with ESG factors.**
2	**Emphasize issuers with leading ESG practices.** These are identified through a proprietary ESG scoring system, which considers how an issuer currently fares relative to its peers in the industry and the issuer's ESG momentum. These portfolios also may invest in issuers with improving sustainability practices.
3	**Constructive engagement with issuers to help influence ESG practices over time**. We believe that allocating capital to issuers willing to improve the sustainability of their business practices can generate a greater impact than simply avoiding issuers with poor ESG metrics and favoring those with strong metrics.

In addition to pursuing attractive returns, these portfolios may seek to actively manage the portfolio's carbon footprint, actively engage with issuers, achieve a meaningful green, social, sustainability or sustainability-linked (GSSS) bond[9] allocation and/or tilt toward issuers with leading, or improving, ESG characteristics.



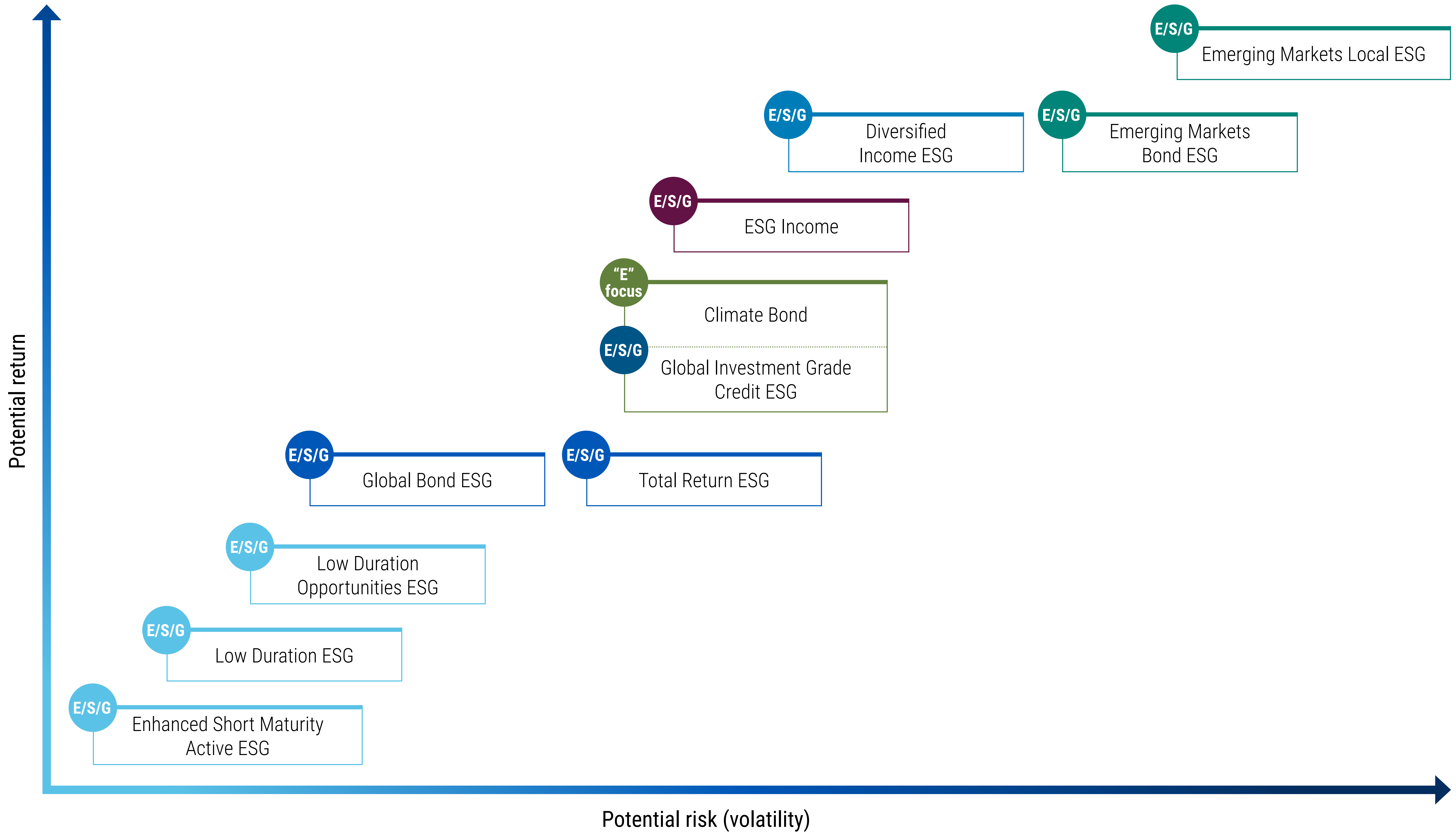
9 **Green Bonds:** are a type of bond whose proceeds are used to finance or re-finance new and existing projects or activities with positive environmental impact. Eligible project categories include: renewable energy, energy efficiency, clean transportation, green buildings, wastewater management and climate change adaptation.
Social Bonds: are a type of bond whose proceeds are used to finance or re-finance social projects or activities that aim to address or mitigate a specific social issue or seek to achieve positive social outcomes. Social Project categories include providing and/or promoting: affordable basic infrastructure, access to essential services, affordable housing, employment generation, food security, or socioeconomic advancement and empowerment.
Sustainability Bonds: are a type of bond whose proceeds are used to finance or re-finance a combination of green and social projects or activities. Sustainability bonds with strict accountability of the use of proceeds towards activities that advance the UN Sustainable Development Goals or SDGs may be labeled as SDG Bonds.
Sustainability-linked Bonds: are bonds which are structurally linked to the issuer's achievement of certain sustainability goals, such as through a covenant linking the coupon of a bond to specific environmental and/or social goals. Progress, or lack thereof, toward the aforementioned goals or selected key performance indicators results in a decrease or increase in the instrument's coupon. In contrast to the green, social and sustainability bonds described above, sustainability-linked bonds do not finance particular projects but rather finance the general functioning of an issuer that has explicit sustainability targets that are linked to the financing conditions of the bond.

PIMCO'S RANGE OF SUSTAINABILITY STRATEGIES

This chart provides an overview of the wide range of sustainability strategies PIMCO offers across the spectrum of fixed income markets.

PIMCO acknowledges that clients around the world define their sustainability investment objectives differently and require a range of tailored solutions to achieve their objectives. We are eager to partner with clients to explore the possibility of implementing custom mandates with sustainability objectives, as well as risk and return profiles, tailored to their needs. To date, we have collaborated with clients on numerous tailored solutions to help pursue their financial and sustainability objectives, including, but not limited to, portfolios with allocations to leading sustainability issuers, allocations to ESG labeled bonds and carbon intensity targets.

As markets and investor demands continue to develop, PIMCO will actively engage with clients to implement thoughtful solutions that aim to deliver on their goals and objectives.



10 As of 31st December 2022. Source: PIMCO. **For Illustrative Purposes Only**
Strategy availability may be limited to certain investment vehicles; not all investment vehicles may be available to all investors. Please contact your PIMCO representative for more information.

ESG Research Capabilities

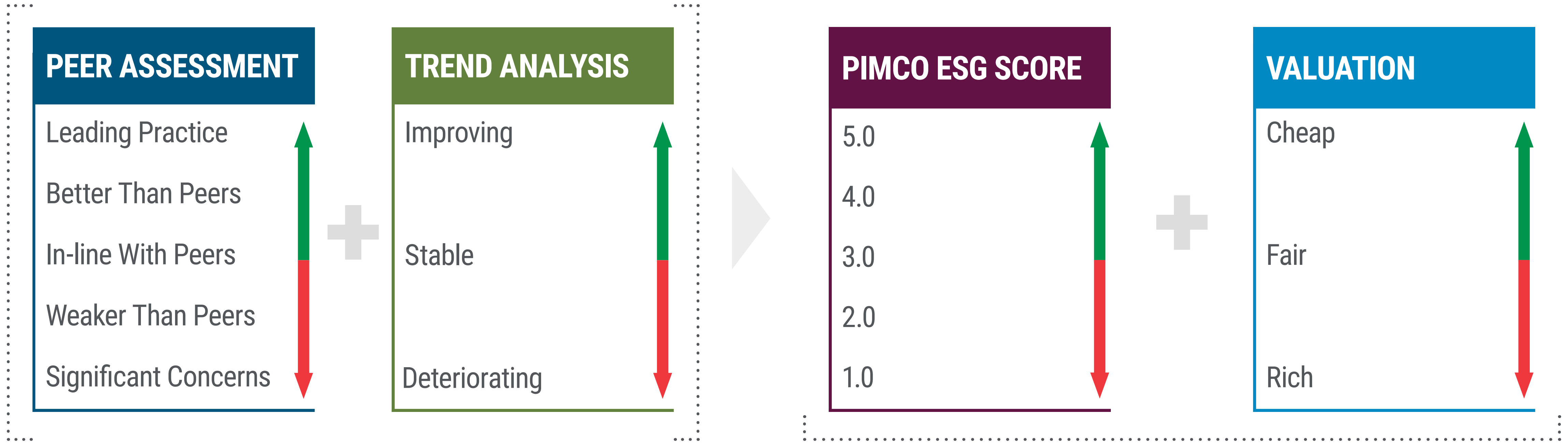
ESG SCORING FRAMEWORKS

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 ratings assigned by analysts, enabling us to evaluate corporate, sovereign, securitized and municipal issuers, as well as green, social, sustainability and sustainability-linked bond issuances where applicable.

PIMCO assesses the ESG profile of issuers with the goal of separating leading issuers from those less advanced in their sustainability journeys. We also analyze 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 which can include 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 often distinct from those provided by third-party ESG rating providers. ESG rating methodologies and issuer scores are updated periodically and made available to portfolio managers across the firm.

Corporates: Using industry-specific frameworks in order to assign separate scores for "E", "S", and "G", analysts review their assigned companies ESG performance based on information available in public filings, recent news and controversies, as well as through regular engagement. These scores are subsequently combined using a weighted average, applying sector-specific weights across the three pillar scores, resulting in a proprietary ESG score. Furthermore, in cases where an investment is made in an issuer's ESG-labeled debt, the issuer's ESG score may be subject to a positive adjustment depending on the quality of the relevant ESG labeled bond. In determining the efficacy of an issuer's ESG practices, PIMCO will use its own proprietary assessments of material ESG issues. In the end, PIMCO's resulting assessments are proprietary and often distinct from those provided by ESG rating providers.



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

Sovereigns: We have developed a standalone ESG scoring framework that provides both valuable input into our sovereign risk scenario assessments, and serves as an input for relative value decisions.

Securitized: PIMCO has built robust ESG scoring frameworks across a wide spectrum of securitized assets, including both agency and non-agency mortgage backed securities, commercial mortgage backed securities, asset backed securities, and collateralized loan obligations.

Municipals: We consider issuer-level ESG factors across municipal bond issuers to better understand the risks and opportunities inherent in our bond selections. The municipal market is vast and diverse, with issuers ranging from states and cities to enterprises including higher education institutions, airports, and continuing care facilities. Analysts use proprietary frameworks to evaluate material ESG risks specific to each municipal sector, as well as identify ESG leaders within each sector.

PIMCO'S PROPRIETARY ESG BOND SCORING FRAMEWORK

In addition to asset class-specific ESG scoring frameworks, PIMCO also evaluates ESG-labeled bonds. We map these bonds across a spectrum based on strategic fit, potential impact, as well as red flags and reporting, to produce PIMCO's proprietary impact score for green, social, sustainability or sustainability-linked 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 and allows comparison of ESG scores between different issuers and across sectors.

STRATEGIC FIT

Alignment of the issuers' climate/environmental/social strategies with the bond's objectives and use of proceeds

+

IMPACT ASSESSMENT

Evidence of significant **positive outcomes** compared to "business as usual" by the issuer

+

RED FLAGS AND REPORTING

Screening for **"red flags"** and **controversies** and analysis of **reporting** and **process** (misalignments to market standards (e.g. Green Bond Principles))

For illustrative purposes only. Source: PIMCO.

HIGH-QUALITY ESG DATA IS THE FOUNDATION FOR A ROBUST SUSTAINABILITY PLATFORM

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

In recent years, the quality and quantity of ESG data has improved rapidly as stakeholders push public companies globally to disclose more ESG information, which will help improve ESG-related investment decision-making. PIMCO has been investing in the team and the technology to incorporate ESG data into our investment process for many years. Our dedicated ESG technology team has developed tools that centralize ESG data, enabling portfolio managers across the firm to integrate third-party and proprietary ESG data into our overall investment process where relevant.

COMET
COMPANY ENGAGEMENT
Construct Issuer profiles, ESG Engagement scores

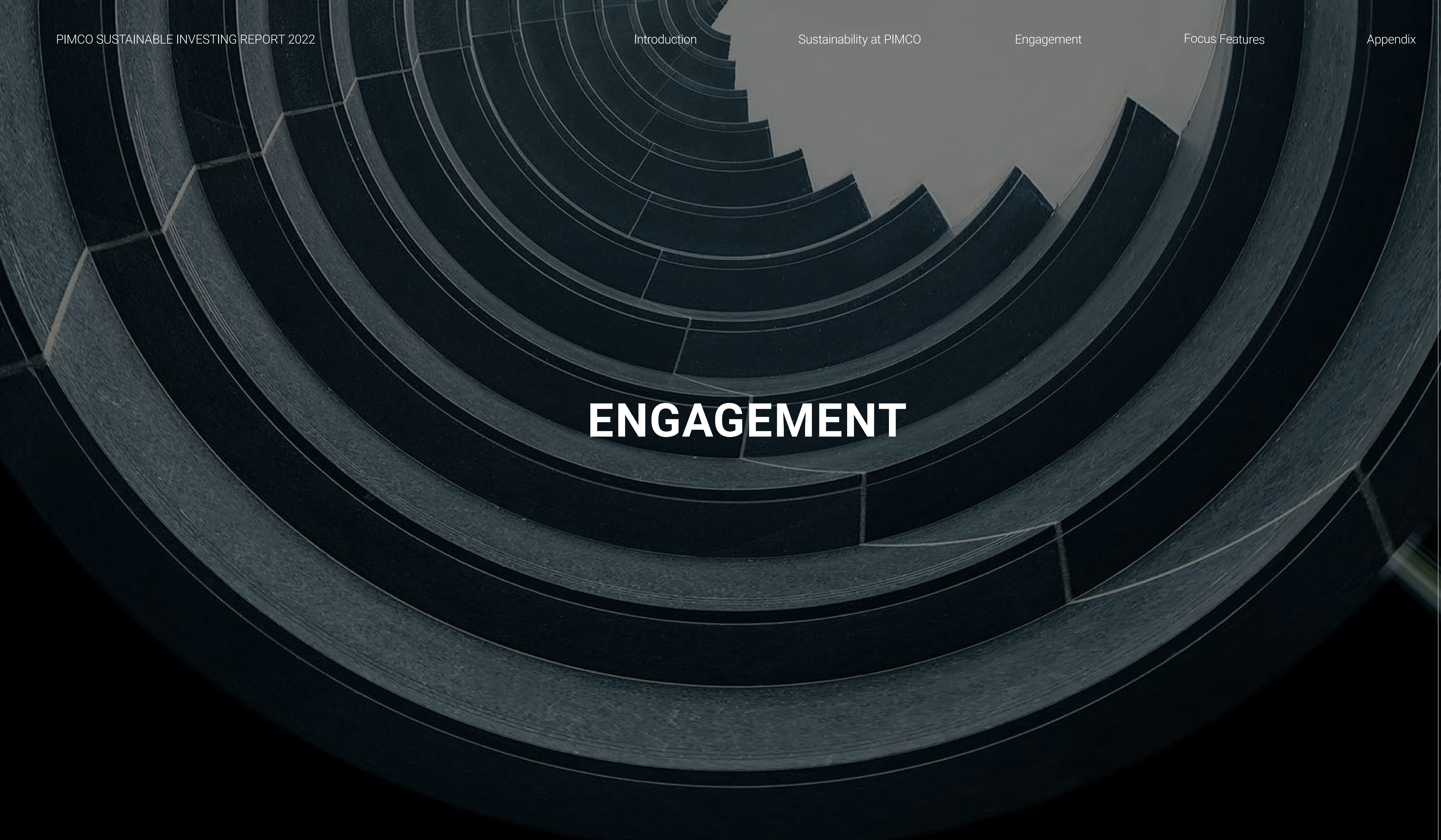
METRO
METRICS & OVERRIDES
ESG Compliance, Validate and override ESG related data (internal and 3rd party)

ESG BONDS
ESG BONDS
Classification of Green Bonds, Use of Proceeds and Analyst Reviews

REPORTING
REPORTING
ESG Ratings and Scores, Exclusions, Carbon Intensity, Engagement

ESG SOVEREIGN RESEARCH
ESG SOVEREIGN MODEL
Sovereign Indices, Model and Overrides

As of 31 December 2022. Source: PIMCO.



ENGAGEMENT

ENGAGEMENT PHILOSOPHY

As one of the largest bondholders in the world, PIMCO has a significant platform with which to engage issuers on factors that may be material to risk and return considerations – including ESG topics. PIMCO constructively engages with issuers to both uncover investment insight, and seeks to influence outcomes which may reduce risks or capitalize on opportunities. We aim to create value and catalyze positive change by working with companies still evolving in their sustainability practices, as well as those already demonstrating a deeply unified approach to sustainability. By focusing engagements on companies in historically hard to abate sectors, or companies at the beginning of their sustainability journey, PIMCO can seek to influence changes to benefit investors, which may also benefit additional stakeholders, including a company's employees and the environment.

We aim to have an industry leading engagement program among fixed income asset managers. By investing across diverse asset classes and types of issuers – including corporates and sovereigns — we believe PIMCO's engagement practices are ideally positioned to help influence positive change, rather than through exclusions alone. In our experience, and given the strength and history of our platform, we have found that a collaborative approach with issuers has the potential to result in tangible outcomes.

How we engaged in 2022

As a leading fixed income investor, PIMCO engages regularly with issuers beyond the bond issuance cycle to focus on ESG factors which may be material to risks and opportunities for the company. Our goal is to inform investment decisions, while pursuing positive change by sharing best practices and recommendations to support issuers to better mitigate ESG risks over time.

In 2022, we deepened our engagements across four main themes as relevant and material to priority issuers: **Climate change**, **human rights**, **human capital** and **natural capital**. The key actions noted below are particularly important for us to assess an issuer's long-term resilience against ESG risks:

- Engagement with companies on their climate ambitions, goals and implementation plans, notably on methane and emissions reductions in the real economy
- Thorough due diligence on human rights risks embedded across their value chain
- Effective, transparent and inclusive human capital strategy for talent retention
- Solid understanding of impact and dependency on natural capital

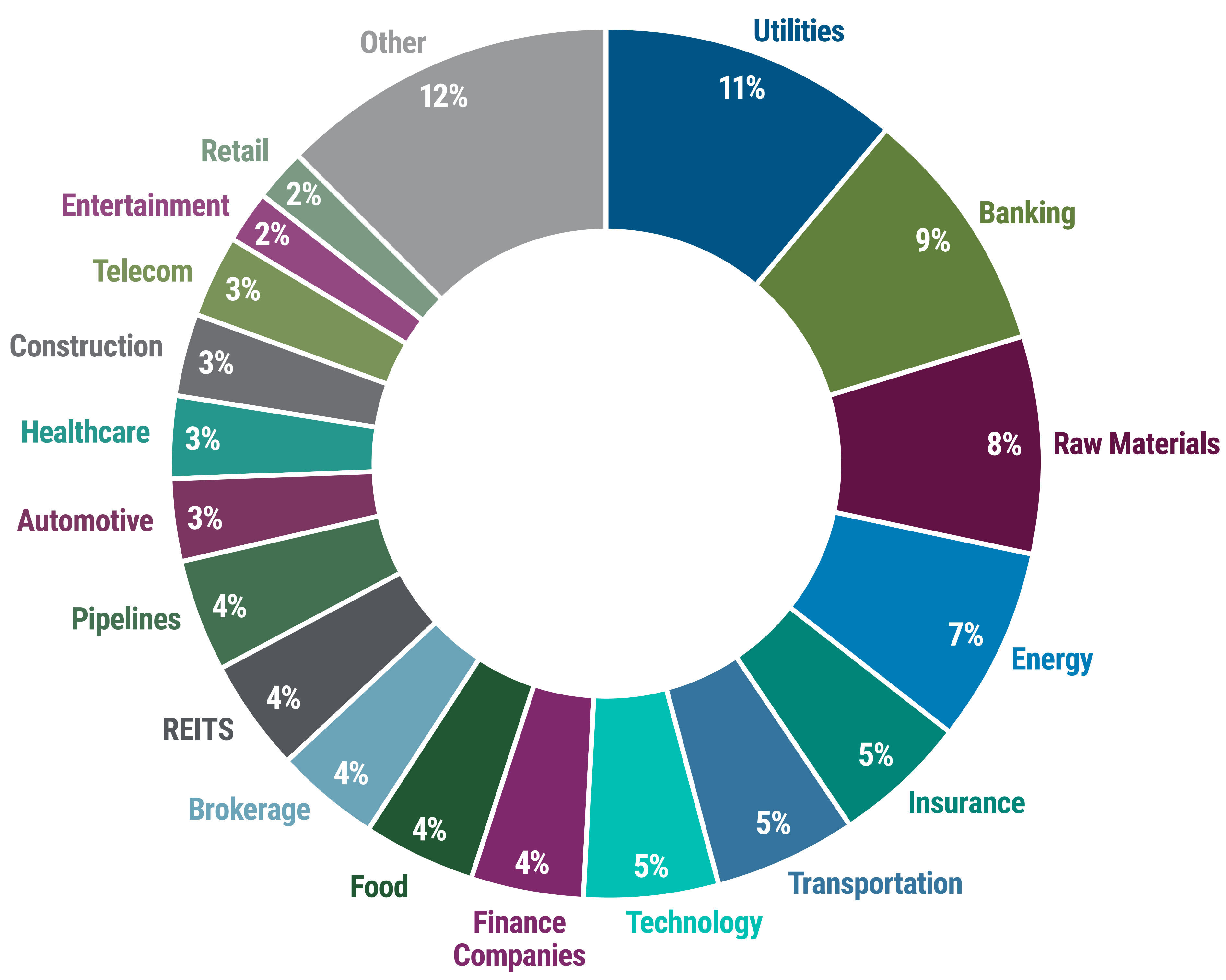
Taking a risk-based approach, effective and timely management of key ESG issues highlights issuers' risk management quality and long-term business resilience. We also acknowledge that the engagement progress may take time to materialize, and aim to monitor and adjust our engagement strategy accordingly over time.

PIMCO'S ENGAGEMENT EFFORT BY THE NUMBERS[11]

Engagement refers to any interaction[12] with issuers in which PIMCO requested details on their business relating to an ESG topic[13] (e.g. climate change/emissions, human capital management, liquidity / leverage targets / balance sheet management, controversies or potential litigation, management changes, improved disclosure, etc.).

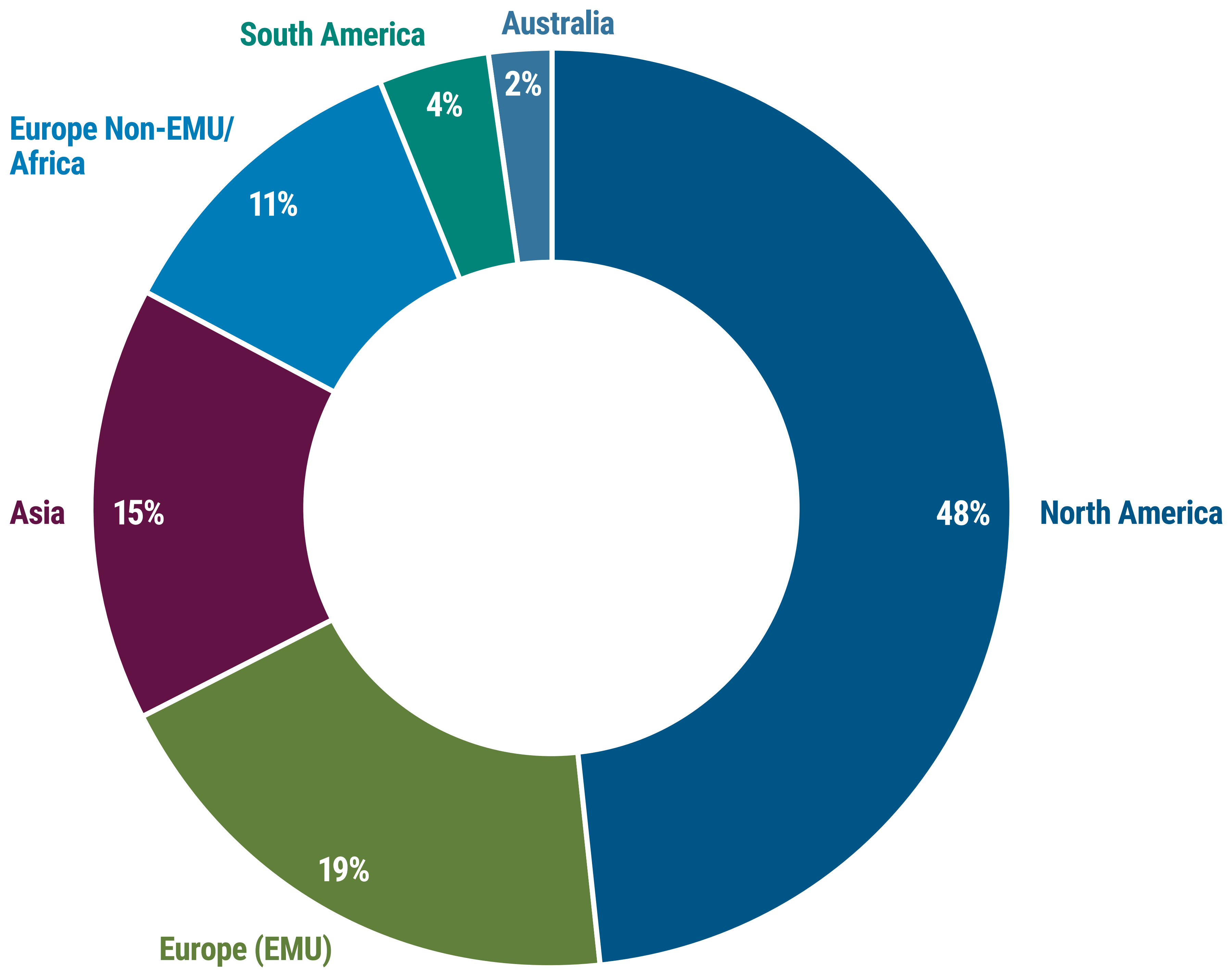
In 2022, PIMCO analysts engaged approximately 1,370 corporate bond issuers[14] across a range of industries and regions on ESG topics; more than 650 of these issuers were engaged, including in-depth discussions and specific recommendations on ESG performance shared by our team. Since 2020, PIMCO has consistently engaged with approximately 80% of our corporate AUM, of which 50% – 60% is covered by in-depth engagement to share our view on best practices and recommendations for improvement.

PIMCO Engaged Corporate Issuers Across All Major Industries



Source: ESG engagement activities by PIMCO analysts, Jan 1-Dec 31, 2022. Other includes manufacturing, media, industrial services, consumer products, consumer services, EM sovereigns, developed sovereigns, municipals, mortgages, and other sectors.

PIMCO Engaged Globally Across Developed and Emerging Markets



Source: ESG engagement activities by PIMCO analysts, Jan 1-Dec 31, 2022

11 Engagement data highlighted in this section refers to activities took place between Jan 1 – Dec 31, 2022 by PIMCO analysts, focusing on corporate holding excluding covered bonds.
12 ESG-related interaction refers to any conversation PIMCO analysts have with issuers including email exchanges, deal or non-deal roadshows, calls or meetings at conferences, bilateral or small group calls or meetings. These interactions do not need to be dedicated to ESG, provided any ESG topics are discussed with the issuers during the interaction.
13 The list of ESG topics are defined in PIMCO's internal ESG Taxonomy, including topics for Environment (e.g. Greenhouse Gas Emissions, Waste), Social (e.g. Human Capital Management, Human and Labor Rights and Health & Safety) and Governance (e.g. Broad, Management and Ownership, Business Ethics, Conduct & Culture).
14 Refers to ultimate parent entities, which year-on-year figures are subject to changes in PIMCO's internal entities mapping.

PIMCO Engaged Corporate Issuers Across a Range of ESG Topics

Source: ESG engagement activities by PIMCO analysts, Jan 1-Dec 31, 2022

Engagement in Action

GOVERNANCE

PACIFIC GAS AND ELECTRIC COMPANY (PG&E)

- **Background:** Climate resilience is one of the most prominent issues faced by the utility sector. Following multiple destructive wildfire seasons since 2018, PG&E suffered significant financial losses, reputational damages, and regulatory action. This led to meaningful wider spreads on PG&E bonds and exclusion from much of the sustainable investment universe as a result of the UN Global Compact "Fail" status issued by MSCI.

- **Engagement:** Together with the PG&E sustainability and climate resilience team, PIMCO worked with PG&E on climate adaptation best practice and continued improvements for climate resilience disclosure and actions.

- **Progress to date:** PG&E has met its climate resilience targets and committed to future multi-year targets, and MSCI removed its 'Fail' status on the issuer in 2022. While the progress aligns with our view on key next steps for improvement, we will continue to monitor uncertainty in the effectiveness and residual risks in PG&E's adaptation measures, given the multi-year horizon and cyclical nature of climate physical risks. We expect on-going conversations with the issuer as the company continues to strengthen climate resilience and rebuild its financial strength and reputation.

GOVERNANCE

U.S. BASED REAL ESTATE INVESTMENT TRUST (REIT)

- **Background:** The company issued a sustainability bond in 2020 with some disclosure practices falling short of market best practices, including second party opinion and indication of impact reporting post issuance. They did not provide any impact report until two years after the issuance. This is misaligned with standard market practice, per International Capital Market Association (ICMA) guidance to publish annually, starting one year after issuance.

- **Engagement:** Given the slightly weaker disclosure at issuance, PIMCO engaged with the company to share our expectations on impact reporting and best practices for ESG bonds more broadly. When they failed to publish any impact reports two years into the three-year maturity, PIMCO reached out to the company about the timeline for the impact report publication and did not receive any expected timeline for the disclosure. We escalated to the company that we would assume the bond program misaligned with ICMA principles in the absence of an update, and highlighted the lack of plan to align its overall environmental disclosure with industry standards including Task Force on Climate-Related Financial Disclosures (TCFD), Carbon Disclosure Project (CDP), Global Reporting Initiative (GRI) or Sustainability Accounting Standards Board (SASB). PIMCO spoke with the company's Treasury team several times to reinforce our recommendations and potential impacts on ESG assessment for the program.

- **Progress to date:** The company published an allocation report and obtained a second-party opinion for the program, including impact metrics, showing some progress in improving disclosure. PIMCO plans to continue engaging the issuer on best practices including more ambitious eligibility criteria and impact metrics.

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ENVIRONMENT

STATE-OWNED OIL & GAS COMPANY IN LATIN AMERICA

- **Background:** PIMCO has engaged the issuer over the years through a collaborative engagement initiative, as well as bilaterally, on topics including methane emissions reduction and climate disclosures.
- **Engagement:** As part of the engagement group, we had in-depth discussions with the company about their role in supporting the country's energy transition while maintaining resilience across various climate scenarios. We highlighted the need for greater transparency in line with TCFD and accelerating reduction of methane emissions through direct measurement. In the past two years, the company has made considerable progress in climate disclosure on Scope 3 emissions, scenario analysis methodology and findings, and capital expenditure (CAPEX) for low-carbon business, etc.
- **Progress to date:** By joining the Oil and Gas Methane partnership 2.0 (OGMP) in 2023, the company is also relatively advanced compared to peers. Building on the progress made to date, PIMCO will continue to encourage the company to further align its methane effort with best practices and address other areas of their climate strategy, including climate physical risks, credible transition plan, just transition, etc.

ENVIRONMENT

US OIL & GAS E&P AND MIDSTREAM COMPANIES

- **Background:** Methane emissions from oil and gas production contribute significantly to global warming, but could be reduced in cost-effective ways, potentially helping to mitigate a considerable transition risk. PIMCO has engaged dozens of companies on the need to reduce methane emissions; according to the International Energy Agency[15], around 40% of these emissions could be avoided at no net cost[16]. Reducing emissions could also help operators remain competitive against tightening regulatory regimes outside the U.S.
- **Engagement:** PIMCO has been engaging extensively with 50+ U.S. energy companies on their approach to methane emissions abatement. We have discussed setting aggressive targets, documenting emissions abatement performance, measurement-based emissions reporting (including direct and indirect emissions along the value chain), and adopting industry-leading standards for disclosure. Nearly all companies acknowledged the importance and benefits of better methane management and are assessing next steps following our discussions. Specifically, we have asked each of these companies to consider joining the Oil and Gas Methane Partnership 2.0 (OGMP), which we view as a highly credible and comprehensive measurement framework created by an independent third-party to ensure accurate measurement of methane emissions and reduction progress.
- **Progress to date:** Since our engagements EOG Resources, Occidental Petroleum, ConocoPhillips, Williams, Pioneer Natural Resources, and Cheniere Energy have all joined OGMP 2.0, and have committed to achieving the "Gold Standard" of emissions measurement and disclosure.

15 As of 31 December 2022. Research conducted in 2020 and the engagements are ongoing to date.

16 Sources: International Energy Agency, "Methane Tracker 2020": www.iea.org/reports/methane-tracker-2020. Ilissa B. Ocko et al., "Acting rapidly to deploy readily available methane mitigation measures by sector can immediately slow global warming" (Environmental Research Letters, Institute of Physics, May 2021): iopscience.iop.org/article/10.1088/1748-9326/abf9c8

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ENVIRONMENT

VOLUMETRIC BUILDING COMPANY

- **Background:** Volumetric Building Company (VBC) is a vertically integrated modular design, manufacturing, and construction company. A core part of VBC's value proposition is the sustainability profile of its business model, however, data regarding the environmental performance of both its construction and completed assets had not been formally quantified. Market expectations for sustainability or ESG-themed investments include quantitative environmental and social data points.

- **Engagement:** Working with VBC's senior leaders, PIMCO discussed and provided guidance on sustainability priorities that are most immediately material. Our discussions included undertaking a Life Cycle Assessment by an external consultant, hiring of personnel, and improvements for climate risk disclosure.

- **Progress to date:** A "whole life embodied carbon" (total carbon emission analysis throughout a built assets lifespan) was conducted in the form of a Life Cycle Assessment on a building recently constructed by VBC. This project was the best predictor for the company's product as it used standardized componentry leveraged across most VBC projects. The results demonstrated significant carbon reductions vs. other construction methods (61% – 65% vs. U.S. benchmarks from a whole life carbon perspective)[17] – a key value proposition for the company. The results also confirmed additional opportunities for VBC to reduce the embodied carbon of their products, which are estimated to provide additional input and transportation cost savings. VBC is currently undergoing an audit of all facility operations, supply chain environmental product declarations (EPDs), and alternative building product standards to further reduce emissions on future projects.

17 Source: PIMCO internal materials, as of 31 December 2022.

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SOCIAL

SANTANDER USA

- **Background:** PIMCO has a long track record of engagement with Santander entities on ESG topics and has provided detailed feedback on the framework for its inaugural sustainability bond from its U.S. entity (SANUSA).
- **Engagement:** PIMCO discussed the structure of the bond with Santander, including the appropriateness of including subprime auto loans. Eligible Projects in its sustainability bond use of proceeds (UoP) also highlighted PIMCO's best practice guidance for sustainable bond issuance, including the importance of alignment to the UN adopted Sustainable Development Goals (SDGs). In addition, we provided feedback on the impact metrics for Affordable Housing and Clean Transportation.
- **Progress to date:** The company issued a sustainability bond in September 2022 with the use of proceeds, targeting primarily net new lending for electric vehicles (EVs) and EV infrastructure. The bank pledged to allocate only prime-rate loans to the UoP and will track EV lending across Fair Isaac Corporation (FICO) groups. We plan to monitor progress on the use of proceeds and the funded projects, as well as the company's impact disclosures and any additional ESG-labeled bond issuances.

SOCIAL

EMERGING MARKET SOVEREIGN

- **Background:** PIMCO regularly engages with the issuer on its coal phase-out and just transition plans which focus on the shift of economies toward sustainable production in terms of social equality and justice, in addition to climate mitigation efforts, deforestation, and addressing market noise on a potentially controversial labor law.
- **Engagement:** Our team discussed the government's plan and challenges for their coal phase-out program and the need for both public and private sector coordination given the legal nature of new coal contracts. While the government highlighted the collaboration with national oil companies to align their climate strategy with the country's nationally determined contribution to the Paris Agreement, PIMCO encouraged the issuer to consider providing more transparency on this work and on implementing a joint mechanism on climate mitigation. Regarding deforestation, we discussed the steps the government is taking to fill some of the policy implementation gaps via government taxes and levies, and emissions trading system (ETS). We covered their just transition plan and main components, such as power sector emissions peak by 2030, sector emissions caps and accelerated deployment of renewables. We also discussed next steps in advancing a commitment to creating quality jobs and protecting livelihoods and communities with the help of international cooperation.
- **Progress to date:** PIMCO mentioned some concerns on possible environmental deregulation and softening of worker protection measures that stemmed from a recent policy proposal, despite government intention to strengthen environmental standards and law enforcement with the proposed legislation. We plan to continue conversations with the issuer as part of regular country due diligence and engagement efforts on material ESG topics and labeled bonds issuance.

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FOCUS FEATURES

Human Rights

All individuals are entitled to basic rights and freedoms such as fair and decent working conditions, freedom from discrimination and slavery, right to privacy, right to health, etc[18]. As an investor, we share responsibility, where appropriate, to recognize and address any potential human rights violations through our investments[19]. From a materiality perspective, an issuer's resilience against future business disruptions is dependent on its thorough oversight and agile remediation of emerging risks and disputes. These disruptions can weaken financial performance, and create suboptimal workforce productivity, operation and supply chain disruptions, reputational damage, and litigation costs.

This is particularly important for human rights issues that are often concentrated in the supply chain, where timely and credible investigation and action may be more challenging than other concerns arising in the issuer's operations. While some high-risk sectors may be subject to ongoing risk exposure due to the nature of their business, we see issuers with solid human rights risk management addressing disputes as they emerge, and helping to mitigate financial implications and impact on affected parties.

Human rights is an area with significant room for improvement, especially in high-risk sectors[20]. Issuers also tend to focus on specific segment(s) of their value chain or selected topic(s) of human rights, rather than taking a holistic approach to manage salient risks. In addition to leveraging external research and data to inform our human rights due diligence on issuers, we believe engagement is a critical way for us to apply context-specific considerations when evaluating effort, progress and constraints for these risks.

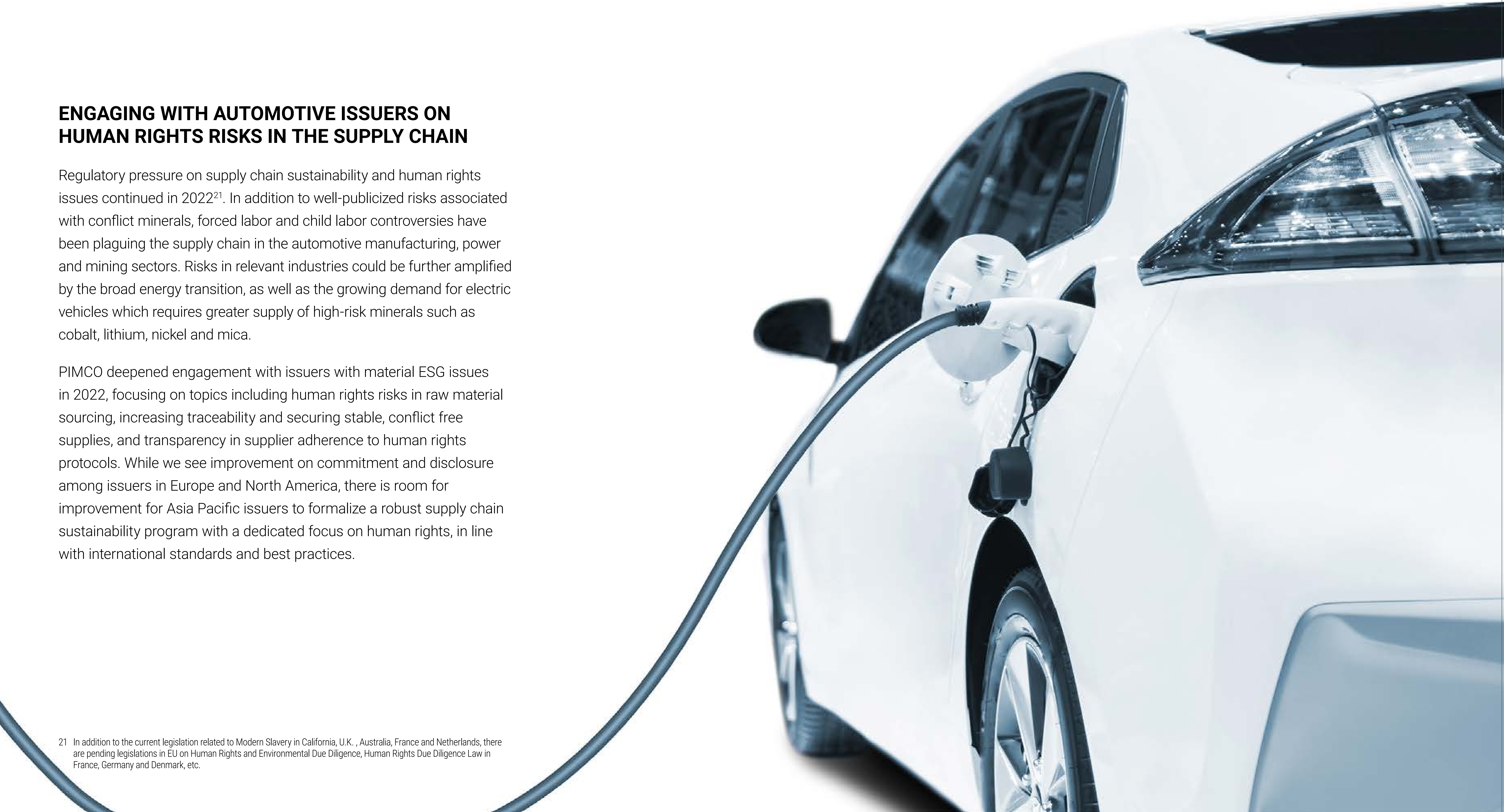
One of the prominent themes of our human rights engagement is on responsible sourcing, including but not limited to responsible minerals, forced labor, working conditions, etc. We discussed best practices with issuers in high-risk sectors, stressing the importance of committing to key international principles on human rights, robust due diligence processes, disclosure on the process and findings of a grievance mechanism (including both in operation and supply chain), regular third-party audits in conjunction with issuer's own investigation on supplier's performance or controversy, clear and time-bound processes to handle supplier's non-compliance to human rights obligations, etc.

18 Universal Declaration of Human Rights: www.un.org/sites/un2.un.org/files/2021/03/udhr.pdf
19 United National Guiding Principles on Business and Human Rights: www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf
20 For example, only one company score >50% in the World Benchmarking Alliance Corporate Human Rights Benchmark (WBA CHRB) 2022 while majority (64%) of the companies in scope are scored 20% or lower. WBA CHRB covers automotive manufacturing, food and agricultural products and ICT manufacturing as high-risk sectors. www.worldbenchmarkingalliance.org/publication/chrb/rankings/

ENGAGING WITH AUTOMOTIVE ISSUERS ON HUMAN RIGHTS RISKS IN THE SUPPLY CHAIN

Regulatory pressure on supply chain sustainability and human rights issues continued in 2022[21]. In addition to well-publicized risks associated with conflict minerals, forced labor and child labor controversies have been plaguing the supply chain in the automotive manufacturing, power and mining sectors. Risks in relevant industries could be further amplified by the broad energy transition, as well as the growing demand for electric vehicles which requires greater supply of high-risk minerals such as cobalt, lithium, nickel and mica.

PIMCO deepened engagement with issuers with material ESG issues in 2022, focusing on topics including human rights risks in raw material sourcing, increasing traceability and securing stable, conflict free supplies, and transparency in supplier adherence to human rights protocols. While we see improvement on commitment and disclosure among issuers in Europe and North America, there is room for improvement for Asia Pacific issuers to formalize a robust supply chain sustainability program with a dedicated focus on human rights, in line with international standards and best practices.



21 In addition to the current legislation related to Modern Slavery in California, U.K. , Australia, France and Netherlands, there are pending legislations in EU on Human Rights and Environmental Due Diligence, Human Rights Due Diligence Law in France, Germany and Denmark, etc.

PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI) ADVANCE: PIMCO'S COLLABORATIVE ENGAGEMENT ON HUMAN RIGHTS

In 2022, PIMCO joined the advisory committee and engagement groups of Advance, a new stewardship initiative launched by the PRI. Active participation in this initiative helps us highlight the relevance of human rights risks to issuers. It may also enable us to amplify our human rights risk management where our influence over issuers may be less than ideal. Our goal is to deepen engagement efforts under the social pillar, and to some extent governance, and balance those efforts alongside climate and the environment.

Key engagement priorities of the Advance initiative includes:

- Implementation of the United Nations Guiding Principles on Business and Human Rights (UNGPs) – a universal framework of corporate conduct on human rights
- Alignment of corporate political engagement with their responsibility to respect human rights
- Increased progress on the most severe human rights issues within their operations and externally across their value chains[22]

While Advance currently prioritizes the mining and renewable resources sectors, PIMCO can leverage expertise gleaned from thousands of previous corporate engagements. Importantly, we may apply that expertise to upcoming engagements in other sectors that also face human rights-related risks.

22 www.unpri.org/investment-tools/stewardship/advance/engagement-approach

Human Capital

A resilient and productive workforce can indicate a long-term sustainable growth strategy. Companies with robust recruitment and retention programs may help improve our confidence to make longer-term investments. Further, workforce mismanagement can negatively affect our view of a company's growth projections.

As a fiduciary, PIMCO can engage with a company's human capital management capacities to gain insight into their ability to attract and retain their workforce. In our ESG assessments of a company, we may consider factors related to cost and composition, talent attraction, retention, and promotion. We also consider quality of work factors that may impact both employee turnover and legal liabilities.

Mismanagement of human capital risk can have material implications. Research shows that high employee turnover can create substantial expense[23]. Recruiting and onboarding new hires can be quite costly and time-intensive. When experts depart a firm for one of its competitors, it can detract from both productivity and employee morale. For businesses that rely on a large and/or specialized workforce, labor shortfalls from mass employee turnover events (including layoffs and M&A activity) may increase cost overruns from productivity shortfalls.

In addition to competitive wages and benefits, there may be other reasons employees leave, such as insufficient occupational health and safety controls, or a culture of harassment, retaliation and intimidation. Inattention to "quality of job" issues including hard labor parameters, shift scheduling protocols, and structures that enable a negative or dangerous work culture, may also impact the extent to which workers organize or even strike.

Alternatively, a management team that prioritizes their workforce among stakeholders, may see less attrition in a tight labor market, increases to productivity and a positive view from the market that short-midterm risks are appropriately managed.

Talent attraction and retention policies vary in materiality by both sector and corporate strategy. Interest in human capital management has grown in the last few years. There has been a rise in shareholder resolutions regarding civil rights and racial equity audits, and in proposals asking for greater transparency[24]. Companies are now conducting these assessments and publishing their Employment Information Report (EEO-1) disclosures on their websites, thanks in part to investor engagement[25]. We focus our engagement and analysis on a company's approach to hiring, training and development. We target the disclosure of data that could signal the efficacy of policy implementation. Depending on the country in which a company operates, various diversity, equity, and inclusion themes can feature prominently in an analysis. We particularly focus on how these efforts pertain to liabilities, headline risks, talent retention, and pay equity.

23 BofA Equity & Quant Research "Follow the numbers, not the naysayers", September 19, 2022
24 www.conference-board.org/topics/shareholder-voting/trends-2022-brief-2-human-capital-management-social-proposals)
25 www.gibsondunn.com/evolving-human-capital-disclosures/

ENGAGING ON WORKFORCE CONSIDERATIONS IN THE U.S.

While COVID and its aftermath have presented some idiosyncratic labor issues in the U.S., there are both chronic and acute challenges that have long faced the country's workforce and employers. In our U.S. engagements, we have prioritized companies with large hourly employee bases, and opportunities to foster inclusion and diversity. Sector priorities have included consumer discretionary sub-sectors (such as retail and restaurant franchises), consumer staples sub-sectors (food and personal products producers), and IT subsectors (e-commerce and telecommunications).

Our engagements with financial services and healthcare sectors have included a focus on various diversity and inclusion themes. These themes not only affect the workforce, but also the development of and access to products and services. Engagements center on the extent to which certain products and services, hiring practices, and/or workforce policies and processes are in place to mitigate the risk of liabilities related to discrimination.

IMPROVING "QUALITY OF WORK" ISSUES MAY STRENGTHEN TALENT MANAGEMENT PROGRAMS AND MITIGATE COLLECTIVE BARGAINING RISKS

Labor shortages in the U.S. can be exacerbated by a shortage of people willing to work difficult or dangerous jobs for relatively low pay and minimal benefits[26]. The confluence of inflation out-pacing incremental wage increases (often from an already low base), longer required hours, inconsistent shift scheduling practices, and potentially difficult conditions, has placed additional pressure on the workforce. Unsurprisingly, 2021 and 2022 had a spike in employee unionization efforts across sectors[27].

Given the prevalence of these dynamics, our discussions have centered on the ways in which companies have responded to demands from their workforce. While PIMCO believes it is the responsibility of management and workers to determine which collective bargaining arrangements work best for their company, it remains illegal for employers to interfere with, or retaliate against, employees seeking to organize[28].

While some companies have adopted policies that guard against retaliation and allow for freedom of association, recent anti-union efforts have conversely resulted in shareholder resolutions alleging breaches of company policy.

As a result of numerous headlines alleging these claims in 2022, our approach to engagement is to broaden the talent retention discussion to include supplemental or "quality of work" benefits that employers may consider. The goal of these engagements is to help improve a company's relationship with its stakeholders and encourage thoughtful approaches that may mitigate the risk of negative headlines, high employee turnover, and work stoppages.

26 www.bls.gov/charts/employment-situation/civilian-labor-force-participation-rate.htm
27 www.epi.org/publication/unionization-2022/
28 www.nlrb.gov/about-nlrb/rights-we-protect/the-law/interfering-with-employee-rights-section-7-8a1#:~:text=It%20is%20unlawful%20for%20an,they%20forget%20about%20the%20union.

Natural Capital

NATURE IS EXPANDING IN PROMINENCE FOR SUSTAINABILITY FOCUSED INVESTORS

Natural Capital – such as air, water resources, soils, raw materials, wildlife, biodiversity and the oceans – is entrenched across almost all aspects of the economy. Companies, consumers, and governments alike all make use of and interact with nature. Similar to negative trends for climate change, Natural Capital is at risk of depletion over the long run. Given the close link between nature and economic stability, investors and the international agenda have increased efforts to assess, mitigate and/or adapt to nature-related risks.

For the past several years, PIMCO has deepened its research and engagement with corporate issuers on natural capital as part of our ESG Assessment and Environmental Risk Framework. For example, in 2021, PIMCO engaged with banks on deforestation and land degradation as part of their climate-oriented commitments. In addition, recent updates to our sectorial ESG investment strategy took into account more detailed data on topics including soft commodities[29] supply chain analysis of traceability and certification commitments, circular economy[30] practices, and policies toward water use.

29 Soft commodities generally refers to commodities that are grown, rather than extracted such as metals and fossil fuels, and include coffee, palm oil, wheat, soy, etc. Palm oil, soy and beef are soft commodities that are grown or produced in the tropics on a large scale and are therefore major drivers of deforestation and forest degradation' (Source: United Nations Environment Programme).

30 The circular economy tackles climate change and other global challenges like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources. The circular economy is based on three principles, driven by design: eliminate waste and pollution, circulate products and materials (at their highest value), and regenerate nature (source: Ellen MacArthur Foundation).

More recently, PIMCO has formalized its Natural Capital Framework, following developments. These include:

- COP15's Kunming-Montreal Global Biodiversity Framework
- Guidance established by the Taskforce on Nature-related Financial Disclosures (TNFD)
- Targets related to Natural Capital set by Science Based Targets Network's (SBTN)

The framework builds on proprietary tools and resources to help further integrate these issues into our investment process. This is supported by nature-related assessments to identify risks and opportunities from impacts (such as externalities or damages to natural capital) to dependencies (such as heavy reliance on natural capital).

- **Risks:** Heavy reliance on natural capital, typically not reported in corporate financial statements, can adversely affect businesses if depleted, resulting in physical risks; businesses with high impacts to natural capital might face stricter regulation causing transition risks.
- **Opportunities:** Increased data availability across supply chains provides more visibility per geography/location; differentiation across issuers' sustainability strategies; and better risk assessment.

The table below illustrates our proprietary Natural Capital scoring methodology which examines sectors in the Bloomberg Global Aggregate Credit Index.

Our score is comprised of both impacts and dependencies on nature. For impacts, we score sectors under the five direct drivers of biodiversity loss identified by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). For dependencies, we follow ENCORE's (the UN's Exploring Natural Capital Opportunities, Risks and Exposure tool), looking at ecosystem services and grouping them by the four functions they provide. To complement the sectorial analysis, we incorporate company-level data and engagement to differentiate across leaders, improvers, and laggards. Ultimately, the goal is to leverage this framework and score as part our ESG assessments, and to inform our investment process.

	Bloomberg Global Aggregate Credit Index											
	Impacts						Dependencies					NatCap
PIMCO Sectors	Land/Water/Sea Use Change	Resource Exploitation	Climate Change	Pollution	Invasives and Other	Score	Direct Physical Input	Enables Production Process	Mitigates Direct Impacts	Protection from Disruption	Score	Score
Banking												
Utilities												
Food												
Automotive												
Total												

As of 31 December, 2022. Source: ENCORE, Science Based Targets Network, PIMCO.

Green indicates minimal impact and dependency, while red implies a high potential impact and dependency.

The underlying data builds on a SBTN materiality tool, which relies on the ENCORE database for direct impact of operations, and on EXIOBASE to derive upstream impact ratings. For dependencies, we incorporate the ENCORE dependency ratings. The sectorial scores do not include downstream ratings. The overall impacts and dependencies scores at sector level are based on the average of their respective thematic pillars scores. The natural capital score is then based on both impacts and dependencies scores. The portfolio level score is a weighted average of the company scores.

Carbon Analytics

We expect two climate-related themes to gain momentum: 1) the recognition that there is no real-economy decarbonization without attribution (i.e., the importance of identifying the drivers for changes in portfolio carbon footprint over time); and 2) the growing focus on Green Capex and Forward-Looking Climate Performance.

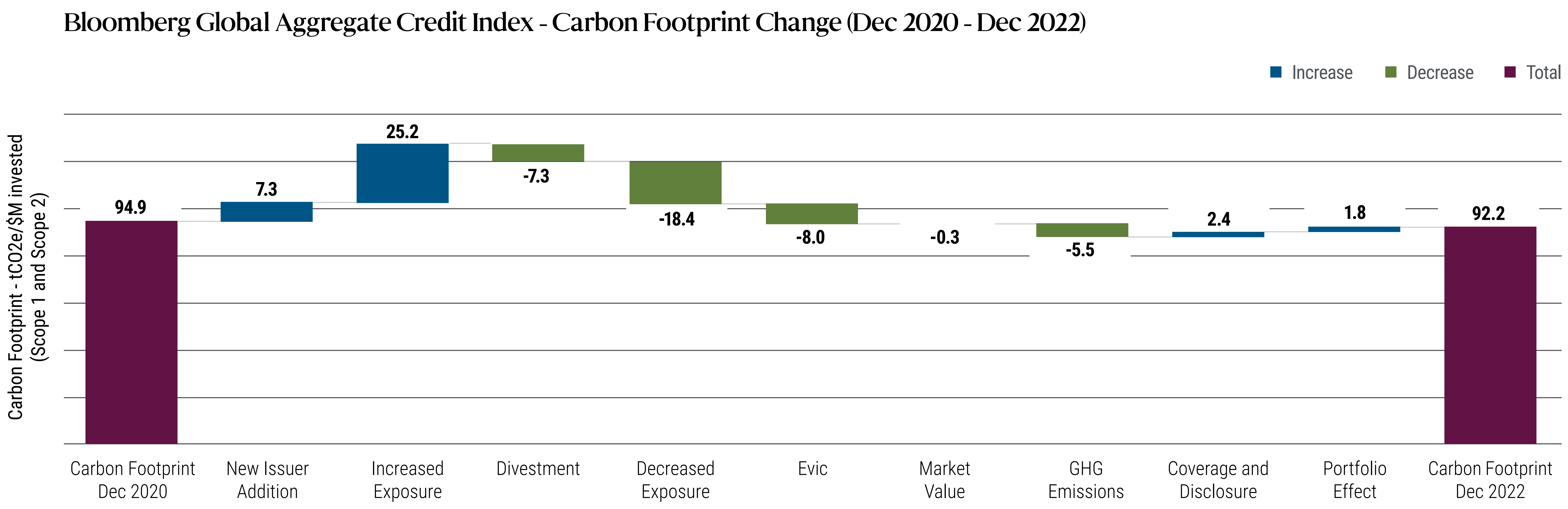
PIMCO is committed to providing the best advice and solutions for clients on a range of sustainability issues, including climate change. We are keenly aware of the market and societal trends that are reshaping what it means to manage a global sustainable business in the 21st century – and believe strongly in science-based evidence and scenarios. With this in mind, PIMCO has developed a framework[31] for interested investors seeking to target long-term decarbonization in their portfolios.

This framework is supported by carbon-emission data covering corporate issuers. One overarching challenge has been the lack of data or standard to quantify whether portfolio decarbonization is linked to actual greenhouse gas emission reductions in the real economy. This is important, especially against a backdrop of heightened scrutiny over the implementation of climate commitments, and mounting questions about whether these commitments actually lead to positive environmental outcomes.

31 The insights piece summarizes our four-pillar framework to help investors target long-term objectives to reduce portfolio exposure to greenhouse gases, including challenges and considerations.

In response to concerns about the reliability of data, PIMCO has developed a proprietary carbon attribution tool. The tool measures and reports the contribution of different factors to carbon emissions across different corporate issuers in a portfolio. We then measure the emission data against a broad benchmark and across time periods.

For example, the slight decrease in the carbon footprint[32] of the Bloomberg Global Aggregate Credit Index between December 2020 and December 2022 (shown in the chart below) was mainly driven by changes in its exposure to certain issuers, while the greenhouse gas emissions reductions of issuers only marginally contributed to the change evaluated over this period[33]. This tool can help make more informed decisions regarding the most effective levers to decarbonize a portfolio's emissions while encouraging actual emissions reduction from issuers.



Source: PIMCO, MSCI. As of 31 December 2022.

Source: PIMCO, MSCI. As of 31 December 2022.

32 Absolute corporate greenhouse gas emissions attributed to the portfolio or benchmark divided by the market value, expressed as tCO2e/$M invested (Scope 1 and Scope 2). Scope 1 refer to direct emissions from owned or controlled sources. Scope 2 refers to indirect emissions from the generation of purchased energy.

33 The factors displayed on this chart include: increased or decreased exposure (changes in the weights to existing positions), new issuer addition or divestment (changes in the universe or positions held in the portfolio), changes to issuer's enterprise value including cash (EVIC), the market value of the portfolio, greenhouse gases (GHG) emissions and data coverage. Portfolio effect refers to the residual part of the decomposition due to data limitations and the interaction between factors.

GREEN CAPEX AND FORWARD-LOOKING CLIMATE PERFORMANCE

The energy shock that unfolded over the course of 2022 led to a policy response, especially fiscal, that should help accelerate the energy transition and result in a growth in issuers' capital expenses for environmentally sustainable projects.

Two prominent policy drivers are the U.S. Inflation Reduction Act (IRA) and EU Green Deal Industrial Plan (GDIP). These two laws are expected to drive investments across the value chain into low-carbon technologies, including renewable energy, electric vehicles, and technological advancements in hydrogen production – or green hydrogen. In parallel, certain jurisdictions have continued to develop frameworks and initiatives to support green bonds and increase reporting requirements concerning climate factors. These include the exposure to "climate solutions" via revenues, capital expenditures or operating expenditures, notably the EU taxonomy for sustainable activities[34]. Greater disclosure from issuers can help inform our forward looking analysis of an issuer's exposure to carbon risks, general increase in the climate performance of the issuers most committed to transition, and likely continued growth in green bond issuance due to the inherent alignment between the instrument and these objectives.

34 The EU taxonomy is a classification system, establishing a list of environmentally sustainable economic activities.

CLIMATE REPORTING CAPABILITIES

For a more detailed update on our approach to climate risks, net zero, and disclosure based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), please see PIMCO's ESG Investing Report 2021. We have continued to refine and expand our carbon measurement, data reporting and portfolio optimization capabilities based on guidance from ESG-focused financial institutions, such as the Partnership for Carbon Accounting Financials (PCAF), and the Science-Based Target initiative (SBTi). Our reporting tools cover an ever-broader range of perspectives (e.g. financed emissions, portfolio alignment, climate solutions, or the exposure to both transition and physical risks), assets classes (e.g. we updated the methodology for sovereign debt) and instrument types (e.g. green and sustainability bonds). This allows our clients to understand key climate and carbon metrics in their portfolios.

Appendix

PIMCO PARTNERSHIPS

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

Industry Affiliations	Overview
Access to Nutrition Initiative (ATNI) Signatory	• Collaborating with investors, academics, non-profits, and foundations across the globe, ATNI establishes partnerships with organizations committed to solving the world's nutrition challenge, specifically working with food and beverage companies to improve their business practices.
Bank of England Climate Financial Risk Forum (CFRF) Member	• Aims to build capacity and share best practice across industry and financial regulators to advance the 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 includes observers from trade bodies to represent a broader range of firms to ensure the outputs of the CFRF are communicated to their members.
Carbon Disclosure Project (CDP) Signatory	• Backed by approximately 680 investors totaling over $130 trillion in assets, CDP runs the disclosure system for stakeholders across the globe to manage the environmental impact of greenhouse gas emissions.
Climate Bonds Initiative (CBI) 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.
FSB's Task Force for Climate Related Financial Disclosures (TCFD) Supporter	• TCFD has created a set of voluntary recommendations for better climate-related financial disclosures. • Its goal is to help firms understand what investors demand from disclosures in order to measure and respond to climate risks, and encourage firms to align their disclosures with investors' needs.
Global Investors for Sustainable Development Alliance (GISD) Member	• PIMCO is one of only 30 members of the UN Secretary-General's GISD Alliance, which focuses on accelerating investment into sustainable development. In partnership with investors, governments, and multilateral institutions, GISD will drive investment towards achieving the UN's Sustainable Development Goals.
International Capital Markets Association (ICMA) Principles Executive Committee Member	• ICMA promotes the development of appropriate, broadly accepted guidelines, rules, recommendations, and standard documentation to maintain and enhance the framework of cross-border issuing, trading, and investing in debt securities. • The executive committee is responsible for the management and administration, which includes addressing all matters relating to the ICMA's Principles: the Green Bond Principles (GBP), Social Bond Principles (SBP), and Sustainability Bond Guidelines (SBG).
Investor Group on Climate Change (IGCC) Member	• Collaboration of Australian and New Zealand investors focused on the impact of climate change on investments. • Represents investors with total funds under management of over $3 trillion in Australia and New Zealand and $30 trillion around the world. IGCC members cover over 7.5 million people in Australia and New Zealand.
ISSB Investor Advisory Group (IIAG) Founding Member	• Under the umbrella of the Value Reporting Framework, IIAG comprises asset owners and managers who recognize the need for consistent, comparable, and reliable disclosure of ESG information. The group participates in the ongoing standards development process and encourages companies to participate in the development process.

Industry Affiliations	Overview
Institutional Investors Group on Climate Change (IIGCC) Member	• IIGC is a leading investor coalition on climate change, with more than 350 members across 23 countries, and over €50 trillion in assets. • The group drives investor collaboration on climate change and takes action for a prosperous, low carbon future.
One Planet Asset Management (OPAM) Initiative Member	• Initiative created following the 2015 Paris Agreement in order to 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.
The Partnership for Carbon Accounting Financials (PCAF) Signatory	• PCAF is a global partnership of financial institutions working together to enable transparency and accountability by developing an open-source Global GHG Accounting and Reporting Standard for the financial industry. • This harmonized accounting approach provides financial institutions with the starting point required to set science-based targets and align their portfolio with the Paris Climate Agreement.
Principles for Responsible Investment (PRI) Signatory	• The UN-supported Principles for Responsible Investment (PRI) is the world's largest investor initiative focusing on integrating ESG factors into the investment processes. • PIMCO is an active signatory of the PRI and engages in several work streams, including: Chair of the **PRI Sustainable Development Goals Advisory Committee (SDG)** Member of the **Advance Initiative's Advisory Committee**, engaging companies to strengthen commitment, due diligence and remediation of human rights issues.
UN Global Compact (UNGC) Member	• This is a principles-based framework for businesses aimed at advancing sustainable and responsible policies and practices. • PIMCO supports the Ten Principles of the UN Global Compact with respect to human rights, labor, environment, and anti-corruption – and is committed to incorporating these principles into our strategy, culture, and day-to-day operations. • PIMCO co-chairs the UN Global Compact's **CFO Coalition**, which is an effort to create a movement of chief financial officers to address SDG investment and financing.

As of 31 December 2022.

ADDITIONAL RESOURCES

RELATED DOCUMENTS

- Sustainable Investment Policy Statement
- Guidance for Sustainable Bond Issuance – Corporate
- Guidance for Sustainable Bond Issuance – Sovereign

EDUCATION

- Understanding Green, Social and Sustainability Bonds

PIMCO

The information contained herein is as of December 31, 2022 unless otherwise noted.

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.

Environmental ("E") factors can include matters such as climate change, pollution, waste, and how an issuer protects and/or conserves natural resources. Social ("S") factors can include how an issuer manages its relationships with individuals, such as its employees, stakeholders, customers and its community. Governance ("G") factors can include how an issuer operates, such as its leadership, pay and incentive structures, internal controls, and the rights of equity and debt holders.

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 Sustainable Investment Policy Statement.

With respect to comingled funds with sustainability objectives ("ESG-dedicated funds"), we have built on PIMCO's over 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'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 issuer score.

PIMCO's credit research analysts also assess green, social, sustainability, and sustainability-linked bonds (collectively "ESG bonds") at an issuance level, including prior to and after issuance. Utilizing PIMCO's proprietary ESG Bond Framework assessment, credit analysts evaluate such instruments starting with the strategic fit, assessing the alignment of the issuers' ESG-related strategies with the bond's objectives and use of proceeds, key performance indicators (KPIs), and the evidence of significant positive impact of the activities compared to "business as usual". We continuously screen for "red flags" and controversies through this process and also assess the degree of reporting by the issuer to analyze misalignment with key market standards, such as the Green Bond Principles. These factors result in a proprietary ESG bond score ranging from 1 to 5 (with 5 being the highest). PIMCO does not score all ESG bonds. Unassessed ESG bonds receive a default score of 3. ESG bonds holdings in PIMCO portfolios are then assigned a score that combines the issuer's ESG score and the ESG bond score. Specifically, an ESG bond holding receives the ESG issuer score plus an adjustment ranging from 0 up to 1.0 point, depending on the type of ESG bond (use of proceeds or sustainability-linked) and the quality of the ESG bond according to PIMCO's proprietary assessment. Holdings of securitized ESG bond issuances (asset-backed securities, collateralized loan obligations, collateralized mortgage obligations, collateralized debt obligations, and mortgage pass through securities) receive the ESG issuer score and are not adjusted.

We use 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. Outlook and strategies are subject to change without notice. Investors should consult their investment professional prior to making an investment decision.

The issuers referenced are examples of issuers PIMCO considers to be well known and that may fall into the stated sectors. References to specific issuers are not intended and should not be interpreted as recommendations to purchase, sell or hold securities of those issuers. PIMCO products and strategies may or may not include the securities of the issuers referenced and, if such securities are included, no representation is being made that such securities will continue to be included.

It is not possible to invest directly in an unmanaged index. This material contains the current opinions of the manager and such opinions are subject to change without notice. This material is distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. Information contained herein has been obtained from sources believed to be reliable, but not guaranteed.