Vanguard

Vanguard Asset Management, Limited

The UK Stewardship Code 2020 Report

(for the 12 months ended 31 December 2022)

April 2023

The UK Stewardship Code 2020 Report

Introduction

At Vanguard Asset Management, we were pleased to maintain our signatory status to the UK Stewardship Code in September 2022 following our second submission. The UK Stewardship Code is widely recognised as the best-practice benchmark for investment stewardship practices and reporting. We support the Financial Reporting Council's drive to improve disclosures of stewardship activities and outcomes to demonstrate the role of investors as responsible stewards of the assets entrusted to them. As an investor-owned asset management firm, our interests are directly aligned with helping the tens of millions of individual investors who have chosen to invest in Vanguard funds to generate long-term value and achieve their financial goals.

We present how we continued to progress in our stewardship practices and our signatory responsibilities during 2022 in the context of a challenging global macroeconomic environment which has included rising inflation, supply chain disruptions, tight labour markets, the war in Ukraine and the lasting effects of the COVID-19 pandemic. Throughout, Vanguard has remained focused on maximising long-term shareholder value to give investors the best chance for investment success.

Our investors have chosen to invest the majority of their assets in broadly diversified index funds, which, by design, buy and hold companies for as long as they are included in the benchmark index. On behalf of Vanguard-advised funds, including equity index funds and ETFs, Vanguard's Investment Stewardship team promotes long-term shareholder value through engagement, proxy voting and sharing our perspectives on best governance practices. Over the past year we have built on the investments made to our stewardship programme. Team members supporting Investment Stewardship's internal policy and research function continued to deepen our global perspectives on key governance topics, and our growing team in London now includes data, operations and controls analysts, enabling more region-focused reporting to the team's engagement and voting personnel.

Direct portfolio company engagements remain a hallmark of our Investment Stewardship programme. We believe that well-governed companies will produce higher value for shareholders over the long term. Our Investment Stewardship team engages with portfolio company boards and leaders to share our perspectives on best corporate governance practices we associate with long-term shareholder value and to understand how boards disclose, address and oversee material risks, including environmental, social and governance (ESG) risks. In 2022, we engaged with more than 1,300 portfolio companies in 34 markets around the world. Our conversations spanned a range of corporate governance topics including climate risk, executive remuneration and risks associated with diversity, equity and inclusion. Members of the Investment Stewardship team also identified opportunities to participate in advocacy activities in key markets that align with Vanguard's objective of safeguarding long-term shareholder value. I invite you to read more about these activities on page 57 of this report.

We believe in investor choice. Vanguard is committed to providing investors with the information and products they need to make sound investment choices that enable them to meet their financial goals and reflect their personal preferences. At Vanguard, we are focused on maximising long-term shareholder value to give investors the best chance for investment success. We do not seek to dictate company strategy or day-to-day operations.

Vanguard strives to maintain high standards of investment stewardship, and in every instance, we are guided by our mission to give investors the best chance for investment success. We seek to clearly demonstrate the areas where we have made progress while being candid where we are still on a journey. It is in that spirit that we submit this report. We thank the Financial Reporting Council for its continued commitment to the highest standards of stewardship practices and reporting and for the opportunity to both provide and receive input.

Sean Hagerty

Sean Hagerty

Managing Director

Vanguard Asset Management

About the UK Stewardship Code 2020

The UK Stewardship Code 2020 (the Code) sets high stewardship standards for asset owners and for asset managers and the service providers that support them. The Code defines stewardship as the responsible allocation, management and oversight of capital to create long-term value for clients and beneficiaries, leading to sustainable benefits for the economy, the environment and society. The Code comprises a set of principles and guidance for asset owners, asset managers and service providers to promote transparency and integrity in business, placing a strong emphasis on the outcomes of stewardship activities.

Vanguard is committed to effective corporate governance to ensure that companies, investors and the economy as a whole benefit. We serve our investors by promoting and safeguarding long-term value creation at the companies in which our funds invest. The following report and associated documents linked within (including our *Investment Stewardship 2022 Annual Report*, published in April 2023) illustrate the stewardship activities and outcomes with respect to Vanguard Asset Management, Limited (VAM), part of the Vanguard group of companies (Vanguard), for the 12 months ended 31 December 2022, and explain how our policies and practices address each principle. The report signals our intention to maintain our signatory status to the Code and fulfils certain reporting requirements of Article 3g(b) of the Shareholder Rights Directive II (Directive 2017/828) as implemented in the UK.

Principles for asset owners and asset managers

Purpose and governance

Principle 1: Purpose, strategy and culture

Principle 2: Governance, resources and incentives

Principle 3: Conflicts of interest

Principle 4: Promoting well-functioning markets

Principle 5: Review and assurance

Investment approach

Principle 6: Client and beneficiary needs

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Principle 8: Monitoring managers and service providers

Engagement

Principle 9: Engagement

Principle 10: Collaboration

Principle 11: Escalation

Exercising rights and responsibilities

Principle 12: Exercising rights and responsibilities

About Vanguard

Purpose, strategy and culture

Vanguard, founded in the United States in 1975, is based on a simple but revolutionary idea: An investment company should manage its funds solely in the interests of its clients. The success of our approach has enabled us to expand over the decades to become one of the world's largest and most respected asset management companies, with offices worldwide, including our international head office in London. We offer a broad selection of investments, advice, retirement services and insights to individuals, financial professionals and institutions.

What sets Vanguard apart – and lets us put our investors at the centre of everything we do – is our unique mutual ownership structure in the US. Vanguard is owned by the US-domiciled funds, which in turn are owned by their investors. As an investor-owned asset management firm, our interests are directly aligned with helping everyday investors generate long-term value and achieve their financial goals. This framework means we can offer high-quality mutual funds and ETFs that are among the lowest cost in the industry, enabling Vanguard investors to keep more of their returns to finance long-term goals such as retirement.

While this ownership structure is not replicated outside of the US, it drives the culture, processes and philosophies throughout Vanguard's global organisation. As a result, our clients benefit from our client focus, experience, stability and long-term, disciplined investment approach.

We are guided by our core purpose: **To take a stand for all investors, to treat them fairly and to give them the best chance for investment success.** We fulfil this mission and ensure that Vanguard's interests are aligned with those of our clients by adhering to three core values:

Integrity. Vanguard's unique ownership structure means we have no conflicting loyalties. We are built to 'do the right thing' for our clients.

Focus. Our long-term perspective and disciplined approach to investing keep our focus squarely on clients and the sustainable value of their investments.

Stewardship. Our stewardship is evident in our unique ownership structure in the US, client-first culture and commitment to ethics. We believe good governance promotes long-term shareholder value.

Our investment philosophy is predicated upon four investment principles that have been intrinsic to our company since its inception and are based on a long-term time frame: goals, balance, cost and discipline. These principles inform our approach to managing the funds, are the foundation of the advice and guidance we provide to our clients and are evident in how we run our business.

As a steward of client assets, we monitor the material financial risks that can impact long-term value creation in portfolio companies, which may include risks related to ESG matters. We view our stewardship responsibilities as a natural extension of Vanguard's core purpose and values. The majority of our global investment offerings are index funds, which seek to track specific benchmark indexes using a full replication or sampling approach[1] and buy and hold securities for the long term.

On behalf of Vanguard-advised funds,[2] which include broadly diversified non-ESG and ESG equity index funds, Vanguard's Investment Stewardship team directly engages with portfolio company executives and directors, administers proxy voting and advocates for marketwide adoption of governance best practices. Our Investment Stewardship programme is carried out by a dedicated team of experienced professionals and operates globally while employing a regionally focused model.

Our in-house credit research teams for Vanguard's fixed income funds, including our bond index funds, speak with company management teams to discuss a range of issues that might pose financial or reputational risks, including material ESG risks.

1 Under a full replication approach, a fund buys and holds the same securities in the index in roughly the same proportion. Under a sampling approach, a fund buys and holds a representative sample of securities in the index that approximates the full index in terms of key characteristics.

2 Vanguard's Investment Stewardship programme is responsible for proxy voting and engagement on behalf of the quantitative and index equity portfolios advised by Vanguard (together, 'Vanguard-advised funds'). Vanguard's externally managed portfolios are managed by unaffiliated third-party investment advisers, and proxy voting and engagement for those portfolios are conducted by their respective advisers.

Proxy voting responsibilities for Vanguard's externally managed funds, which include active equity ESG funds and active equity non-ESG funds, are conducted by the third-party investment advisers who manage those funds. Each external investment adviser we partner with maintains its own policies and guidelines designed to meet its obligations. This allows these firms to fully integrate their stewardship principles with their unique investment processes.

An unwavering focus

We serve tens of millions of individual investors around the world who have entrusted Vanguard to preserve or grow their savings over time. It's a responsibility we take seriously. Our investors, many of whom are saving for important long-term financial goals such as retirement, invest in Vanguard funds with the expectation that those funds will meet the specific objectives set forth for those investments. Each portfolio is managed for a specific objective, follows tightly prescribed strategies and adheres to well-articulated policies. Accordingly, investors expect our index funds to follow their benchmarks with minimal tracking error. We manage our funds in the best interests of fund shareholders and are focused on maximising returns to help them meet their financial goals.

Vanguard-advised funds establish and maintain corporate governance principles and proxy voting policies and procedures to promote long-term value for the funds and their shareholders. Vanguard's Investment Stewardship programme promotes long-term shareholder value for Vanguard-advised funds and their shareholders through extensive research and analysis, development of proxy voting policies under the oversight of the funds' boards and management oversight committee and ongoing vigilance of material risks to shareholder value, including ESG risks, in markets around the world.

Vanguard's DEI pledge

As a company and an employer, Vanguard's commitment to diversity, equity and inclusion (DEI) is longstanding. In recent years, we have strengthened our efforts through greater investment in our DEI organisation, more rigor in our aspirational objectives and a focus on enterprise accountability for DEI outcomes. Our aspiration is to create an inclusive and equitable work environment that reflects a diverse community of talents and drives our mission to provide investors with the best chance for investment success.

To improve DEI in our workplace, we pledge to:

- Increase diverse representation at all leadership levels and throughout all functions of the organisation;
- Integrate inclusion and equity into the experience of Vanguard employees (whom we call 'crew'), fostering a sense of belonging and ensuring that crew are able to bring their authentic selves to work;
- Implement and evolve efforts aimed at attracting, advancing and retaining a talented and diverse workforce;
- Adhere to inclusive hiring best practices, including requiring inclusive hiring training for leaders and driving accountability for achieving diverse slates of candidates; and
- Build crew acumen in DEI through targeted learning experiences and dialogues aimed at understanding equity, managing unconscious bias and other DEI topics.

To integrate DEI into the ways we engage the world around us, we pledge to:

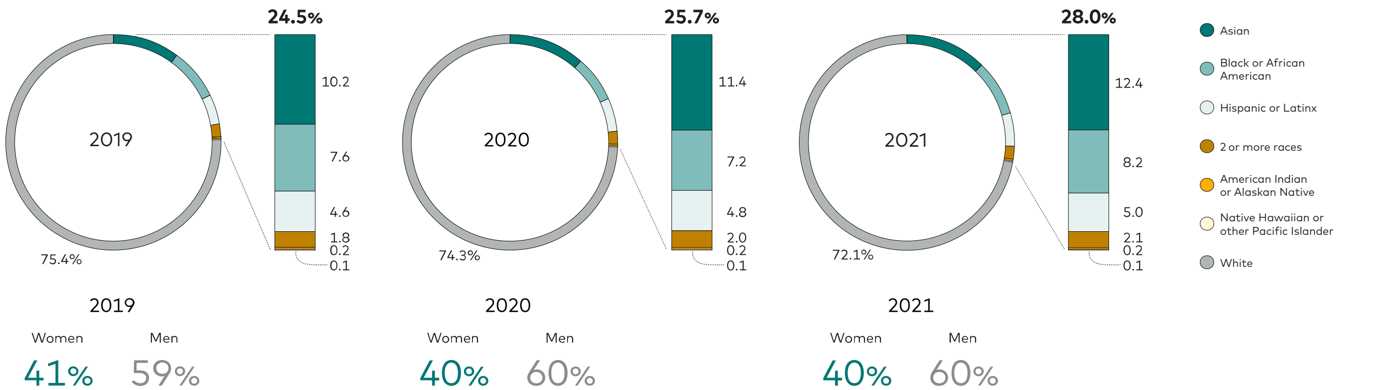
- Identify and promote representation of diverse suppliers and increase overall diversity within Vanguard's supplier base; and
- Continue to incorporate DEI in how we serve our communities and support progress towards equity in those communities through initiatives that include supporting childcare and early education.

To own and continually drive accountability for our progress, we pledge to continue to:

- Expect leaders and crew to nurture inclusive environments and prioritise building diverse teams as part of our performance standard for all crew; and
- Include progress towards our representation and inclusion goals among the key performance indicators that impact enterprise compensation pools and levels.

The Vanguard workforce

Figure 1. Vanguard workforce by race/ethnicity (US) and gender (global)



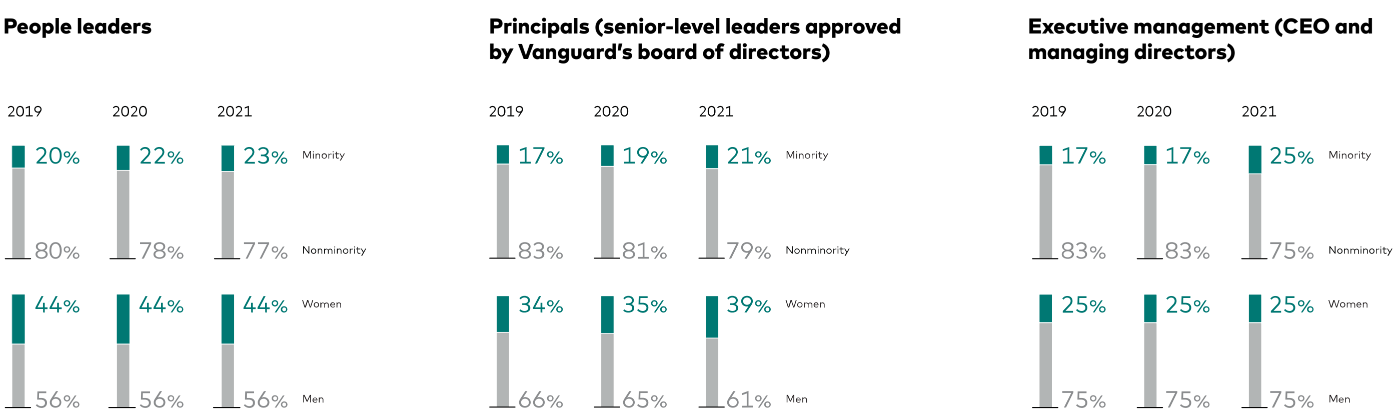
Note: Totals may not sum to 100% due to rounding.
Source: Vanguard, as at 31 December 2021.

[Please read our full 2022 DEI report.]

In accordance with UK legislation, Vanguard has calculated gender pay gap data to show the difference in average pay and bonuses between all men and women in our UK workforce. We have made progress in increasing female and minority representation within leadership and more senior-level roles at Vanguard, and this continues to be a key priority going forward. Please find our most recent gender pay gap report on our website under About Us.

An overview of key leadership groups

Figure 2. Vanguard leadership by race/ethnicity (US) and gender (global)



Source: Vanguard, as at 31 December 2021.

The ultimate long-term investor

Vanguard index funds are long-term holders, on behalf of tens of millions of investors, of the companies in their underlying benchmark indexes. Vanguard investors have chosen to invest the majority of their assets invested with Vanguard in broadly diversified index funds. For the 12 months ended 31 December 2022, approximately 80% of our global assets were held in index funds (see **Figure 3**).

Our long-term approach to investing looks beyond the next quarter or next year, as our investors save for long-term financial goals such as a child's education, a home or simply a more secure financial future.

Figure 3. Vanguard global assets under management (AUM), by strategy, asset class and region

Type	% of AUM
Indexed equity	63.2%
Indexed bond	15.5%
Indexed balanced	0.8%
Active equity	6.7%
Active bond	6.2%
Active balanced	2.4%
Index money market	0.0%
Active money market	5.3%
Total	**100%**
Indexed assets	**80% of global AUM**
Active assets	**20% of global AUM**

Vanguard's global AUM spans multiple regions

Region	% of AUM
United States	93.2%
United Kingdom	2.8%
Europe (ex-UK)	1.0%
Australia	1.0%
Asia	0.8%
Canada	0.7%
Americas (ex-Canada)	0.4%
Middle East/Other	0.1%
Total	**100%**

Source: Vanguard, as at 31 December 2022. Figures may not sum to total because of rounding.

Vanguard follows a rigorous process to guide our decision of whether to launch a new fund. Before bringing a fund to market, we evaluate whether the idea has enduring investment merit, satisfies the long-term needs of its target clients, offers a compelling advantage over competitors and is feasible to launch after a thorough analysis of any risks and legal and regulatory constraints. The thoroughness of our fund research process reflects our commitment to deliver enduring, compelling investment products to our clients.

Vanguard believes that investors should have choices. We provide a range of high-quality, low-cost investment options, including our product offerings in the UK. Investors can select the investments most appropriate for them from our broad range of options based on their individual goals, preferences, priorities and risk tolerances. Investor assets managed by VAM are predominantly held in our index funds, largely in equity funds (see **Figure 4**).

Figure 4. VAM AUM by strategy and asset class

Type	% of AUM
Indexed equity	60.9%
Indexed bond	20.5%
Indexed balanced	16.9%
Active equity	0.9%
Active bond	0.4%
Active balanced	0.3%
Active money market	0.1%
Total	**100%**
Indexed assets	**98% of VAM AUM**
Active assets	**2% of VAM AUM**

Source: Vanguard, as at 31 December 2022. Figures may not sum to total because of rounding.

Delivering value to individual investors

In the UK, the primary strategy of VAM is to distribute funds and deliver services (such as thought leadership and investor education) to individual investors and those that serve them in the following ways:

Direct retail. We serve direct investors through the UK Personal Investor platform, our direct-to-consumer business that launched in May 2017.

Intermediated retail. Our financial adviser clients serve investors directly using Vanguard mutual funds and exchange-traded funds (ETFs) in their clients' portfolios.

Intermediated wholesale. We work with financial institutions such as banks and asset managers that use Vanguard mutual funds and ETFs in their products and in their clients' portfolios.

Retail clients (both our direct-to-consumer business and those that are advised) represent the majority of the client base of VAM assets under management (see **Figure 5**).

Figure 5. VAM AUM by client type

Type	% of AUM
Retail	57%
Institutional	10%
ETFs	33%
Total	**100%**

Note: ETF assets cannot be broken out between retail versus institutional and therefore are included as a separate client type.

Source: Vanguard, as at 31 December 2022. Figures may not sum to total because of rounding.

The interests of our tens of millions of individual investors are at the centre of everything we do. Providing value to investors and acting in their best interests is core to fulfilling our mission to give investors the best chance for investment success.

For the fourth year in a row, Vanguard's UK Personal Investor platform was recognised by the consumer champion Which? as a Which? Recommended Provider for Investment Platforms. In its latest annual survey, Which? rated Vanguard's UK Personal Investor platform the best value for money and top overall for customer scores.

We have a history of regularly lowering our fees to investors since we entered the UK market in 2009. Our most recent assessment (as at 30 September 2022) shows that the ongoing charges figures for our UK-domiciled funds continue to be among the lowest in the market.[3] And as noted in our third annual Assessment of Value Report,[4] covering the year to 30 September 2022, Vanguard-advised UK funds continue to benefit from Vanguard's global Investment Stewardship programme. (More information can be found in the ESG Integration in Vanguard's Funds and Processes section of this report, on page 33.)

3 Ongoing charges figure (OCF) is the sum of investment management fees (the fees paid to the portfolio manager to invest and manage the fund) and administrative and other expenses (which cover all costs and expenses connected with the operation of the fund, which includes administrative fees, shareholder's registration and transfer agency fees, custody fees and all other operating expenses).

The OCFs for all our funds were, on average, 73% cheaper than their Morningstar category average (77% last year). The comparison is of ongoing charges relative to a comparable share class of direct peers in their respective Morningstar category. Average sector OCF is sourced from Morningstar. Vanguard discount represents the percentage difference between the OCF for a Vanguard fund versus the average OCF for the sector. Source: Morningstar as at 30 September 2022.

4 Vanguard Asset Management, Limited distributes both UK- and Ireland-domiciled funds in the UK. However, the Assessment of Value is a regulatory report that only covers our UK funds.

Responding to risk

Framework and approach

Vanguard places considerable focus and resources on assessing and managing risk. We believe that the appropriate identification and effective management of risk is key to our clients' long-term financial success, and in the case of systemic risk, it can promote a well-functioning financial system.

Vanguard's European Enterprise Risk Management Framework (ERMF), based on the common risk management frameworks used by all Vanguard businesses, is designed to address the inherent risks arising from or related to activities throughout Vanguard's European businesses and to facilitate a consistent approach to risk management. Supported by robust governance, the ERMF helps inform our business strategy and operating model and reflects Vanguard's risk appetite and core values of integrity, focus and stewardship. Our risk management process is ongoing, dynamic and iterative, undertaken in a 'business-as-usual' mode.

While Vanguard seeks to address a broad spectrum of risks, we use five principal categories to assess risk – operational, corporate financial, strategic, investment management and legal and regulatory. Our clear and consistent approach enables us to:

- Aggregate and compare risks across the European businesses and Vanguard to identify themes and opportunities for efficient remediation;
- Share and discuss all risks in a common language throughout the organisation;
- Identify and analyse risk trends; and
- Compare with external benchmarks.

Using this framework, we have identified key market and systemic risks that we sought to manage and respond to during the 12 months ended 31 December 2022.

Key market risks

Liquidity risk

Liquidity is a financial institution's capacity to meet its cash and collateral obligations without incurring unacceptable losses. Liquidity is critically important for the effective functioning of our financial system in all market conditions but is only fully tested in extreme market conditions. As a trusted steward of client assets, Vanguard considers effective liquidity risk management and oversight to be an essential part of our risk management process. As one of the largest global asset managers with expertise spanning many asset classes, we are well-placed to identify early signs of market stress.

Our liquidity risk management tools are multifaceted and comprise both standard and nonstandard mechanisms. Standard tools for Vanguard's European funds, including UK and Irish funds, include offsetting investor flows and employing net asset value (NAV) swing pricing. Swing factors and related policies are overseen by an expert committee that ensures transacting costs are regularly reviewed, and factors are adjusted appropriately to prevent dilution of fund assets. Nonstandard tools include mechanisms that safeguard existing investors from more extreme liquidity challenges, such as fund gating (the temporary restriction of fund redemptions) and the availability of secured credit lines (short-term bank loans to fund liability shortfalls). These tools are underpinned by a robust fund liquidity risk management and monitoring process which is tailored to each asset class and strategy.

For example, given the complexity and breadth of the asset class, the fixed income universe requires a more comprehensive set of liquidity modelling heuristics. Our investment teams also continue to evaluate strategies that strengthen fund liquidity profiles whilst maintaining risk exposures that are aligned with investment objectives.

Both market and liquidity risk increased substantially during 2022, driven by Russia's invasion of Ukraine and global central banks' reaction to a rapid rise in inflation. Despite a challenging environment, Vanguard was not required to invoke any nonstandard liquidity management tools and was able to manage all fund liquidity needs including daily client activity.

Geopolitical risk

Russia's invasion of Ukraine in February 2022, and the ongoing conflict, have caused a tragic loss of life and added a new dimension of risk to markets. In response, many governments around the world have imposed sanctions on Russian financial institutions, companies and individuals. Additionally, major benchmark providers removed Russian securities from various equity and fixed income indexes.

Throughout this conflict, Vanguard's Global Risk and Security division (GR&S) has independently monitored portfolio risk and positions against limits, performed attribution analysis of results and worked with portfolio managers to ensure risks were identified and managed. At a fund level, GR&S and Vanguard's Portfolio Review Department work with portfolio management and operational risk management teams to apply rigorous risk oversight and analysis. In the cases where Vanguard funds employ indexing investment approaches, which are designed to track the performance of a specific benchmark, our portfolio managers seek to ensure that the fund has similar exposures as its benchmark.

Vanguard moved swiftly to carry out sanctions levied against Russian financial institutions, entities and individuals and made needed adjustments prompted by market closures and index provider changes. Purchases of Russian securities across our internally and externally managed active funds were suspended, and we continue to adhere to sanctions.

In times such as these, where market quotes for Russian securities may not be readily available, Vanguard's internal pricing review committee uses a variety of observable market indicators to adjust these securities' value appropriately. The NAV, or share price, of our mutual funds and ETFs will reflect these fair-value pricing adjustments. When fair-value pricing is employed, the prices of securities used by a fund to calculate its NAV may differ from quoted or published prices for the same securities.

Service provider failure

This risk arises from the failure to adequately identify, select and monitor third-party service providers to ensure that they maintain and demonstrate strong operational effectiveness and strategic and corporate cultural alignment.

Each Vanguard third-party service provider is carefully selected from well-established, high-quality institutions. We have in place documented outsourcing agreements, due diligence activity, business continuity and exit plans, along with business-as-usual oversight. We undertake a proportionate and stringent due diligence process when activities are outsourced based on criticality.

The Vanguard European businesses maintain a Third-Party Service Provider Oversight Policy to complement our global policy. It is supported by a register of relevant arrangements and a set of implementation guidelines designed to enable a consistent approach to the governance and assessment of the quality of service provided by external third parties as well as compliance with evolving regulations.

The Policy is also supported by vendor oversight functions and relevant formal governance forums that provide oversight of our significant external outsourced service providers. Defined processes for reporting on critical service provider performance enable a flow of information on governance of services throughout the organisation.

Failure of a critical outsourced partner is one of several risks Vanguard assesses through key risk scenarios, which help us measure and understand risk exposures, their potential impacts, what appropriate contingencies are required and where to allocate capital.

Key systemic risks

Cybersecurity

The financial services industry faces complex and increasingly targeted cyber threats. The safety and security of our clients' assets and sensitive information is a top priority at Vanguard. Mitigation of these threats requires knowledge of what motivates our adversaries, the tactics they use and our capability to design and implement a Defence in Depth (DiD) strategy – a multilayered set of controls providing several lines of defence – to safeguard Vanguard crew, data and client assets.

Though the threat of cyberattacks is constant, the tactics, techniques and procedures used by attackers are continually evolving.

Vanguard has a three-pronged approach to manage this challenge:

1. The development of a community of practice- and information-sharing programmes in collaboration with law enforcement agencies, like-minded financial institutions, universities and security consultants to stay abreast of security trends and maintain awareness of pertinent threats;
2. Sophisticated technology to detect anomalies in logs and network traffic that may indicate an attack against Vanguard or our clients; and
3. Layered safeguards to mitigate the risk of advanced insider threats.

Vanguard is an active member of the Financial Services Information Sharing and Analysis Center, an intelligence-exchange platform specific to the financial services industry. As a member, we can receive and share information to help reduce cyber risk and stay abreast of security threats. We receive daily information and alerts as well as source information from other external parties to support our security assessment process. We also belong to the Cyber Security Information Sharing Partnership (CISP), a joint industry and UK government initiative run by the National Cyber Security Centre. The initiative was created to allow UK organisations to share cyber threat information in a secure and confidential environment.

Throughout the year, various in-house security initiatives – for example, cyber tabletop exercises and phishing email tests – are also held to promote cybersecurity awareness among Vanguard crew.

By combining an experienced cybersecurity team with best-in-class security controls, a comprehensive DiD strategy and state-of-the-art technology, as well as various cybersecurity awareness initiatives for our employees, Vanguard will continue to vigilantly monitor and diligently defend itself from cyber threats.

Business resilience

Vanguard has a highly evolved, integrated business continuity function to ensure that the firm can continue operations and serve our clients during a significant local, national or global event. Our business contingency planning provides for the recovery and restoration of all critical operations and consists of three components:

- Detailed documented business continuity plans;
- Data security and recovery processes; and
- Business continuity tests.

Vanguard has implemented several business continuity strategies to address this risk, including alternative recovery sites and backup of IT infrastructure. Some of the tests that took place during 2022 include:

- Communication test exercises across Europe and the UK;
- An alternate site IT failover test in the UK; and
- Desktop exercises for important business services.

In addition to global business contingency planning, Vanguard UK is working to implement a programme that will meet the Financial Conduct Authority's (FCA) operational resilience requirements. Operational resilience builds on the principles of business continuity but extends further to enhance an organisation's ability to withstand the effect of operational disruptions. Adhering to the requirements will yield multiple benefits for our business.

A key feature of our programme, and at the forefront of the operational resilience requirements, is a change in how we view our processes. Our perspective is moving from a functional, process-driven lens, focused only on a single business area, to an end-to-end business service lens that considers all teams and processes related to a business service. An end-to-end business service programme allows us to effectively prioritise technology or other control enhancements to ensure operational resilience and enhance our ability to mitigate risk to clients and financial market operations. We have implemented and adhered to the first phase of the requirements, identifying our key business services, underlying dependencies and risks, and are in the process of carrying out the second phase, testing these important services and remediating any key risks.

Business interruption risk also considers the failure of key outsourced partners. Our outsourced partners are required to provide detailed business continuity and disaster recovery plans. For any important business services that rely on outsourced parties, testing has been and will continue to be carried out in conjunction with these providers and any remediation will be tracked and resolved in partnership.

Climate change

Climate change, and the ongoing global response to it, will have far-reaching economic consequences for companies, financial markets and investors. Vanguard is committed to understanding and attending to material risks that can erode our investors' long-term returns, including material climate-related risks. Our approach spans several key areas of focus.

Research on the market and economic implications of climate change. Vanguard has been conducting research to understand how climate change could affect the global economy and financial markets in the coming decades. In a 2022 paper, *The Economics of Climate Change*, Vanguard economists used consensus scientific data and forecasts to assess the impact of climate change on economic activity under four scenarios for greenhouse gas (GHG) emissions and temperature increases. They found that the net impact on global GDP is negative in all scenarios.

Fund and choices for our investors. Vanguard offers a broad range of mutual funds and ETFs globally, spanning both index and active strategies. For those clients who seek them, we offer investment products globally that have specific ESG objectives. For investors who specifically want to limit exposure to carbon-intensive industries, we offer ESG index funds that avoid or reduce exposure to such industries while seeking to achieve a broad market-like return. Vanguard also offers actively managed ESG funds that seek to generate excess return by allocating capital towards companies that the fund managers deem as demonstrating leading ESG practices consistent with the fund's mandate. Although the investment methodology may vary by product and manager, assessing ESG-related risks and opportunities is central to each of these actively managed portfolio's investment strategy.

Investment stewardship. Vanguard's Investment Stewardship programme is responsible for engaging with company boards and management teams and administering proxy voting on behalf of Vanguard-advised funds. As part of its work, the Investment Stewardship programme seeks to understand how boards of directors oversee material risks, including material climate-related risks, to promote long-term shareholder value. For portfolio companies where climate risk is a material risk, the Investment Stewardship programme seeks to understand how these companies and their boards disclose, oversee and address this risk given the potential harm to long-term shareholder value. Proxy voting and related portfolio company engagement for funds that are managed externally by third-party investment advisers are handled by these external investment advisers.

Engagement with policymakers. Vanguard works with global policymakers to support the interests of long-term investors. Government leaders are specifically empowered and charged with considering the competing interests inherent in issues such as climate change and crafting public policy responses that will address the complex societal impacts and trade-offs. Given the impact of climate change on the global economy and investor returns, it is important that policymakers provide clarity to individuals, companies and the financial markets about government plans and targets to address climate risks.

- In January 2022, Vanguard submitted a response to the Financial Conduct Authority (FCA)'s Discussion Paper (DP21/4) on Sustainability Disclosure Requirements and Investment Labels (SDR). Our response was generally supportive of the development of the SDR, underlining that disclosure frameworks should be consistent and follow an integrated approach to ESG, while acknowledging that some elements of the FCA's proposals required further clarification.
- In June 2022, Vanguard filed a comment letter in response to the US Securities and Exchange Commission's (SEC) rule proposal, *The Enhancement and Standardization of Climate-Related Disclosures for Investors*. Our letter generally supported the SEC's proposal, which calls for clear, consistent and comparable foundational climate-related information, but we respectfully encouraged the SEC to provide more targeted and flexible disclosures for indirect GHG emissions generated in a reporting company's value chain (Scope 3), rather than the full Scope 3 framework that was proposed.
- In September 2022, Vanguard responded to the UK Environmental Audit Committee's inquiry into the financial sector and the UK's net zero transition. Our response underlined that Vanguard considers climate change – and the evolving global policy responses required to mitigate its impact – to be financially material to companies and to their shareholders' long-term financial success. We highlighted that Vanguard differentiates its investment approach to climate-related risk identification and assessment depending on the mandate of each fund, including whether it follows an index or active investment style, and that each Vanguard fund operates in accordance with its specific investment strategy and objective.

Corporate goals and initiatives. Vanguard has a set of corporate goals and initiatives to make progress towards reducing carbon emissions in our global operations and reaching carbon neutrality as a company by 2025.[5] Our corporate sustainability goals for 2025 include reducing emissions by 20% per full-time employee, reducing water usage by 20% per square foot, reducing electricity consumption by 5% per square foot and diverting 80% of waste from landfills. In May 2022, Vanguard published its inaugural report, *Vanguard's Report on Climate-related Impacts 2021*, in alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

5 Established in September 2021 based on 2019 baseline levels.

Climate-related risks within our investments

Relevant teams monitor material climate-related risks across our funds. Our Investment Stewardship team engages on material climate-related risks on behalf of Vanguard-advised funds; our Oversight and Manager Search team monitors how sub-advised managers integrate climate-related risks into their investment management processes for our active strategies; and our fixed income teams incorporate ESG risks, including climate-related risks, within our internally managed fixed income funds.

Investment Stewardship

The Investment Stewardship programme engages with portfolio company leaders and votes on portfolio company proxy ballots on behalf of Vanguard-advised funds. Engagement and proxy voting are important ways that we express our perspective on the importance of boards taking steps to mitigate, address and disclosure material risks, including any material climate-related risks, to long-term shareholder value. On behalf of Vanguard-advised funds, we look for portfolio company boards to effectively oversee material risks and to disclose their approaches to oversight of these risks to shareholders so that the market can price in the associated risks and opportunities.

We believe that boards have a responsibility to be aware of material risks and opportunities, including those associated with climate change, as they make informed, long-term decisions on behalf of company shareholders. We also believe that boards should consider the implications of both physical risks (such as severe weather events, rising sea levels and temperature changes) and transition risks (such as regulatory changes and technological disruption) and plan for their impacts.

Vanguard Investment Stewardship believes the boards that are most effective in protecting long-term investors' interests from material climate-related risks demonstrate:

- Relevant risk competence;
- Robust oversight and mitigation of material climate risks; and
- Effective disclosure of material climate risks and attendant oversight practices.

Our perspectives on climate risk governance can be found on the Vanguard Investment Stewardship website.

The case studies that follow demonstrate how Vanguard's Investment Stewardship programme seeks to understand how boards disclose, address and oversee material climate-related risks. These case studies are excerpts from those found in our reports and Insights. All reports and Insights are available on our website.

Case studies:

Climate-related lending proposal put forth at Bank of Montreal

Region: Americas

Primary engagement topic: Oversight of strategy and risk

Analysis and vote rationale

Bank of Montreal is a Canada-based diversified financial services company. We have engaged with company leaders multiple times in recent years and have discussed various topics, including shareholder proposals and oversight of environmental risk.

In our most recent engagement, we met with company management to discuss a shareholder proposal that asked the company to adopt a policy that would ensure that Bank of Montreal's financing activities would not contribute to new fossil supplies, consistent with the International Energy Agency's (IEA) Net Zero Emissions by 2050 scenario. We evaluated this proposal as we do all climate-related proposals – case by case with an eye towards understanding how boards oversee climate-related risks, enact mitigation measures and provide comprehensive disclosure where material risks are present. We do not seek to dictate company strategy or operations; our focus is on promoting long-term shareholder value.

During our engagement, Bank of Montreal executives mentioned the company's public commitment to decarbonisation and other efforts the company had underway. As part of that commitment, it disclosed Scope 1 and 2 intensity targets for its business with that sector along with a Scope 3 absolute emissions reduction target. The company had not committed to the IEA's Net Zero by 2050 pathway.

The company also took the opportunity during our engagement to explain how its board of directors is educated about climate risk on an ongoing basis. This discussion complemented the company's TCFD report and other disclosures.

Outcome

As mentioned, Vanguard-advised funds do not seek to dictate company strategy or operations, including strategy or operations related to climate matters. This proposal, if fully implemented, would have precluded Bank of Montreal from doing business with certain types of clients or under certain circumstances. Vanguard-advised funds did not support the proposal, which received 7.5% support from shareholders.

Say on Climate, risk oversight and hedge fund activism at Glencore

Region: Europe, Middle East and Africa (EMEA)

Primary engagement topic: Oversight of strategy and risk

Analysis and vote rationale

Vanguard Investment Stewardship has observed a recent increase in hedge fund activism targeting companies with significant exposure to climate risk. These campaigns generally aim to effect strategic change, typically through divestment or spin-offs to unlock value creation. In the UK, an example of such a campaign occurred at the multinational commodities company Glencore, where an activist has been calling for strategic change.

Since November 2021, London-based hedge fund Bluebell Capital Partners has been urging Glencore to spin off its thermal coal business for both environmental and financial reasons. Bluebell asked other investors to vote against Glencore's Say on Climate proposal at the 2022 annual meeting to signal to the board that a change in strategy was desired. Vanguard engaged separately with Glencore's leaders and the activist to discuss board oversight of climate-related risks.

We shared feedback regarding the company's climate risk mitigation disclosures with Glencore leaders, including that they could provide more clarity on board-level oversight of climate-related risks, better disclosure on how the company plans to achieve its climate targets and more clarity on the company's lobbying activities (which appear to contradict its stated climate-related commitments). At the same time, we recognised that Glencore has enhanced its climate risk reporting.

Outcome

Vanguard-advised funds supported the management Say on Climate proposal. We plan to continue our dialogue with Glencore leaders and monitor the board's risk oversight procedures as well as the company's disclosures as its climate transition plans evolve.

Climate-related and other proposals at Santos Limited and Woodside Petroleum

Company: Santos Limited

Region: Asia Pacific (APAC)

Primary engagement topic: Oversight of strategy and risk

Analysis and vote rationale

In our ongoing discussions with the board of Santos Limited, Australia's second-largest oil and gas producer, before the 2022 annual meeting, the board outlined the company's emissions targets, road map to net zero operational emissions by 2040, reliance on carbon capture and storage, approach to Scope 3 greenhouse gas emissions and carbon pricing and scenario analysis, as well as the evolution of executive remuneration to reflect the company's strategy.

We sought to better understand the company's approach to managing the energy transition and its reasons for not setting reduction targets on its Scope 3 emissions, which account for the majority of the total emissions footprint of companies in the oil and gas industry and appear to represent a significant area of material risk exposure for the company.

While recognising the challenges the company faces in setting targets that account for developing technologies, we had concerns about whether the company's disclosed risk mitigation approach was adequate to underpin a request for shareholder support of the transition plan at this time.

Outcome

Vanguard-advised funds did not support the management Say on Climate proposal. We determined it was not in the best interests of Vanguard-advised funds' investors to approve a report that failed to comprehensively address the company's most significant area of material climate risk in a meaningful way.

(To read the full version, please see *Voting Insights | Say on Climate Vote and Other Resolutions at Santos Limited.*)

Company: Woodside Petroleum

Region: APAC

Primary engagement topic: Oversight of strategy and risk

Analysis and vote rationale

At Woodside Petroleum's annual meeting, Vanguard-advised funds supported a merger between the company and the petroleum assets of BHP Group Limited. However, the funds did not support Woodside management's Say on Climate proposal. In reviewing Woodside's published climate transition plan and reflecting on our engagement, we noted that supporting evidence was insufficient to back the company's stated alignment with the Paris Agreement goals. We considered Woodside's disclosure regarding its approach to Scope 3 emissions to be insufficient and incomplete due to the lack of any apparent or substantial change in Woodside's approach to these emissions since it committed to a Say on Climate vote in 2021. The lack of disclosed targets for addressing a material risk limits shareholders' ability to contextualise the details of the plan and to understand and price the risk appropriately.

Outcome

While recognising Woodside's initiatives to address Scope 3 emissions and the challenges in setting targets that account for developing technologies, we questioned whether the company's disclosed risk mitigation approach was adequate to underpin a request for shareholder support for the climate report at this time.

As noted above, Vanguard-advised funds did not support Woodside management's Say on Climate proposal.

(To read the full version, please see *Voting Insights | Merger, Say on Climate Vote and Other Resolutions at Woodside.*)

Integration of climate risks and opportunities by our external investment advisers

Many of Vanguard's active equity funds and multi-asset funds are managed by external firms. Vanguard recognises that each firm brings a different perspective to the way it assesses and oversees climate-related risks.

We work closely with each of our active managers to understand their investment process, and we have observed refinement as ESG data availability has improved and the ESG landscape has continued to evolve. Ultimately, we are responsible for assessing how each manager's approach aligns with its investment process, which is designed to deliver strong investment outcomes for our clients. Our approach to fund manager selection centres on what we believe to be the key drivers of investment success – firm, people, philosophy and process. This approach provides our investors with diversity of thought and broader access to top talent. It also provides us with a unique perspective on the ways in which different active managers approach the investment process.

Vanguard's global Oversight and Manager Search team of more than 20 investment professionals regularly engages with current and prospective external fund managers. As part of these engagements, the team examines how managers incorporate financially material considerations, including climate-related risks, into their security selection processes. We expect these investment managers to remain singularly focused on maximising investment performance for our investors within the constraints of their respective mandates. Included in our ongoing assessment is understanding each external manager's appropriate consideration and management of material financial risks, such as those posed by climate change.

(More information can be found in the ESG Integration Oversight Process of Our Sub-Advised Active Funds section of this report, on page 34.)

Integration of climate risks in fixed income

All of Vanguard's fixed income index funds and the majority of its actively managed fixed income funds are managed by Vanguard's Fixed Income Group (FIG). FIG has a formal integration process to incorporate climate-related and ESG risk factors into investment decisions for both internally managed active fixed income funds and indexed fixed income funds. These factors may range from macroeconomic considerations to issuer-specific challenges. FIG systematically assesses the financial materiality of ESG risks, including climate risks, to complement standard credit assessment. Our fixed income credit research analysts regularly meet with issuers to discuss key credit risk topics and, where applicable, raise climate and ESG concerns. When appropriate, our fixed income team shares input with Investment Stewardship and holds joint engagements with portfolio companies. When conducting any joint engagement, key measures are taken to ensure proper handling of material nonpublic information (MNPI).

(More information can be found in the ESG Integration in Vanguard's Fixed Income Investment Process section of this report, on page 35).

Industry initiatives

Vanguard participates in several industry initiatives related to systemic risks. Sean Hagerty, managing director of Vanguard Europe, sits on the board of the UK Investment Association (IA). Additionally, the head of Vanguard's Investment Stewardship programme for Europe, the Middle East, Africa and Asia Pacific participated in the IA's Stewardship Standing Committee, and senior leaders from our Investment Management, Investment Stewardship and Government Relations teams are involved in a number of IA working groups that consider investment stewardship and ESG matters.

Sean Hagerty is also an active member in the UK's Asset Management Taskforce. Further, Vanguard maintains senior-level representation on several committees and working groups in the European Fund and Asset Management Association (EFAMA), the Irish Funds Industry Association and the Investment Company Institute.

These industry bodies cover a broad range of capital markets issues that promote liquidity, transparency, investor protection and the development of common standards. Through these organisations, Vanguard can work with other firms to help ensure that the market functions effectively and increase our understanding of wider industry risks.

Our global corporate governance principles

Vanguard's investment stewardship approach is framed by [four global principles of good governance]:

Board composition and effectiveness

Good governance starts with a company's board of directors. Directors are elected to represent the interests of shareholders and have important responsibilities that they carry out in accordance with their fiduciary duties to shareholders. These responsibilities include selecting and appointing the CEO, being involved in company strategy formation, overseeing material risks, designing executives' compensation plans and ensuring shareholders' rights are protected. As a result, our primary focus when evaluating a company's governance practices is ensuring that the individuals who serve as board members and represent the interests of shareholders are independent, capable and appropriately experienced. An effective board should be independent and reflect diversity of skill, experience and opinion as well as diversity of personal characteristics (such as gender, race and ethnicity), as research shows that diverse boards can make better decisions. Well-composed, effective boards can set in motion a virtuous circle that enables a company to innovate, seek out new customers and enter new markets, enabling long-term shareholder value creation for investors in their company.

Oversight of strategy and risks

When we discuss strategy and risk with portfolio companies, we work to assess how well the board of directors understands the company's strategy and how effectively it is involved in identifying and governing material risks. We look for directors to bring a wealth of experience and diverse perspectives to the boardroom, and to provide counsel to company leaders. We look for directors to be well-informed on competitive dynamics and seek outside opinions to better challenge management's assumptions. Ultimately, boards should work to prevent risks from becoming governance failures.

Executive remuneration

Sound, performance-linked remuneration policies and practices that extend well beyond the next quarter or year are fundamental to sustainable, long-term value. Remuneration expectations and norms vary by industry, sector, company size and geographic location; therefore, we do not take a 'one-size-fits all' approach. In our engagements on this topic, we seek to understand the business environment in which pay-related decisions are made and how a board structures pay programmes to incentivise outperformance of the company's peers over the long term. Companies should provide clear disclosure about their practices and how they are linked to performance and to the company's stated strategy. This disclosure gives shareholders confidence that the practices are aligned with the creation of long-term shareholder value.

Shareholder rights

Shareholder rights allow shareholders to use their voice and their vote to ensure the accountability of a company's board. Shareholders should be able to hold directors accountable through governance provisions such as annual elections that require securing a majority of votes. While the Vanguard-advised funds do not themselves put forward nominees for portfolio company boards, we support the right of an appropriate proportion of shareholders to call special meetings and to nominate directors for consideration by all shareholders; this provides shareholders the ability to exercise their voice and vote in instances where a strategic case for change in a company's strategy is identified or when a board appears resistant to shareholder input. We believe that a well-functioning capital markets system requires that companies have in place governance structures that safeguard and support foundational rights for shareholders.

Vanguard Investment Stewardship programme

Role and structure of our global Investment Stewardship team

Vanguard's global Investment Stewardship programme is grounded in strong corporate governance principles and an unwavering focus on promoting long-term financial value creation for Vanguard-advised funds and their shareholders. On behalf of Vanguard-advised funds, including equity index funds and ETFs, our Investment Stewardship team is responsible for engaging with portfolio company directors and executives, applying each of the funds' proxy voting policies and executing the day-to-day operations of the funds' proxy voting processes. Importantly, the funds do not seek to dictate portfolio company strategy or operations.

John Galloway, a Vanguard principal and the funds' Investment Stewardship Officer, leads the global Investment Stewardship programme. The Investment Stewardship team is part of Vanguard's Office of the General Counsel division. The Office of the General Counsel division is independent from Vanguard's investment management and client businesses to ensure independence and effective mitigation of any conflicts of interest, whether perceived or actual.

Vanguard Investment Stewardship represents our fund shareholders' interests through:

Engagement. We meet with portfolio company executives and directors to share our perspective on corporate governance practices we associate with long-term shareholder value creation and to learn about companies' corporate governance practices. Our approach is deliberate, constructive and results-oriented.

Voting. Our team votes proxies at public company shareholder meetings on behalf of each Vanguard-advised fund. Because of our advocacy and engagement efforts, by the time our funds' votes are cast, companies should be aware of the governance principles we associate with the creation of long-term shareholder value.

Advocacy. We are tireless advocates for the highest standards of corporate governance worldwide and long-term value of our funds and fund shareholders' investments. We promote a long-term view of both corporate governance and investment practices through public forums and published materials.

Vanguard's Investment Stewardship programme is carried out by a dedicated team of experienced professionals. Team members are located in the US, the UK, Ireland and Australia. On behalf of Vanguard-advised funds, the team monitors, oversees and works to mitigate material risks that can impact long-term value creation at the Vanguard-advised funds' portfolio companies through engagement and proxy voting activities, as well as by publicly advocating for good governance practices. All engagement, company research, analysis and voting activities are overseen by senior leaders responsible for portfolio companies domiciled in specific geographic regions and markets. These leaders maintain responsibility for their coverage areas and are supported by dedicated teams of directors and analysts who are further aligned by sector.

The Investment Stewardship programme is led by a Vanguard principal who serves as the Investment Stewardship Officer for each of the internally managed equity funds. The programme's leadership team consists of the Stewardship Officer and eight direct reports, including two Vanguard principals with decades of experience in corporate governance and investment management research. The programme's leadership team has been thoughtfully constructed with a diversity of backgrounds, experiences and personal characteristics. At present, the leadership team is approximately 60% male and 40% female.

Our team in the US is responsible for engagement and proxy voting for portfolio companies domiciled in the Americas. Our team in London, along with team members in Vanguard's Ireland and Australia offices, is responsible for engagement and proxy voting for portfolio companies domiciled in Europe, the Middle East and Africa (EMEA), Asia, Australia and New Zealand, markets in which we continue to engage with an increasing number of companies.

Depending on the materiality of an issue, certain proxy voting decisions and portfolio company engagements are escalated from analysts to directors and senior leaders, including the Investment Stewardship officer, in accordance with a defined internal framework. Vanguard's Investment Stewardship team may escalate company matters on a case-by-case basis to the Investment Stewardship Oversight Committee and the funds' boards of trustees for further guidance. (More information can be found in the Monitoring Progress and Escalation section of this report, on page 53.)

The Investment Stewardship team also has crew members dedicated to ongoing research of corporate governance practices and their relationship to shareholder value creation (both primary research and reviews of third-party research), as well as policy development, communications and data operations and risk control across several teams:

- The policy and research team drives our global perspectives on key topics, identifies and prioritises new thematic policies for research and implementation and partners with regional teams to shape engagement, voting and advocacy strategies.
- The communications team supports the articulation and publication of Vanguard Investment Stewardship's views, regular reporting and policies and thought leadership on important governance topics.
- The data, operations and controls team enables every aspect of the programme's research, analysis and risk controls through vendor oversight, platform management and technology innovation. This team monitors and mitigates risks associated with Vanguard's investment stewardship activities.

(Leadership bios for key leaders of Vanguard's Investment Stewardship programme can be found in Appendix A of this report.)

Our Investment Stewardship programme also makes significant investments each year with service providers to gain access to data and information that inform the team's engagement priorities and proxy voting decisions; the team also uses third-party platforms to effect and document its proxy voting activities on behalf of Vanguard-advised funds.

Team members collaborate every day, sharing ideas and making continuous improvements in policies and processes under the oversight of the funds' boards and a management oversight committee. This allows the team to balance the need for global consistency with regional relevance by developing in-depth knowledge on pertinent issues across Vanguard-advised funds' portfolios, growing the team's presence in local markets and identifying trends specific to each industry, region and country.

The Investment Stewardship team also collaborates with groups across the company. For example, the Investment Stewardship team has regular meetings with colleagues from Vanguard Fixed Income Group to discuss the latest developments and approaches to financially material risks. The team also meets frequently with product and investment management teams to collaborate on ESG-related matters, new research and thought leadership. Vanguard's Investment Stewardship programme additionally benefits from the expertise of dedicated legal counsel and Vanguard's Government Relations and Global Public Policy teams.

Vanguard's Investment Stewardship Team

60+

Team members located in the US, UK, Ireland and Australia

10+

Average years of industry experience

45+

Advanced degrees and professional certifications

Oversight of Vanguard Investment Stewardship

Proxy voting authority for each UK- and Ireland-domiciled fund advised by Vanguard has been delegated to Vanguard Group International, Inc. (VGI). The boards of Vanguard's internally managed UK- and Ireland-domiciled equity funds have tasked the Investment Stewardship Oversight Committee (the Committee) with oversight of the proxy voting and stewardship function for the funds. The Committee includes fund officers and senior executives from relevant functions including investment management, global risk, legal, compliance, investment products, finance and communications, as well as the head of Vanguard's UK and European businesses and investment stewardship. The Committee does not include anyone whose primary duties include external client relationship management or sales. This clear separation between oversight of proxy voting and client relationship functions is intended to eliminate any potential conflict of interest in the proxy voting process.

The Committee is a multidisciplinary team – one that reflects diversity of experience, skills, perspectives and tenure as well as diversity of personal characteristics including gender and ethnicity – so that it can make informed decisions around policy, strategy and risk oversight. The Committee meets at least quarterly (and at other times as appropriate) and provides ongoing oversight, guidance and strategic vision of all aspects of the Investment Stewardship programme. This includes providing the Investment Stewardship team with direction and input on company engagements and proxy voting decisions related to complex, novel or controversial matters. The Committee members also regularly assess the funds' proxy voting policies and guidelines and make recommendations to the funds' boards regarding potential changes or improvements. (More information about the Committee can be found in the Oversight of Investment Stewardship section of Vanguard Engagement Statement.)

Vanguard's Investment Stewardship Officer meets multiple times a year with the funds' boards to review investment stewardship activities, solicit board member input and guidance on emerging issues, discuss the funds' voting records and discuss any proposed changes or improvements to the funds' proxy voting policies and guidelines. The Investment Stewardship Officer also participates as a member of Vanguard's ESG Risk and Strategy Oversight Committee, and in that capacity, regularly meets with Vanguard's ESG CEO Council. (More information about Vanguard's ESG CEO Council and ESG Risk and Strategy Oversight Committee can be found on the next page and in the Vanguard's Global ESG Governance Framework section of this report, on page 37.)

Board of Directors

Responsible for setting broad policies for the company and the oversight of Vanguard investment products.

Investment Stewardship Oversight Committee

Provides ongoing oversight, guidance and strategic vision on behalf of Vanguard-advised funds, including oversight of Vanguard's Investment Stewardship team.

Investment Stewardship

Responsible for portfolio company engagements, along with the day-to-day operations of the funds' proxy voting process, on behalf of Vanguard-advised funds.

ESG CEO Council

The council provides ESG guidance, oversight and coordination in service of client interests. Functions across Vanguard's global operations, including investment stewardship, along with other relevant functions, provide reports to members of the council. (More information can be found in the Vanguard's Global ESG Governance Framework section of this report, on page 37.)

Risk and strategy oversight

The ESG Risk and Strategy Oversight Committee is a new subcommittee of the ESG CEO Council. By bridging investment products and services and stewardship of portfolio securities, this committee aims to facilitate enterprise strategic alignment and clarify accountability. (More information can be found in the Vanguard's Global ESG Governance Framework section of this report, on page 37.)

Building an effective stewardship programme

Vanguard Investment Stewardship promotes long-term value creation for Vanguard-advised funds and their investors through engagement, proxy voting and sharing perspectives on governance best practices. As such, investments continue to be made in the people and processes that support Vanguard's Investment Stewardship programme. Investments are made in these areas to ensure that our team remains appropriately resourced and that our programme can meet and exceed increasing market expectations. The leadership team, directors and analysts have diverse professional and personal backgrounds and offer deep expertise in areas including corporate governance, credit research, public policy and regulatory affairs, risk management, corporate strategy and research and academia.

In keeping with Vanguard's culture of knowledge sharing and talent development, members of the Investment Stewardship leadership team have held a variety of leadership positions across the company. For example, senior directors have previously held leadership positions within Vanguard's Portfolio Review Department and advice and institutional business areas. The head of Investment Stewardship Policy and Research was previously head of credit research in Vanguard's Fixed Income Group. The programme additionally benefits from ready access to a wide and deep pool of subject matter experts across Vanguard's global operations, including experts on corporate governance, securities law, workforce law, human resources practices (including DEI), executive remuneration, risks management, accounting and cybersecurity.

Every team member is encouraged to focus on professional development, and many hold or are pursuing advanced degrees and certificates including PhDs, master's degrees in business administration, juris doctors, Chartered Financial Analysts® and certified public accountants, as well as graduate degrees in risk management and other subjects. Senior leaders, directors and analysts deepen their expertise through internal and external trainings and conferences and by pursuing specific technical certifications, such as the Fundamentals of Sustainability Accounting (FSA) credential offered by the Value Reporting Foundation (now part of IFRS Foundation) and the CFA Institute Certificate in ESG Investing.

Robust internal trainings are regularly provided on each aspect of the programme, and each member of Vanguard's Investment Stewardship team is bound by Vanguard's Code of Ethical Conduct. These unique perspectives collectively enable Vanguard's Investment Stewardship team to approach its engagement and proxy voting activities from many different angles to promote long-term value creation on behalf of Vanguard-advised funds and their investors.

The team seeks to hire from a diverse pool of external and internal candidates, including from Vanguard's own leadership development programmes. Recent hires onto the Investment Stewardship team reflect a range of experiences, skill sets and personal characteristics that contribute to the diversity of thought and perspectives across the programme.

Proxy voting policy development

Vanguard Investment Stewardship's policy and research team continued to deepen our understanding of the different regulatory environments and market norms under which our portfolio companies operate. For example, the team helped develop new regional proxy voting policies (under the oversight of the funds' boards and a management oversight committee) for companies domiciled in Japan, Brazil, Mexico and Canada, as well as updates to the US, European and the Australia and New Zealand proxy voting policies. (More information about our proxy voting policies can be found in the Proxy Voting section of this report, on page 60.)

Technology supporting our stewardship activities

The Investment Stewardship team uses data and technology as tools to determine how to prioritise the engagement, voting and advocacy activities that will have the greatest impact on long-term shareholder value. Another key focus area for our Investment Stewardship programme during 2022 was the expansion of our data, operations and controls group. Team members are now located in both Vanguard US and UK offices, enabling data analysts to provide more region-focused reporting to engagement and voting directors and analysts. Additionally, the data, operations and controls group implemented several new data dashboards. The information and insights gathered from the dashboards help the team to better track, measure and report on the activities of our Investment Stewardship programme. Investment in our internal systems is ongoing; data and metrics will continue to inform our global policies and will be used to make efficient resource allocation decisions to best scale our global engagement and voting workflows.

Engagements in markets across the world

As we continued to deepen our expertise on regional governance in markets around the world, we engaged with companies in 34 different markets in 2022. These discussions deepen our perspectives on regional regulations and norms and provide us the opportunity to advocate for corporate governance policies and practices that can drive long-term value creation for Vanguard-advised funds.

In focus: Asia

Throughout 2022, we used our engagement activities to broaden our understanding of key corporate governance matters impacting Asian companies and raise awareness of our approach to investment stewardship in the region. We engaged with companies in China, Hong Kong, India, Japan, Malaysia, Singapore, South Korea and Taiwan, with the majority of conversations focusing on board composition and effectiveness, shareholder rights and oversight of strategy and risk. In general, we found that many companies were taking steps to adapt to significant regulatory changes in ESG issues happening in the region.

Japan was a focus in 2022 given the funds' holdings in that market. We engaged with Japanese companies to discuss such topics as board independence, takeover defences, cross-shareholdings (when listed companies own shares in each other), board oversight of strategy and risk and corporate reporting. Despite the Japan Corporate Governance Code encouraging a constructive dialogue between shareholders and directors, we continued to observe that Japanese companies were reluctant to provide engagement opportunities with independent directors. Nonetheless, we were able to make progress in having direct discussions with independent directors as they are elected to represent shareholders' interests.

In South Korea, corporate access has also been limited, but we see a trend of more companies, especially in the financial sector, offering us meetings with independent board members. Independent oversight is crucial in the market which has seen many corporate scandals in recent years, so we were encouraged that several companies which experienced those issues met with us in the second half of 2022.

In focus: Middle East and Africa

While there has been a shift over the last few years towards governance reforms and improved reporting practices in the Middle East and Africa, opportunities remain for better corporate governance practices at many companies, including enhanced disclosure of board composition. We have been proactively engaging with companies in the region, specifically in Saudi Arabia, Kuwait and the UAE, to better understand any barriers to disclosure and encourage improvement. While some Middle Eastern companies have not been particularly receptive to engaging with us (or other investors) in the past, we engaged with a number of companies for the first time in this region. We shared our perspective that more enhanced disclosure allows us, on behalf of Vanguard-advised funds, and other investors to better understand their boards' governance practices and recognise where progress is being made.

Monitoring service providers

Vanguard has a robust enterprisewide supplier management process that monitors and evaluates service providers through the life cycle of the relationship. Our centralised Enterprise Supplier Management team assists business units with supplier identification, evaluation and onboarding. In accordance with Vanguard's Third-Party Risk Management policy, suppliers are assigned a risk profile depending on factors such as the nature of the service, criticality of the relationship and data security. Suppliers categorised as high-risk are subject to more rigorous evaluation and monitoring.

Within Investment Stewardship, the data, operations and controls group continuously monitors our existing supplier relationships, as well as potential suppliers whose offerings may be additive to the Investment Stewardship team. Risk profile categorisations, based on Vanguard's Third-Party Risk Management policy, influence the specific oversight model we have in place for each supplier. We use a performance-evaluation framework in managing our supplier relationships, monitor key performance indicators to determine the ongoing suitability of the relationship and have regular discussions with our vendors to provide feedback and address any performance-related matters. Each prospective supplier is evaluated against our existing relationships for fit within our research process and their ability to drive value for our programme. Following our review of suppliers in 2022, we believe that all services have been delivered satisfactorily.

Further details about how we assess the effectiveness of our investment stewardship activities can be found in the Assurance of Vanguard's Investment Stewardship Programme section of this report, on page 65.

Performance management

Vanguard's global total rewards philosophy is based on the principle that 'Vanguard crew members win when clients win.' It aligns employee remuneration with our business strategy and the investment experience of fund shareholders. Vanguard Europe's remuneration policy promotes sound and effective risk management and takes into account the risk profile of Vanguard Europe, the long-term interests and strategy of the business and the risks presented to it, including sustainability risks. As set out within the remuneration policy, Vanguard Europe's remuneration practices do not encourage risk-taking (including excessive risk-taking with respect to sustainability risks) that exceeds the Vanguard Europe's levels of tolerated risk and do not seek to integrate investment stewardship and investment decision-making. For Vanguard equity index funds, companies are included in or excluded from their benchmark index as determined by the sponsor of the index, which is independent of Vanguard. (More information can be found in the ESG Integration in Vanguard's Funds and Processes section of this report, on page 33.)

Conflicts of interest

Vanguard has an established Investment Stewardship Conflicts of Interest Policy to manage and mitigate any actual and potential conflicts of interest relating to our engagement, proxy voting or public advocacy activities on behalf of the funds. The Investment Stewardship Conflicts of Interest Policy states that all voting personnel must conduct their activities in a manner such that: (i) fund shareholders' interests come first; (ii) conflicts of interest must be mitigated to the extent possible; and (iii) compromising situations must be avoided. A summary of this policy can be found in Vanguard's Engagement Policy.

A conflict of interest, either actual or potential, may be present when:

- Vanguard clients are issuers of securities held in Vanguard portfolios or proponents of shareholder resolutions
- Vanguard business partners or third-party vendors are issuers of securities held in Vanguard portfolios or proponents of shareholder resolutions
- Current and former Vanguard directors or trustees, employees or executives sit on the boards of public companies held in Vanguard portfolios
- Vanguard Investment Stewardship personnel or members of the Investment Stewardship Oversight Committee (the Committee) have personal or familial conflicts with issuers of securities
- Any other significant conflicts are brought to Vanguard's attention

The funds' proxy voting guidelines serve as our primary approach to mitigate and resolve actual or potential conflicts of interest. When specific guidelines are not defined for a given proxy proposal or additional evaluation of the facts and circumstances is required, Vanguard's Investment Stewardship team will take a case-by-case approach.

Further, the Investment Stewardship team records the rationale for certain proxy votes to help ensure that conflicts of interest are not influencing the proxy voting process. Specifically, a record of rationale is maintained for each vote: In any instance when a board-level conflict is present; where specific guidelines for the proposal in question are not defined in the funds' voting policy; and where the vote decision is determined by case-by-case factors using an exception within the voting guidelines.

The high standards reflected in these guidelines and approach result in a process that is in the best interests of each fund and consistent with the objective of maximising long-term shareholder value.

Additional mitigation measures

Our Proxy Voting Conflicts of Interest Policy provides additional measures to mitigate and manage any potential or actual conflicts with respect to the funds' proxy voting. These measures include but are not limited to:

Separation between external client-facing roles. We maintain an important separation between the Investment Stewardship team and other groups within Vanguard that are responsible for sales, marketing, client service and vendor/partner relationships. Our policy prohibits Investment Stewardship team and Committee members from sharing nonpublic information.

Conflict reporting and recusal process. All persons involved in the proxy voting and oversight process are subject to Vanguard's Code of Ethical Conduct. They are required to disclose potential or existing conflicts of interest involving Vanguard business interests or immediate family employment arrangements in accordance with the Vanguard Code of Ethical Conduct policy. Individual proxy voting analysts must recuse themselves from all voting decisions and engagement activities when a personal or familial conflict exists.

Vanguard board members, members of a review or advisory committee associated with Vanguard or former Vanguard senior staff who sit on the board of a public company held in Vanguard portfolios are also required to recuse themselves from any engagements with Vanguard. Nonetheless, the Investment Stewardship team will continue to maintain appropriate coverage to engage with portfolio companies and vote shares on behalf of Vanguard-advised funds.

Refraining from voting. In certain circumstances, Vanguard Investment Stewardship may refrain from voting some or all shares of a portfolio company, or from voting on some or all proposals, when voting would present a potential conflict of interest that cannot be sufficiently mitigated. Situations may also arise in which Vanguard Investment Stewardship or the Committee may determine to engage an independent third-party fiduciary to vote proxies as a further safeguard to avoid potential conflicts of interest or as otherwise required by applicable law.

Voting shares of other Vanguard funds. Certain Vanguard funds (owner funds) may, from time to time, own shares of other Vanguard funds (underlying funds). If an underlying fund submits a matter to a vote of its shareholders, votes will be dealt with in accordance with local applicable regulations. For example, in cases where the owner funds are UK-domiciled, the Investment Stewardship team will not execute votes. Instead, the funds' depositary or trustee will execute the votes, taking into account the best interests of investors.

Vanguard identifies and manages potential conflicts between funds or with other types of accounts through its allocation policies and procedures, internal trading review processes, compliance department trading oversight and oversight by directors, auditors and regulators. We operate under a Code of Ethical Conduct that sets forth fiduciary standards that apply to all personnel, incorporates an insider trading policy and governs outside employment and receipt of gifts.

Employees are required to certify annually that they have read and understand Vanguard's Code of Ethics and have disclosed any potential conflicts of interest. Employees receive training each year to ensure that they will recognise the issues they need to be aware of and identify any conflict at an early stage. Vanguard's Compliance team reports actual conflicts of interest to the funds' boards in the annual Code of Ethical Conduct report.

Vanguard's Investment Stewardship leadership team regularly receives a report of self-disclosed potential conflicts for each team member. The reported conflicts are reviewed against investment stewardship activities to ensure compliance with the conflicts policy. Team member conflicts are maintained in proxy voting and engagement recordkeeping systems to help proxy voting and engagement personnel identify all portfolio companies where a team member conflict is present. When necessary, proxy voting and engagement personnel work with the Investment Stewardship Data, Operations and Controls team to further understand the conflict and, if needed, reassign analyst coverage.

Any violation of the conflicts policy, such as nonrecusal of a vote or engagement in which a conflict of interest exists, is reported to the Committee. **Figure 6** provides examples of actual and potential conflicts of interest identified in 2022 and the actions taken to address them.

Figure 6. Applying our Conflicts of Interest Policy

Actual conflicts identified during 2022	Scenario	Action steps
Personal/familial conflict	Investment Stewardship's recordkeeping system monitored a personal conflict between an Investment Stewardship team member and a publicly listed portfolio company. The analyst had previously disclosed a personal conflict of having prior employment history with the company.	The conflict was reported to the appropriate team leaders and the Investment Stewardship analyst recused himself from all engagement activity and voting at the company's annual meeting. All engagement activity with the issuer and proxy voting responsibilities, on behalf of Vanguard-advised funds, were reassigned to another Investment Stewardship analyst.
The economic interests of certain Vanguard-advised funds presented a potential conflict when considering a shareholder proposal	Identical shareholder proposals were filed at the annual general meetings of Amazon.com, Inc. and Comcast Corp. requesting a report on the board's assessment of the alignment of retirement plan options with company climate-action goals. Both companies included Vanguard funds as options in their retirement plans.	The votes were escalated to the Investment Stewardship Oversight Committee for consideration and review. In this instance, the Vanguard-advised funds offered as potential investment choices under each company's retirement plan abstained from voting on the proposals at each company's respective annual shareholder meeting.

Potential conflict		
Hypothetical example: Separation from Vanguard client-facing roles	An Investment Stewardship analyst receives an inquiry from a relationship manager asking to connect an Investment Stewardship team member with a Vanguard client to discuss how shares are being voted by Vanguard.	In this potential scenario, the analyst immediately forwards the inquiry to Vanguard's Legal department to maintain compliance with the funds' Conflicts of Interest Policy. Vanguard's Legal department informs the relationship manager that the funds' Conflicts of Interest Policy requires a separation between Investment Stewardship personnel and client service teams to avoid the perception of influence due to the portfolio company's status as a client.

ESG integration in Vanguard's funds and processes

Core to Vanguard's mission – to give our investors the best chance for investment success – is our focus on maximising long-term shareholder value. We believe that material ESG risks can impact long-term shareholder value. We evaluate the potential implications of ESG factors on long-term portfolio performance in the context of our unwavering focus on client outcomes. Our global fund lineup includes high-quality equity and fixed income investments across index and active strategies, managed both in-house (through Vanguard's Equity Index Group, Quantitative Equity Group and Fixed Income Group) and by external investment managers. For our sub-advised active funds (both ESG and non-ESG active funds), Vanguard's Oversight and Manager Search team assesses each sub-adviser's ESG integration practices, including an understanding of each firm's process integration, resources and independent approach to active ownership (company engagement and proxy voting activities).

ESG funds

Vanguard takes a thoughtful and deliberate approach to developing new funds, including ESG funds. We are committed to supporting investors' evolving sustainability preferences with funds grounded in our time-tested investment philosophy. Our firm offers both index and active funds with different ESG strategies for clients who want to invest in line with their ESG preferences.

Funds designed to avoid or reduce exposure to certain ESG risks

For investors who want to limit exposure to certain industries or business activities that may pose heightened ESG-related risks or conflict with their ESG preferences, Vanguard's ESG index funds, both equity and fixed income, avoid or reduce exposure to specific industries, such as firearms, tobacco or fossil fuels and to companies in violation of international norms (e.g., UN Global Compact Principles), as determined by the index provider, while tracking broadly diversified indexes in various markets. These funds track indexes that use transparent exclusion criteria based on a company's involvement in certain business activities or practices. Vanguard's Investment Stewardship team conducts portfolio company engagements and votes the funds' proxies on behalf of Vanguard-advised ESG equity index funds, consistent with the approach as discussed in the Vanguard-Advised Equity Funds (Index) section of this report, on page 36.

Vanguard expanded its exclusionary ESG fund range during 2022, launching the following ESG index funds:

- **Vanguard ESG Developed Europe All Cap UCITS ETF**
- **Vanguard ESG North America All Cap UCITS ETF**
- **Vanguard ESG Developed Asia Pacific All Cap UCITS ETF**
- **Vanguard ESG Emerging Markets All Cap UCITS ETF**
- **Vanguard ESG EUR Corporate Bond UCITS ETF**
- **Vanguard ESG USD Corporate Bond UCITS ETF**

These funds can serve as building blocks for a broadly diversified portfolio. We also launched **Vanguard ESG Global Corporate Bond Index Fund**, a mutual fund version of Vanguard ESG Global Corporate Bond UCITS ETF.

Vanguard's active ESG funds

Some investors seek to achieve an investment return greater than the market, alongside an emphasis on certain ESG considerations. Managers of Vanguard's active ESG strategies seek to generate excess return by allocating capital towards companies that the external asset manager has assessed as demonstrating leading ESG practices consistent with the fund's ESG mandate. This may include companies capitalising on decarbonisation opportunities or delivering a positive social or environmental impact. Although the investment methodology may vary by product and manager, for these portfolios, assessing ESG-related risks, opportunities and outcomes is central to the investment strategy. Currently, all Vanguard active ESG strategies are managed by external asset managers. Vanguard has delegated company engagement and proxy voting responsibilities to these external managers and provides regular oversight of these processes.

Globally, Vanguard offers several actively managed ESG funds. In the US, these funds include **Vanguard Global ESG Select Stock Fund**, managed by Wellington Management Company LLP, **Vanguard Baillie Gifford Global Positive Impact Stock Fund**, managed by Baillie Gifford Overseas Ltd., and **Vanguard Global Environmental Opportunities Stock Fund**, managed by Ninety One North America, Inc.

In the UK, these funds include three **Vanguard SustainableLife funds and Vanguard Global Sustainable Equity Fund**, all managed by Wellington Management Company LLP, and all consist of investments which meet certain sustainability criteria, including a net zero commitment.

ESG integration oversight process of our sub-advised active funds

Vanguard employs external asset management firms to manage many of our actively managed funds. In assessing current and prospective managers, we review what we believe to be the key drivers of investment success – firm, people, philosophy and process – and the resulting investment outcomes of portfolio and performance. An element of our process assessment is evaluating managers' ESG integration practices.

Vanguard's Oversight and Manager Search team regularly engages with current and prospective fund managers to examine how they incorporate financially material information as part of its ESG integration oversight process. Key criteria include:

- **Process integration.** Understanding whether there is a systematic and explicit inclusion of financially material ESG factors into a manager's investment analysis and how the manager's approach evolves over time.
- **Resources.** The team reviews how the managers gather ESG research, including what tools they use, whether they employ dedicated ESG research analysts and, if applicable, how those dedicated analysts interact with portfolio managers.
- **Active ownership.** The team also provides dedicated oversight of the active ownership approach of each external manager and looks for ongoing engagement with portfolio companies as well as a voting policy consistent with the manager's investment process. (Note that oversight of the active ownership approach is fully independent and distinct from Vanguard's Investment Stewardship programme.)

Vanguard's Oversight and Manager Search team continues to mature its oversight of the external manager's ESG integration practices as the ESG landscape evolves and data availability improves.

ESG integration in Vanguard's fixed income investment process

Vanguard Fixed Income Group (FIG) has a formal integration process which is designed to identify and incorporate ESG-related risks and opportunities into the investment decisions of both active and indexed fixed income funds managed by Vanguard. FIG believes that ESG risks can impact long-term value creation for investors and that societal and market expectations of issuers will, over time, have an increasing impact on their financial and investment performance. FIG has integrated ESG into its investment process by assessing the financial materiality of ESG risk factors alongside, and in the context of, other investment risks to complement standard credit assessment. Internal credit research teams use inputs from third-party data providers to help inform decisions around different types of ESG risk factors.

Ultimately, the ESG credit risk is based on the analyst's assessment of the materiality of ESG risk factors to investment outcomes. ESG risks can be present across all issuers, including corporate, sovereign and municipal issuers, though certain ESG risks may be of greater or lesser materiality to a given issuer, and the quality and availability of ESG data may vary between asset classes and issuers. FIG's current framework incorporates the probability of a materialised ESG risk and the magnitude of its impact on an issuer's financial profile. FIG's credit analysts then combine the overall credit risk assessment, which incorporates ESG risk factors, where available, with a risk-adjusted relative value opinion to arrive at a security-level recommendation. While portfolio managers are not prevented from buying companies exposed to ESG risks, they must ensure they understand and can clearly articulate the risks and potential returns for taking the risks. This integration into FIG's processes informs its investment teams' decisions, enabling them to allocate capital to companies with a wider lens on the risks each issuer faces.

Consistent with our equity index funds, Vanguard's fixed income index funds have a primary investment objective to track the performance of their stated index. As previously discussed, FIG identifies and incorporates risk factors, including ESG risks, into investment decisions for most Vanguard-advised active and indexed fixed income funds. As part of the index sampling approach that Vanguard's fixed income index funds use, the recommendations of the credit research process, including the valuations affected by ESG factors, are used to optimise investment security selection, and can therefore affect investment decisions.

Credit research analysts for Vanguard's fixed income funds, including our index funds, speak with company management teams to discuss a range of key credit risk topics and, where applicable, raise relevant ESG concerns.

Vanguard-advised equity funds (active)

Vanguard's active equity fund assets that are managed internally are the responsibility of Vanguard's Quantitative Equity Group (QEG). As at 31 December 2022, QEG managed less than 1% of Vanguard global assets under management. QEG relies on a measurable, systematic process to select and manage investments in its portfolios. The group adds value by building portfolios that offer diversified, risk-controlled exposure to systematic stock characteristics that the group's analysis indicates lead to outperformance over time relative to benchmarks (for example, composite measures of earnings growth, financial quality and valuation). QEG research teams continually seek to uncover new ways to assess and control new or additional systematic exposures that can add incremental value and better control risk, including the potential for adding systematic ways of measuring and managing ESG risk exposure metrics that would create additional value for Vanguard investors.

Vanguard's Investment Stewardship team is responsible for portfolio company engagements and proxy voting on behalf of Vanguard-advised funds, which include the equity portfolios managed by QEG and index equity portfolios managed by Vanguard's Equity Index Group. On behalf of Vanguard-advised funds, our Investment Stewardship team engages with boards and company leaders on topics centred around our four principles of corporate governance. Each proxy voting decision on behalf of the funds is made on a case-by-case basis, in accordance with each fund's proxy voting policies and procedures set by its board. (Please see the Our Commitment to Engagement section of this report, on page 40, and the Proxy Voting section of this report, on page 60.)

Vanguard-advised equity funds (index)

Index mutual funds and ETFs represent the majority of Vanguard's global assets under management. Managers of index funds do not make decisions about where to allocate capital, nor do they seek to direct portfolio company strategy or operations. Instead, an index fund manager aims to track the performance of the fund's benchmark index, which is set by third-party index providers; by design, an index fund buys and holds companies for as long as they are included in the funds' specific benchmark. These funds have a primary investment objective to track the performance of their stated index. On behalf of Vanguard-advised funds, which include active and index equity portfolios, Vanguard's Investment Stewardship team engages with companies about material risks (including ESG risks), votes proxies and advocates for good corporate governance practices. Our Investment Stewardship team engages directly with portfolio company executives and board members to understand when issues may present material risks to a company and whether company leaders have plans in place to address and oversee those risks. We support increased disclosure of such material financial risks so that these risks are reflected in company share prices and investors are equipped to make informed decisions.

The portfolio companies in which Vanguard-advised funds invest operate within different legal and regulatory frameworks and local jurisdictions; however, Vanguard's investment stewardship approach remains consistent for each Vanguard-advised fund.

Investment stewardship is not used as an active input to inform trade-related decisions for Vanguard-advised funds. Vanguard-advised funds do not seek to dictate capital allocation decisions or corporate strategy or to intrude on day-to-day operations. Investment Stewardship is focused on promoting long-term value creation for investors in Vanguard-advised funds.

Global ESG Product team

Vanguard's Global ESG Product team, formed in 2021, supports Vanguard's investment product and ESG strategic efforts globally. In 2022, the team hired additional dedicated product specialists in Vanguard's US and UK offices. Team members were also added in Vanguard's Australia office, including a Head of ESG Product for Australia.

The Global ESG Product team closely collaborates with business partners across Vanguard and contributes their expertise. For example, the team works closely with the following Vanguard business areas:

- The Oversight and Manager Search team, to evaluate active managers' ESG integration approaches;
- Product category teams, to assess the ESG product landscape and understand evolving client preferences, which may inform Vanguard's product roadmap and design;
- Client-facing teams, to assess and meet clients' ESG product needs;
- The Investment Strategy Group, to inform ESG research and thought leadership;
- The Communications and Investment Marketing teams, to accurately convey our ESG offerings and approach to clients and other stakeholders;
- The Investment Stewardship and Finance teams, to help enhance Vanguard's ESG reporting, and fund reporting, as required in Europe including the UK;
- The Regulatory Change team in Europe, to address UK and European regulatory requirements; and
- The Office of the General Counsel division (which includes the Legal, Compliance, Global Public Policy, Government Relations and Investment Stewardship teams), to address policymaker or regulatory inquiries on relevant ESG-related matters, including ESG funds and processes.

Vanguard's global ESG governance framework

Vanguard addresses ESG-related impacts and clients' best interests through an integrated structure of boards, committees and functions.

Board oversight of ESG-related risks and opportunities

The Vanguard Group, Inc. (VGI), is owned by our US-domiciled funds, which in turn are owned by their investors. The Vanguard board of directors (VGI board) is responsible for, among other matters, setting broad policies for the company as well as risk management relating to Vanguard's corporate operations. Where applicable, these policies include consideration of material ESG-related risks, such as climate-related risks and opportunities. The VGI board and the US-domiciled funds' boards of trustees (the fund boards) typically meet at least quarterly.

As at 31 December 2022, the VGI board comprised 11 directors, 10 of whom were independent. Members of the board also serve as trustees on the fund boards. The directors bring to each of these boards a wealth of executive leadership experience derived from their service as senior executives, board members and leaders of diverse public operating companies, academic institutions and other organisations.

The VGI board also oversees Vanguard's corporate goals and initiatives aimed at reducing our carbon emissions throughout our global operations and achieving carbon neutrality as a company by 2025. In addition, the board's audit committee is made aware of ESG risks as necessary. Further, a VGI board subcommittee is available as necessary to advise management specifically on ESG issues, including product development and corporate actions.

The fund boards engage in issues affecting the Vanguard funds' evaluation of ESG matters and communicate with management to help determine an effective course of action with respect to sustainability matters relating to our funds. The fund boards also oversee the funds' risk management, including consideration of material climate-related risks, where appropriate. The level of ESG risk evaluation varies by investment style and fund objective. The VGI board and fund boards oversee the day-to-day risk management by various Vanguard departments as applicable, including compliance, fund accounting, fund financial services, investment management, investment stewardship, legal, portfolio review and risk management. In addition, the VGI board and fund boards have regular interactions with internal and external auditors.

Outside the US, the boards of our international businesses and fund entities have similar decision-making authority in their respective regions. Management matters considered and decided in the international regions are reported to the VGI board through global management committees.

Management's role regarding ESG-related risks and opportunities

ESG CEO Council

Vanguard's ESG CEO Council oversees and coordinates our global strategy on ESG-related matters, including climate-related risks and opportunities, at both the corporate and product levels. Vanguard's CEO serves as council chair, and its members include a subset of Vanguard's executive leadership team. The council meets periodically and reports to the VGI board as appropriate.

The council provides ESG guidance, oversight and coordination in service of client interests. It reviews and assesses long-term goals and key initiatives and holds teams accountable for progress throughout the company. The framework underlying the council is organised around three pillars: Investment Products and Services, Stewardship of Portfolio Securities and Vanguard as a Corporate Actor. Functions across Vanguard's global operations align to the pillars and provide reports to members of the council.

Risk and strategy oversight

The ESG Risk and Strategy Oversight Committee is a new subcommittee of the ESG CEO Council that facilitates the council's oversight of global ESG matters through:

- Shared awareness of global ESG risks, strategic opportunities and investment perspectives ; and
- Recommendations for responding to risks and opportunities.

By addressing topics that bridge the Investment Products and Services and Stewardship of Portfolio Securities pillars, the committee aims to facilitate enterprise strategic alignment and clarify accountability.

European ESG governance framework

In addition to our global governance structures, we have regional structures in place to navigate the market and regulatory environments within each jurisdiction in which we operate. The Vanguard companies in Europe include our UK entities, VAM and Vanguard Investments UK, Limited (VIUK), as well as other affiliates including Vanguard Group (Ireland), Limited, and Vanguard Group Europe GmbH (collectively, Vanguard Europe).

The Vanguard Europe boards play an active role in overseeing risk management, including ESG-related risks within Vanguard Europe's overall business strategy, governance framework and risk appetite. The Vanguard Europe boards oversee day-to-day risk management to various functions, including investment stewardship, compliance, fund accounting, fund financial services, investment management, legal, portfolio review and risk management. The boards typically meet at least six times per year. They consider issues affecting Vanguard Europe's evaluation of ESG risk and strategy matters and communicate with Vanguard's management to help determine an effective course of action. Management arranges for periodic relevant training to the boards on ESG matters.

The following climate-related and other ESG subjects have been considered by the VAM and VIUK boards during 2022, with additional focus on the evolving regulatory landscape in Europe:

- Strategies for communicating Vanguard Europe's approach to addressing climate issues;
- Vanguard Europe's approach to engagement with portfolio companies, including on material climate risk oversight and disclosures and our assessment of shareholder proposals related to environmental and social matters;
- Training on ESG regulatory developments, including Vanguard Europe's approach to addressing and implementing regulation;
- Updates on Vanguard Europe's Sustainability Risk Policy; and
- Updates on the development of Vanguard Europe's ESG governance framework.

European ESG Management Oversight Council

Vanguard Europe's recently established European ESG Management Oversight Council (ESG MOC) provides oversight of ESG risks and strategy in relation to Vanguard Europe that may impact the broader Vanguard enterprise and its investment products and services. The ESG MOC is mandated by, and reports into, Vanguard's European Leadership Team and the managing director of Vanguard Europe.

The head of the European Portfolio Review Department serves as the ESG MOC's chair, and its voting members include a subset of the European Leadership Team (namely, the European head of the Investment Management Group, the European head of Enterprise Risk Management, the European chief financial officer and the European head of the Office of the General Counsel). The ESG MOC's remaining members are ESG subject matter experts from across the European businesses. The ESG MOC meets at least monthly and reports periodically to the European Leadership Team, the managing director of Europe, Vanguard Europe boards and other Vanguard European councils and forums, as appropriate.

The ESG MOC has the following responsibilities:

- Acting as the designated forum for the oversight, harmonisation and direction setting on ESG risk and strategy matters related to Vanguard's European businesses;
- Overseeing the integration of ESG considerations into Vanguard Europe functions and processes within the context of Vanguard's global approach to ESG investing and risk appetite; and
- Reviewing UK and European Union (EU) sustainability regulations and the implementation of applicable requirements by Vanguard's European businesses.

More information about Vanguard's ESG governance structure can be found in Vanguard's Report on Climate-Related Impacts.

Working with service providers

Voting technology, research and data services. Vanguard Investment Stewardship uses the Institutional Shareholder Services (ISS) voting platform to execute our vote instructions on behalf of Vanguard-advised funds. ISS is also one of many third-party vendors that provide our Investment Stewardship team with research and data which are used as an input into our proxy voting decisions. Our team consults a range of research and data providers to seek additional perspectives on the nuances of corporate governance in different markets. Through ongoing conversation with our third-party providers, we deliver feedback on existing processes, research and data to ensure we receive comprehensive and accurate information. Using several proprietary and third-party data and research services enables us to independently analyse the issues that can impact long-term shareholder value at portfolio companies. We have established risk oversight processes to manage the proxy voting process and we use control reports to verify the accuracy of all vote instructions.

Index providers. Vanguard's investment and product teams consult with index providers through established procedures to share market trends and feedback. These observations may serve as inputs to index providers' independent processes of creating new indexes or evolving index methodology. As an example, in 2022, following consultation with our ESG index providers in which we shared client feedback and market analysis, changes to the index methodology of our ESG index funds' benchmarks were made. This resulted in improved global and asset consistency and addressed investors' evolving preferences. While Vanguard investment and product teams can share feedback with index providers, final changes implemented are based on independent decisions of the index providers.

ESG data services. As part of Vanguard's multiyear ESG data strategy initiative, Vanguard, led by our Global Investment Data Management (GIDM) team, onboarded additional ESG data to support new ESG product-level reporting for Vanguard's ESG funds. The new data module has enabled the production of Vanguard's European ESG Template (EET), a European (ex-UK) industry-developed reporting template aimed at standardising ESG investor reporting for European (ex-UK) ESG funds. The EET will further enable investors to meet their regulatory reporting obligations while also providing end investors information to make informed investment choices based on their sustainability preferences.

Our commitment to engagement

Engagement on behalf of Vanguard-advised funds

Direct company engagement is a foundation of Vanguard's Investment Stewardship programme.

Across Vanguard-advised funds, our Investment Stewardship team engages with companies to understand how boards disclose, address and oversee material risks, including material ESG risks. Our dialogue with portfolio company directors and executives on material financial risks is part and parcel of promoting long-term value creation for Vanguard-advised funds and their investors. The Investment Stewardship team develops and maintains direct communication with leaders of Vanguard-advised funds' portfolio companies, as we believe that engagement is a primary driver of good stewardship.

Vanguard Investment Stewardship directors and analysts hold candid, constructive conversations with boards of directors and executives to understand how companies govern their long-term strategy and set themselves up to stay relevant today, tomorrow and well into the future. On behalf of Vanguard-advised funds, we do not seek to dictate portfolio company strategy or operations. Engagement topics are centred around our four global principles of corporate governance: board composition and effectiveness, oversight of strategy and materials risks, executive remuneration and shareholder rights. Our leaders and analysts typically meet with members of the executive management team, board directors (preferably independent members), corporate secretaries, investor relations officers or general counsels, depending on the objective of the meeting or topic being addressed. We approach our engagements as ongoing conversations with companies that can span months and years. This long-term approach provides us with opportunities to build trust and enables us to understand a company's corporate governance practices and to monitor progress of those governance practices over time.

Engagements at a glance

1,304 companies engaged | 1,802 total company engagements | 34 markets represented in our engagements | 67% of total Vanguard-advised funds' AUM engaged

Our Investment Stewardship team can receive multiple engagement requests from a portfolio company throughout the year, so we evaluate a range of factors when considering the need for an engagement, such as the purpose and timeliness of a discussion. We evaluate engagement requests carefully and thoroughly, and our decision on whether to engage is deliberate and research driven. When we decline an engagement request, we may still want to engage in the future.

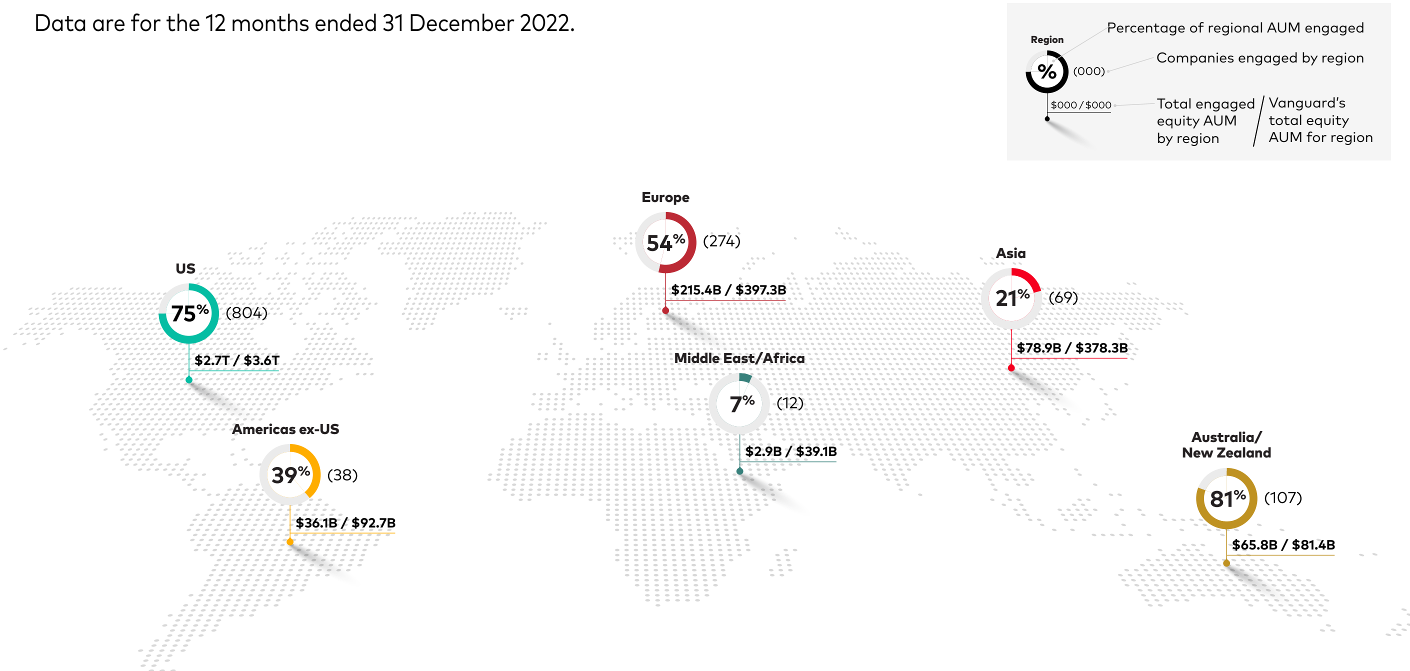
We conduct significant research and analysis to prepare for our discussions with company leaders and board members. Although such discussions can vary widely by company, sector and region (see **Figure 7**), our engagements tend to fall into one of two broad categories:

Strategic engagements. These are typically discussions with members of the board or executive teams in which we develop a thorough understanding of how a company's strategy and long-term objectives align with its approach to governance. These meetings generally cover our four governance principles and provide us with the opportunity to articulate our perspectives on governance best practices.

Ballot item engagements. These discussions may focus on contentious ballot items, such as proxy contests, shareholder proposals or a company crisis. In such cases, we want to hear all relevant perspectives to inform how the Vanguard-advised funds vote, and we may hold discussions with company directors, management teams and shareholder proposal proponents.

Figure 7. 2022 Regional engagement breakdown

Data are for the 12 months ended 31 December 2022.



How Vanguard Investment Stewardship prioritises engagements

In addition to evaluating inbound requests, our Investment Stewardship team proactively identifies and prioritises engagement with portfolio companies using a variety of research and data sources, including proprietary research, which directors and analysts use to identify material risks at our portfolio companies that are aligned to Vanguard's four global principles of corporate governance: board composition and effectiveness, oversight of strategy and material risks, executive remuneration and shareholder rights. For example, we regularly seek engagement with companies where we have identified concerns with a lack of independence for a board or a key committee. We also seek to engage with companies where we have identified potential gaps in material risk oversight.

In 2022 we prioritised engagement with companies in several key emerging risk oversight areas, including board and workforce diversity, human rights and climate-related disclosures, as evidenced through the case studies provided in this report. While we approached each engagement on a case-by-case basis in accordance with the circumstances unique to the company, we prioritised engagements with companies that, in our assessment, were failing to meet regulatory expectations or best practices for disclosure in these areas.

When setting an engagement's priority, we consider, among other details, the materiality of the topic, Vanguard-advised funds' exposure to the company, serious governance concerns and whether we are following up on an earlier proxy voting decision. Our directors and analysts meet with and listen to multiple stakeholders to inform the funds' proxy decisions and deepen our knowledge on a topic. We generally meet with company management and boards of directors, but will also engage with other stakeholders, such as activist investors or nongovernmental organisations, to inform and determine a course of action that is in the best long-term interests of Vanguard fund shareholders.

Specific objectives are developed for each meeting based on the individual circumstances of the company. Investment Stewardship team members may focus on understanding a company's risk oversight or governance processes and structures, discuss ballot items to execute a vote at a company's general meeting or engage on a thematic topic such as board independence.

As a global asset manager, we constantly evaluate the best engagement approach for each region in which our portfolio companies operate to reflect the nuances of their local markets and jurisdictions. Vanguard's Investment Stewardship team engaged with 1,304 companies globally during 2022, and a sampling of our engagements held during the year can be found on the following pages.

Vanguard representatives also participated in several industry panels and governance conferences held in various regions. (More information about our advocacy activities can be found in the Collaboration section of this report, on page 57).

More information about how Vanguard's Investment Stewardship team engages with portfolio companies can be found in Vanguard's Engagement Policy.

Engagement case studies and Insights

The detailed engagement case studies included in Vanguard's annual and semiannual investment stewardship reports, as well as Investment Stewardship Voting Insights, represent a wide range of governance topics, regions and sectors. The outcomes of these discussions demonstrate the benefits of engaging with companies over many years and advocating for corporate governance policies and practices that can drive long-term value creation for Vanguard-advised funds.

Beginning in 2023, Vanguard's Investment Stewardship team plans to provide additional quarterly reporting detailing our engagement activity and rationale for key votes.

Excerpts from the engagement case studies found in our reports and Voting Insights are included below. All reports and Voting Insights are available on our website.

Living wage proposal at J Sainsbury plc ('Sainsbury's')

Region: EMEA

Primary engagement topic: Oversight of strategy and risk

Analysis and vote rationale

J Sainsbury plc (Sainsbury's) is the UK's second-largest retailer. At Sainsbury's 2022 annual meeting, Vanguard-advised funds voted against a shareholder proposal requesting that the company become accredited by the Living Wage Foundation.

In our research, we noted that Sainsbury's disclosed that its pay practices met or were above the real living wage. The company also disclosed that a majority of its outsourced employees were paid a living wage. Beyond direct pay, the company published its practices for overseeing other employee benefits, such as employee discounts. In addition, we observed that Sainsbury's provided disclosure on its approach to balancing different stakeholder pressures and evaluating pay practices throughout the organisation.

We have engaged over several years with Sainsbury's board and executive management. Leading up to the company's 2022 annual meeting, we met with the CEO and chair to discuss the board's perspective on the living wage proposal and on how the board oversees human capital management risks. We also discussed the board's perspective on navigating the cost-of-living crisis. Through the dialogue, we gained insight into the company's practices, including the board's oversight framework for issues related to the cost-of-living. In our assessment, the board appeared to be appropriately overseeing these risks.

As part of our analysis, we also reviewed the potential implications should the company sign up to an independent external pay benchmark, though it had already made commitments regarding wages that included factoring in the real living wage, the National Living Wage and annual peer benchmarking.

Outcome

We determined that the proposal's requests (which were binding) were overly prescriptive in dictating the company's operations. In our view, the setting of wages is an operational decision that is best left to executive management with board oversight. Vanguard-advised funds therefore did not support the proposal, which received 17% support from shareholders.

(To read the full version, please see *Voting Insights | Shareholder Proposal at Sainsbury's Requesting Real Living Wage Accreditation*.)

Proxy contest at Kohl's over company strategy and board oversight

Region: Americas

Primary engagement topic: Board composition and effectiveness

Analysis and vote rationale

Vanguard evaluates contested director elections objectively and with an assessment of shareholders' long-term value as the main driver of our vote. Our evaluation of proxy contests focuses on three key areas: the case for change, the company's approach to governance and the quality of directors (both current directors and the dissident's nominees).

Kohl's is a US-based retail company. Macellum Advisors, an investment firm that owns approximately 5% of outstanding shares, was seeking 10 seats on what will be a 13-member board after the 2022 annual meeting. In 2021, Macellum, along with three other investors, launched a proxy fight at Kohl's, which was settled with Kohl's appointing two of the dissident's nominees plus a third, mutually agreed-upon nominee to the company's board. In January 2022, Macellum launched another proxy fight stating that Kohl's continued to underperform, which in Macellum's estimation signalled a need for more board changes. Several days later, media reports emerged that the company had received an unsolicited takeover bid from Acacia Research at $64 per share in cash. Kohl's has since launched a formal sale process and received several bids. The board has also issued a poison pill to protect the company's interests during the sale process.

Ahead of the annual meeting, we engaged with Macellum leaders and met with seven of Macellum's 10 director nominees. The leaders raised concerns about Kohl's historical performance and its strategy, capital allocation, board independence, board effectiveness and governance practices. Macellum characterised Kohl's sale process as insincere but acknowledged that several purchase offers were reasonable. Macellum highlighted its successful 2021 proxy contest in which it settled with Kohl's appointing two nominees to the board, and it argued that additional board members, beyond its initial two, were required to effect meaningful change.

We also engaged with Kohl's independent directors and executive team. Kohl's leaders described the board's oversight of the sale process and evaluation of bids. Kohl's directors highlighted the company's improved financial performance and three 2021 board appointments as evidence of its responsiveness to shareholders. Company leaders shared Kohl's transformation plan, which focused on growing market share, improving capital management and introducing new brands at its stores.

Outcome

After engaging with the company and with Macellum, Vanguard-advised funds voted to support the directors put forth by the company. This decision was underpinned by several factors. First, the 2021 settlement with Macellum illustrated Kohl's responsiveness to shareholder feedback and openness to board refreshment. Second, although we assessed Macellum's nominees as having appropriate skills and experience, our evaluation of Kohl's board nominees and Macellum's did not reveal a skills gap sufficient for Vanguard-advised funds to believe that a full board turnover was warranted. Third, our engagement with Kohl's company leaders gave us confidence in the board's commitment to focusing on long-term shareholder value. Our analysis led us to conclude that, in this case, a complete board turnover amid a large-scale transformation was not in the best interests of long-term shareholder value and that the board was appropriately overseeing potential mergers-and-acquisitions activity.

(To read the full version, please see *Voting Insights | Proxy Contest at Kohl's Over Company Strategy and Board Oversight*.)

Proposals to approve the supervisory boards' actions at German automakers

Region: EMEA

Primary engagement topic: Oversight of strategy and risk

Analysis and vote rationale

Vanguard-advised funds voted on proposals to approve the discharge of supervisory board members at the annual meetings of Germany's three leading automakers: Mercedes, BMW and Volkswagen.

In Germany, companies are required to have a two-tiered board structure consisting of a management board, which is responsible for the day-to-day operations of the company, and a supervisory board, which performs oversight, contributes to strategy and appoints or removes members of the management board. The supervisory board is designed to give stakeholders, including shareholders and employees, a voice in how a company is run. The supervisory board is also responsible for monitoring the company's compliance with legal, regulatory and corporate governance requirements. German law allows shareholders to cast annual votes to ratify the actions of both the management board and the supervisory board in the previous fiscal year. Since these votes are retrospective, shareholder support (or lack thereof) can be interpreted as how much confidence shareholders have in a company's governance.

In recent years, Mercedes, BMW and Volkswagen have been involved in regulatory proceedings that alleged the automakers had breached EU antitrust rules by colluding to restrict competition in the development of emissions-cleaning technology in their vehicles. The fallout exposed material legal, reputational and regulatory risks to their businesses and resulted in financial penalties for BMW and Volkswagen but not Mercedes. Vanguard-advised funds' votes reflect our assessment of how each company responded to the crisis as well as our level of confidence in their current governance structures, including board composition and the oversight of risk. In the case of BMW, the meeting agenda included a 'bundled' discharge proposal covering the supervisory board as a single entity. Therefore, we were unable to consider voting against specific individuals who we considered accountable for risk oversight failures.

We have regularly engaged with board members and company leaders from each of the three automakers. Our recent discussions have focused on a range of governance topics, including board composition and risk oversight.

Outcome

Our engagements and subsequent research and analysis ultimately informed how we voted. Vanguard-advised funds supported the proposal at Mercedes to discharge the supervisory board. Vanguard-advised funds considered, but did not support, the proposals at BMW and Volkswagen to discharge the supervisory board. In all three cases, due to various factors including the nature of the governance concerns, in addition to turnover and current tenure within the management teams, Vanguard-advised funds' voting decisions focused on accountability at the supervisory board level, choosing to support the discharge of the management boards.

We look for the companies in which Vanguard-advised funds invest to maintain governance structures that facilitate effective risk oversight. We believe there are clear links between the strength of these structures and the likelihood, frequency and severity of governance failures. On behalf of Vanguard-advised funds and their investors, we will continue to engage with Mercedes, BMW and Volkswagen in order to communicate our views on the standard of corporate governance practices at these significant holdings.

(To read the full version and individual company analysis and voting rationale, please see *Voting Insights | Proposals to Approve the Supervisory Boards' Actions at German Automakers.*)

Director capacity at Cromwell Property Group

Region: Australia and New Zealand

Primary engagement topic: Board composition and effectiveness

Analysis and vote rationale

Cromwell Property Group (Cromwell) is a commercial real estate investment and management company with operations in Australia and New Zealand. At Cromwell's 2022 annual meeting, Vanguard-advised funds voted against the re-election of the incumbent board chair, reflecting concerns related to the director's numerous directorships on several public company boards. In advance of the vote, we engaged with the chair of Cromwell's nomination and remuneration committee. The engagement provided a helpful forum for a respectful exchange of views. While the engagement clarified the company's rationale for proposing re-election of the chairman, we remained concerned about the individual's combined commitments across a number of listed companies.

The voting decision at Cromwell reflected the Vanguard-advised funds' 2022 Australia and New Zealand voting policy on director capacity and commitments, which states that the funds may not support a director who holds an executive role at a public company and serves on two or more additional public company boards, or who serves on five or more public company boards. We believe that directors should demonstrably have the capacity and commitment to fulfil their responsibilities as members of each public company board on which they serve. This includes having sufficient capacity to address urgent issues that may arise and require increased commitments and attention.

Outcome

Vanguard-advised funds voted against the re-election of the incumbent board chair after engaging with the chair of the Nomination and Remuneration Committee. Vanguard-advised funds' votes reflect our views on the importance of director capacity; they were not a reflection of our assessment of the chair's personal capabilities as a director or his contributions to Cromwell's board. Ultimately, the chairman was re-elected with a substantial majority of votes cast by shareholders.

Continued engagement with Nabors' compensation committee

Region: Americas

Primary engagement topic: Executive remuneration

Analysis and vote rationale

We've engaged over the last several years with Nabors Industries Limited, a US-based drilling equipment and services company, regarding its executive compensation programme. Nabors' advisory vote on executive compensation – a Say on Pay vote – has failed to receive support from the majority of shareholders over consecutive years. We have shared best practices with company leaders about the structure of its compensation plan and pay-related disclosures. Ahead of Nabors' most recent annual meeting, we engaged with members of the company's board and management team.

The compensation committee chair provided insight into the changes made, including lowering the plan's overall pay level and providing greater transparency into how the committee selected a peer group for benchmarking purposes. The pay level has been a concern voiced in our previous engagements and by other shareholders.

Although we noted that Nabors' new peer evaluation resulted in a more comparable group, we remain concerned that several of the selected peer companies are significantly larger by market capitalisation; compared with the market practice of using similar-sized companies, this can lead to benchmarking pay to outsized levels. In addition, Nabors' overall compensation package remains above the median pay level of its new peer set. In our assessment, despite a reduction in total compensation, pay and performance were misaligned based on the company's continued underperformance. We acknowledged the compensation committee's efforts and encouraged the chair to continue analysing and refining the peer group to achieve greater alignment.

We provided additional feedback on structural components of the executive compensation plan and expressed concern that the long-term incentive plan's performance criteria were measured over just one-year periods. Lengthier performance periods of at least three years better align executive compensation with the interests of long-term shareholders. We also examined the rigor of the performance goals established by the committee and noted how some targets were set below the prior year's actual performance. On behalf of Vanguard-advised funds, we look for companies to establish rigorous criteria that incentivise outperformance year over year.

Outcome

Through our multiyear engagements with Nabors, we have observed improvement in the company's responsiveness to shareholder feedback. The compensation committee has taken actions regarding such feedback, including efforts to initiate change in the compensation plan and improved disclosure of the decision-making rationale behind revisions to the compensation programme. Although we acknowledge that progress by supporting the election of directors serving on the compensation committee, Vanguard-advised funds did not support the Say on Pay proposal again this year. The proposal received only 32% support from shareholders at the annual meeting.

Executive remuneration plans at founder-led Zalando and HelloFresh

Both Zalando, an online fashion retailer, and HelloFresh, which sells and delivers meal kits for home preparation, are independent, founder-led e-commerce retail companies headquartered in Germany.

Each received investment in its early stages of development from the Berlin-based start-up studio Rocket Internet. In recent years, we have had concerns about the executive remuneration plans at Zalando and HelloFresh. But we have also seen a divergence in the approaches the companies have taken to address those concerns.

Company: Zalando

Region: EMEA

Primary engagement topic: Executive remuneration

Analysis and vote rationale

At Zalando in 2021, Vanguard-advised funds did not support a proposal to approve the remuneration policy. The resolution passed but drew substantial shareholder dissent. The company's unconventional compensation structure allows management board members to choose their own pay mix. Although Vanguard is not prescriptive regarding the specifics of pay-plan structures, Zalando's plan raised concerns because of the lack of performance conditions attached to some variable components and the opportunity for the board to use discretion. Overall, we found it difficult to understand how the policy would ensure pay-for-performance alignment. In January 2022, we engaged with and conveyed our feedback to the supervisory board chair, who acknowledged the nonstandard nature of the plan but spoke more of its merits and did not indicate that changes would be forthcoming.

Outcome

At the 2022 annual meeting, Vanguard-advised funds voted against the remuneration report as a reflection of our continued concerns – namely, the lack of clear alignment to financial performance targets and the lack of responsiveness to ongoing shareholder concerns.

Company: HelloFresh

Region: EMEA

Primary engagement topic: Executive remuneration

Analysis and vote rationale

Similarly at HelloFresh, in 2021, Vanguard-advised funds did not support a proposal to approve the remuneration policy. In this case, the resolution was rejected, with over 50% of shareholders choosing not to support it. As with Zalando, we subsequently engaged with the supervisory board chair at HelloFresh. During that call, the chair demonstrated a significant shift in approach compared with prior years. With the new remuneration policy to be presented to shareholders at the 2022 annual meeting, the board was planning wholesale reforms. The company communicated a robust process by which it had weighed shareholder feedback and assessed the available options. We were encouraged by the board's responsiveness and its strategy to align executive pay plans with long-term shareholder interests.

Outcome

Although Vanguard-advised funds did not support the remuneration report at the 2022 annual meeting because of several issues including excessive use of discretion, Vanguard-advised funds did support the new policy for ongoing remuneration.

Vanguard Investment Stewardship understands that each company is unique. But as public companies mature, we look for executives and boards to align with the appropriate market and regulatory standards.

Remuneration in the Netherlands

Region: EMEA

Primary engagement topic: Executive remuneration

Analysis and vote rationale

In 2022, Vanguard's Investment Stewardship team engaged with listed companies representing well over half of the Vanguard-advised funds' assets under management in the Netherlands. Most of our engagements with Dutch companies covered executive compensation, as related proposals were some of the most contested during the Dutch 2022 annual meeting season.

Dutch law requires the submission of a remuneration report at a company's annual meeting for an annual advisory vote, as well as submission of the remuneration policy for a binding vote at least every three years. Unique in the European market, Dutch companies are required to disclose how they consider social acceptance of other stakeholders, including employees, consumers and the public at large, when formulating their remuneration policies. We have observed that while many Dutch companies have remuneration plans that are well-aligned to the interests of both shareholders and other stakeholders, others demonstrate room for improvement in terms of disclosure and alignment with long-term shareholder value considerations.

Outcome

In 2022, Vanguard-advised funds supported a large majority of remuneration reports and policies in the Netherlands. However, the funds voted against some policies because of concerns over their lack of focus on long-term value creation and shareholder alignment and against some remuneration reports based on concerns regarding limited disclosure of incentive plans and targets. At some companies, Vanguard-advised funds voted against relevant board committee members for failing to act on high shareholder dissenting votes from the prior year when we had concerns regarding key aspects of executive remuneration.

This year, nearly two dozen Dutch companies in our holdings received more than 20% dissent on remuneration policies or disclosures. We sought to engage with all of them, including those about which Vanguard-advised funds' did not have particular concerns, to share our approach to long-term focused, performance-linked executive remuneration and to better understand their approach to setting and disclosing executive pay and considering the views of their investors.

New remuneration requirements at Australian banks and insurers

Region: Australia and New Zealand

Primary engagement topic: Executive remuneration

Analysis and vote rationale

Over recent years, we have engaged with portfolio companies in Australia's banking, wealth management and insurance sectors concerning issues raised by the Financial Services Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry report in 2019.

As a result of the report, the Royal Commission is implementing new executive remuneration standards for prudentially supervised institutions (banks, insurers and superannuation funds). These requirements were set by the sector's prudential regulator, the Australian Prudential Regulatory Authority (APRA) in late 2021 and will take effect in phases beginning in 2023.

One notable aspect of these new APRA standards is a requirement for boards to give 'material weight' to nonfinancial measures in remuneration plans for CEOs and key executives. These measures will need to apply to both short-term and long-term variable rewards and be explained in the context of the specific risk environment in which the company operates.

In our engagements with Australian banks and insurers during 2022, including AMP Limited, Australia & New Zealand Banking Group, Commonwealth Bank of Australia Limited, Insurance Australia Group, Macquarie Bank Limited, National Australia Bank and Westpac Banking Corporation, we noted a heightened awareness of the challenges boards face in meeting these new requirements. This was particularly evident with respect to the design of long-term incentive plans, which have traditionally been based solely on financial metrics such as total shareholder return (TSR) and/or earning per share (EPS). In our engagements, board and remuneration committee chairs expressed that TSR and EPS, along with other traditional financial metrics, were generally easier to quantify and demonstrate alignment to financial outcomes than the broader set of considerations, such as customer outcomes and community standards, such that they now need to be included in the design of executive remuneration plans.

We observed that the banks and insurers we have engaged with in Australia have made significant progress in reviewing their remuneration frameworks. This includes refining (or in some cases introducing) policies regarding the exercise of board discretion to withhold variable remuneration awards for probity or conduct reasons (often referred to as 'malus' and 'clawback' policies). Some boards have also begun to introduce specific nonfinancial measures into executive remuneration plans, relating to issues such as corporate reputation, customer satisfaction and risk culture.

Outcome

Vanguard-advised funds will closely scrutinise the remuneration structure changes that Australian financial institutions make in response to these regulatory changes in 2023. Based on our engagements, we expect that the nonfinancial metrics adopted will reflect the risk environment each institution faces, be measurable against criteria and targets that are disclosed in advance and not reward executives with extra remuneration for undertaking work that should be considered part of their core responsibilities.

Shareholder rights proposals at Netflix, Inc.

Region: Americas

Primary engagement topic: Shareholder rights

Analysis and vote rationale

Netflix, Inc. (Netflix), the US-based streaming service and production company, had multiple proposals on the ballot at its 2022 shareholder meeting that focused on aspects of shareholder rights; three of these were put forth by the company, and one was presented by a shareholder.

We have engaged with members of the Netflix management team and the board multiple times over the last five years. In that time, we have encouraged refinements to Netflix's corporate governance structure – which has limited shareholder rights relative to market norms – through engagement, voting in support of shareholder proposals on certain governance matters, and voting against directors for not implementing majority-supported shareholder proposals. After years of resisting many of these reforms, Netflix chose to adopt a number of these refinements – explaining that it now considered them appropriate at this stage of the company's life cycle – pending approval at its 2022 shareholder meeting.

Specifically, the company sought shareholder approval for the following changes:

- Declassification of the board, requiring all directors to stand for election each year (as opposed to serving staggered three-year terms). In our view, annual election of directors protects against board entrenchment by providing an accountability mechanism to shareholders for all directors each year.
- Elimination of supermajority voting provisions, enabling changes to charter and bylaws to be approved by a majority of shares outstanding (as opposed to the then-current 66⅔% requirement).
- Granting a group owning at least 20% of the company's outstanding shares the right to call a special meeting of shareholders. This provision provides an avenue for shareholders to effect change beyond the annual meeting cycle (which is under the company's control).

Outcome

In each of these cases, the changes recommended by the company (and supported by the board) aligned with our views on fundamental shareholder rights. Vanguard-advised funds supported the proposals, which received sufficient levels of support from shareholders to be approved.

Netflix also received a shareholder proposal regarding the elimination of supermajority voting provisions. Because of the company's binding proposal to do the same thing and the duplicative nature of this nonbinding shareholder proposal, Vanguard-advised funds did not support the proposal.

We will look to monitor Netflix's implementation of these governance provisions.

Engagement seeks understanding of Kikkoman's takeover defence plan

Region: Asia

Primary engagement topic: Shareholder rights

Analysis and vote rationale

In May 2022, we engaged with executives of Kikkoman Corporation, a Japanese food producer, to discuss shareholder rights and, in particular, the company's takeover defence plan (commonly known as a 'poison pill'). The plan required any person or group that acquires 20% or more of the company's shares to disclose their intent and comply with specific rules. If a bidder does not comply, then the company may issue more shares to all other shareholders, which aims to dilute the bidder's shareholding. Kikkoman has had a takeover defence plan since 2006, and its next three-year plan was up for shareholder approval at the June 2022 annual meeting.

When a company has a takeover defence plan, we seek to understand why it has put such a plan in place, including what risks the company is trying to mitigate and how the plan benefits long-term shareholder value. There is a risk that having a takeover defence plan deters potential bidders from making takeover offers that may be beneficial to long-term shareholder value. We want to understand how the board has considered this risk.

One key condition we look for when companies have a takeover defence plan is the composition of the special committee that evaluates transactions and bids. We prefer this committee to be composed of independent directors. Independent oversight in these scenarios helps to ensure that any action taken by the board and company is in shareholders' best interests. Japanese boards often have generally lower levels of independent nonexecutive directors than companies in the US or Europe, so ensuring an adequate representation of individuals independent of company management is important to provide checks and balances to decision-making.

We discussed our concern that Kikkoman's special committee included a director who could be considered nonindependent. That director, Takeo Inokuchi, was previously CEO and chair – and now is honorary adviser – of Mitsui Sumitomo Insurance Co., Limited, the non-life-insurance subsidiary of MS&AD Insurance Group Holdings. MS&AD is a Kikkoman shareholder, and Kikkoman holds shares in MS&AD – a practice known as 'cross-shareholding' in Japan. Kikkoman also holds non-life insurance with MS&AD and thus has a business relationship with the company. During our engagement, we sought to understand how Kikkoman has evaluated Inokuchi's independence. Kikkoman explained that it views the business transaction as nonmaterial and the cross-shareholdings as small. Therefore, in its assessment, these factors had no impact on Inokuchi's independence.

Outcome

We evaluated Kikkoman's disclosure, as well as the insights provided in our engagement. Ultimately, we felt that Inokuchi had significant ties to – and a position with – a business that had various connections with Kikkoman, and therefore we did not consider Kikkoman's special committee to be composed fully of independent directors.

As a result, at the June 2022 annual meeting, Vanguard-advised funds did not support renewal of the takeover defence plan. Although the plan passed, 45% of shareholders voted against it, up from 28% dissent in 2019. We will continue to monitor Kikkoman's takeover defence plans for enhanced shareholder value.

Outreach on climate risk disclosure and coal exposure

As part of our ongoing engagements, we continued to have dialogue with portfolio companies with material exposure to climate risks to better understand their approaches to climate risk oversight, management and disclosure.

On Scope 1 and 2 emission disclosure

For companies in sectors with high exposure to climate risks, we believe that disclosure of Scope 1 and 2 emissions is appropriate. A small portion of these public companies have not yet provided the market with disclosure of these emissions within their operational and/or financial control.

In 2022, we undertook an analysis of our index equity portfolio to identify companies in sectors with high exposure to climate risk that were not reporting on their Scope 1 and 2 emissions. Following thorough research, we prioritised a subset for engagement based on our funds' risk exposure. We conducted outreach to confirm whether the company had provided disclosure or was in the process of doing so, or whether there were reasons why the company was not disclosing this information.

During our outreach with US companies, we noted that a number of companies reported they had work already underway to provide emissions disclosures. In some cases outside the US, we identified companies who were not planning to provide such disclosures and did not provide us with a compelling explanation for their decision. In four such cases in the EMEA and APAC regions, the funds withheld support for the re-election of a board member with responsibility for climate risk oversight and reporting in order to express our concern.

On coal exposure

In 2021, we published an overview describing how we assess board oversight, risk mitigation and disclosure from portfolio companies with significant exposure to coal. In 2022, we engaged with several coal-exposed companies across the EMEA and APAC regions to better understand their boards' approaches to strategy and risk oversight and to understand each company's approach to disclosure of material risks. Each engagement was focused on the facts and circumstances unique to each company, including local market considerations.

One topic discussed with company leaders was how their organisations were navigating the impacts to energy markets stemming from the Russian invasion of Ukraine, including concerns about the stability, affordability and security of energy supplies. These concerns manifested as a complicated dynamic: on the one hand, an increase in coal demand in the short to medium term to fill the gaps of Russian gas and, on the other, a perceived acceleration of interest in an energy transition in the medium to long term.

In some cases, we heard from companies about their rationale for proposing a spin-off or separation of coal assets. At other companies, we observed shareholder activism targeting coal-exposed companies and seeking an acceleration of companies' energy transition plans. In several engagements, we learned about how companies are addressing the challenge of navigating a transition from coal that balances social, economic and environmental considerations in countries reliant on coal for energy needs.

We used our engagements to provide feedback on the climate-related disclosures these companies were providing to the market and encouraged improvements that we believed would be helpful to shareholders such as further alignment to the TCFD recommendations and more detailed scenario analysis. These engagements enhanced our understanding of the competing priorities boards are balancing in their oversight of material climate-related risks and related mitigation strategies in alignment with the Paris Agreement,[6] the complexities of the energy transition and, ultimately, long-term value creation for shareholders.

Engaging with South African coal mining companies

In 2022, we engaged separately with two South African coal mining companies, Exxaro Resources (Exxaro) and Thungela Resources (Thungela). Our purpose was threefold: We established an open line of communication with company leaders to continue a constructive dialogue, developed a better understanding of each board's oversight of material climate risks and long-term strategy and shared our perspective on effective disclosures.

At companies with significant exposure to thermal coal, we seek to understand the actions that boards take to identify, understand and mitigate material risks related to the expected transition away from thermal coal in order to support the long-term value of Vanguard-advised funds' investments in these companies.

Exxaro leaders provided context regarding the company's approach to board refreshment and changes in board committees overseeing material business risks. They explained that the areas of oversight of different committees creates synergies and overlap as well as how different skills from each committee contributed to effective board dynamics. They noted a shifting organisational mindset from focusing on risks and compliance to assessing business resilience and opportunities.

Thungela's chair spoke about the experience, diversity of thought and commitment of the company's relatively new board. We encouraged the company to consider potential improvements in public disclosures of the governance oversight processes of material climate risks and measures to ensure the board has access to relevant skills and expertise to provide shareholders with increased transparency into these matters.

While recognising the long-term implications of climate risk on their businesses in the coming decades, both companies separately expressed confidence in the strong fundamentals of coal demand over the next 10 to 15 years, as well as a determination to generate value from the favourable commodity price cycle to create value for shareholders. Leaders from both companies noted the importance of ensuring a transition from coal that balances social, economic and environmental considerations, particularly in South Africa, which remains reliant on coal for its energy needs.

Both Exxaro and Thungela conveyed that they are focused on reducing their operational emissions according to published targets and

6 The Paris Agreement sets a goal of holding the increase in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels. It does not prescribe a single pathway to reach those goals. Rather, it is a binding international treaty that requires all countries to commit to, communicate and maintain national-level greenhouse gas budgets to achieve the global temperature goal. The Vanguard-advised funds do not dictate company strategy. As shareholders, the Vanguard-advised funds seek to understand whether and how companies and their boards are planning for resiliency against the backdrop of this stated policymaker goal. We believe that boards are responsible for determining risk mitigation approaches to maximise shareholder value in their companies and planning for an uncertain future. Where there are legally binding or government-designated budgets for different industry sectors associated with the agreement, we believe companies should disclose how their targets and strategies are appropriate in the context of those factors.

that they recognise the critical role innovations, new technologies and value chain partnerships will play in the energy transition. At the same time, the companies articulated that they were pursuing different strategic approaches and value propositions for investors. Exxaro stated it was developing a phased decarbonisation plan and aimed to be, over time, a diversified company providing energy and mineral resources for a low-carbon economy. Thungela said that its strategy was based on a view that coal supply would persist and that the company was not looking to diversify its portfolio, but rather was focused on being a responsible owner and operator of coal mines.

We acknowledged the disclosures that the companies were providing to the market to help investors understand their approaches to governing and managing material climate risks. We asked how each company was considering updating its scenario analysis to account for evolving policies and regulation. We also encouraged closer alignment of climate-related disclosures with the TCFD recommendations to enhance the consistency and comparability of both companies' reporting. Exxaro stated it would review its climate reporting during 2023. Thungela had previously committed to issuing a fully compliant TCFD report in 2023.

Focus on boardroom and workforce diversity

DEI-related risks and opportunities in the boardroom and workforce were also top engagement priorities with the Vanguard-advised funds' portfolio companies to promote long-term value creation for our investors. Consistent with our principles-based approach to evaluating companies' corporate governance practices, in 2022 we maintained a focus on board composition, including board diversity, with consideration for regional regulations and norms.

Through our reports, Policy and Voting Insights and proxy voting policies, we articulate our perspective for boards on our approach to boardroom and workforce diversity and look for disclosure on both measures where appropriate. We seek disclosure of workforce diversity measures (gender, race and ethnicity) at the board, executive, nonexecutive and overall workforce levels. Globally, companies should reflect these and other categories appropriate to their local jurisdictions, industries and company-specific needs.

Board diversity outreach

We updated our European and Australian proxy voting policies in 2022 to reflect our view that companies should meet local market standards and regulatory requirements for gender and ethnic diversity on boards.

In August 2022, on behalf of Vanguard-advised funds, Investment Stewardship wrote to dozens of ASX-listed companies whose boards at the time did not meet the ASX Corporate Governance Principles' ('the Principles') recommendation that boards be composed no less than 30% of each gender to better understand how they were planning to achieve the ASX's recommendation. We were encouraged to hear the thoughtful approach that many boards were taking, as well as the various challenges they encountered, especially with recruitment and staggered board elections. The funds' Australia and New Zealand voting policy this year noted that the Vanguard-advised funds may vote against directors at companies that were not meeting the ASX recommendation. In the end, the funds voted against six directors at six companies where we assessed that boards were not making adequate progress on board composition related to gender diversity in accordance with the ASX's Corporate Governance Principles' recommendation.

In Europe, where a mix of binding regulations and comply-or-explain principles on board gender diversity are well-established, Investment Stewardship, on behalf of Vanguard-advised funds, proactively engaged with many companies that, in our assessment, did not yet meet their market's best practices or regulatory expectation for gender diversity. The Vanguard-advised funds did not support the election of directors at 50 portfolio companies in the funds' European holdings, indicating concern with a lack of progress in board diversity.

We are one of the many voices and inputs contributing to the discussion about the importance of diversity, and change can take time, but we are pleased by the progress we've observed so far. In Europe, the UK and Australia, 46% of the portfolio companies we engaged with in 2021 on the topic of board diversity increased gender diversity on their boards in 2022.

We also observed increased levels of ethnic diversity on UK boards in 2022, and an update to the Parker Review, published in March, reported that all FTSE 100 companies either met or had committed to meeting the voluntary standard.[7] As a part of our ongoing engagement on this topic, we met in March 2022 with the only company that lagged the voluntary standard. The company did not meet the voluntary standard due to an unforeseen departure of an ethnically diverse board member. In our discussion, we were reassured by the board's commitment to diversity and plan for a replacement. The company appointed a board member from a minority ethnic group by the end of 2022.

The Parker Review expectation for FTSE 250 boards to appoint at least one director from an ethnic minority by 2024 was frequently discussed during our engagements. We continue to monitor portfolio company boards' overall composition, including their mix of gender and ethnic diversity.

Board diversity at Vodafone Group plc (Vodafone)

Region: EMEA

Primary engagement topic: Board composition and effectiveness

Analysis and vote rationale

Vodafone Group plc (Vodafone) is a telecommunications company operating in Asia, Africa, Europe and Oceania. We engaged with Vodafone leaders prior to Vodafone's general meeting in 2022 after observing that the company failed to meet the recommendations of the Parker Review because of the unanticipated resignation of a director who faced a conflict of interest in 2021. We look for companies to be aligned with local practice intended to support gender and ethnic diversity on boards.

We engaged with the chair of the board and discussed various challenges, risks and opportunities associated with the company and broader industry in delivering long-term value for shareholders. We also sought to better understand Vodafone's board evolution plans. The chair shared the board's commitment to diversity and to meeting the Parker Review recommendations; the director relayed that the board had a recruitment process underway and that it was hoping to add a director with appropriate qualifications. The chair relayed that the board was taking a considered approach to ensure the right balance of relevant skills, industry background and diversity characteristics.

7 See 'Improving the Ethnic Diversity of UK Boards', an update report from the Parker Review Committee, available at https://assets.ey.com/content/dam/ey-sites/ey-com/en_uk/topics/diversity/ey-what-the-parker-review-tells-us-about-boardroom-diversity.pdf

Outcome

Where boards fall short of local norms or legal standards without appropriate grounds and disclosure, Vanguard-advised funds may vote against the chair of the nominating committee or another relevant director. In this case, our research confirmed that while Vodafone fell short of local market practice, this was due to the unexpected resignation of one board member. The company also stated the board's intention to take active steps to get back in accordance with the Parker Review recommendations. Therefore, despite the board not being aligned to market expectations related to diversity at the time of the vote, the funds voted for the re-election of the chair, who was also the chair of the nomination committee, and the director was re-elected with nearly 90% support from shareholders. We observed that following the annual meeting, the company appointed a new director who added relevant financial and telecommunications experience; with the addition of this director, the board was brought in line with the standards of the Parker Review.

For more boardroom and workforce diversity case study examples, please reference pages 36–38 in the *Investment Stewardship 2022 Semiannual Report* and pages 20–21 in the *Investment Stewardship 2022 Annual Report*.)

Monitoring progress and escalation

Our Investment Stewardship team monitors how Vanguard-advised funds' portfolio companies evolve their governance practices and public disclosures over time. We will look for progress by a portfolio company in addressing specific governance concerns. The team tracks engagement activity and progress against any objectives identified during a prior engagement in a proprietary database; milestones and timelines for expected company action may be recorded as appropriate.

In determining an approach for escalation in instances where we have ongoing governance concerns, the team considers the materiality of the issue at hand, the receptivity and responsiveness exhibited by the company and an assessment of whether such escalation measures are in the best interests of Vanguard-advised funds that hold the company's shares. Our escalation approach provides appropriate flexibility to take actions relevant for each specific situation, such as direct company engagement, voting in support of a relevant shareholder resolution, withholding support for relevant board members or voting against the board of directors, outreach from the investment stewardship officer or public advocacy of our perspective on the topic.

As necessary, Vanguard's Investment Stewardship team will escalate company matters on a case-by-case basis to the Investment Stewardship Oversight Committee and the funds' boards of trustees for further guidance. If improvements are not made, the funds' boards of trustees will take appropriate actions that are in the best interests of each Vanguard fund, with appropriate input from Vanguard's Investment Management Group and any relevant external managers.

The following case studies provide examples of actions taken to address Vanguard's concerns of continued poor governance practices.

Engagements and votes at Ferrexpo on board composition, risk oversight

Region: EMEA

Primary engagement topics: Board composition and effectiveness; oversight of strategy and risk

Analysis and vote rationale

Over the past several years, Vanguard's Investment Stewardship team have regularly engaged with board directors and company leaders of Ferrexpo, a UK-listed, Swiss-based commodity trading and mining company with operations in Ukraine. Ferrexpo is one of the world's largest exporters of iron ore pellets.

Our recent discussions have covered the impact of Russia's invasion of Ukraine on the company, its operations and its workforce. Previously, we have focused on corporate governance, board composition and independence and risk oversight concerns. We have also engaged with the company on a range of governance topics such as charity funding and donations, the resignation of an auditor and investigations into alleged wrongdoing by the former CEO and related governance issues.

We discussed the company's response to those issues, including board changes and improvements in internal policies, processes and controls. We raised concerns about board composition and independent oversight, and we encouraged improvements in governance to ensure strong oversight, as well as clarifications in public disclosures to provide more context and background to the market.

Vanguard-advised funds' votes at the last three annual general meetings reflected some persistent concerns regarding governance, risk oversight and disclosure, while recognising gradual progress and responsiveness to shareholders' feedback.

At the 2020 meeting, Vanguard-advised funds voted against approving the remuneration report and re-electing the former CEO. We had previously questioned his presence on the board, the consultancy fees paid to him and the reputational risks and scrutiny as a result of the ongoing investigations. Because issues persisted, we did not support the re-election of the board chair or the senior independent director (SID), given our governance and risk oversight concerns.

At the 2021 meeting, the funds supported the election of a new board chair, after the company described a rigorous appointment process and justified the reasons for a nonindependent chair. The funds did not support the re-elections of the former CEO or the SID, given their continuing presence on the board. We encouraged Ferrexpo to address shareholder feedback about board composition and about the person best placed to effectively carry out the SID's oversight role.

Outcome

At the 2022 meeting, Vanguard-advised funds continued to withhold support for re-electing the former CEO. We provided feedback encouraging the company to improve its disclosures on board processes and oversight. At the same time, we noted improvements in governance and risk oversight, including the appointment of another board member as the SID. Vanguard-advised funds supported the re-election of all directors other than the former CEO. Our future engagements with Ferrexpo will look to focus on board composition and strong risk oversight.

A lack of responsiveness to shareholder concerns at Natera

Region: Americas

Primary engagement topic: Board composition and effectiveness

Analysis and vote rationale

At the 2021 annual meeting for Natera, a US-based biotechnology company, Vanguard-advised funds did not support the re-election of the lead independent director, in part because he served on five public company boards, which raises concerns about a director's capacity to dedicate the requisite time and attention to effectively carry out their responsibilities at each company. That number of director commitments falls outside Vanguard-advised funds' director overboarding policy. A majority of shareholders also voted against the director's re-election. Despite shareholders' 2021 opposition, Natera decided to continue the director's service. And that director's public board commitments actually increased in 2022.

When a director stays on a company's board despite failing to win majority shareholder support at the prior year's meeting (a case known as a 'zombie director'), Vanguard-advised funds may withhold support from the nominating committee chair. Although we recognise that Natera acknowledged the prior year's vote in its 2022 proxy statement, our research and analysis found that the statement did not fully address the underlying concerns that drove the lack of support for the director.

Effective corporate governance requires that boards and management serve in the best interests of the shareholders they represent. Investors' ability to elect company directors is critical to ensure this alignment of interests. Vanguard-advised funds will encourage a company to replace or remove a director who fails to draw more than 50% of shareholder votes. In the rare event that a director continues to serve despite an unfavourable vote outcome and board refreshment is not an option, we look for companies to be sufficiently responsive to shareholders by addressing any underlying issues that drove the lack of support for that director.

Outcome

As a result, at the 2022 annual meeting, given our concerns about the oversight of director election and appointment, Vanguard-advised funds withheld support from the nominating committee chair as the person responsible for nomination best practices.

Engaging on behalf of fixed income funds

Direct engagements with issuers are among the ways Vanguard integrates ESG risk considerations into the investment process for its fixed income funds. FIG credit research analysts speak with company management teams to discuss a range of issues that might pose a financial or reputational risk, including material ESG risk. Discussions also include key topics related to their business and capital market activities. Vanguard's focus is on financial materiality, so analysts engage on significant risks and opportunities that could impact the issuer's ability to meet its current and future obligations, including ESG factors, business strategy, capital policy, quality of company disclosures and specific idiosyncratic concerns. Engagements are held with issuers throughout the investment life cycle including the preissuance stage, the preinvestment stage, during the holding period, the refinancing stage and when any issuers or borrowers default.

While we aim to hold proactive engagements with companies, some of our engagements are reactive, or held based on a materialised risk. For example, FIG credit research analysts may engage with companies to better understand the financial impact of specific emerging ESG risks, proactively seek enhanced disclosures and understand how companies are working to mitigate risks.

Investor roadshows provide another opportunity to engage with issuers around sustainable debt issuance. Credit research analysts consider investments from a risk/reward perspective alongside any ESG risk factors. Investor roadshows can serve as an input to Vanguard's investment due diligence as analysts try to understand an issuer's need for the bond issuance and how the debt will be repaid. Roadshows can help inform an analyst's decision of whether to buy new bonds coming into the market.

FIG continues to make improvements to its stewardship efforts to ensure credit research analysts have the right data, the right conversations and consistent global processes to efficiently analyse and incorporate material ESG risk factors within their investment processes.

Emerging markets sovereign issuers

During 2022, FIG credit research analysts met with several emerging markets (EM) sovereign issuers including finance ministries and central banks. Some of these meetings were part of large conferences, such as the International Monetary Fund (IMF) meetings, while others were organised by brokers. FIG credit research analysts also travelled across central Asia, eastern Europe, sub-Saharan Africa and Latin America to meet with policymakers in those areas. In our discussions with both EM sovereign issuers and policymakers, we shared our views on issuers' financing plans and provided our perspectives on macroeconomic and ESG policies.

For example, FIG credit research analysts held several meetings with the Romanian Ministry of Finance throughout 2022. In these meetings, we shared our view that over time, increasing debt issuance in the country's local currency and USD could help diversify the investor base and reduce interest costs. Subsequently, we were pleased to see growth in USD debt issuance and that EUR issuance has been more manageable in 2023.

Vanguard's FIG analysts also met with EM sovereign issuers from the Latin America region. While attending the October 2022 IMF meeting, credit research analysts had an opportunity to hold a one-on-one meeting with a senior Uruguayan government official about the country's new Sovereign Sustainability-Linked (SSLB) Framework. The productive discussion enabled our credit research analysts to learn more about new types of labelled bonds which could eventually be used by other sovereigns and provided analysts the opportunity to share feedback on pricing.

FIG credit research analysts also have ongoing dialogues with Serbian policymakers to underscore the importance of adhering to the EU's rule of law framework so that Serbia remains attractive to international investors.

Company: Volkswagen AG (Volkswagen)

Region: Europe

Primary engagement topic: Oversight of strategy and risk

In 2021, Vanguard FIG credit research analysts, alongside Vanguard's Investment Stewardship team members, met with the chair of the supervisory board of Volkswagen. During that discussion, the teams focused on the board's risk management efforts to help inform FIG's analysis of the company, while considering the company's diesel scandal, criminal proceedings and special audit. The information gained during the meeting provided FIG credit research analysts with a comfort level regarding key risk information being reported to the board, and analysts had an improved outlook for Volkswagen's governance and compliance of GHG emissions targets.

FIG credit research analysts had an opportunity to engage with several Volkswagen company representatives at the Credit Agricole CIB (Corporate and Investment Bank) Auto Credit Day 2022 conference held in Paris, France. In this meeting, analysts discussed a range of topics including gas shortages, supply chains, interest rates trajectory and union negotiations around pay and financials, as well as fleet and company-level CO_2 emissions. Vanguard's credit research analysts had determined that the fleet CO_2 emissions posed a material financial risk to Volkswagen as there are clear legislation and targets from the EU related to these emission types (where noncompliance can lead to material fines). This year's engagement confirmed FIG analysts' views that Volkswagen is well positioned to avoid future EU-imposed penalties on its fleet CO_2 emissions which would impact their credit profile, partly due to a successful roll out of electric vehicle models. The EU has established CO_2 emissions targets for the entire EU fleet of each automaker and each year, targets become more challenging to meet. Company representatives shared that Volkswagen continues to reduce the average CO_2 emissions in its passenger cars to remain compliant with EU targets and management expects an increase in electric vehicle orders that will meet EU fleet emission targets going forward.

These engagements enabled our credit team to achieve a comfort level with the downside risk related to significant fines from the EU, helping to affirm credit analysts' positive view of the credit. FIG credit research analysts will look to monitor the company's progress on stated targets and compliance with EU requirements.

Joint Investment Stewardship/FIG engagements

Joint portfolio company engagements with Vanguard Investment Stewardship team members and Vanguard fixed income credit research analysts continue to be a focus of Vanguard's Investment Stewardship programme. Joint engagements will be held throughout the year if it is determined that a meeting including both Investment Stewardship team members and FIG credit research analysts is the most impactful mechanism for understanding ESG-related risks to shareholder value. Joint portfolio company engagements help to raise acumen across key ESG topics and increase both Vanguard teams' understanding of potential ESG-related investment issues.

Company: Iberdrola

Region: Europe

Primary engagement topic: Oversight of strategy and risk

At the 2021 annual general meeting for Iberdrola, a large Spain-based global integrated utility company, Vanguard-advised funds supported an advisory vote on the company's climate action plan. The following year, Vanguard Investment Stewardship analysts and FIG credit research analysts held a joint engagement with Iberdrola's lead director and company executive. The focus of the engagement centred on board-level governance and board oversight of risk and strategy.

Through the discussion, FIG credit research analysts gained a better understanding of how Iberdrola is looking at decarbonising its generation mix within its significant investment plan and the importance of a stronger balance sheet given in the current economic environment. Vanguard's Investment Stewardship analysts gained a better understanding of how the company is overseeing and managing risk.

During the engagement, analysts also discussed Iberdrola's climate action plan along with the key drivers of the plan. FIG analysis found Iberdrola's climate action plan to be credible and that the company appears well-positioned to mitigate ESG risks and benefit from the energy transition trends. This engagement, along with analysis conducted by FIG credit research analysts, supported FIG's assessment of Iberdrola having low ESG risk and improving ESG trends.

FIG credit research and Investment Stewardship analysts will look to continue to meet with the company to monitor its progress against the plan.

Collaboration

Vanguard was a pioneer of holding direct and constructive engagements with portfolio company boards and leaders on governance matters and engagement remains an important tool for Vanguard Investment Stewardship as we seek to promote shareholder value on behalf of our funds and fund investors.

Insights from Investment Stewardship's engagements are not used as an input to inform buy or sell decisions for Vanguard-advised funds. Equity index funds, by design, will hold a stock for as long as it is included in the benchmark index. Our Investment Stewardship team regularly engages with company executives and board members (including independent directors) across multiple markets and sectors to share our perspectives on good corporate governance practices and to understand how boards are overseeing strategy and material risks, including material environmental and social risks. One-on-one engagements with individual portfolio companies remain a foundational element of Vanguard's Investment Stewardship programme; we have strong conviction that these discussions help ensure that portfolio company boards employ governance practices that will support long-term shareholder value.

Except in the example mentioned in the next section, Vanguard Investment Stewardship does not collaborate with other investors to engage with individual issuers to achieve a specific outcome. (The initiative described focused on public company compliance with a legal reporting standard.) Vanguard Investment Stewardship will collaborate with other market participants, including other asset managers, on initiatives that we believe support effective marketwide governance practices. These collaborative efforts do not seek to dictate the strategy or operations of any individual company; rather, they are focused on governance best practices.

Engagement letters on noncompliance

In 2022, Vanguard participated in the third Voting Against Slavery industry initiative. We served as a signatory to engagement letters that were sent to 43 FTSE 350 companies not meeting the regulatory reporting requirements of Section 54 of the UK's Modern Slavery Act (2015). We viewed our participation as an opportunity to communicate that Vanguard looks for companies to be compliant with human rights-related regulatory disclosure requirements. Sixty-one of the FTSE 350 companies that were in receipt of engagement letters in 2021 were compliant by January 2022.[8]

Participation in UK and European governance forums

As part of our ongoing advocacy for corporate governance best practices, during 2022 Vanguard representatives engaged with relevant industry groups in key markets, participated in forums and in some cases provided consultation on governance codes and standards and regulatory frameworks, to share the perspective of Vanguard-advised funds and promote good governance practices. We aim to communicate our views on governance matters widely to portfolio companies, clients, policymakers, industry groups, academics and other interested stakeholders.

Among other speaking engagements and event attendance during 2022, Vanguard Investment Stewardship team members took part in the multi-stakeholder annual Forum of the Independent Oversight Committee (IOC) on the proxy voting advisory and research industry to share our perspective on how we use research to inform our independent view on proxy votes. The forum is convened by the IOC as mandated by the 2019 Best Practice Principles for Providers of Shareholder Voting Research & Analysis. It took place for the first time in person in Rome, Italy, in October 2022, and was organised by Assogestioni (the Italian association of asset managers). In November 2022, team members also participated in a roundtable consultation organised by the Organisation for Economic Co-operation and Development (OECD) to discuss revised OECD Corporate Governance Principles, where we shared our perspective on managing risk and advocated for good governance practices.

In the UK, Vanguard participated in several panels and roundtables throughout 2022 to share our views and approach to investment stewardship. Among other topics, we discussed the types of structures we look for in executive remuneration plans to align pay and performance and what we look for in terms of board-level oversight of audit and risk.

8 See 'Rathbones Targets Modern Slavery for Third Year With Biggest Collaborative Engagement Yet', available at https://www.rathbones.com/media-centre/news-and-comment/rathbones-targets-modern-slavery-third-year-biggest-collaborative.

In Switzerland, at a November 2022 governance conference organised by SWIPRA Services AG, Vanguard described our approach to governance, including how we assess board composition holistically.

In Germany, we participated in several industry panels in 2022, including three in-person events, and shared our general approach to investment stewardship and how we evaluate companies' governance profiles. Also in Germany, we participated in the consultation phase of the German Corporate Governance Code, a revised version of which was published during 2022. The updated code reflects recent legal changes and provides new principles and recommendations for the management and supervision of listed companies related to environmental and social topics. In our consultation response, we shared our view that boards should assess environmental and social topics using a materiality framework that evaluates their contribution to creating long-term shareholder value at the company in question.

One-to-many engagements in the Asia Pacific region

During 2022, Investment Stewardship team members had the opportunity to share governance best practices, through one-to-many engagements between Vanguard and multiple portfolio companies, in markets where the importance of ESG-related matters and corporate governance is increasing.

For example, Vanguard Investment Stewardship leaders took part in and hosted events throughout Asia to raise awareness of our principles. In partnership with a proxy solicitor, we hosted a webinar for Chinese and Hong Kong companies, explaining how our team approaches investment stewardship and evaluates corporate governance. We participated in a panel discussion on social risks at the International Corporate Governance Network's Japan Virtual Forum, where we shared our approach to assessing material risks and evaluating board composition related to diversity. We also attended the Asian Corporate Governance Association's annual conference in London, which focused on Asian corporate governance reforms and provided us with an opportunity to meet with companies, regulators and other stakeholders from the region.

We met with a variety of market participants in Asia to better understand the regulatory landscape and market-specific corporate governance issues. For example, we engaged with representatives of the Taiwan Stock Exchange, Taiwan Depository & Clearing Corporation and Taiwan Financial Supervisory Commission to discuss initiatives to improve ESG disclosure. Also, we met with proxy solicitors and governance advisers active in Japan to raise awareness of Vanguard-advised funds' Japan voting policy and to better understand key topics that emerged in the annual general meeting season.

In the Australian region, ahead of their annual general meeting season in the second half of 2022, Vanguard Investment Stewardship team members engaged in-person with companies in Perth, Melbourne and Sydney representing approximately 52% of Vanguard-advised funds' assets invested in Australia-based companies. We conducted a series of events for company directors where we spoke about our approach to investment stewardship on behalf of the Vanguard-advised funds and provided opportunities for questions and answers. Team members also took part in a site visit at a large industrial company that provided us with practical insights into the challenges these companies face in their operations and related risks to shareholder value. Overall, these engagements served to deepen our relationships with several Australian companies, setting the scene for ongoing constructive engagements.

Participation in third-party organisations

Vanguard participates in several global and regional organisations and initiatives that focus on corporate governance and other ESG-related matters. We carefully evaluate any potential involvement with external organisations and may participate in those that align with our mission and perspectives on investing, including organisations that focus on ESG-related matters, if we believe that doing so will advance our objective of helping investors achieve investment success. We assess our participation in external organisations on an ongoing basis to ensure that our goals remain sufficiently aligned. If we determine that an organisation's mandate has changed, or that participation with the organisation no longer serves Vanguard's mission, we will reassess our engagement with the organisation.

A list of current external organisations Vanguard participates in can be found in Appendix B of this report.

An update on Vanguard's engagement with the Net Zero Asset Managers initiative (NZAM)

Vanguard joined the Net Zero Asset Managers initiative (NZAM) in 2021. While we believed that doing so was aligned with our objective of helping investors achieve investment success, we found over time that our association with the initiative created confusion about the applicability of net zero approaches to the broadly diversified index funds favoured by many Vanguard investors.

Therefore, after extensive review, we decided to withdraw from NZAM in late 2022. We did so to ensure that we can provide the clarity our investors desire about the role of index funds and about how we think about material risks, including climate-related risks – and to make clear that Vanguard speaks independently on matters of importance to our investors.

Proxy voting

Our approach to proxy voting

Vanguard's objective in the proxy voting process is shareholder value creation. Vanguard's Investment Stewardship team casts proxy votes at public company shareholder meetings on behalf of Vanguard-advised funds. Proxy voting policies and guidelines approved by each fund's board inform our analysis of each proposal and are based on principles of strong corporate governance and an unwavering focus on long-term shareholder value. Investment Stewardship directors and analysts evaluate proxy ballot items and vote proxies in accordance with each fund's proxy voting policies and procedures set by the board of each Vanguard-advised fund. The policies and procedures frame the analysis of each proxy ballot item, providing a basis for decision-making.

Each of the fund's boards periodically reviews and approves each fund's proxy voting policies so that the policies incorporate up-to-date governance standards and address relevant risks to long-term shareholder value. Vanguard-advised funds have region-specific voting policies to address differences in market structure and governance practices. In some key markets, country-specific guidelines are used. Proposals for which specific guidelines are not defined are voted on a case-by-case basis, in the best interests of each fund and in keeping with the principles articulated in our proxy voting guidelines.

Most matters on which the funds vote relate to routine corporate governance matters. In recent years, less than half of one percent of votes cast on behalf of Vanguard-advised funds have related to environmental and social matters. As in all proposals, when Vanguard's Investment Stewardship team evaluates environmental and social proposals, the team is guided by a focus on maximising long-term shareholder value.

We make every attempt to vote at all meetings at which Vanguard-advised funds are eligible to vote. For the year ended 31 December 2022, Vanguard-advised funds voted at more than 99% of eligible meetings. A fund may refrain from voting some or all of its shares or on a particular matter if doing so would be in the fund's and its shareholders' best interests, including if, for example, the expected cost of voting exceeds the expected benefits of voting. These circumstances may arise for several reasons, including blocked shares, late ballots or materials, cost constraints or other administrative impediments.

Proxy voting policies

The Investment Stewardship team reviews existing proxy voting policies and procedures at least annually. The team may make recommendations to update the proxy voting policies to the funds' boards, with consideration for evolving market norms and investor and regulatory landscapes. Any amendments to the funds' proxy voting policies are disclosed on Vanguard's Investment Stewardship website or other relevant channels. We updated the Vanguard-advised funds' 2022 proxy voting policies for companies domiciled in Europe and Australia to reflect local market standards and regulatory requirements for gender and ethnic diversity on boards, including demonstrating progress towards at least 30% gender diversity at the board level.

In recent years, in Australia and most European countries, comply-or-explain best practice principles have provided specific guidance for company boards to improve gender balance. France, Norway and Italy have binding requirements related to board gender diversity. In the UK, the proportion of women on FTSE 100 boards tripled in the past 12 years from 12% in 2010 to 36% in 2022 and companies are preparing to meet the recommendations of the first FTSE Women Leaders Review report, which set further recommendations to encourage UK companies to build on their progress, including:

- A voluntary target for FTSE 350 boards and leadership teams to increase women's representation to a minimum of 40% by the end of 2025; and
- A recommendation that FTSE 350 companies have at least one woman in the chair or senior independent director role on the board and one woman in the CEO or finance director role by the end of 2025.[9]

These provisions align with the UK listing rules, as updated in 2022, which require companies to report, on a comply-or-explain basis, on their compliance with the above targets and whether they have a director from an ethnic minority background on the board.

9 See 'FTSE Women Leaders Review: Achieving Gender Balance", available at https://ftsewomenleaders.com/wp-content/uploads/2023/03/ftse-women-leaders-review-report-2022-v2.pdf.

We published the Vanguard-advised funds' Japan voting policy in April 2022. Throughout the second half of the year, we reviewed the funds' voting approach, focusing on board independence and takeover defences. Subsequently, we published an updated Japan voting policy for 2023 that continues to promote corporate governance best practices and alignment with the Japanese Corporate Governance Code, where applicable.

2022 was the first year that the funds' Australia and New Zealand voting policy incorporated guidelines on director capacity and commitments. While we identified a small number of companies where we had questions about this issue, we largely did not find cause for concern at this time. Included in this report is a case study of our engagement activity on this topic involving Cromwell Property Group (for more information, please see page 44).

In 2022, Vanguard-advised funds voted on proposals at companies from several Latin American countries, including Brazil and Mexico, the two largest equity markets in the region.

Our portfolio companies in Latin America operate under different regulatory environments and governance norms that are evolving at different paces in different regions. The Vanguard-advised funds have adopted country-specific voting policies that align with our global principles and that account for relevant local laws and regulations, as well as market norms and best practices.

With respect to portfolio company boards in Latin America, the Vanguard-advised funds focus on the following areas:

- Timely, published disclosures of information on proxy-related matters – for example, executive and director remuneration. These disclosures should also outline any revisions or amendments that would limit shareholder rights.
- Adoption of best-in-class governance practices, including increased board and key committee independence and disclosure about board oversight of material risks and strategy.

(To read the full version, please see *Policy Insights | Our Expectations for Portfolio Company Boards in Latin America*.)

For more information, please see our Proxy Voting Policy for Brazilian Portfolio Companies and our Proxy Voting Policy for Mexican Portfolio Companies.)

Empowering everyday investors through proxy voting choice

First announced in November 2022, Vanguard has launched a pilot programme that will give certain fund investors a greater say in the proxy voting process. Investors in select US index funds are currently able to choose from four different proxy voting policy options: casting votes consistent with a company board's recommendations, relying on recommendations from an independent third-party provider, voting based on the Vanguard-advised fund's policy and giving investors the choice not to vote. By participating in this voluntary pilot, investors are able to direct how a fund votes on ballot items for certain of the fund's largest holdings, proportionate to their ownership in that fund.

We are committed to exploring the full range of options and working with all relevant stakeholders with respect to proxy voting choices for index fund investors. This proxy voting choice pilot programme will help Vanguard identify the most efficient and effective mechanisms for enabling investors to express their views in the proxy voting process. Exploring ways to provide investors with proxy voting choice is a continuation of Vanguard's effort to give individuals the information and options they need to help ensure that their investment portfolios reflect their investment goals and preferences.

> 'Piloting proxy voting choices is yet another way Vanguard is working to provide our investors with a wide range of options to meet their individual goals and personal preferences. In this endeavour, we are committed to listening and gathering feedback as we explore ways to further support our clients.'
>
> **Anne Robinson**
>
> Vanguard General Counsel and Corporate Secretary

How Vanguard Investment Stewardship evaluates shareholder proposals

Companies and their boards have a standing regulatory obligation to disclose financially material risks to shareholders, and discussions of these risks are an integral part of our ongoing engagements. In addition, companies also receive shareholder proposals seeking additional disclosure or the adoption of particular policies and practices related to particular risks. In evaluating these proposals – as with other voting matters – we take a case-by-case approach that evaluates each proposal in the context of the company that has received it, the proposal's practicality and expected impact on the issue in question and whether the proposal safeguards the long-term interests of investors. Among the questions we consider are:

- Does the proposal address a financially material issue relevant to the company in question?
- Does the proposal unduly prescribe how a board or company should approach company strategy or operations?
- Does the proposal address gaps in the company's current practices or disclosure?
- Does the proposal suggest a change in practice or disclosure that would advance the interests of long-term shareholders at the company in question?

While certain proposals may appear on multiple company ballots, we evaluate each proposal in the context of the individual companies and sectors in which they're presented. We look to understand the practical impact each proposal would have if approved, and whether the requested action is in the best interests of company shareholders.

Securities lending

Vanguard equity funds engage in securities lending activity. Vanguard's Investment Stewardship team manages processes, in partnership with Vanguard's Securities Lending team, to monitor securities on loan and to evaluate any circumstances that may require us to restrict or recall the stock. Please refer to the Securities Lending section of Vanguard's Engagement Policy for more information.

Inputs into Vanguard Investment Stewardship's research process

Vanguard's Investment Stewardship team uses various inputs to inform the funds' decisions on every vote. We consult a wide variety of third-party research providers – including proxy advisers – for their analysis of issues that bear on long-term shareholder value. The team arrives at each proxy decision independently before casting votes on behalf of each Vanguard-advised fund. Voting directors and analysts do not rely on recommendations from proxy advisers for voting decisions but use such recommendations as one of many inputs into the research process.

Other relevant inputs may include insights from company or other stakeholder engagements or company disclosures and regulatory filings. We have established risk oversight processes and proprietary systems to monitor our shares and voting rights and manage the proxy voting process.

Proxy voting disclosure

We continue to publish Vanguard Investment Stewardship Voting Insights to disclose the funds' rationale behind certain proxy votes. All published Investment Stewardship Insights can be found on the Investment Stewardship website.

Our annual and semiannual reports provide examples of the outcomes of engagements and votes through select case studies; these reports also contain a summary table of proxy votes cast by Vanguard-advised funds. As part of our growing effort to enhance disclosure of Vanguard's Investment Stewardship engagement and proxy voting activities, we provided a summary of Vanguard-advised funds' proxy voting broken out by region in our *Investment Stewardship 2022 Annual Report*.

Our regional summaries of proxy votes cast by Vanguard-advised funds for the 12 months ended 31 December 2022 can be found in Appendix C of this report.

The proxy voting records for Vanguard's global fund lineup are disclosed through an online tool on Vanguard's Investment Stewardship website. The online tool provides details of the proxy votes cast by a fund for the most recent proxy year.[10] Voting records are disclosed on a quarterly basis. Vanguard also discloses votes for Vanguard-advised funds that we consider to be significant, along with an explanation of our vote, to fulfil the requirements of Shareholder Rights Directive II; our significant vote disclosures and rationales can be found on our website.

Fixed income

For our fixed income assets, we exercise our rights and responsibilities as an investor in several ways in pursuit of obtaining the best outcomes for our clients. These activities include providing feedback to syndicate desks and issuers upon new issuance, holding companies accountable on covenants, providing feedback on issue structures and features on subordinated bonds,

10 The proxy year is measured from 1 July through 30 June.

participating in bondholder special committees and providing feedback on consent solicitation.

For additional information, please see the related sections of this report about our approach to fixed income ESG research (ESG Integration in Vanguard's Funds and Processes, on page 33) and engagement activity (Our Commitment to Engagement, on page 40).

Communicating our stewardship activities

Vanguard's Investment Stewardship team represent the interests of long-term investors by advocating for good governance practices at the companies in which Vanguard-advised funds invest. We believe that well-governed companies will produce better value for shareholders over the long term as sound risk governance accrues value to investors. Therefore, it is important that we regularly clarify our perspectives and disclose our investment stewardship activities to help portfolio companies, investors and other interested stakeholders understand our philosophy and approach.

How we communicate

Our Investment Stewardship website is the primary source for information about our programme. The site includes information about our global engagement and proxy voting activities on behalf of Vanguard-advised funds in the form of reports, Investment Stewardship Insights and global proxy voting policies. We are committed to providing materials that are clear and informative and we disclose our proxy voting policies and votes to our clients so that they are aware of how our votes advance long-term value creation. A few examples include:

Annual reports. These reports outline our global investment stewardship efforts and outcomes for the calendar year. An annual report includes summaries of key governance developments by region, engagement case studies, a comprehensive list of companies engaged, our voting rationales and aggregate regional voting outcomes.

Semiannual reports. These reports give a midyear update on investment stewardship engagement and voting activities. Detailed engagement case studies included in semiannual (and annual) reports represent a wide range of governance topics, regions and sectors and demonstrate the outcomes of our engagements – both successes and cases where opportunities remain.

Vanguard Investment Stewardship Insights. Our Policy Insights and Voting Insights provide timely explanations of Vanguard's perspectives on important governance matters and the rationale behind certain proxy votes. Vanguard Investment Stewardship Insights are published throughout the year.

Proxy voting policies. Proxy voting policies describe the general positions of the Vanguard-advised funds on recurring proxy proposals.[11] (More details about proxy voting policies and disclosures can be found in the Proxy Voting section of this report, on page 60.)

Vanguard also advocates for corporate governance practices we associate with shareholder value creation through direct company engagements and public forums such as conferences, governance-focused organisations and other industry efforts. More information about Vanguard's engagement approach and activities during 2022 can be found in the Our Commitment to Engagement section, on page 40.

Vanguard Investment Stewardship disclosure and education

Vanguard continues to increase disclosure of all aspects of our Investment Stewardship programme and aims in our published materials to provide clarity about what our stewardship programme does – and does not do – and how we promote long-term shareholder value on behalf of Vanguard-advised funds.

Investment Stewardship Insights

During the year, we maintained a regular cadence of published Vanguard Investment Stewardship Insights to provide our views on specific governance topics and the connection we see to shareholder value. For example, we published *Highlighting Vanguard's Views on Executive Compensation*, which provides our views on executive remuneration, highlighting our main compensation principles and key components of our executive pay analysis process. The Insight also discusses the rise of nonfinancial

11 The voting policy details the general positions for the funds for each portfolio advised by Vanguard, including Vanguard index funds and ETFs and the fund assets managed by Vanguard Quantitative Equity Group, on recurring proxy proposals. Each of the US mutual funds advised by Vanguard retains proxy voting authority.

metrics, such as ESG metrics, within executive remuneration plans as well as our perspectives on best practices. We also continued to publish our Voting Insights to convey the 'how' and 'why' of Vanguard-advised funds' proxy voting decisions.

Incorporating client feedback

Vanguard serves tens of millions of individual investors who hold diverse perspectives. Our role as an asset manager is to safeguard the long-term investment returns of all our shareholders to give them the best chance for investment success. Most of our investors are served through direct-to-consumer (retail) and intermediated (advised) businesses. Investments are made through our direct retail or third-party platforms, or our transfer agency service. Unlike professional asset owners such as pension schemes, generally our retail clients do not have investment stewardship policies that we are asked to implement and align to, or established views on stewardship or directed voting requirements.

As announced in November 2022, Vanguard launched a proxy voting pilot, giving investors in select US index funds options to direct how their index funds vote on a range of matters raised at company shareholder meetings. Exploring ways to provide investors with proxy voting choice is a continuation of Vanguard's effort to give individuals the information and options they need to help ensure that their investment portfolios reflect their investment goals and preferences. (Please see Empowering Everyday Investors Through Proxy Voting Choice, page 61.)

Supporting our intermediaries

We recognise the value our intermediaries play in raising awareness among Vanguard retail clients about Vanguard's Investment Stewardship programme and Vanguard's approach to ESG investing and in relaying the voice of the client back to Vanguard. Our adviser webinar series was developed to help enhance adviser acumen. The sessions held during 2022 covered a range of topics, including the economy, investments and Vanguard's Investment Stewardship programme. For example, in April 2022, Vanguard's Head of Investment Stewardship EMEA/APAC led a session titled Understanding Stewardship: How Vanguard Engages With Companies on Behalf of Investors. The session provided participants with an understanding of the principles that underpin Vanguard's Investment Stewardship programme and how those principles are communicated to the companies in Vanguard-advised funds. The webinars demonstrate our commitment to adviser education, and we continue to encourage open dialogue during each to gain insight into what is important to advisers and their clients.

Supporting Vanguard crew members

The Investment Stewardship team continues to hold quarterly knowledge-sharing sessions with internal stakeholders globally, including client-facing crew who support Vanguard's individual investors and financial intermediaries. The objective of these sessions is to help educate and inform our internal business partners and explain how Vanguard Investment Stewardship seeks to promote shareholder value.

Our quarterly updates are designed to be interactive, two-way dialogues in which Investment Stewardship team members share their expertise and experience and answer questions about our programme and activities. This framework builds acumen among key internal partners while keeping the Investment Stewardship team informed of the governance matters our crew and clients are asking about. In addition, it enables the team to calibrate communications efforts to meet the needs of internal stakeholders. During 2022, attendance levels at our quarterly updates remained strong.

As we look ahead, we will continue to identify ways to clearly and efficiently communicate our investment stewardship activities and viewpoints to interested internal stakeholders in a timely fashion.

Assurance of Vanguard's Investment Stewardship programme

The Investment Stewardship Oversight Committee (the Committee) has oversight of the proxy voting and stewardship function for Vanguard-advised funds and regularly reviews the team's practices and proxy voting policies. Those reviews include areas such as changes to proxy voting policies, proxy season engagement and voting activities and risk control processes. (Please see the Oversight of Vanguard Investment Stewardship section of this report, on page 25.)

In 2022, the Committee approved updates and clarifications to the US, European and Australia and New Zealand proxy voting policies. Additionally, the Committee approved the implementation of formalised proxy voting policies for companies domiciled in Japan, Brazil, Mexico and Canada. (Please see the Proxy Voting section of this report, on page 60.)

The committee receives regular updates from the Investment Stewardship Officer throughout the year. Members of the Investment Stewardship leadership team attend ongoing meetings with the Committee and provide progress reports on key initiatives as well as updates on current and future proxy voting policy work, engagement strategy and global thematic trends. Committee members attend select portfolio company engagements throughout the year to inform their oversight activities. Attending these engagements provides the Committee with the opportunity to speak directly with portfolio company directors and executives and to oversee Investment Stewardship's general approach. These interactions facilitate constructive dialogues to guide the direction of our Investment Stewardship programme.

As part of Investment Stewardship's governance framework, we employ several control reports that ensure our company engagements and Vanguard-advised funds' proxy voting are executed in accordance with internal policies. These reports, along with all documented policies and procedures, are reviewed on a regular basis by a dedicated team resource.

Vanguard's Investment Stewardship team maintains a rigorous vendor review process and oversight controls in accordance with Vanguard's corporate policies. The Investment Stewardship Data, Operations and Controls team constantly monitors control reports to ensure timely execution of votes, to identify when proxy vote rationales have not been sufficiently captured or, in cases where proxy votes are intentionally not voted, to verify that the vote instructions are aligned with fund voting guidelines.

Vanguard Investment Stewardship takes a deliberate approach to ensure that our stewardship reporting is fair, balanced and understandable. Each publication elevated to our website, including company annual and semiannual reports, Voting Insights and fund reporting, goes through a thorough review process completed by the Investment Stewardship leadership team, Vanguard's Legal and Compliance teams and, if warranted, executive leaders and team members from the Office of the General Counsel. When we publish company engagement case studies, we select examples balanced among different sectors and regions and based on a wide range of topics. All publications are written to provide investors, portfolio companies and other interested stakeholders with a complete understanding of our perspective on corporate governance topics and the rationale behind certain proxy voting decisions.

We continuously seek to improve ourselves, our processes and our tools so we can support long-term value creation at each company in which Vanguard-advised funds invest.

Internal independent assurances

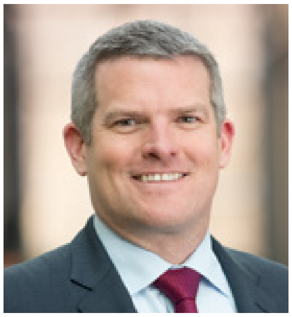
Our Investment Stewardship programme is subject to internal independent assurances conducted by Vanguard's Compliance Monitoring and Internal Audit departments. Vanguard's Enterprise Risk Management, Compliance Monitoring and Internal Audit teams work together to develop and implement an annual Combined Assurance Plan (CAP) to ascertain that assurance efforts are not duplicated and that there is strong alignment and information sharing between the functions. The CAP is aligned to Vanguard Europe's top risks and provides a holistic view of risk coverage across Vanguard's European businesses.

Vanguard's Compliance Monitoring and Internal Audit teams, respectively, conduct inspections and audits of Vanguard's global Investment Stewardship programme. The frequency and scope of engagements is determined in line with agreed risk-based approaches to coverage. On a periodic basis, summaries of compliance and audit results are shared with Vanguard's group and subsidiary Board, Audit or Risk committees, Vanguard's Investment Stewardship leadership team and other senior stakeholders.

Currently, external assurances are not used to evaluate Vanguard's Investment Stewardship programme. Our Investment Stewardship team continues to assess the most appropriate method for ensuring the effectiveness of their activities on behalf of the funds' shareholders. Vanguard's Compliance Monitoring and Internal Audit discipline is well-established and provides an ongoing partnership for continuous improvement and programme assurance. Additionally, Investment Stewardship regularly partners with Vanguard's Enterprise Risk Management team to evaluate major risk areas of the programme and re-evaluate controls, as a supplement to periodic audits.

Appendix A

Leadership bios

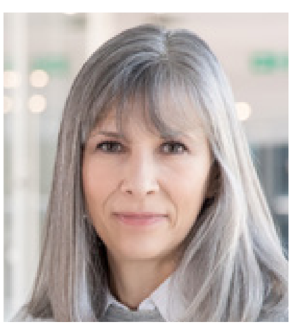


John Galloway

Principal and Investment Stewardship Officer

John Galloway is a principal at Vanguard and the head of the firm's global Investment Stewardship programme. On behalf of Vanguard-advised funds, Vanguard's Investment Stewardship team advocates for corporate governance practices associated with shareholder value creation, engages with portfolio companies to understand their governance practices and votes on proxies.

Before he joined Vanguard in 2017, John's career spanned the private and public sectors, with experience in corporate governance, change management and regulatory and legislative policy. Prior to joining Vanguard, John served in senior roles within the White House, including as a special assistant to the president as part of the National Economic Council. Earlier in his career, he served as president of Atlantic Media and held senior executive positions with the then-publicly traded Advisory Board Company.



Lisa Harlow

Managing Director, Vanguard Group (Ireland), Ltd.
Former Head of Investment Stewardship for Europe, the Middle East, Africa and Asia Pacific (through 2022)

Lisa Harlow was head of Investment Stewardship for Europe, the Middle East, Africa and Asia Pacific based in London, UK, from 2019 to 2022. Her team was responsible for direct engagement with boards and executives and proxy voting at European portfolio companies on behalf of Vanguard's global fund lineup. Previously, she was head of distributor and client services for Europe. Ms. Harlow joined Vanguard in 2010 and has more than 20 years of financial services experience. This includes 12 years with Fidelity International, where she led client service delivery for its Institutional business for seven years, followed by a period managing Retail Customer Services and Key Account Management for the FundsNetwork platform, including two years as head of client services India (Delhi).

Ms. Harlow has a B.A. Honours in humanities from Manchester Metropolitan University and holds the IMC. She acts as trustee and governor for the Moor House School and College, an independent school supporting children with special educational needs relating to speech and language development disorders.

William Roberts

Head of Investment Stewardship Policy and Research

William Roberts, CFA, is head of Investment Stewardship Policy and Research at Vanguard. Bill joined Vanguard in 2006 and served as Vanguard's Global Head of Credit Research from 2007 to 2020. He has more than 25 years of investment experience.

Prior to Vanguard, he was principal and vice president at Prudential Financial. As a credit research analyst, Bill has a broad range of sector expertise, most notably as an energy analyst for almost two decades. In addition, his sector experience includes automotive, technology, capital goods and the bank and finance sectors.

Bill holds a B.A. in Economics from Rutgers University and an M.B.A. from The Johnson School, Cornell University. He is a Chartered Financial Analyst® and a member of the Philadelphia Society of Financial Analysts.

Appendix B

Alignment with external organisations and initiatives (as at 31 December 2022)

Initiative/Organisation	Year joined	Description	Involvement
CECP (CEO Force for Good) Strategic Investor Initiative	2013	An initiative that encourages companies to share their long-term strategic stories and focus more of their disclosure and reporting on sustainable long-term value creation.	Member. Vanguard principal Glenn Booraem sits on the advisory board.
UN Principles for Responsible Investment (PRI)	2014	An organisation that encourages investors to use responsible investment to enhance returns and better manage risks. The PRI promotes six voluntary principles designed to support long-term investment value and a more sustainable global financial system. It also offers guidance to firms about how to incorporate ESG objectives.	Signatory.
Commonsense Corporate Governance Principles	2016	A set of principles endorsed as a basic governance framework for public companies, their boards and their shareholders.	Founding signatory. Former Vanguard CEO Bill McNabb participated in preparing this position paper.
IFRS Foundation (formerly the Value Reporting Foundation)	2016	A not-for-profit, public interest organisation established to develop high-quality, understandable, enforceable and globally accepted accounting and sustainability disclosure standards. The Standards are developed by two IFRS Foundation standard-setting boards, the International Accounting Standards Board (IASB) and the newly created International Sustainability Standards Board (ISSB).	Member. Vanguard serves on the ISSB Investor Advisory Group.
Investor Stewardship Group	2017	A group with an established framework of basic investment stewardship and corporate governance principles in the US.	Founding signatory. Vanguard representatives serve on the board of directors, nominating committee, Governance Advisory Council and Marketing and Communications Advisory Council.
30% Club	2017	A global organisation that advocates for greater representation of women in boardrooms and leadership roles.	Member. A Vanguard representative sits on the US Steering Committee.
Council of Institutional Investors	2017	A nonprofit, nonpartisan association of corporate, public and union employee benefit funds and endowments with a mission to be the leading voice for effective corporate governance practices for US companies and strong shareowner rights and protections.	Member.
Task Force on Climate-Related Financial Disclosures (TCFD)	2017	An organisation that developed guidelines for voluntary climate-centred financial disclosures for all industries.	Vanguard publicly supports the TCFD and encourages portfolio companies to disclose climate-related risks in line with the framework.
CDP	2018	A not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.	Capital Markets signatory. Vanguard subscribes to data for CDP Climate Change, CDP Forests and CDP Water.
International Corporate Governance Network	2019	An investor-led organisation with a mission to promote effective standards of corporate governance and investor stewardship to advance efficient markets and sustainable economies worldwide.	Member.
Business Roundtable's Statement on the Purpose of a Corporation	2019	A statement signed by more than 100 CEOs who committed to lead their companies for the benefit of all stakeholders – customers, employees, suppliers, communities and shareholders.	Signatory.

Initiative/Organisation	Year joined	Description	Involvement
Asian Corporate Governance Association	2021	An independent, nonprofit membership organisation dedicated to working with investors, companies and regulators in the implementation of effective corporate governance practices throughout Asia.	Member.
UK Investment Association	2016	A trade body that represents more than 200 investment managers and investment management firms in the UK.	Member. In addition to several other committees, Vanguard is a member of the Fixed Income Working Group and Stewardship Committee.
Institutional Investors Group on Climate Change (IIGCC)	2021	A global membership body for investors on climate change with a mission to support and enable the investment community in driving significant and real progress by 2030 towards a net zero and resilient future.	Member.
Investor Group on Climate Change (IGCC)	2021	A group of Australian and New Zealand institutional investors focused on the impact of climate change on investments.	Member.
Asia Investor Group on Climate Change (AIGCC)	2021	An initiative to create awareness and encourage action among Asia's asset owners and financial institutions about the risks and opportunities associated with climate change and low carbon investing.	Member.

Appendix C

Regional summary of proxy votes cast by Vanguard-advised funds

Americas

		Management		Shareholder	
Alignment with our principles	Proposal type	Number of proposals	% for	Number of proposals	% for
Board composition and effectiveness	Elect directors	29,027	91%	211	67%
	Other board-related	1,350	61%	74	7%
Oversight of strategy and risk	Approve auditors	4,646	100%	—	—
	Environmental/social	2	100%	323	9%
Executive remuneration	Management Say on Pay	3,253	94%	—	—
	Other compensation-related	2,199	79%	24	0%
Shareholder rights	Governance-related	1,025	89%	218	18%
Other proposals	Adjourn/other business	1,029	90%	—	—
	Capitalisation	1,166	93%	—	—
	Mergers and acquisitions	395	97%	—	—
	Other	—	—	30	13%

Asia

		Management		Shareholder	
Alignment with our principles	Proposal type	Number of proposals	% for	Number of proposals	% for
Board composition and effectiveness	Elect directors	24,730	95%	3,021	96%
	Other board-related	6,540	65%	116	33%
Oversight of strategy and risk	Approve auditors	3,889	99%	—	—
	Environmental/social	—	—	57	0%
Executive remuneration	Management Say on Pay	3	100%	—	—
	Other compensation-related	6,909	90%	115	77%
Shareholder rights	Governance-related	9,859	76%	46	87%
Other proposals	Adjourn/other business	13,962	92%	—	—
	Capitalisation	18,172	98%	—	—
	Mergers and acquisitions	5,870	97%	—	—
	Other	—	—	746	78%

Australia and New Zealand

		Management		Shareholder	
Alignment with our principles	Proposal type	Number of proposals	% for	Number of proposals	% for
Board composition and effectiveness	Elect directors	850	96%	6	67%
	Other board-related	33	24%	—	—
Oversight of strategy and risk	Approve auditors	66	100%	—	—
	Environmental/social	8	75%	18	0%
Executive remuneration	Management Say on Pay	307	93%	—	—
	Other compensation-related	658	93%	—	—
Shareholder rights	Governance-related	124	99%	11	0%
Other proposals	Adjourn/other business	4	100%	—	—
	Capitalisation	109	99%	—	—
	Mergers and acquisitions	65	100%	—	—
	Other	—	—	6	0%

Europe

Alignment with our principles	Proposal type	Management		Shareholder	
		Number of proposals	% for	Number of proposals	% for
Board composition and effectiveness	Elect directors	4,909	83%	179	51%
	Other board-related	5,508	95%	168	64%
Oversight of strategy and risk	Approve auditors	1,269	97%	—	—
	Environmental/social	19	100%	17	0%
Executive remuneration	Management Say on Pay	2,340	73%	—	—
	Other compensation-related	1,773	92%	11	9%
Shareholder rights	Governance-related	549	95%	8	25%
Other proposals	Adjourn/other business	3,307	93%	—	—
	Capitalisation	3,585	95%	—	—
	Mergers and acquisitions	188	89%	—	—
	Other	—	—	88	19%

Middle East and Africa

Alignment with our principles	Proposal type	Management		Shareholder	
		Number of proposals	% for	Number of proposals	% for
Board composition and effectiveness	Elect directors	2,145	51%	4	0%
	Other board-related	1,074	95%	1	0%
Oversight of strategy and risk	Approve auditors	453	86%	—	—
	Environmental/social	2	100%	3	100%
Executive remuneration	Management Say on Pay	274	85%	—	—
	Other compensation-related	849	90%	—	—
Shareholder rights	Governance-related	1,082	57%	—	—
Other proposals	Adjourn/other business	957	91%	—	—
	Capitalisation	672	95%	—	—
	Mergers and acquisitions	669	93%	—	—
	Other	—	—	6	0%

United Kingdom

Alignment with our principles	Proposal type	Management		Shareholder	
		Number of proposals	% for	Number of proposals	% for
Board composition and effectiveness	Elect directors	4,451	98%	—	—
	Other board-related	16	88%	—	—
Oversight of strategy and risk	Approve auditors	1,180	100%	—	—
	Environmental/social	17	100%	3	0%
Executive remuneration	Management Say on Pay	772	94%	—	—
	Other compensation-related	185	97%	1	0%
Shareholder rights	Governance-related	556	100%	—	—
Other proposals	Adjourn/other business	845	100%	—	—
	Capitalisation	2,792	100%	—	—
	Mergers and acquisitions	120	100%	—	—
	Other	—	—	1	0%

Source: Vanguard.

global.vanguard.com

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