Vanguard®

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Glenn H. Booraem
Principal & Fund Treasurer

February 9, 2016

[redacted]

Dear Mr. [redacted]

Thank you for your letter about Vanguard's approach to social and environmental issues through proxy voting. As the officer responsible for our corporate governance efforts, I appreciate having the opportunity to respond to your suggestions.

First and foremost, thank you for entrusting your investments to Vanguard. Our crew members work very hard every day to earn that trust, and we are proud of our efforts on behalf of the Vanguard funds (and consequently, shareholders like you) to advocate for, among other things, responsible risk oversight at the companies in which our funds invest. We agree with your assertion that social and environmental issues may affect long term company performance, and the many derivatives of these topics are well within the bounds of our analysis and advocacy. These efforts are firmly anchored in Vanguard's core purpose – "To take a stand for ALL investors, treat them fairly, and give them the best chance for investment success." We believe that when companies are well-governed at the board level, oversight of environmental, social and governance matters will be more thoughtful, holistic, and transparent.

As you noted, Vanguard's funds have historically abstained from voting on most shareholder proposals relating to environmental or social topics. Our reason for this is simple: while we believe that some of the issues animating these proposals are worthy of attention and may have long term implications for a company, we have not been convinced that the prescriptive framing of the proposals will address the risks in a way that drives long term value. Our aim is to influence change that is clearly linked to value creation, and in some cases a simple vote "for" or "against" a proxy proposal doesn't get to the heart of an issue. In fact, voting is only one part of a broader picture. Our Corporate Governance team spends a substantial (and growing) amount of time engaging in active dialogue with management and directors about complex and nuanced risks ranging from climate change impacts to supply chain considerations to human capital management. Through many such interactions with company management and boards over a number of years – nearly 800 in 2015 alone – we have generally been pleased with the increasing responsiveness of companies. We believe the powerful combination of voting opportunity and engagement is wholly consistent with our commitment to the Principles of Responsible Investing (PRI). I have enclosed for your reference a summary of our broad corporate governance activities during the 2015 proxy year.

You also urged us to change our proxy voting guidelines to incorporate "more comprehensive considerations for appropriate social and environmental resolutions." While our approach to proxy voting will always be intended to support proposals and director nominees that maximize the value of a fund's investments – and those of fund shareholders – over the long term, we continually evaluate how to put that intent into practice. To that end, we will continue to consider how, through the combination of voting and engagement, we can best advocate for policies and practices that address environmental, social and

governance risk in value-additive ways at the companies in which our funds invest. While I understand this may fall short of the explicit voting commitment you're seeking, you should rest assured that these issues are on our radar and represent an important component of our ongoing discussions with companies.

While there will always be more work to do, we're proud of our efforts to date and believe we are making a positive difference at the companies in which our funds invest on behalf of you and our other shareowners. This is but one of the ways we seek to ensure our clients' investment success and a secure financial future.

Thanks again for writing, and, most importantly, thank you for investing with Vanguard.

Best regards,

Glenn Booraem

cc: F. William McNabb III

Enclosure: Summary of proxy voting and engagement efforts for the 12 months ending June 30, 2015

Our proxy voting and engagement efforts: An update

For the 12 months ended June 30, 2015

Vanguard's core purpose is "to take a stand for all investors, to treat them fairly, and to give them the best chance for investment success." This means more than offering smart investments, trustworthy guidance, and low fees. It also means working with the companies held by Vanguard funds to make sure that our investors' interests remain paramount.

We take this responsibility seriously. As one of the world's largest investment managers, we recognize that our voice carries considerable weight. Because the funds' holdings tend to be long term in nature (in the case of index funds, we're essentially permanent shareholders), it's crucial that we demand the highest standards of stewardship from the companies in which our funds invest.

Consequently, we are making our voice heard loudly and clearly in corporate boardrooms. Our advocacy encompasses a range of corporate governance issues, including executive compensation and succession planning, board composition and effectiveness, oversight of strategy and risk, and communication with shareholders. We also exert our influence as fiduciaries in a very important way when each Vanguard fund casts its proxy votes at companies' shareholder meetings.

Below, we explain our approach to voting and advocating for effective governance of portfolio companies. A record of how Vanguard mutual funds voted during the 12 months ended June 30 is also available.

Proxy voting

Voting at companies' shareholder meetings is an important aspect of our role as a fiduciary acting in the long-term interests of our investors. To that end, we employ a team of governance analysts responsible for evaluating proxy proposals in the context of guidelines adopted by each of our funds' boards of trustees. These guidelines reflect our long-standing views on what we believe are the optimal governance structures that strike the appropriate balance among the rights and responsibilities of owners, managers, and directors.

In the past 12 months, Vanguard funds voted by proxy at more than 13,000 company meetings covering 120,000 items. These included director elections, auditor ratifications, compensation plans, mergers and acquisitions, and other management and shareholder proposals. The following provides a more detailed discussion of the categories we voted on most frequently. Our voting record is summarized in the table at the bottom of this page.

Director elections. Board elections constitute one of the most critical areas of governance, because shareholders rely on directors to monitor management. Over the past 12 months, the funds supported 93% of director nominees. We voted against the remainder primarily because of concerns about candidates' independence, their attendance, or actions taken by a committee on which they served. In a handful of situations, we withheld votes from directors who in our view failed to observe good governance practices or showed a disregard for shareholder interests.

Compensation. We dedicate considerable effort to ensuring that compensation programs align the interests of executives with those of shareholders. In the United States, our votes reflected our views on compensation as follows:

- We supported 95% of nonbinding "Say on Pay" compensation proposals.
- We supported 88% of binding votes on equity compensation plans.
- We voted against nearly 350 directors who served on compensation committees.

We were most likely to vote against compensation plans because of concerns about whether they properly incentivized long-term performance or could result in excessive dilution of current shareholders. We also engaged with companies to encourage positive change. For example, in 2014, we held direct discussions with nearly two-thirds of midsize and large companies prior to voting against their "Say on Pay" compensation proposals. We made progress: Two-thirds of those firms have since made improvements reflecting our feedback.

Corporate proposals. We voted in favor of 95% of proposed mergers and acquisitions, supporting them if our analysis showed they would contribute to long-term value. A number of other company proposals asked for authorization of new shares or technical amendments to governing documents. We supported approximately 96% of these proposals; we voted against 4% when the authorization of new shares would unreasonably dilute current shareholders' ownership stakes.

Shareholder proposals. Shareholders put forth proposals on issues ranging from governance to environmental or social policy changes. The funds were most likely to support changes that were consistent with our governance principles, such as annual elections for a board of directors. We typically abstained from voting on proposals that sought additional reporting or corporate policy changes regarding environmental or social matters for which a sufficient impact on shareholder value had not been established. Although we have generally concluded that these matters fall within the purview of management and the board, we brought them to companies' attention when it seemed they might be relevant to shareholder value. For more information, please see Vanguard's view: Social concerns and investing.

Proxy access proposals. Proxy access gives long-term shareholders the right to nominate directors on a company's proxy card. We consider it a meaningful tool that can promote accountability and protect shareholders' long-term interests. That said, it must also include safeguards to avoid potential abuse by investors who do not have a significant long-term interest in the company. Vanguard is most likely to support proxy access proposals that permit a group of shareholders who have held 5% of outstanding shares for at least three years to nominate directors, but we considered each proposal on a case-by-case basis.

Based on our evaluation, we voted for 15 shareholder and 11 management proposals to adopt access (most of which had ownership requirements of less than 5%). We also engaged with more than 60 recipients of shareholder proposals and urged them to adopt proxy access.

Engagement with companies

Although voting is important, we believe it tells only a small part of the story of our corporate governance program. We induce the most change through engagement with the companies in which Vanguard funds invest. During our conversations with corporate leaders and board members, we strive to provide constructive input that will better position companies to deliver sustainable value over the long term for all investors.

In the past 12 months, we spoke with the management or directors of nearly 700 companies encompassing approximately $900 billion in Vanguard fund assets. We were most likely to reach out for one of three reasons:

- We were preparing to vote at the shareholder meeting.
- An event occurred at the company that could have affected stock value.
- We had a specific governance concern that was not on the ballot.

Our involvement included conference calls or in-person meetings with executives and/or directors, formal letters requesting change, and participation in broader initiatives advocating change. Direct conversations with company managers and directors were the primary form of engagement.

In February, we sent letters to the chairpersons, lead independent directors, and/or CEOs of 500 of the funds' largest U.S. holdings. Our objective was to encourage enhanced discussions between directors and shareholders. We received a substantial, positive response, with most parties agreeing with us that ongoing dialogue among shareowners, management, and directors has value for both investors and corporations. Many companies already do this well; more are refining their processes with our support to engage more effectively over time with their significant owners.

We believe it's important to provide investors and directors with the resources to make these conversations productive. Accordingly, we are developing a summary of engagement best practices for boards of directors. And we continue to support initiatives such as the Shareholder Director Exchange (SDX) and the Conference Board's Guidelines for Investor Engagement.

Voting and engagement in practice

Here are several examples of how informed voting and engagement have influenced positive change:

1. Encouraging board refreshment. An international health care company had experienced considerable leadership turmoil, and its most recent chief executive resigned amid a public disagreement with the board. We met with the company to express concerns regarding both succession planning and the need for board refreshment. To underscore the need for improvement, the funds also voted against three of four directors who were up for election. The company implemented significant change, adding two new directors, introducing a new chairman, and providing more transparency into succession planning.

2. Promoting significant changes. We raised concerns with the board of a large consumer services company regarding the payment of extraordinarily large stock grants. After numerous conversations—and a vote against the Say on Pay measure—the board reduced the size of future awards by 40% and increased the rigor of performance metrics. In previous years, we had requested governance improvements to better protect our investors. The board responded by implementing annual director elections, a majority vote standard, and proxy access.

3. Driving management support. A large industrial company was challenged by a well-known shareholder activist that sought to replace four directors. We met multiple times with the management team, board members, and activist nominees to better understand their respective positions. Vanguard's governance monitoring team worked closely with our funds' portfolio managers to fully integrate their perspectives. We decided to support management to demonstrate our confidence in the current board and its new strategy.

4. Supporting a mix of nominees in a proxy contest. A consumer services firm faced a proxy contest for control of the board. We shared the activists' concerns regarding a number of strategic failures and the need for greater industry experience among board members. We met with both management and the shareholder activists to consider the qualifications of the candidates, and we came away impressed with the backgrounds and thoughtfulness of certain activist nominees. We supported four activist and eight management candidates, and all won seats.

5. Advocating "one share, one vote." We believe that the weight of shareholders' influence should be proportional to their ownership interest in a company. Our corporate governance team met with a number of U.S. and international companies that give one class of stock more voting rights than common shares. We met multiple times with a large media company to discuss the elimination of its multiple-class structure. Its board has committed to ongoing discussions to consider options for the eventual elimination of these unequal voting rights.

We also expressed concerns to a number of French companies regarding new legislation providing double voting rights to certain investors. The administrative hurdles required to qualify for these shares mean that controlling shareholders are the primary beneficiaries. The funds consistently voted against such voting rights and we engaged with a number of companies to convey our thoughts.

6. Increasing transparency of environmental risk. We met with a large energy company to discuss its response to recent litigation, violations of environmental regulations, and pipeline spills. During our initial conversation, we queried whether environmental risks were receiving appropriate attention from the board. We highlighted our difficulty in understanding how the company managed such risks when the quality of its disclosure lagged peers. In a follow-up discussion, management shared that it was considering proposing a new board committee to be responsible for environmental risk. We encouraged the establishment of such a committee, and the board has since voted on and approved its formation.

How Vanguard funds voted

July 1, 2014–June 30, 2015

Management proposals	Number of proposals voted on	% of votes supporting management recommendations
Directors and board-related	65,820	93%
Compensation	14,110	91%
Capital structure change	14,900	96%
Ratification of auditors and auditor-related	8,790	98%
Mergers, acquisitions, and reorganizations	2,650	95%
Anti-takeover-related	315	88%
Routine business	14,980	92%

Shareholder proposals

Directors and board-related	1,460	31%
Governance-related	750	64%
Environmental and social issues	290	51%
Compensation-related	165	93%