

ATTORNEY GENERAL OF THE STATE OF NEW YORK INVESTOR PROTECTION
BUREAU

In the Matter of

Assurance No. 25-003

**Investigation by LETITIA JAMES,
Attorney General of the State of New York, of**

THE VANGUARD GROUP, INC. and
VANGUARD MARKETING CORPORATION,

Respondents[s].

ASSURANCE OF DISCONTINUANCE

The Office of the Attorney General of the State of New York (“OAG”) commenced an investigation pursuant to N.Y. General Business Law § 352 et seq. (the “Martin Act”) and N.Y. Executive Law § 63(12) into allegations of fraudulent conduct by The Vanguard Group, Inc., and its wholly owned subsidiary Vanguard Marketing Corporation (collectively “Vanguard” or “Respondents”). The OAG’s investigation concerned Vanguard Group, Inc.’s decision to lower the investment minimum in its Institutional Target Retirement Funds, and its failure to disclose to investors, who held shares of Vanguard’s Investor Target Retirement Funds in taxable accounts, that its decision could result in substantial capital gains tax liability for such investors. This Assurance of Discontinuance (“Assurance”) contains the findings of the OAG’s investigation, and the relief agreed to by the OAG and Respondents, whether acting through their respective directors, officers, employees, representatives, agents, affiliates, or subsidiaries (collectively, “Parties”).

Respondents

1. The Vanguard Group, Inc. (“VGI”) is a registered investment adviser with its principal place of business in Malvern, Pennsylvania. VGI is one of the largest investment

advisers in the world, and reported in its Form ADV dated October 24, 2024 that it had approximately \$7.9 trillion in regulatory assets under management. VGI provides investment advisory, corporate management, administrative, marketing, and distribution services to over two hundred index and actively managed funds. VGI, as the Trust's (as hereinafter defined) advisor, was responsible for preparing all disclosures of the Trust, including prospectuses for the Investor and Institutional TRFs. VGI is owned by its U.S. mutual funds and provides services to the funds at Vanguard's cost of operations.

2. Defendant Vanguard Marketing Corporation ("VMC") is a Pennsylvania corporation with its principal place of business in Malvern, Pennsylvania. VMC is a subsidiary of VGI which facilitates compliance with regulatory requirements of certain states in which shares of Vanguard funds are offered. VMC is registered as a broker-dealer in New York.

3. Vanguard and/or its subsidiaries offer investment products to the public, including investors in the state of New York.

Other Relevant Entity

4. Vanguard Chester Funds has been organized as a Delaware statutory trust since 1998 (the "Trust"). Each of the Target Retirement Funds ("TRFs") relevant to this matter is a series of the Trust and a fund of funds that invests in a portfolio of Vanguard index funds. The Trust's trustees and officers are also directors and employees, respectively, of Vanguard. The Trust offers and sells securities in New York and notice files with New York.

5. The Trust has offered the following Investor TRFs each as a series of the Trust: the Vanguard Target Retirement Income Fund (VTINX), Vanguard Target Retirement 2015 Fund (VTXVX), Vanguard Target Retirement 2020 Fund (VTWNX), Vanguard Target Retirement 2025 Fund (VTTVX), Vanguard Target Retirement 2030 Fund (VTHRX), Vanguard Target Retirement 2035 Fund (VTTHX), Vanguard Target Retirement 2040 Fund (VFORX),

Vanguard Target Retirement 2045 Fund (VTIVX), Vanguard Target Retirement 2050 Fund (VFIFX), Vanguard Target Retirement 2055 Fund (VFFVX), Vanguard Target Retirement 2060 Fund (VTTSX), and Vanguard Target Retirement 2065 Fund (VLXVX).

6. Beginning in 2015, the Trust offered the following TRFs for certain institutional investors (“Institutional TRFs”) each as a separate series of the Trust: the Vanguard Institutional Target Retirement Income Fund (VITRX), Vanguard Institutional Target Retirement 2015 Fund (VITVX), Vanguard Institutional Target Retirement 2020 Fund (VITWX), Vanguard Institutional Target Retirement 2025 Fund (VRIVX), Vanguard Institutional Target Retirement 2030 Fund (VTTWX), Vanguard Institutional Target Retirement 2035 Fund (VITFX), Vanguard Institutional Target Retirement 2040 Fund (VIRSX), Vanguard Institutional Target Retirement 2045 Fund (VITLX), Vanguard Institutional Target Retirement 2050 Fund (VTRLX), Vanguard Institutional Target Retirement 2055 Fund (VIVLX), Vanguard Institutional Target Retirement 2060 Fund (VILVX), and Vanguard Institutional Target Retirement 2065 Fund (VSXFX). These funds were merged with the Investor TRFs in 2022 as described further below.

OAG’s FINDINGS

Background

7. On its website, Vanguard advertises that its core purpose and mission is “[t]o take a stand for all investors, to treat them fairly, and to give them the best chance for investment success,” and assures investors that “the interests of our clients should always come first is foremost among our values.”

8. Among Vanguard’s most popular products are its “Target” retirement funds, which Vanguard advertises are designed to help investors “invest successfully for retirement.” As of December 2022, Vanguard TRFs held \$1.056 trillion in assets.

9. Prior to 2021, Vanguard offered for sale shares in two different suites of its TRFs: Investor TRFs and Institutional TRFs. Each suite offered twelve vintages of TRFs with different target retirement dates.

10. Both Vanguard Investor and Institutional TRFs were structured and invested according to a “target date” which reflects the approximate year that an investor in the fund plans to retire. As the target date approaches the risk profiles of the TRFs are rebalanced.

11. The primary differences between Vanguard’s Investor TRFs and its Institutional TRFs were the acquired fund fees and expenses, which formed the annual operating expenses of each fund as a percentage of the fund’s average net assets (“expense ratios”), and the minimum investment amounts to invest in the TRFs. The Investor TRFs had an average expense ratio of 0.14%, and the Institutional TRFs had an expense ratio of 0.09% across all vintages. The minimum investment amount was \$1,000 to invest in the Investor TRFs, and \$100 million to invest in the Institutional TRFs. The asset allocation strategies of the Investor and Institutional TRFs were substantially similar.

12. Vanguard markets and sells the TRFs to investors who hold TRF shares in qualified accounts that offer special tax treatment, including deferred taxes, as well as to investors who hold TRF shares in taxable accounts.

Capital Gains

13. As disclosed in the TRFs’ prospectuses, each TRF distributes to shareholders virtually all its net income and net short- or long-term capital gains realized from the sale of its holdings or received from the TRFs’ underlying funds. TRF investors typically received capital gains distributions on an annual basis. The capital gains distributions are taxable. For investors who hold their TRF shares in tax-deferred accounts, capital gains tax liability is deferred. However, investors who hold their shares in taxable accounts face potential tax liability for any

capital gains distribution that they receive at the time they receive it. Historically, the amount of capital gains distributions and resulting tax liability for shareholders in Investor TRFs was modest.

Vanguard Considers Options to Reduce Expense Ratios and Protect its Competitive Position in the TRF Market

14. By mid-2019 Vanguard sought to lower expense ratios for small and medium sized retirement plans that drove Investor TRF growth and did not get the benefit of the lower expense ratio in the Institutional TRFs. Additionally, Vanguard was aware that other companies in the target date product market were offering similar target date retirement products with lower expense ratios. As a result, Vanguard began to consider strategies to return value to Investor TRF investors, increase its competitiveness among other mutual fund companies, retain its TRF investors, and attract more investors to its Institutional TRF products.

15. Accordingly, by early 2020, Vanguard had formed an internal working group (the “Pricing Working Group”) for the purposes of considering various options to address these issues and to lower expenses for investors in the Investor TRFs. Several senior employees from across Vanguard participated in the Pricing Working Group. Vanguard’s retail client-facing groups were not represented in the Working Group, though they had the opportunity to review the Working Group’s final recommendations.

16. Starting in early January 2020, the Pricing Working Group met regularly to analyze and discuss the options under consideration, including, *inter alia*, lowering the investment minimum for Institutional TRFs to \$5 million, expense reductions, and merging the Investor and Institutional TRFs.

17. Vanguard’s Pricing Working Group also considered the potential effects on investors in Investor TRFs of lowering the investment minimum for the Institutional TRFs. The

Pricing Working Group anticipated that lowering the investment minimum would cause many small- and medium-sized retirement plan investors to move from Investor TRFs to the lower cost Institutional TRFs.

18. Moving from an Investor TRF to an Institutional TRF required investors to redeem (i.e. sell) their Investor TRF shares and then purchase Institutional TRF shares. If redemption requests outpaced new investments in the Investor TRFs, the Investor TRFs would have to satisfy redemption requests from available cash, or if the fund did not have sufficient cash to cover the redemptions, from the sale of underlying fund assets. The sale of underlying fund assets that had increased in value would in turn generate capital gain distributions. Thus, the Pricing Working Group understood that implementation of Vanguard's plan could generate capital gains distributions for taxable investors in the Investor TRFs because of the potential need to sell underlying fund assets that had appreciated in value.

19. The Pricing Working Group estimated that approximately 5.79% or \$17 billion of the Investor TRF assets held at Vanguard were held by retail investors in taxable accounts and those investors would be subject to potential capital gains distributions and related tax liability as a result of investors switching from Investor TRFs to Institutional TRFs.

20. However, although approximately 40% or \$110 billion of all Investor TRF assets were held at brokerage accounts outside of Vanguard, the Pricing Working Group failed to consider whether any of these accounts were taxable and could realize material capital gains and tax consequences.

21. The Pricing Working Group determined that the 5.79% of Investor TRF assets held in taxable account did not "present a hindrance," to making a formal recommendation to Vanguard's Global Investment Committee in October 2020 to, *inter alia*, lower the investment

minimum for Institutional TRFs from \$100 million to \$5 million and to also lower the expense ratios of the Investor TRFs by 0.01% to 0.02%. The Global Investment Committee is Vanguard's primary governance committee for all Vanguard products, and it is comprised of Vanguard's senior management, including its CEO.

22. However, the Pricing Working Group did not advise the Global Investment Committee of the approximately 5.79% of Investor TRF assets held by investors in taxable accounts. The Pricing Working Group also failed to advise the Global Investment Committee of the potential adverse tax impacts of lowering the investment minimum on such investors. The Global Investment Committee approved the recommendation and directed VGI to make that recommendation to the Trust's Board of Trustees.

23. Accordingly, in November 2020, VGI recommended that the Trust's Board of Trustees reduce the investment minimum for Institutional TRFs from \$100 million to \$5 million. VGI did not inform the Trustees of the Working Group's findings that 5.79% of Investor TRF assets were held by investors in taxable accounts and the potential adverse tax impact of lowering the investment minimum in Institutional TRFs on these investors. The Trustees approved VGI's recommendation on November 30, 2020.

24. The Pricing Working Group concluded its analysis in March 2020, at a time when the financial markets suffered substantial losses due to the Covid-19 pandemic. Approximately seven months later, in October 2020, the Global Investment Committee approved the Pricing Working Group's recommendation and in November 2020 the Board of Trustees voted to approve the recommendation. By that time the financial markets had made a strong recovery.

25. Yet the Pricing Working Group failed to update its initial March 2020 analysis regarding potential capital gains impacts, or consider whether continued market appreciation

could impact its evaluation of potential capital gains or tax consequences from investors redeeming Investor TRF shares in 2021, when it made its recommendation in October 2020 to the Global Investment Committee. Thus, the Global Investment Committee and the Board of Trustees relied on outdated data in approving the lowering of the Institutional TRF investment minimum. Accordingly, in making its recommendation to the Global Investment Committee and ultimately to the Board, the Pricing Working Group failed to account for the significant market rebound that occurred between March and October 2020, and the potential for continued market appreciation, in its analysis of capital gains impacts to the Investor TRFs. As a result, the size of the capital gains distribution in the Investor TRFs in 2021 was significantly larger than the Pricing Working Group anticipated it would be based on market conditions in March 2020.

26. VGI's decision was made against the backdrop of its desire to implement expense reductions in other products. Of the options considered, lowering the investment minimum for the Institutional TRFs would minimize the cost and revenue impact to Vanguard. Vanguard considered other options, including merging the Institutional and Investor TRFs, but decided not to pursue this possibility, because it "would have been the most expensive option" for Vanguard. Vanguard ultimately reversed course and on September 28, 2021 it announced that it would merge the funds.

27. On December 11, 2020, VMC announced, via press release and Institutional TRF prospectus supplement, the lowering of the investment minimum in Institutional TRFs, effective immediately. The Investor TRF prospectuses and the press release did not contain any disclosures regarding potential capital gains and tax consequences to Investor TRF investors in taxable accounts that could result from the lowering of the minimum investment for the

Institutional TRFs, and the anticipated movement of a substantial number of Investor TRF investors to the Institutional TRFs.

Vanguard Fails to Advise Investors Holding Shares of Investor TRFs in Taxable Accounts that they Could be Subject to Extraordinary Capital Gains Distributions

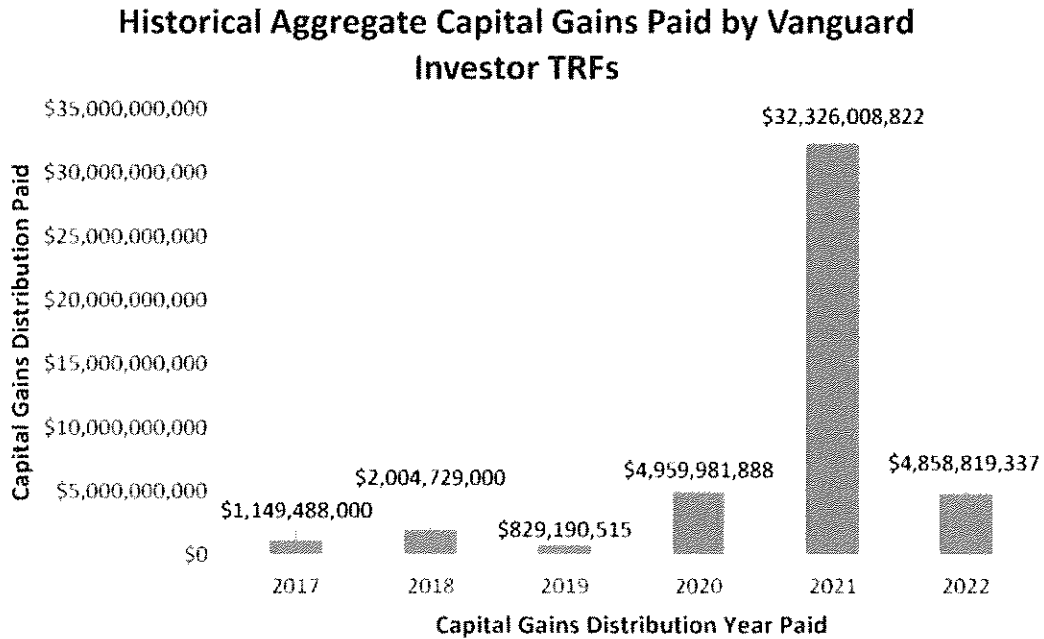
28. In the TRF prospectuses, Vanguard represented to investors that “Capital gains distributions may vary considerably from year to year as a result of the Fund’s normal investment activities and cash flows,” and that “funds with high turnover rates may be more likely to generate capital gains.”

29. However, Vanguard lowered the Institutional TRF investment minimum in order to encourage a substantial number of investors to redeem Investor TRF shares and move to lower cost Institutional TRFs. Vanguard’s decision and the resulting surge of redemptions in Investor TRFs, and historically high capital gains distributions, were not “normal investment activities and cash flows.” Further, despite knowledge that retail investors holding approximately 5.79% of Investor TRF assets could potentially experience substantially higher capital gains distributions and taxes on those distributions, Vanguard failed to warn investors of this risk.

30. Soon after the announcement, Investor TRF shareholders began to redeem their shares in unprecedented numbers and the exodus from Investor TRFs continued at historic levels through 2021. To raise the cash needed to meet the redemptions, Vanguard sold underlying assets in Investor TRFs at appreciated prices, generating the realization of substantial capital gains at a level not seen before in the Investor TRFs.

31. When capital gains distributions were made in December 2021, hundreds of thousands of investors, including more than 15,000 New Yorkers, held shares of Investor TRFs in taxable accounts. As a result of Vanguard’s actions and omissions, these investors faced significant economic consequences when they received their tax bills in January 2022.

32. The chart below shows the historically large size of the 2021 Investor TRF capital gains distribution as compared to prior years.



33. OAG finds that Respondents’ failures to disclose to investors the significant impact on capital gains distributions and resulting capital gains tax liability that would result from its decision to lower the minimum investment amount in its Institutional TRFs are in violation of the Martin Act and N.Y. Executive Law § 63(12).

34. Respondents neither admit nor deny the OAG’s Findings in paragraphs 7-33, *supra*.

35. The OAG finds the relief and agreements contained in this Assurance appropriate and in the public interest. THEREFORE, the OAG is willing to accept this Assurance pursuant to Executive Law § 63(15), in lieu of commencing a statutory proceeding for violations of the Martin Act and Executive Law § 63(12) based on the conduct described above during the period January 2020 through December 2021.

IT IS HEREBY UNDERSTOOD AND AGREED, by and between the Parties:

36. Compliance with Applicable Laws: Respondents shall not engage, or attempt to engage, in conduct in violation of any applicable laws, including but not limited to the Martin Act, and Executive Law § 63(12), and expressly agrees and acknowledges that any such conduct is a violation of the Assurance, and that the OAG thereafter may commence the civil action or proceeding contemplated in paragraph 44, *supra*, in addition to any other appropriate investigation, action, or proceeding.

Monetary Relief

37. Respondents shall pay \$135 million in remediation within 10 days of the effective date of this Assurance for the benefit of harmed investors of the Investor TRFs in taxable accounts who received historically large capital gains distributions for 2021 (“Harmed Investors”). Respondents are entitled to an offset to the \$135 million by (a) the amount of \$40 million for Respondent VGI and its affiliates’/related parties’ settlement of a class action against VGI and certain related parties pending in the U.S. District Court for the Eastern District of Pennsylvania captioned, *In re Vanguard Chester Funds Lit.*, Case No. 2:22-cv-955-JFM, under a Stipulation of Settlement submitted by plaintiffs for preliminary and final Court approval (“Class Action Settlement”), and (b) the amount of \$2.094 million for Respondents’ settlement of certain individual investor arbitration claims filed or threatened to be filed against Respondents or their affiliates in the Financial Industry Regulatory Authority’s arbitration forum (“FINRA Arbitrations”). The offsets set forth in this paragraph are contingent on payment by Respondents as set forth in paragraph 38, *infra*.

38. The total amount of remediation including these offsets is \$92.91 million, which Respondents shall pay into a fair fund established by the U.S. Securities and Exchange Commission (“Commission”) for the benefit of Harmed Investors (“Fair Fund”), to be

distributed as described in paragraph IV.E. of the Commission's Order Instituting Administrative and Cease-and-Desist Proceedings against VGI, Admin. Proc. File No. 3-("SEC Order"). In the event Respondents do not pay the \$40 million under the Class Action Settlement, as a result of the termination or withdrawal of the Stipulation of Settlement or the Court's rejection of the Class Action Settlement, Respondents shall pay the \$40 million into the Commission's Fair Fund within 10 days of such termination or rejection. In the event Respondents do not provide proof to the OAG of payment of the full \$2.09 million for the FINRA Arbitrations within 10 days of the Effective Date of this Assurance, Respondents shall immediately pay \$2.09 million into the Commission's Fair Fund.

39. Respondents shall pay an additional amount of \$13,500,000 as a penalty into the Fair Fund to be distributed to Harmed Investors.

40. Respondents shall pay an additional amount of \$14,700,000 disgorgement and \$3,500,000 in prejudgment interest, which shall be deemed satisfied by Respondents' payment of the Monetary Relief as set forth in paragraphs 37-39, *supra*, the amount as set forth in paragraph 41, *infra*.

41. Subject to the provisions in paragraphs 37 and 38, this Monetary Relief shall be deemed satisfied by Respondents' payment of \$106,410,000 to the SEC's Fair Fund in accordance with the provisions identified in Section III., paragraph 44-46 of the SEC Order.

Miscellaneous

42. Subsequent Proceedings. Respondents expressly agree and acknowledge that the OAG may initiate a subsequent investigation, civil action, or proceeding to enforce this Assurance, for violations of the Assurance, or if the Assurance is voided pursuant to paragraph 53, *infra*, and agree and acknowledge that in such event:

- a. any statute of limitations or other time-related defenses are tolled from and after the effective date of this Assurance;
- b. the OAG may use statements, documents or other materials produced or provided by the Respondents prior to or after the effective date of this Assurance;
- c. any civil action or proceeding must be adjudicated by the courts of the State of New York, and that Respondents irrevocably and unconditionally waive any objection based upon personal jurisdiction, inconvenient forum, or venue; and
- d. evidence of a violation of this Assurance shall constitute prima facie proof of a violation of the applicable law pursuant to Executive Law § 63(15).

43. In the event that the OAG believes that Respondents have defaulted in the performance of any obligation set forth in this Assurance, the OAG will provide written notice of such default to the designated representative of Respondents. Respondents shall then have seven (7) days to respond and/or certify that any default has been cured.

44. If a court of competent jurisdiction determines that Respondents have violated this Assurance, Respondents shall pay to the OAG the reasonable cost, if any, of obtaining such determination and of enforcing this Assurance, including without limitation legal fees, expenses, and court costs.

Effects of Assurance

45. This Assurance is not intended for use by any third party in any other proceeding.

46. All terms and conditions of this Assurance shall continue in full force and effect on any successor, assignee, or transferee of the Respondents. Respondents shall include any such successor, assignment, or transfer agreement a provision that binds the successor, assignee or transferee to the terms of the Assurance. No party may assign, delegate, or otherwise transfer

any of its rights or obligations under this Assurance without the prior written consent of the OAG.

47. Nothing contained herein shall be construed as to deprive any person of any private right under the law.

48. Any failure by the OAG to insist upon the strict performance by Respondents of any of the provisions of this Assurance shall not be deemed a waiver of any of the provisions hereof, and the OAG, notwithstanding that failure, shall have the right thereafter to insist upon the strict performance of any and all of the provisions of this Assurance to be performed by the Respondents.

Communications

49. All notices, reports, requests, and other communications pursuant to this Assurance must reference Assurance No. 25-003, and shall be in writing and shall, unless expressly provided otherwise herein, be given by hand delivery; express courier; or electronic mail at an address designated in writing by the recipient, followed by postage prepaid mail, and shall be addressed as follows:

50. If to the Respondents, to both:

Jaliya Faulkner
Principal, Deputy General Counsel
Head of Regulatory Enforcement and Investigations
The Vanguard Group, Inc.
425 Morehall Road
6th Floor
Malvern, PA 19355
Jaliya_faulkner@vanguard.com

or in her absence, to the person holding the title of Head of Regulatory Enforcement and Investigations;

and to:

Lori A. Martin
Wilmer Hale LLP
7 World Trade Center
250 Greenwich Street
New York, NY 10007
(212) 295-6412
lori.martin@wilmerhale.com

If to the OAG, to:

Hannah K. Flamenbaum,
Senior Enforcement Counsel
Investor Protection Bureau
Office of the New York State Attorney General
28 Liberty Street
New York, NY 10005
(212) 416-6571
hannah.flamenbaum@ag.ny.gov

or in her absence, to the person holding the title of Bureau Chief, Investor Protection Bureau.

Representations and Warranties

51. The OAG has agreed to the terms of this Assurance based on, among other things, the representations made to the OAG by the Respondents and their counsel and the OAG's own factual investigation as set forth in OAG's Findings, paragraphs 7-33, *supra*. The Respondents represent and warrant that neither they nor their counsel have made any material representations to the OAG that are inaccurate or misleading. If any material representations by Respondents or their counsel are later found to be inaccurate or misleading, this Assurance is voidable by the OAG in its sole discretion.

52. No representation, inducement, promise, understanding, condition, or warranty not set forth in this Assurance has been made to or relied upon by the Respondents in agreeing to this Assurance.

53. The Respondents represent and warrant, through the signatures below, that the terms and conditions of this Assurance are duly approved. Respondents further represent and

warrant that Respondents, by Jaliya Faulkner, as the signatory to this AOD, is a duly authorized officer acting at the direction of the Board of Directors of Vanguard Respondents.

General Principles

54. Unless a term limit for compliance is otherwise specified within this Assurance, the Respondents' obligations under this Assurance are enduring. Nothing in this Agreement shall relieve Respondents of other obligations imposed by any applicable state or federal law or regulation or other applicable law.

55. Respondents shall not in any manner discriminate or retaliate against any of its employees, including but not limited to employees who cooperated or are perceived to have cooperated with the investigation of this matter or any future investigation related to enforcing this agreement.

56. Respondents agree not to take any action or to make or permit to be made any public statement denying, directly or indirectly, any finding in the Assurance or creating the impression that the Assurance is without legal or factual basis. Respondents may advance defenses in litigation or regulatory proceedings with other parties regarding the same or similar conduct.

57. This Assurance is not intended to subject the Respondents to, or form the basis for, any disqualifications contained in the federal securities laws or the Commodity Exchange Act, the rules and regulations thereunder, the rules and regulations of any self-regulatory organizations, or various states' securities laws, including any disqualifications from relying upon registration exemptions, such as Regulation A, Rules 504 and 506(d) of Regulation D, or Regulation CF, or safe harbor provisions. This Assurance is not a final order of any court.

58. Nothing contained herein shall be construed to limit the remedies available to the OAG in the event that the Respondents violate the Assurance after its effective date.

59. This Assurance may not be amended except by an instrument in writing signed on behalf of the Parties to this Assurance.

60. In the event that any one or more of the provisions contained in this Assurance shall for any reason be held by a court of competent jurisdiction to be invalid, illegal, or unenforceable in any respect, in the sole discretion of the OAG, such invalidity, illegality, or unenforceability shall not affect any other provision of this Assurance.

61. Respondents acknowledge that they have entered this Assurance freely and voluntarily and upon due deliberation with the advice of counsel.

62. This Assurance shall be governed by the laws of the State of New York without regard to any conflict of laws principles.

63. This Assurance and all its terms shall be construed as if mutually drafted with no presumption of any type against any party that may be found to have been the drafter.

64. This Assurance may be executed in multiple counterparts by the parties hereto. All counterparts so executed shall constitute one agreement binding upon all parties, notwithstanding that all parties are not signatories to the original or the same counterpart. Each counterpart shall be deemed an original to this Assurance, all of which shall constitute one agreement to be valid as of the effective date of this Assurance. For purposes of this Assurance, copies of signatures shall be treated the same as originals. Documents executed, scanned and transmitted electronically and electronic signatures shall be deemed original signatures for purposes of this Assurance and all matters related thereto, with such scanned and electronic signatures having the same legal effect as original signatures.

65. The effective date of this Assurance shall be January 16, 2025.

LETITIA JAMES
Attorney General of the State of New York
28 Liberty Street
New York, NY 10005

By: Hannah K. Flamenbaum
Hannah K. Flamenbaum
Senior Enforcement Counsel
Investor Protection Bureau

The Vanguard Group Inc.

By: Jaliya Faulkner
Jaliya Faulkner
Principal, Deputy General Counsel

STATE OF PENNSYLVANIA)
COUNTY OF Chester) ss.:
13th

On the 13th day of January in the year 2025 before me personally came Jaliya Faulkner to me known, who, being by me duly sworn, did depose and say that she resides in 624 Spruce Lane Villanova, PA 19085 [if the place of residence is in a city, include the street and street number, if any, thereof], that she is a Principal of The Vanguard Group, Inc., a corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania ("Vanguard"), and a Deputy General Counsel in Vanguard's Office of the General Counsel Division, the entity described in the forgoing Assurance, and that she is duly authorized by The Vanguard Group, Inc. to execute the same, and that she signed her name in my presence by like authorization.

Sworn to before me this
13th
13 day of January, 2025

Lindsey S. Ellingsworth
NOTARY PUBLIC

Commonwealth of Pennsylvania - Notary Seal
Lindsey S. Ellingsworth, Notary Public
Chester County
My commission expires November 19, 2028
Commission number 1272927
Member, Pennsylvania Association of Notaries

Vanguard Marketing Corporation

By: Jaliya Faulkner
Jaliya Faulkner
Authorized Signatory

STATE OF PENNSYLVANIA)
COUNTY OF Chester) ss.:

On the 13th day of January in the year 2025 before me personally came Jaliya Faulkner to me known, who, being by me duly sworn, did depose and say that she resides in 624 Spruce Lane Villanova, PA 19085 [if the place of residence is in a city, include the street and street number, if any, thereof]; that she is a Principal of The Vanguard Group, Inc., a corporation duly organized and existing under the laws of the Commonwealth of Pennsylvania ("Vanguard"), and a Deputy General Counsel in Vanguard's Office of the General Counsel Division; and that Vanguard Marketing Corporation, the entity described in the forgoing Assurance and which executed the above instrument, is a subsidiary of Vanguard; that she knows the seal of Vanguard Marketing Corporation; that the seal affixed to the Secretary's Certificate of Vanguard Marketing Corporation is such corporate seal; that it was so affixed by authority of the board of directors of said corporation, and that she signed her name to the forgoing Assurance by like authority.

Sworn to before me this
13 day of January, 2025

Lindsey S. Ellingsworth
NOTARY PUBLIC

Commonwealth of Pennsylvania - Notary Seal
Lindsey S. Ellingsworth, Notary Public
Chester County
My commission expires November 19, 2028
Commission number 1272927
Member, Pennsylvania Association of Notaries