Form 5500

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Annual Return/Report of Employee Benefit Plan

This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

▶ **Complete all entries in accordance with the instructions to the Form 5500.**

OMB Nos. 1210-0110
1210-0089

2022

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

A This return/report is for:
- [ ] a multiemployer plan
- [ ] a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.)
- [X] a single-employer plan
- [ ] a DFE (specify) ____

B This return/report is:
- [ ] the first return/report
- [ ] the final return/report
- [ ] an amended return/report
- [ ] a short plan year return/report (less than 12 months)

C If the plan is a collectively-bargained plan, check here. . . . . ▶ [ ]

D Check box if filing under:
- [X] Form 5558
- [ ] automatic extension
- [ ] the DFVC program
- [ ] special extension (enter description)

E If this is a retroactively adopted plan permitted by SECURE Act section 201, check here. . . . . ▶ [ ]

Part II Basic Plan Information—enter all requested information

1a Name of plan
THE VANGUARD RETIREMENT AND SAVINGS PLAN

1b Three-digit plan number (PN) ▶ 002

1c Effective date of plan 01/01/1982

2a Plan sponsor's name (employer, if for a single-employer plan)
Mailing address (include room, apt., suite no. and street, or P.O. Box)
City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions)
THE VANGUARD GROUP, INC.

100 VANGUARD BOULEVARD
MALVERN, PA 19355

2b Employer Identification Number (EIN)
23-1945930

2c Plan Sponsor's telephone number
610-669-1000

2d Business code (see instructions)
525990

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	10/05/2023	LAUREN VALENTE
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE	Filed with authorized/valid electronic signature.	10/05/2023	LAUREN VALENTE
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

3a Plan administrator's name and address ☐ Same as Plan Sponsor

VANGUARD BENEFITS COMMITTEE

100 VANGUARD BOULEVARD
MALVERN, PA 19355

3b Administrator's EIN: 23-2401257

3c Administrator's telephone number: 610-669-1000

4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report:
a Sponsor's name
c Plan Name

4b EIN

4d PN

5 Total number of participants at the beginning of the plan year	**5**	24611
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines **6a(1), 6a(2), 6b, 6c,** and **6d**).		
a(1) Total number of active participants at the beginning of the plan year	**6a(1)**	17073
a(2) Total number of active participants at the end of the plan year	**6a(2)**	18200
b Retired or separated participants receiving benefits	**6b**	299
c Other retired or separated participants entitled to future benefits	**6c**	8436
d Subtotal. Add lines **6a(2)**, **6b**, and **6c**	**6d**	26935
e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits.	**6e**	44
f Total. Add lines **6d** and **6e**	**6f**	26979
g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)	**6g**	26931
h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	**6h**	2290
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	**7**	

8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions:

2E 2F 2G 2J 2K 2S 2T 3F 3H

b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:

9a Plan funding arrangement (check all that apply)

(1)	☐	Insurance
(2)	☐	Code section 412(e)(3) insurance contracts
(3)	☒	Trust
(4)	☐	General assets of the sponsor

9b Plan benefit arrangement (check all that apply)

(1)	☐	Insurance
(2)	☐	Code section 412(e)(3) insurance contracts
(3)	☒	Trust
(4)	☐	General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

(1)	☒	**R** (Retirement Plan Information)
(2)	☐	**MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
(3)	☐	**SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

(1)	☒	**H** (Financial Information)
(2)	☐	**I** (Financial Information – Small Plan)
(3)	☐	**A** (Insurance Information)
(4)	☒	**C** (Service Provider Information)
(5)	☒	**D** (DFE/Participating Plan Information)
(6)	☐	**G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ..... ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2022 Form M-1 annual report. If the plan was not required to file the 2022 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code_____

SCHEDULE C (Form 5500)	Service Provider Information	OMB No. 1210-0110
Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA). ▶ **File as an attachment to Form 5500.**	**2022** **This Form is Open to Public Inspection.**

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

A Name of plan
THE VANGUARD RETIREMENT AND SAVINGS PLAN

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500
THE VANGUARD GROUP, INC.

D Employer Identification Number (EIN)
23-1945930

Part I Service Provider Information (see instructions)

You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions).. . . . . [X] Yes [ ] No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

THE VANGUARD GROUP, INC.

23-1945930

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation

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2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, $5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

VANGUARD ADVISERS INC.

23-2811930

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
26	NONE	309645	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received $1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

(a) Enter service provider name as it appears on line 2	**(b)** Service Codes (see instructions)	**(c)** Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	**(e)** Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

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(a) Enter name and EIN or address of service provider (see instructions)	**(b)** Nature of Service Code(s)	**(c)** Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)

(complete as many entries as needed)

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

a Name:	**b** EIN:
c Position:	
d Address:	**e** Telephone:

Explanation:

SCHEDULE D (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

DFE/Participating Plan Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2022

This Form is Open to Public Inspection.

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

A Name of plan
THE VANGUARD RETIREMENT AND SAVINGS PLAN

B Three-digit plan number (PN) ▶ 002

C Plan or DFE sponsor's name as shown on line 2a of Form 5500
THE VANGUARD GROUP, INC.

D Employer Identification Number (EIN)
23-1945930

Part I **Information on interests in MTIAs, CCTs, PSAs, and 103-12 IEs (to be completed by plans and DFEs)**
(Complete as many entries as needed to report all interests in DFEs)

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT SVGS TR II

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
45-5455475-023	C	212426108

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2015 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
47-6935471-001	C	0

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2020 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
47-6935530-001	C	83211636

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2025 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
47-6938034-001	C	234266481

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2030 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
47-6938065-001	C	373102631

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2035 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
47-6941311-001	C	440664540

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2040 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)
47-6941351-001	C	383411859

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2045 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 47-6944355-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 347961114

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2050 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 47-6944390-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 338030359

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2055 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 47-6948719-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 186921539

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2060 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 47-6948754-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 105407940

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2065 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 82-6200492-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 22321217

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT 2070 TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 88-6098744-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 1051980

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RETIREMENT INC TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 47-6930815-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 35161338

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC TARGET RET INC & GROWTH TR SEL

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 87-6429754-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 947

a Name of MTIA, CCT, PSA, or 103-12 IE: VFTC INSTL TOTAL INTL ST MKT IDX TR

b Name of sponsor of entity listed in (a): VANGUARD FIDUCIARY TRUST COMPANY

c EIN-PN 81-6317280-001	**d** Entity code C	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions) 666666787

a Name of MTIA, CCT, PSA, or 103-12 IE:

b Name of sponsor of entity listed in (a):

c EIN-PN	**d** Entity code	**e** Dollar value of interest in MTIA, CCT, PSA, or 103-12 IE at end of year (see instructions)

Part II Information on Participating Plans (to be completed by DFEs)

(Complete as many entries as needed to report all participating plans)

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

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a Plan name

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a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

a Plan name

b Name of plan sponsor	**c** EIN-PN

SCHEDULE H (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Financial Information

This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2022

This Form is Open to Public Inspection

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

A Name of plan
THE VANGUARD RETIREMENT AND SAVINGS PLAN

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500
THE VANGUARD GROUP, INC.

D Employer Identification Number (EIN)
23-1945930

Part I Asset and Liability Statement

1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a		
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions	1b(1)		
(2) Participant contributions	1b(2)		
(3) Other	1b(3)		
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit)	1c(1)		
(2) U.S. Government securities	1c(2)		
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)		
(B) All other	1c(3)(B)		
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)		
(B) Common	1c(4)(B)		
(5) Partnership/joint venture interests	1c(5)		
(6) Real estate (other than employer real property)	1c(6)		
(7) Loans (other than to participants)	1c(7)		
(8) Participant loans	1c(8)	53935955	51352492
(9) Value of interest in common/collective trusts	1c(9)	3963704497	3430606476
(10) Value of interest in pooled separate accounts	1c(10)		
(11) Value of interest in master trust investment accounts	1c(11)		
(12) Value of interest in 103-12 investment entities	1c(12)		
(13) Value of interest in registered investment companies (e.g., mutual funds)	1c(13)	5440681261	4615295817
(14) Value of funds held in insurance company general account (unallocated contracts)	1c(14)		
(15) Other	1c(15)		

		(a) Beginning of Year	(b) End of Year
1d Employer-related investments:			
(1) Employer securities	1d(1)		
(2) Employer real property	1d(2)		
e Buildings and other property used in plan operation	1e		
f Total assets (add all amounts in lines 1a through 1e)	1f	9458321713	8097254785
Liabilities			
g Benefit claims payable	1g		
h Operating payables	1h		
i Acquisition indebtedness	1i		
j Other liabilities	1j		
k Total liabilities (add all amounts in lines 1g through1j)	1k	0	0
Net Assets			
l Net assets (subtract line 1k from line 1f)	1l	9458321713	8097254785

Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: **(A)** Employers	2a(1)(A)	267268880	
(B) Participants	2a(1)(B)	184746755	
(C) Others (including rollovers)	2a(1)(C)	39502246	
(2) Noncash contributions	2a(2)		
(3) Total contributions. Add lines **2a(1)(A), (B), (C),** and line **2a(2)**	2a(3)		491517881
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)		
(B) U.S. Government securities	2b(1)(B)		
(C) Corporate debt instruments	2b(1)(C)		
(D) Loans (other than to participants)	2b(1)(D)		
(E) Participant loans	2b(1)(E)	2551359	
(F) Other	2b(1)(F)		
(G) Total interest. Add lines **2b(1)(A)** through **(F)**	2b(1)(G)		2551359
(2) Dividends: **(A)** Preferred stock	2b(2)(A)		
(B) Common stock	2b(2)(B)		
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	304544720	
(D) Total dividends. Add lines **2b(2)(A)**, **(B)**, and **(C)**	2b(2)(D)		304544720
(3) Rents	2b(3)		
(4) Net gain (loss) on sale of assets: **(A)** Aggregate proceeds	2b(4)(A)		
(B) Aggregate carrying amount (see instructions)	2b(4)(B)		
(C) Subtract line **2b(4)(B)** from line **2b(4)(A)** and enter result	2b(4)(C)		0
(5) Unrealized appreciation (depreciation) of assets: **(A)** Real estate	2b(5)(A)		
(B) Other	2b(5)(B)		
(C) Total unrealized appreciation of assets. Add lines **2b(5)(A)** and **(B)**	2b(5)(C)		0

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		-608247244
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds)	2b(10)		-1199338955
c Other income	2c		198458
d Total income. Add all **income** amounts in column (b) and enter total	2d		-1008773781
Expenses			
e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	351953854	
(2) To insurance carriers for the provision of benefits	2e(2)		
(3) Other	2e(3)	2268	
(4) Total benefit payments. Add lines **2e(1)** through **(3)**	2e(4)		351956122
f Corrective distributions (see instructions)	2f		27380
g Certain deemed distributions of participant loans (see instructions)	2g		
h Interest expense	2h		
i Administrative expenses: (1) Professional fees	2i(1)	309645	
(2) Contract administrator fees	2i(2)		
(3) Investment advisory and management fees	2i(3)		
(4) Other	2i(4)		
(5) Total administrative expenses. Add lines **2i(1)** through **(4)**	2i(5)		309645
j Total expenses. Add all **expense** amounts in column (b) and enter total	2j		352293147
Net Income and Reconciliation			
k Net income (loss). Subtract line **2j** from line **2d**	2k		-1361066928
l Transfers of assets:			
(1) To this plan	2l(1)		
(2) From this plan	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) [X] Unmodified **(2)** [ ] Qualified **(3)** [ ] Disclaimer **(4)** [ ] Adverse

b Check the appropriate box(es) to indicate whether the IQPA performed an ERISA section 103(a)(3)(C) audit. Check both boxes (1) and (2) if the audit was performed pursuant to both 29 CFR 2520.103-8 and 29 CFR 2520.103-12(d). Check box (3) if pursuant to neither.

(1) [ ] DOL Regulation 2520.103-8 **(2)** [ ] DOL Regulation 2520.103-12(d) **(3)** [X] neither DOL Regulation 2520.103-8 nor DOL Regulation 2520.103-12(d).

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: PRICEWATERHOUSECOOPERS **(2)** EIN: 13-4008324

d The opinion of an independent qualified public accountant is **not attached** because:

(1) [ ] This form is filed for a CCT, PSA, or MTIA. **(2)** [ ] It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.)	4a		X	

		Yes	No	Amount
b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)	4b		X	
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)	4c		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.)	4d		X	
e Was this plan covered by a fidelity bond?	4e	X		40000000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?	4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?	4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked and see instructions for format requirements.)	4j		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	4k		X	
l Has the plan failed to provide any benefit when due under the plan?	4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	4m		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.	4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year? ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	**5b(2)** EIN(s)	**5b(3)** PN(s)

5c Was the plan a defined benefit plan covered under the PBGC insurance program at any time during this plan year? (See ERISA section 4021 and instructions.) ☐ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year _____.

SCHEDULE R (Form 5500)

Department of the Treasury
Internal Revenue Service

Department of Labor
Employee Benefits Security Administration

Pension Benefit Guaranty Corporation

Retirement Plan Information

This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code).

▶ **File as an attachment to Form 5500.**

OMB No. 1210-0110

2022

This Form is Open to Public Inspection.

For calendar plan year 2022 or fiscal plan year beginning 01/01/2022 and ending 12/31/2022

A Name of plan
THE VANGUARD RETIREMENT AND SAVINGS PLAN

B Three-digit plan number (PN) ▶ 002

C Plan sponsor's name as shown on line 2a of Form 5500
THE VANGUARD GROUP, INC.

D Employer Identification Number (EIN)
23-1945930

Part I Distributions

All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions ..... | **1** |

2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits):

EIN(s): 23-2186884

Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.

3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year ..... | **3** |

Part II Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)

4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

If the plan is a defined benefit plan, go to line 8.

5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. **Date:** Month _____ Day _____ Year _____

If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.

6 **a** Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived) ..... | **6a** |

b Enter the amount contributed by the employer to the plan for this plan year ..... | **6b** |

c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount) ..... | **6c** |

If you completed line 6c, skip lines 8 and 9.

7 Will the minimum funding amount reported on line 6c be met by the funding deadline? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change? ..... ☐ **Yes** ☐ **No** ☐ **N/A**

Part III Amendments

9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box. ..... ☐ **Increase** ☐ **Decrease** ☐ **Both** ☐ **No**

Part IV ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.

10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan? ..... ☐ **Yes** ☐ **No**

11 **a** Does the ESOP hold any preferred stock? ..... ☐ **Yes** ☐ **No**

b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.) ..... ☐ **Yes** ☐ **No**

12 Does the ESOP hold any stock that is not readily tradable on an established securities market? ..... ☐ **Yes** ☐ **No**

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that (1) contributed more than 5% of total contributions to the plan during the plan year or (2) was one of the top-ten highest contributors (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify):

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

---

a Name of contributing employer

b EIN **c** Dollar amount contributed by employer

d Date collective bargaining agreement expires *(If employer contributes under more than one collective bargaining agreement, check box* ☐ *and see instructions regarding required attachment. Otherwise, enter the applicable date.)* Month _____ Day _____ Year _____

e Contribution rate information *(If more than one rate applies, check this box* ☐ *and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)*
(1) Contribution rate (in dollars and cents) _____
(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

14 Enter the number of deferred vested and retired participants (inactive participants), as of the beginning of the plan year, whose contributing employer is no longer making contributions to the plan for:

a The current plan year. Check the box to indicate the counting method used to determine the number of inactive participants: ☐ last contributing employer ☐ alternative ☐ reasonable approximation (see instructions for required attachment)	**14a**	
b The plan year immediately preceding the current plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	**14b**	
c The second preceding plan year. ☐ Check the box if the number reported is a change from what was previously reported (see instructions for required attachment)	**14c**	

15 Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year	**15a**	
b The corresponding number for the second preceding plan year	**15b**	

16 Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year	**16a**	
b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers	**16b**	

17 If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

18 If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

19 If the total number of participants is 1,000 or more, complete lines (a) through (c)

a Enter the percentage of plan assets held as:
Stock: _____% Investment-Grade Debt: _____% High-Yield Debt: _____% Real Estate: _____% Other: _____%

b Provide the average duration of the combined investment-grade and high-yield debt:
☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

c What duration measure was used to calculate line 19(b)?
☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify):

20 **PBGC missed contribution reporting requirements.** If this is a multiemployer plan or a single-employer plan that is not covered by PBGC, skip line 20.

a Is the amount of unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 greater than zero? ☐ Yes ☐ No

b If line 20a is "Yes," has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:

☐ Yes.

☐ No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.

☐ No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.

☐ No. Other. Provide explanation_____



Report of Independent Auditors

To the Administrator of The Vanguard Retirement and Savings Plan

Opinion

We have audited the accompanying financial statements of The Vanguard Retirement and Savings Plan (the "Plan"), an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 (ERISA), which comprise the statements of net assets available for benefits as of December 31, 2022 and 2021, and the related statement of changes in net assets available for benefits for the years then ended, including the related notes (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2022 and 2021, and the changes in its net assets available for benefits for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (US GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for one year after the date the financial statements are available to be issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the plan, and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and



therefore is not a guarantee that an audit conducted in accordance with US GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with US GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Supplemental Schedule Required by ERISA

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. Schedule of Assets (Held at End of Year) as of December 31, 2022 is presented for purposes of additional analysis and is not a required part of the financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with US GAAS.

In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, including its form and content, is presented in conformity with the Department of Labor’s Rules and Regulations for Reporting and Disclosure under ERISA.



In our opinion, the information in the accompanying supplemental schedule is fairly stated, in all material respects, in relation to the financial statements as a whole, and the form and content are presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
June 9, 2023

THE VANGUARD RETIREMENT AND SAVINGS PLAN

Financial Statements as of and for the
years ended December 31, 2022 and 2021

Additional information required for Form 5500
as of December 31, 2022

THE VANGUARD RETIREMENT AND SAVINGS PLAN

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* Other supplemental schedules required by 29 CFR 2520.103-10 of the Department of Labor Rules and Regulations for Reporting and Disclosure under ERISA have been omitted because they are not applicable.



Report of Independent Auditors

To the Administrator of The Vanguard Retirement and Savings Plan

Opinion

We have audited the accompanying financial statements of The Vanguard Retirement and Savings Plan (the "Plan"), an employee benefit plan subject to the Employee Retirement Income Security Act of 1974 (ERISA), which comprise the statements of net assets available for benefits as of December 31, 2022 and 2021, and the related statement of changes in net assets available for benefits for the years then ended, including the related notes (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2022 and 2021, and the changes in its net assets available for benefits for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (US GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for one year after the date the financial statements are available to be issued.

Management is also responsible for maintaining a current plan instrument, including all plan amendments, administering the plan, and determining that the plan's transactions that are presented and disclosed in the financial statements are in conformity with the plan's provisions, including maintaining sufficient records with respect to each of the participants, to determine the benefits due or which may become due to such participants.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and



therefore is not a guarantee that an audit conducted in accordance with US GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with US GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Supplemental Schedule Required by ERISA

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. Schedule of Assets (Held at End of Year) as of December 31, 2022 is presented for purposes of additional analysis and is not a required part of the financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with US GAAS.

In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, including its form and content, is presented in conformity with the Department of Labor’s Rules and Regulations for Reporting and Disclosure under ERISA.



In our opinion, the information in the accompanying supplemental schedule is fairly stated, in all material respects, in relation to the financial statements as a whole, and the form and content are presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under ERISA.

PricewaterhouseCoopers LLP

Philadelphia, Pennsylvania
June 9, 2023

THE VANGUARD RETIREMENT AND SAVINGS PLAN

Statements of Net Assets Available for Benefits

	As of December 31, 2022	As of December 31, 2021
Investments, at fair value	$ 8,045,902,293	$ 9,404,385,759
Notes receivables from participants	51,377,642	53,961,104
Net assets available for benefits	$ 8,097,279,935	$ 9,458,346,863

The accompanying notes are an integral part of these financial statements.

THE VANGUARD RETIREMENT AND SAVINGS PLAN

Statements of Changes in Net Assets Available for Benefits

	Years Ended December 31, 2022	2021
Additions		
Investment income (loss):		
Dividend income, investments	$ 308,568,346	$ 357,444,328
Net appreciation (depreciation) in fair value of investments	(1,811,411,367)	817,349,006
	(1,502,843,021)	1,174,793,334
Interest income, on notes receivable from participants	2,551,359	2,809,713
Contributions:		
Employer	267,268,880	236,091,824
Participant	184,746,755	161,551,233
Rollovers	39,502,246	45,983,785
	491,517,881	443,626,842
Total additions	(1,008,773,781)	1,621,229,889
Deductions		
Payment of benefits	351,983,502	347,755,990
Other deductions (Note 4)	309,645	309,427
Total deductions	352,293,147	348,065,417
Net increase (decrease)	(1,361,066,928)	1,273,164,472
Net assets available for plan benefits:		
Beginning of period	9,458,346,863	8,185,182,391
End of period	$ 8,097,279,935	$ 9,458,346,863

The accompanying notes are an integral part of these financial statements.

NOTE 1 - DESCRIPTION OF PLAN

The following description of The Vanguard Retirement and Savings Plan (the "Plan") provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan's provisions. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA").

General

The Plan is a defined contribution plan generally available to all employees of The Vanguard Group, Inc. ("Vanguard") upon their date of hire. The Plan became effective January 1, 1982. The Plan sponsor is The Vanguard Group Inc. and the Plan is administered by a Benefits Committee appointed by Vanguard's Board of Directors.

As of October 1, 2021, the Plan was available to all employees of Just Invest Systems, Inc., which was acquired by Vanguard through one of its wholly owned subsidiaries as of that date.

Contributions

Each year, participants may contribute up to 50% of compensation, as defined, on a pre-tax or Roth after-tax basis ("Participant Contributions"), up to an amount which does not exceed dollar limitations set forth by the Internal Revenue Code ($20,500 for 2022 and $19,500 for 2021). Participants who have attained age 50 before the end of the plan year are eligible to make catch-up contributions of $6,500 for 2022 and 2021. Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans (rollover). The Plan includes an auto-enrollment provision whereby all newly eligible employees are automatically enrolled in the Plan unless they affirmatively elect not to participate in the Plan. Automatically enrolled participants have their deferral rate initially set at 4 percent of eligible compensation with an increase in the annual contributions at a rate of 2 percent each year up to a maximum of 12 percent per year. Vanguard matches 100% of a participant's basic contributions ("Matching Contributions") up to a total of 4% of the participant's base compensation for those participants that have completed at least one full year of service, as defined in the Summary Plan Description.

In addition to the Matching Contributions, Vanguard makes a quarterly contribution ("Retirement Plan Contribution") in the amount of 10% of the participant's compensation for that quarter. The Retirement Plan Contribution is made for all participants, regardless of whether or not they make Participant Contributions. In addition, Vanguard makes a contribution of 5.7% of the participant's compensation in excess of the Social Security taxable wage base effective as of the beginning of the Plan year. Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans.

Contributions are invested, as directed by participants, in shares of registered investment companies offered by Vanguard, or the Vanguard Fiduciary Trust Company ("VFTC") Target Retirement Trusts, VFTC Institutional Total International Stock Market Index Trust (the "International Trust"), and Vanguard Retirement Savings Trust II. The underlying assets of the VFTC Target Retirement Trusts are invested in the registered investment companies offered by Vanguard. The units of the VFTC Institutional Total International Stock Market Index Trust are held through Vanguard Institutional Total International Stock Market Index Trust, a separate account to track the Plan's interest in the International Trust. The underlying assets of the VFTC Institutional Total International Stock Market Index Trust are invested in stocks issued by companies located in developed and emerging markets, excluding the United States. The underlying assets of Vanguard Retirement Savings Trust II are investment contracts issued by banks or insurance companies.

NOTE 1 – DESCRIPTION OF PLAN (continued)

Participant Accounts

Each participant's account is credited with the Participant Contribution, Matching Contribution and Retirement Plan Contribution and an allocation of the Plan's earnings thereon. The earnings of investments are allocated daily to the individual accounts of participants. Participant accounts are charged with an allocation of other deductions that are paid by the Plan. Allocations are based on participants' earnings, account balances or specific participant transactions. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting

Upon enrollment in the Plan, participants are fully vested at all times in Participant Contributions and Matching Contributions plus actual earnings thereon held in their accounts.

Vesting in Retirement Plan Contribution plus actual earnings thereon is based on years of continuous service. A participant is credited with one year of service for vesting purposes for each calendar year during which the participant is credited with at least 1,000 hours of services as an employee of Vanguard. For purposes of determining whether the participant has completed 1,000 hours of service, the participant will be credited with 190 hours of service for each calendar month that he/she works (and is paid for) at least one hour of service as an employee of Vanguard. Participants obtain a vested interest in the value of his or her participant account in accordance with the following schedule:

Completed Years of Service	Vesting Percentage
Less than 2	0
2, but less than 3	20
3, but less than 4	40
4, but less than 5	60
5, but less than 6	80
6 or more	100

Notes Receivable from Participants

Participants may borrow from their accounts a minimum of $1,000 up to a maximum equal to the lesser of $50,000 or 50 percent of their account balance. Loan terms range from 1 to 5 years or up to 30 years for the purchase of a primary residence. The loans are secured by the balance in the participant's account and bear interest at a fixed rate commensurate with the month-end Prime Lending Rate plus 1.00%.

Interest rates ranged from 4.25% to 10.5% on loans outstanding as of December 31, 2022 and December 31, 2021. Principal and interest is paid ratably through monthly payroll deductions.

NOTE 1 – DESCRIPTION OF PLAN (continued)

Payment of Benefits

Upon termination of service, a participant with a vested account balance greater than $1,000 may elect to receive either a lump-sum amount equal to the value of the participant's vested interest in his or her account, defer distribution, or elect a rollover to an IRA or employer-sponsored retirement plan. Installment payments over a period not to exceed the life expectancy of the participant or beneficiary are available to participants upon attaining age 70 1/2. A participant with a vested account balance less than $1,000 may receive the value of the vested interest in his or her account as a lump-sum distribution or as a rollover to an IRA or an employer-sponsored retirement plan. As a result of the CARES Act, the Plan allowed CRD eligible individuals (including terminated Plan participants) to request CRD distributions up to $100,000 from the Plan beginning on or after January 1, 2020 and through December 30, 2020, with repayments allowed within three years after the date that the distribution was received and allowed Plan participants to suspend required minimum distributions and delay the start date for required minimum distributions. The Plan has also implemented certain requirements imposed by the Setting Every Community Up for Retirement Enhancement Act of 2019 (the SECURE Act) that apply to required minimum distributions and hardship withdrawals. The Plan also adopted the SECURE Act 2.0, which increases the required minimum distribution age to 73, effective January 1, 2023.

Forfeited Accounts

The balance of forfeited non-vested accounts totaled $231,046 and $221,824 at December 31, 2022 and December 31, 2021, respectively. These accounts will be used to reduce future Retirement Plan Contributions. During 2022 and 2021, Retirement Plan Contributions were reduced by $9,799,947 and $6,412,818 respectively, from forfeited non-vested accounts.

Plan Termination

Although it has not expressed any intent to do so, Vanguard has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants would become 100% vested in their account balance.

NOTE 2 - SUMMARY OF ACCOUNTING POLICIES

The following accounting policies, which conform with accounting principles generally accepted in the United States of America, have been used consistently in the preparation of the Plan's financial statements.

Basis of Accounting

The financial statements of the Plan are prepared on the accrual basis of accounting.

Investment Valuation and Income Recognition

The Plan's investments are stated at fair value which is defined as the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date.

The Plan's Benefits Committee determines the Plan's valuation policies utilizing information provided by investment advisers and the custodian. Shares of registered investment companies are valued at the quoted net asset value of shares held by the Plan at year end.

NOTE 2 - SUMMARY OF ACCOUNTING POLICIES (continued)

The Plan's investment in the collective investment trusts are valued at the net asset value of shares held by the Plan at year end. The net asset value is used as a practical expedient to estimate fair value. This practical expedient would not be used if it is determined to be probable that the Plan will sell the investment for an amount different from the reported net asset value.

Purchases and sales of investments are recorded on a trade-date basis. Interest income is accrued when earned. Dividend income is recorded on the ex-dividend date. Capital gain distributions are included in dividend income. Net appreciation (depreciation) includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest.

Interest income on notes receivable from participants is recorded on the accrual basis. Related fees are recorded as other deductions and are expensed when they are incurred.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, changes there in, and disclosure of contingent assets and liabilities. Actual results could differ from those estimates and those differences could be material.

Contributions

Contributions from the Plan participants, the matching contribution, and quarterly contribution are recorded in the year when they are withheld from compensation.

Payment of Benefits

Benefits are recorded when paid.

NOTE 3 - RELATED PARTY AND PARTY-IN-INTEREST TRANSACTIONS

The Plan invests in shares of registered investment companies managed by Vanguard and in the collective investment trusts managed by VFTC. Transactions in such investments qualify as party-in-interest transactions, which are exempt from the prohibited transaction rules. Investment income from interest and dividends from investments managed by related parties was $308,568,346 and $357,444,328 for the years ended December 31, 2022 and 2021, respectively. Interest income on notes receivable from participants was $2,551,359 and $2,809,713 for the years ending December 31, 2022 and 2021, respectively.

NOTE 4 – OTHER DEDUCTIONS

In 2022 and 2021, managed accounts fees and purchase / redemption fees were paid directly from the participants' accounts.

NOTE 5 – TAX STATUS

The Internal Revenue Service determined and informed Vanguard by a letter dated February 9, 2017, that the Plan is designed in accordance with applicable sections of the Internal Revenue Code ("IRC") Section 401.

Although the Plan has been amended since receiving the determination letter, Vanguard believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC.

Accounting principles generally accepted in the United States of America require plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan sponsor has analyzed the tax positions by the Plan, and has concluded that as of December 31, 2022 and 2021, there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan sponsor believes it is no longer subject to income tax examinations for years prior to 2019.

The financial statements of the Plan, as prepared under accounting principles generally accepted in the United States of America, include distributions to participants as deductions when paid. The Department of Labor requires participant's loans that violate the IRC 72(p) to be recorded as deemed distributions on the Form 5500, although the Plan still holds the participant loans as an investment.

NOTE 6 – RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of net assets available for benefits from the financial statements to Schedule H of the Form 5500.

	December 31,	
	2022	2021
Net assets available for benefits from the financial statements	$8,097,279,935	$9,458,346,863
Participants loans reduced by deemed distributions in prior years and currently outstanding	(25,150)	-
Participants loans reduced by deemed distributions in the current year and currently outstanding	-	(25,150)
Net assets available for benefits from the Form 5500	$8,097,254,785	$9,458,321,713

NOTE 7 – FAIR VALUE MEASUREMENT

FASB ASC 820, *Fair Value Measurement and Disclosures,* provides a fair value hierarchy that prioritizes the inputs to valuation techniques that may be used to measure the Plan's investments at fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). The three levels of the fair value hierarchy under FASB ASC 820 are described as follows:

Level 1 – Quoted prices in active markets for identical assets or liabilities.

NOTE 7 – FAIR VALUE MEASUREMENT (continued)

Level 2 – Other significant observable inputs (including quoted prices for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, inputs other than quoted prices that are observable for the asset or liability, inputs that are derived principally from or corroborated by observable market data by correlation or other means.)
Level 3 – Significant unobservable inputs (including the Plan's own assumptions used to determine fair value of investments)

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for the assets measured at fair value. There have been no changes in methodologies used at December 31, 2022 and 2021.

Registered Investment Companies: Valued at the quoted net asset value (NAV) of shares held by the Plan at year end. *Collective Investment Trusts:* Valued at the NAV of shares held by the Plan at year end used as a practical expedient.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table summarizes the Plan's investments as of December 31, 2022, based on the inputs used to value them:

Assets at Fair Value as of December 31, 2022

	Level 1	Level 2	Level 3	Total
Registered Investment Companies	$4,615,295,817	$ -	$ -	$4,615,295,817
Investments measured at net asset value as a practical expedient[(a)]	-	-	-	3,430,606,476
Total investments at fair value	$4,615,295,817	$ -	$ -	$8,045,902,293

The following table summarizes the Plan's investments as of December 31, 2021, based on the inputs used to value them:

Assets at Fair Value as of December 31, 2021

	Level 1	Level 2	Level 3	Total
Registered Investment Companies	$5,440,681,262	$ -	$ -	$5,440,681,262
Investments measured at net asset value as a practical expedient[(a)]	-	-	-	3,963,704,497
Total investments at fair value	$5,440,681,262	$ -	$ -	$9,404,385,759

[(a)]In accordance with ASC 820, certain investments that were measured at net asset value per share (or its equivalent) as a practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the Statements of Net Assets Available for Benefits.

NOTE 7 – FAIR VALUE MEASUREMENT (continued)

The following summarizes investments measured at fair value based on NAV per share as a practical expedient as of December 31, 2022 and 2021, respectively.

December 31, 2022	Fair Value	Unfunded Commitment	Redemption Frequency	Redemption Notice Period
VFTC Target Retirement Trust Select	$ 2,551,512,634	n/a	Daily, subject to frequent trading provisions	No defined period
VFTC Institutional Total International Stock Market Index Trust	666,666,787	n/a	Daily, subject to frequent trading provisions	No defined period
VFTC Target Retirement Income and Growth Trust Select	947	n/a	Daily, subject to frequent trading provisions	No defined period
Vanguard Retirement Savings Trust II	212,426,108	n/a	Daily, subject to frequent trading provisions	No defined period
Total	$ 3,430,606,476			

December 31, 2021	Fair Value	Unfunded Commitment	Redemption Frequency	Redemption Notice Period
VFTC Target Retirement Trust Select	$ 2,934,161,879	n/a	Daily, subject to frequent trading provisions	No defined period
VFTC Institutional Total International Stock Market Index Trust	776,554,519	n/a	Daily, subject to frequent trading provisions	No defined period
Vanguard Retirement Savings Trust II	252,988,099	n/a	Daily, subject to frequent trading provisions	No defined period
Total	$ 3,963,704,497			

NOTE 8 – RISK AND UNCERTAINTIES

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Market risks include global events which could impact the value of investment securities, such as a pandemic or international conflict. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the Statements of Net Assets Available for Benefits.

NOTE 9 – SUBSEQUENT EVENTS

The Plan has evaluated subsequent events through June 9, 2023, the date the financial statements were available to be issued and has determined that no additional material events occurred which require recognition or disclosure in the financial statements.

Supplemental Schedule

THE VANGUARD RETIREMENT AND SAVINGS PLAN

Schedule of Assets (Held at End of Year)
As of December 31, 2022

The Vanguard Retirement and Savings Plan, EIN 23-1945930

Schedule H, line 4i:

(a)	(b) Identity of Issue	(c) Investment Type	(d) Cost	(e) Current Value
*	Vanguard FTSE Social Index Fund Institutional Shares	Registered Investment Company	**	$ 156,003,594
*	Vanguard GNMA Fund Admiral Shares	Registered Investment Company	**	$ 77,590,531
*	Vanguard Institutional Total Stock Market Index Fund Institutional Plus Shares	Registered Investment Company	**	$ 1,457,980,020
*	Vanguard International Growth Fund Admiral Shares	Registered Investment Company	**	$ 214,479,491
*	Vanguard Long-Term Investment-Grade Fund Admiral Shares	Registered Investment Company	**	$ 202,166,455
*	Vanguard PRIMECAP Fund Admiral Shares	Registered Investment Company	**	$ 1,177,369,458
*	Vanguard Cash Reserves Federal Money Market Fund	Registered Investment Company	**	$ 201,183,700
*	Vanguard Short-Term Investment-Grade Fund Institutional Shares	Registered Investment Company	**	$ 58,402,341
*	Vanguard Total Bond Market Index Fund Institutional Plus Shares	Registered Investment Company	**	$ 354,015,986
*	Vanguard Total International Bond Index Fund Institutional Shares	Registered Investment Company	**	$ 61,598,455
*	Vanguard Wellesley Income Fund Admiral Shares	Registered Investment Company	**	$ 86,705,489
*	Vanguard Wellington Fund Admiral Shares	Registered Investment Company	**	$ 238,348,015
*	Vanguard High-Yield Corporate Admiral Shares	Registered Investment Company	**	$ 3,400
*	Vanguard Windsor Fund Admiral Shares	Registered Investment Company	**	$ 329,448,882
Total Registered Investment Companies				$ 4,615,295,817

THE VANGUARD RETIREMENT AND SAVINGS PLAN

Schedule of Assets (Held at End of Year) (Continued)
As of December 31, 2022

The Vanguard Retirement and Savings Plan, EIN 23-1945930

Schedule H, line 4i:

(a)	(b) Identity of Issue	(c) Investment Type	(d) Cost	(e) Current Value
*	VFTC Institutional Total International Stock Market Index	Common/Collective Trust	**	$ 666,666,787
*	VFTC Target Retirement 2020 Trust Select	Common/Collective Trust	**	$ 83,211,636
*	VFTC Target Retirement 2025 Trust Select	Common/Collective Trust	**	$ 234,266,481
*	VFTC Target Retirement 2030 Trust Select	Common/Collective Trust	**	$ 373,102,631
*	VFTC Target Retirement 2035 Trust Select	Common/Collective Trust	**	$ 440,664,540
*	VFTC Target Retirement 2040 Trust Select	Common/Collective Trust	**	$ 383,411,859
*	VFTC Target Retirement 2045 Trust Select	Common/Collective Trust	**	$ 347,961,114
*	VFTC Target Retirement 2050 Trust Select	Common/Collective Trust	**	$ 338,030,359
*	VFTC Target Retirement 2055 Trust Select	Common/Collective Trust	**	$ 186,921,539
*	VFTC Target Retirement 2060 Trust Select	Common/Collective Trust	**	$ 105,407,940
*	VFTC Target Retirement 2065 Trust Select	Common/Collective Trust	**	$ 22,321,217
*	VFTC Target Retirement 2070 Trust Select	Common/Collective Trust	**	$ 1,051,980
*	VFTC Target Retirement Income Trust Select	Common/Collective Trust	**	$ 35,161,338
*	VFTC Target Retirement Income and Growth Trust Select	Common/Collective Trust	**	$ 947
*	Vanguard Retirement Savings Trust II	Common/Collective Trust	**	$ 212,426,108
Total Common Collective Trusts				$ 3,430,606,476
*	Notes receivables from participants	Participant Loans (Interest Rate Range: 4.25% - 10.50%; Maturity Range: 2022 - 2053)	**	51,377,642
Total assets held				$ 8,097,279,935

* Party in Interest

** Cost is not required for participant directed investments.

THE VANGUARD RETIREMENT AND SAVINGS PLAN

Schedule of Assets (Held at End of Year)
As of December 31, 2022

The Vanguard Retirement and Savings Plan, EIN 23-1945930

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*	Vanguard International Growth Fund Admiral Shares	Registered Investment Company	**	$ 214,479,491
*	Vanguard Long-Term Investment-Grade Fund Admiral Shares	Registered Investment Company	**	$ 202,166,455
*	Vanguard PRIMECAP Fund Admiral Shares	Registered Investment Company	**	$ 1,177,369,458
*	Vanguard Cash Reserves Federal Money Market Fund	Registered Investment Company	**	$ 201,183,700
*	Vanguard Short-Term Investment-Grade Fund Institutional Shares	Registered Investment Company	**	$ 58,402,341
*	Vanguard Total Bond Market Index Fund Institutional Plus Shares	Registered Investment Company	**	$ 354,015,986
*	Vanguard Total International Bond Index Fund Institutional Shares	Registered Investment Company	**	$ 61,598,455
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*	Vanguard Wellington Fund Admiral Shares	Registered Investment Company	**	$ 238,348,015
*	Vanguard High-Yield Corporate Admiral Shares	Registered Investment Company	**	$ 3,400
*	Vanguard Windsor Fund Admiral Shares	Registered Investment Company	**	$ 329,448,882
Total Registered Investment Companies				$ 4,615,295,817

THE VANGUARD RETIREMENT AND SAVINGS PLAN

Schedule of Assets (Held at End of Year) (Continued)
As of December 31, 2022

The Vanguard Retirement and Savings Plan, EIN 23-1945930

Schedule H, line 4i:

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*	VFTC Target Retirement 2030 Trust Select	Common/Collective Trust	**	$ 373,102,631
*	VFTC Target Retirement 2035 Trust Select	Common/Collective Trust	**	$ 440,664,540
*	VFTC Target Retirement 2040 Trust Select	Common/Collective Trust	**	$ 383,411,859
*	VFTC Target Retirement 2045 Trust Select	Common/Collective Trust	**	$ 347,961,114
*	VFTC Target Retirement 2050 Trust Select	Common/Collective Trust	**	$ 338,030,359
*	VFTC Target Retirement 2055 Trust Select	Common/Collective Trust	**	$ 186,921,539
*	VFTC Target Retirement 2060 Trust Select	Common/Collective Trust	**	$ 105,407,940
*	VFTC Target Retirement 2065 Trust Select	Common/Collective Trust	**	$ 22,321,217
*	VFTC Target Retirement 2070 Trust Select	Common/Collective Trust	**	$ 1,051,980
*	VFTC Target Retirement Income Trust Select	Common/Collective Trust	**	$ 35,161,338
*	VFTC Target Retirement Income and Growth Trust Select	Common/Collective Trust	**	$ 947
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Total assets held				$ 8,097,279,935

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** Cost is not required for participant directed investments.