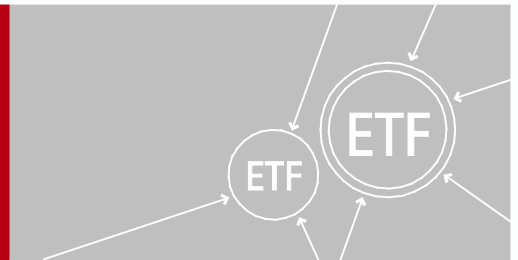


US SEC Filing Announcement for the Vanguard® Exchange Traded Funds

29 August 2016



Vanguard Investments Australia Ltd announces the following:

ETF	ASX CODE	ANNOUNCEMENT
Vanguard® US Total Market Shares Index ETF	VTX	US SEC Filing of Form N-CSR

The Vanguard Group, Inc. in the US has completed and filed Form N-CSR (certified annual shareholder report filed on Form N-CSR) for Registered Investment Companies with the Securities and Exchange Commission (SEC) in the US as part of the regulatory requirements of the SEC.

The completed form is attached and can be viewed online at the SEC website pages at:

<https://www.sec.gov/Archives/edgar/data/36405/000093247116014112/0000932471-16-014112-index.htm>

Further details of the SEC requirements for this filing are available at:

- www.sec.gov/about/forms/formn-csr.pdf

Further Information

If you have any queries on Vanguard ETFs, please visit vanguard.com.au/etf

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Vanguard Investments Australia Ltd, Level 34, Freshwater Place, 2 Southbank Boulevard, Southbank VIC 3006 vanguard.com.au 1300 655 888

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM N-CSR

**CERTIFIED SHAREHOLDER REPORT
OF
REGISTERED MANAGEMENT INVESTMENT COMPANIES**

Investment Company Act file number: **811-02652**

Name of Registrant: **Vanguard Index Funds**

Address of Registrant: **P.O. Box 2600
Valley Forge, PA 19482**

Name and address of agent for service: **Heidi Stam, Esquire
P.O. Box 876
Valley Forge, PA 19482**

Registrant's telephone number, including area code: **(610) 669-1000**

Date of fiscal year end: December 31

Date of reporting period: January 31, 2016 – June 30, 2016

Item 1: Reports to Shareholders



Semiannual Report | June 30, 2016

Vanguard Total Stock Market Index Fund

Vanguard’s Principles for Investing Success

We want to give you the best chance of investment success. These principles, grounded in Vanguard’s research and experience, can put you on the right path.

Goals. Create clear, appropriate investment goals.

Balance. Develop a suitable asset allocation using broadly diversified funds.

Cost. Minimize cost.

Discipline. Maintain perspective and long-term discipline.

A single theme unites these principles: Focus on the things you can control. We believe there is no wiser course for any investor.

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Please note: The opinions expressed in this report are just that—informed opinions. They should not be considered promises or advice. Also, please keep in mind that the information and opinions cover the period through the date on the front of this report. Of course, the risks of investing in your fund are spelled out in the prospectus.

See the Glossary for definitions of investment terms used in this report.

About the cover: Pictured is a sailing block on the *Brilliant*, a 1932 schooner docked in Mystic, Connecticut. A type of pulley, the sailing block helps coordinate the setting of the sails. At Vanguard, the intricate coordination of technology and people allows us to help millions of clients around the world reach their financial goals.

Your Fund's Total Returns

Six Months Ended June 30, 2016

	Total Returns
Vanguard Total Stock Market Index Fund	
Investor Shares	3.59%
ETF Shares	
Market Price	3.67
Net Asset Value	3.64
Admiral™ Shares	3.65
Institutional Shares	3.64
Institutional Plus Shares	3.66
Institutional Select Shares (Inception: 6/27/2016)	5.09
CRSP US Total Market Index	3.66
Multi-Cap Core Funds Average	1.64

Multi-Cap Core Funds Average: Derived from data provided by Lipper, a Thomson Reuters Company.

Admiral Shares carry lower expenses and are available to investors who meet certain account-balance requirements. Institutional Shares, Institutional Plus Shares, and Institutional Select Shares are available to certain institutional investors who meet specific administrative, service, and account-size criteria. The Vanguard ETF® Shares shown are traded on the NYSE Arca exchange and are available only through brokers. The table provides ETF returns based on both the NYSE Arca market price and the net asset value for a share. U.S. Pat. Nos. 6,879,964; 7,337,138; 7,720,749; 7,925,573; 8,090,646; and 8,417,623.

For the ETF Shares, the market price is determined by the midpoint of the bid-offer spread as of the closing time of the New York Stock Exchange (generally 4 p.m., Eastern time). The net asset value is also determined as of the NYSE closing time. For more information about how the ETF Shares' market prices have compared with their net asset value, visit vanguard.com, select your ETF, and then select the Price and Performance tab. The ETF premium/discount analysis there shows the percentages of days on which the ETF Shares' market price was above or below the NAV.



Chairman's Letter

Dear Shareholder,

U.S. stocks overcame several hurdles en route to gains over the half year. Vanguard Total Stock Market Index Fund returned almost 4% for the six months ended June 30, 2016. The fund tightly tracked its target benchmark, the CRSP US Total Market Index, and exceeded the average return of its multi-capitalization core fund peers by about 2 percentage points.

In a reversal from the previous reporting period, value stocks outperformed growth. Small-capitalization stocks held up better against mid-caps and large-caps than they had over the previous period. The utilities and telecommunications sectors were the top performers. Financials, health care, and technology recorded slightly negative returns.

On a separate note, the Total Stock Market Index Fund's Institutional Select Shares launched on June 27. With an expense ratio of 0.01%, the new share class is part of our ongoing efforts to reduce the cost of investing.

Stocks waxed and waned through periods of turbulence

Toward the end of the half year, global stock markets dropped sharply and then rose after U.K. voters made the momentous decision to leave the European Union. The markets already were jittery before the June 23 "Brexit" vote. But volatility spiked afterward as investors digested the global economic implications and the likelihood of extended uncertainty while the separation is carried out.

The broad U.S. stock market returned roughly 4% for the six months. U.S. stocks plunged on news of the referendum’s outcome but quickly reversed. Worries about Brexit’s effect on trade and global economic growth seemed to diminish as expectations increased that major central banks would respond to any fallout.

International stocks had a rougher time, returning about –1%. European stocks in particular suffered as the lead-up to the Brexit referendum and subsequent uncertainty hit closer to home. Developed Pacific markets also retreated. Emerging-market stocks were a bright spot, returning nearly 8%.

Bonds rolled to strong returns as investors weighed options

The broad U.S. bond market returned 5.31% as investors sought safe-haven assets amid questionable global economic growth, low inflation, and stock market volatility. Exceptionally low or negative yields abroad attracted foreign investors to U.S. Treasury debt. The yield of the 10-year Treasury note closed at 1.47% at the end of June, down from 2.30% at the end of December. (Bond prices and yields move in opposite directions.)

The Federal Reserve has held its target for short-term interest rates steady since raising it by a quarter of a percentage point in December. During the period,

Market Barometer

	Total Returns Periods Ended June 30, 2016		
	Six Months	One Year	Five Years (Annualized)
Stocks			
Russell 1000 Index (Large-caps)	3.74%	2.93%	11.88%
Russell 2000 Index (Small-caps)	2.22	-6.73	8.35
Russell 3000 Index (Broad U.S. market)	3.62	2.14	11.60
FTSE All-World ex US Index (International)	-0.92	-9.75	0.49
Bonds			
Barclays U.S. Aggregate Bond Index (Broad taxable market)	5.31%	6.00%	3.76%
Barclays Municipal Bond Index (Broad tax-exempt market)	4.33	7.65	5.33
Citigroup Three-Month U.S. Treasury Bill Index	0.11	0.14	0.05
CPI			
Consumer Price Index	1.91%	1.01%	1.32%

the 0.25%–0.5% rate remained historically low and continued to curb returns for money market funds and savings accounts.

International bond markets (as measured by the Barclays Global Aggregate Index ex USD) returned 11.94%. Counter to recent trends, a number of foreign currencies strengthened against the dollar, but returns were solid even without this currency benefit.

Utilities, telecommunications produced impressive results

In the first month of the reporting period, the broad U.S. stock market dropped as investors worried about the widespread impact of China’s slow economic growth

and falling commodity and oil prices. Stocks generally rebounded over the next few months as concerns about China eased, commodity and oil prices started to recover, and the Fed scaled back its plan for raising short-term interest rates.

Brexit was the next major challenge for the markets. As I mentioned earlier, stocks’ two-day retreat after the vote was followed by a surge in the period’s final week. Of course, the long-term effects of Brexit may take years to play out. We can be sure only that financial markets will continue to move in both directions in the short term, and stocks of different capitalizations, styles, and sectors will alternately triumph and trail.

Expense Ratios
Your Fund Compared With Its Peer Group

	Investor Shares	ETF Shares	Admiral Shares	Institutional Shares	Institutional Plus Shares	Institutional Select Shares	Peer Group Average
Total Stock Market Index Fund	0.16%	0.05%	0.05%	0.04%	0.02%	0.01%	1.17%

The fund expense ratios shown are from the prospectus dated April 27, 2016, and represent estimated costs for the current fiscal year. For the six months ended June 30, 2016, the fund’s annualized expense ratios were 0.15% for Investor Shares, 0.05% for ETF Shares, 0.05% for Admiral Shares, 0.04% for Institutional Shares, 0.02% for Institutional Plus Shares, and 0.01% for Institutional Select Shares (since inception). The peer-group expense ratio is derived from data provided by Lipper, a Thomson Reuters Company, and captures information through year-end 2015.

Peer group: Multi-Cap Core Funds.

Along with its low costs and notable record of closely tracking its benchmark, one of the hallmarks of Vanguard Total Stock Market Index Fund is its diversification. The fund reflects the returns of the broad U.S. equity market and offers wide exposure to growth and value stocks; large-, mid-, and small-capitalization stocks; and all ten industry sectors.

Utilities and telecommunications, two of the fund's smallest-weighted sectors, topped the field with returns of about 24% apiece. Firms in both industries deliver stable and steady dividend yields, which tend to be attractive to investors seeking income in a climate where bond yields are historically low and stock volatility is high.

Industrial, oil and gas, and consumer goods stocks also significantly boosted the fund's returns. Gains were evident across most of the industrial sector, with conglomerates, building materials, transportation, machinery, and defense firms making solid contributions. As oil and commodity prices have bounced back a bit over the past few months, so has the energy sector, via integrated oil and gas companies and exploration and production firms. Food, household product, and tobacco companies were among the leaders in consumer goods.

The four largest sector weightings were also the fund's weakest. Consumer services was essentially flat, while technology, health care, and financials each declined about 1%. Airlines lagged in consumer services, while internet and software companies detracted in technology. Lower long-term interest rates have hurt banks, asset managers, consumer finance companies, and investment firms within the financial sector. Biotechnology companies dragged down the health care sector.

A dose of discipline is crucial when markets become volatile

The heightened volatility in capital markets that surrounded the Brexit vote reminds us that nobody can control the direction of the markets or reliably predict where they'll go in the short term. However, investors can control how they *react* to unstable and turbulent markets.

During periods of market adversity, it's more important than ever to keep sight of one of Vanguard's key principles: Maintain perspective and long-term discipline. Whether you're investing for yourself or on behalf of clients, your success is affected greatly by how you respond—or don't respond—during turbulent markets. (You can read *Vanguard's Principles for Investing Success* at vanguard.com/research.)

As I've written in the past, the best course for long-term investors is generally to ignore daily market moves and not make decisions based on emotion. This is also a good time to evaluate your portfolio and make sure your asset allocation is aligned with your time horizon, goals, and risk tolerance.

The markets are unpredictable and often confounding. Keeping your long-term plans clearly in focus can help you weather these periodic storms.

As always, thank you for investing with Vanguard.

Sincerely,

A handwritten signature in black ink that reads "F. William McNabb III". The signature is stylized, with a large, sweeping initial "F" and a cursive "William". The "McNabb" is written in a more formal, slightly cursive script, and "III" is written in all caps at the end.

F. William McNabb III
Chairman and Chief Executive Officer
July 13, 2016

Your Fund’s Performance at a Glance
 December 31, 2015, Through June 30, 2016

	Starting Share Price	Ending Share Price	Distributions Per Share	
			Income Dividends	Capital Gains
Vanguard Total Stock Market Index Fund				
Investor Shares	\$50.78	\$52.15	\$0.438	\$0.000
ETF Shares	104.34	107.16	0.949	0.000
Admiral Shares	50.79	52.17	0.462	0.000
Institutional Shares	50.80	52.17	0.465	0.000
Institutional Plus Shares	95.26	97.84	0.880	0.000
Institutional Select Shares (Inception: 6/27/2016)	97.70	102.67	0.000	0.000

Total Stock Market Index Fund

Fund Profile

As of June 30, 2016

Share-Class Characteristics

	Investor Shares	ETF Shares	Admiral Shares	Institutional Shares	Institutional Plus Shares	Institutional Select Shares
Ticker Symbol	VTSMX	VTI	VTSA	VITSX	VSMXP	VSTX
Expense Ratio ¹	0.16%	0.05%	0.05%	0.04%	0.02%	0.01%
30-Day SEC Yield	1.91%	1.99%	1.99%	2.00%	2.02%	—

Portfolio Characteristics

	Fund	CRSP US Total Market Index
Number of Stocks	3,650	3,624
Median Market Cap	\$53.0B	\$51.1B
Price/Earnings Ratio	22.2x	22.1x
Price/Book Ratio	2.7x	2.7x
Return on Equity	16.6%	16.4%
Earnings Growth Rate	7.3%	7.2%
Dividend Yield	2.1%	2.1%
Foreign Holdings	0.0%	0.0%
Turnover Rate (Annualized)	4%	—
Short-Term Reserves	0.0%	—

Sector Diversification (% of equity exposure)

	Fund	CRSP US Total Market Index
Basic Materials	2.4%	2.4%
Consumer Goods	10.7	10.7
Consumer Services	13.4	13.4
Financials	18.7	18.6
Health Care	13.6	13.5
Industrials	12.7	12.8
Oil & Gas	6.7	6.8
Technology	15.5	15.5
Telecommunications	2.7	2.6
Utilities	3.6	3.7

Volatility Measures

	Spliced Total Stock Market Index
R-Squared	1.00
Beta	1.00

These measures show the degree and timing of the fund's fluctuations compared with the index over 36 months.

Ten Largest Holdings (% of total net assets)

Apple Inc.	Computer Hardware	2.3%
Alphabet Inc.	Internet	1.9
Exxon Mobil Corp.	Integrated Oil & Gas	1.8
Microsoft Corp.	Software	1.7
Johnson & Johnson	Pharmaceuticals	1.5
General Electric Co.	Diversified Industrials	1.3
Amazon.com Inc.	Broadline Retailers	1.3
Berkshire Hathaway Inc.	Reinsurance	1.3
AT&T Inc.	Fixed Line Telecommunications	1.2
Facebook Inc.	Internet	1.1
Top Ten		15.4%

The holdings listed exclude any temporary cash investments and equity index products.

¹ The expense ratios shown are from the prospectus dated April 27, 2016, and represent estimated costs for the current fiscal year. For the six months ended June 30, 2016, the annualized expense ratios were 0.15% for Investor Shares, 0.05% for ETF Shares, 0.05% for Admiral Shares, 0.04% for Institutional Shares, 0.02% for Institutional Plus Shares, and 0.01% for Institutional Select Shares (since inception).

Note: The Institutional Select Shares' 30-day SEC yield is not reported until 30 days after the share class inception.

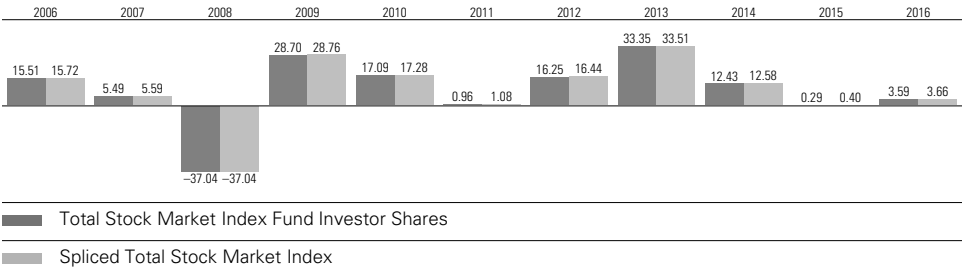
Investment Focus

Style		Value	Blend	Growth
Market Cap	Large			
	Medium			
	Small			

Performance Summary

All of the returns in this report represent past performance, which is not a guarantee of future results that may be achieved by the fund. (Current performance may be lower or higher than the performance data cited. For performance data current to the most recent month-end, visit our website at vanguard.com/performance.) Note, too, that both investment returns and principal value can fluctuate widely, so an investor's shares, when sold, could be worth more or less than their original cost. The returns shown do not reflect taxes that a shareholder would pay on fund distributions or on the sale of fund shares.

Fiscal-Year Total Returns (%): December 31, 2005, Through June 30, 2016



For a benchmark description, see the Glossary.

Note: For 2016, performance data reflect the six months ended June 30, 2016.

Average Annual Total Returns: Periods Ended June 30, 2016

	Inception Date	One Year	Five Years	Ten Years
Investor Shares	4/27/1992	2.01%	11.45%	7.43%
ETF Shares	5/24/2001			
Market Price		2.12	11.59	7.55
Net Asset Value		2.12	11.58	7.54
Admiral Shares	11/13/2000	2.14	11.59	7.54
Institutional Shares	7/7/1997	2.13	11.59	7.55
Institutional Plus Shares	4/28/2015	2.15	—	0.23 ¹
Institutional Select Shares	6/27/2016	—	—	5.09 ¹

¹ Return since inception.

Financial Statements (unaudited)

Statement of Net Assets—Investments Summary

As of June 30, 2016

This Statement summarizes the fund's holdings by asset type. Details are reported for each of the fund's 50 largest individual holdings and for investments that, in total for any issuer, represent more than 1% of the fund's net assets. The total value of smaller holdings is reported as a single amount within each category.

The fund reports a complete list of its holdings in regulatory filings four times in each fiscal year, at the quarter-ends. For the second and fourth fiscal quarters, the complete listing of the fund's holdings is available electronically on vanguard.com and on the Securities and Exchange Commission's website (sec.gov), or you can have it mailed to you without charge by calling 800-662-7447. For the first and third fiscal quarters, the fund files the lists with the SEC on Form N-Q. Shareholders can look up the fund's Forms N-Q on the SEC's website. Forms N-Q may also be reviewed and copied at the SEC's Public Reference Room (see the back cover of this report for further information).

	Shares	Market Value* (\$000)	Percentage of Net Assets
Common Stocks			
Basic Materials †		10,642,665	2.4%
Consumer Goods			
Procter & Gamble Co.	52,944,257	4,482,790	1.0%
Coca-Cola Co.	77,508,481	3,513,459	0.8%
Philip Morris International Inc.	30,830,272	3,136,055	0.7%
PepsiCo Inc.	28,707,633	3,041,287	0.7%
Altria Group Inc.	38,917,522	2,683,752	0.6%
Consumer Goods—Other †		29,759,677	6.8%
		46,617,020	10.6%
Consumer Services			
* Amazon.com Inc.	8,004,634	5,728,276	1.3%
Home Depot Inc.	24,769,292	3,162,791	0.7%
Comcast Corp. Class A	48,088,860	3,134,913	0.7%
Walt Disney Co.	29,015,682	2,838,314	0.6%
McDonald's Corp.	17,513,487	2,107,573	0.5%
Wal-Mart Stores Inc.	28,195,092	2,058,806	0.5%
CVS Health Corp.	21,341,786	2,043,263	0.5%
Starbucks Corp.	27,787,247	1,587,208	0.3%
Consumer Services—Other †		35,899,552	8.2%
		58,560,696	13.3%
Financials			
* Berkshire Hathaway Inc. Class B	36,924,127	5,346,244	1.2%
JPMorgan Chase & Co.	73,063,574	4,540,170	1.0%
Wells Fargo & Co.	91,215,174	4,317,214	1.0%
Visa Inc. Class A	38,147,829	2,829,424	0.7%
Bank of America Corp.	205,280,841	2,724,077	0.6%
Citigroup Inc.	58,627,484	2,485,219	0.6%
MasterCard Inc. Class A	19,366,492	1,705,413	0.4%
* Berkshire Hathaway Inc. Class A	864	187,466	0.0%
Financials—Other †		57,516,604	13.1%
		81,651,831	18.6%

Total Stock Market Index Fund

	Shares	Market Value* (\$000)	Percentage of Net Assets
Health Care			
Johnson & Johnson	54,772,218	6,643,870	1.5%
Pfizer Inc.	120,689,469	4,249,476	1.0%
Merck & Co. Inc.	55,061,925	3,172,118	0.7%
UnitedHealth Group Inc.	18,929,906	2,672,903	0.6%
Bristol-Myers Squibb Co.	33,228,244	2,443,937	0.6%
Medtronic plc	27,943,526	2,424,660	0.5%
Amgen Inc.	14,951,056	2,274,803	0.5%
Gilead Sciences Inc.	26,530,771	2,213,197	0.5%
AbbVie Inc.	32,218,933	1,994,674	0.5%
* Allergan plc	7,890,044	1,823,310	0.4%
Health Care—Other †		29,215,544	6.7%
		59,128,492	13.5%
Industrials			
General Electric Co.	182,865,746	5,756,614	1.3%
3M Co.	12,043,389	2,109,038	0.5%
Honeywell International Inc.	15,183,736	1,766,172	0.4%
United Technologies Corp.	15,787,904	1,619,050	0.4%
Boeing Co.	12,075,209	1,568,207	0.3%
Industrials—Other †		42,509,759	9.7%
		55,328,840	12.6%
Oil & Gas			
Exxon Mobil Corp.	82,406,965	7,724,829	1.8%
Chevron Corp.	37,452,961	3,926,194	0.9%
Schlumberger Ltd.	27,629,233	2,184,920	0.5%
Oil & Gas—Other †		15,543,912	3.5%
		29,379,855	6.7%
¹Other			
* Leap Wireless International Inc CVR	872,848	2,200	0.0%
Other—Other †		3,788	0.0%
		5,988	0.0%
Technology			
Apple Inc.	103,752,723	9,918,760	2.3%
Microsoft Corp.	149,022,544	7,625,484	1.7%
* Facebook Inc. Class A	43,803,673	5,005,884	1.1%
* Alphabet Inc. Class A	5,854,100	4,118,535	0.9%
* Alphabet Inc. Class C	5,827,913	4,033,499	0.9%
Intel Corp.	94,273,767	3,092,180	0.7%
Cisco Systems Inc.	100,384,266	2,880,025	0.7%
International Business Machines Corp.	17,238,549	2,616,467	0.6%
Oracle Corp.	62,098,332	2,541,685	0.6%
QUALCOMM Inc.	29,268,210	1,567,898	0.4%
Technology—Other †		24,431,497	5.6%
		67,831,914	15.5%
Telecommunications			
AT&T Inc.	122,335,204	5,286,104	1.2%
Verizon Communications Inc.	81,195,606	4,533,963	1.0%
Telecommunications—Other †		1,718,231	0.4%
		11,538,298	2.6%
Utilities †			
		15,876,643	3.6%
Total Common Stocks (Cost \$315,646,922)		436,562,242	99.4%²

Total Stock Market Index Fund

	Coupon	Shares	Market Value* (\$000)	Percentage of Net Assets
Temporary Cash Investments				
Money Market Fund				
^{3,4} Vanguard Market Liquidity Fund	0.538%	3,826,053,595	3,826,054	0.9%
^{5,6} U.S. Government and Agency Obligations †			107,936	0.0%
Total Temporary Cash Investments (Cost \$3,933,976)			3,933,990	0.9%²
⁷Total Investments (Cost \$319,580,898)			440,496,232	100.3%

	Amount (\$000)	
Other Assets and Liabilities		
Other Assets		
Investment in Vanguard	35,505	
Receivables for Investment Securities Sold	3,979	
Receivables for Accrued Income	507,239	
Receivables for Capital Shares Issued	1,553,761	
Other Assets	49,077	
Total Other Assets	2,149,561	0.5%
Liabilities		
Payables for Investment Securities Purchased	(1,216,721)	
Collateral for Securities on Loan	(1,573,074)	
Payables for Capital Shares Redeemed	(677,636)	
Payables to Vanguard	(193,602)	
Other Liabilities	(518)	
Total Liabilities	(3,661,551)	(0.8%)
Net Assets	438,984,242	100.0%

At June 30, 2016, net assets consisted of:

	Amount (\$000)
Paid-in Capital	317,763,433
Undistributed Net Investment Income	297,921
Accumulated Net Realized Losses	(12,174)
Unrealized Appreciation (Depreciation)	
Investment Securities	120,915,334
Futures Contracts	20,028
Swap Contracts	(300)
Net Assets	438,984,242

Investor Shares—Net Assets

Applicable to 1,895,891,666 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	98,869,380
Net Asset Value Per Share—Investor Shares	\$52.15

Total Stock Market Index Fund

	Amount (\$000)
ETF Shares—Net Assets	
Applicable to 564,825,940 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	60,528,916
Net Asset Value Per Share—ETF Shares	\$107.16
Admiral Shares—Net Assets	
Applicable to 2,609,607,968 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	136,131,768
Net Asset Value Per Share—Admiral Shares	\$52.17
Institutional Shares—Net Assets	
Applicable to 1,295,989,535 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	67,616,404
Net Asset Value Per Share—Institutional Shares	\$52.17
Institutional Plus Shares—Net Assets	
Applicable to 768,226,253 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	75,165,384
Net Asset Value Per Share—Institutional Plus Shares	\$97.84
Institutional Select Shares—Net Assets	
Applicable to 6,549,334 outstanding \$.001 par value shares of beneficial interest (unlimited authorization)	672,390
Net Asset Value Per Share—Institutional Select Shares	\$102.67

• See Note A in Notes to Financial Statements.

* Non-income-producing security.

† Represents the aggregate value, by category, of securities that are not among the 50 largest holdings and, in total for any issuer, represent 1% or less of net assets.

1 "Other" represents securities that are not classified by the fund's benchmark index.

2 The fund invests a portion of its cash reserves in equity markets through the use of index futures contracts and swap contracts. After giving effect to futures and swap investments, the fund's effective common stock and temporary cash investment positions represent 100.0% and 0.3%, respectively, of net assets.

3 Affiliated money market fund available only to Vanguard funds and certain trusts and accounts managed by Vanguard. Rate shown is the 7-day yield.

4 Includes \$1,573,074,000 of collateral received for securities on loan.

5 Securities with a value of \$101,641,000 have been segregated as initial margin for open futures contracts.

6 Securities with a value of \$3,562,000 have been segregated as collateral for open over-the-counter swap contracts.

7 The total value of securities on loan is \$1,493,268,000.

CVR—Contingent Value Rights.

See accompanying Notes, which are an integral part of the Financial Statements.

Statement of Operations

Six Months Ended
June 30, 2016

(\$000)

Investment Income	
Income	
Dividends	4,221,204
Interest ¹	5,576
Securities Lending	58,164
Total Income	4,284,944
Expenses	
The Vanguard Group—Note B	
Investment Advisory Services	9,048
Management and Administrative—Investor Shares	58,169
Management and Administrative—ETF Shares	10,682
Management and Administrative—Admiral Shares	23,360
Management and Administrative—Institutional Shares	9,378
Management and Administrative—Institutional Plus Shares	4,301
Management and Administrative—Institutional Select Shares	1
Marketing and Distribution—Investor Shares	8,672
Marketing and Distribution—ETF Shares	1,707
Marketing and Distribution—Admiral Shares	4,616
Marketing and Distribution—Institutional Shares	1,026
Marketing and Distribution—Institutional Plus Shares	574
Marketing and Distribution—Institutional Select Shares	—
Custodian Fees	1,761
Shareholders' Reports—Investor Shares	979
Shareholders' Reports—ETF Shares	299
Shareholders' Reports—Admiral Shares	280
Shareholders' Reports—Institutional Shares	114
Shareholders' Reports—Institutional Plus Shares	1
Shareholders' Reports—Institutional Select Shares	—
Trustees' Fees and Expenses	124
Total Expenses	135,092
Net Investment Income	4,149,852
Realized Net Gain (Loss)	
Investment Securities Sold	3,689,863
Futures Contracts	47,560
Swap Contracts	182
Realized Net Gain (Loss)	3,737,605
Change in Unrealized Appreciation (Depreciation)	
Investment Securities	8,256,212
Futures Contracts	(6,197)
Swap Contracts	331
Change in Unrealized Appreciation (Depreciation)	8,250,346
Net Increase (Decrease) in Net Assets Resulting from Operations	16,137,803

¹ Interest income from an affiliated company of the fund was \$5,256,000.

See accompanying Notes, which are an integral part of the Financial Statements.

Statement of Changes in Net Assets

	Six Months Ended June 30, 2016	Year Ended December 31, 2015
	(\$000)	(\$000)
Increase (Decrease) in Net Assets		
Operations		
Net Investment Income	4,149,852	7,704,558
Realized Net Gain (Loss)	3,737,605	12,814,317
Change in Unrealized Appreciation (Depreciation)	8,250,346	(18,420,139)
Net Increase (Decrease) in Net Assets Resulting from Operations	16,137,803	2,098,736
Distributions		
Net Investment Income		
Investor Shares	(834,454)	(2,011,483)
ETF Shares	(532,611)	(1,092,307)
Admiral Shares	(1,184,484)	(2,411,516)
Institutional Shares	(580,092)	(1,465,290)
Institutional Plus Shares	(637,335)	(670,898)
Institutional Select Shares	—	—
Realized Capital Gain		
Investor Shares	—	—
ETF Shares	—	—
Admiral Shares	—	—
Institutional Shares	—	—
Institutional Plus Shares	—	—
Institutional Select Shares	—	—
Total Distributions	(3,768,976)	(7,651,494)
Capital Share Transactions		
Investor Shares	(268,686)	(20,386,722)
ETF Shares	1,464,681	7,518,595
Admiral Shares	6,028,310	10,860,724
Institutional Shares	8,164,992	(40,464,087)
Institutional Plus Shares	9,935,177	65,672,415
Institutional Select Shares	639,884	—
Net Increase (Decrease) from Capital Share Transactions	25,964,358	23,200,925
Total Increase (Decrease)	38,333,185	17,648,167
Net Assets		
Beginning of Period	400,651,057	383,002,890
End of Period ¹	438,984,242	400,651,057

¹ Net Assets—End of Period includes undistributed (overdistributed) net investment income of \$297,921,000 and (\$83,137,000).

See accompanying Notes, which are an integral part of the Financial Statements.

Financial Highlights

Investor Shares

For a Share Outstanding Throughout Each Period	Six Months Ended June 30, 2016	Year Ended December 31,				
	2016	2015	2014	2013	2012	2011
Net Asset Value, Beginning of Period	\$50.78	\$51.58	\$46.67	\$35.64	\$31.29	\$31.56
Investment Operations						
Net Investment Income	.484	.954	.854	.757	.720	.565
Net Realized and Unrealized Gain (Loss) on Investments	1.324	(.807)	4.907	11.038	4.350	(.273)
Total from Investment Operations	1.808	.147	5.761	11.795	5.070	.292
Distributions						
Dividends from Net Investment Income	(.438)	(.947)	(.851)	(.765)	(.720)	(.562)
Distributions from Realized Capital Gains	—	—	—	—	—	—
Total Distributions	(.438)	(.947)	(.851)	(.765)	(.720)	(.562)
Net Asset Value, End of Period	\$52.15	\$50.78	\$51.58	\$46.67	\$35.64	\$31.29
Total Return¹	3.59%	0.29%	12.43%	33.35%	16.25%	0.96%

Ratios/Supplemental Data

Net Assets, End of Period (Millions)	\$98,869	\$96,323	\$117,966	\$105,008	\$78,936	\$62,668
Ratio of Total Expenses to Average Net Assets	0.15%	0.16%	0.17%	0.17%	0.17%	0.17%
Ratio of Net Investment Income to Average Net Assets	1.98%	1.85%	1.77%	1.84%	2.11%	1.79%
Portfolio Turnover Rate ²	4%	3%	3%	4%	3%	5%

The expense ratio, net investment income ratio, and turnover rate for the current period have been annualized.

¹ Total returns do not include account service fees that may have applied in the periods shown. Fund prospectuses provide information about any applicable account service fees.

² Excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the fund's capital shares, including ETF Creation Units.

Financial Highlights

ETF Shares

For a Share Outstanding Throughout Each Period	Six Months Ended June 30, 2016	Year Ended December 31,				
	2016	2015	2014	2013	2012	2011
Net Asset Value, Beginning of Period	\$104.34	\$106.00	\$95.91	\$73.24	\$64.29	\$64.86
Investment Operations						
Net Investment Income	1.044	2.082	1.874	1.657	1.564	1.238
Net Realized and Unrealized Gain (Loss) on Investments	2.725	(1.675)	10.085	22.686	8.949	(.575)
Total from Investment Operations	3.769	.407	11.959	24.343	10.513	.663
Distributions						
Dividends from Net Investment Income	(.949)	(2.067)	(1.869)	(1.673)	(1.563)	(1.233)
Distributions from Realized Capital Gains	—	—	—	—	—	—
Total Distributions	(.949)	(2.067)	(1.869)	(1.673)	(1.563)	(1.233)
Net Asset Value, End of Period	\$107.16	\$104.34	\$106.00	\$95.91	\$73.24	\$64.29
Total Return	3.64%	0.40%	12.56%	33.51%	16.41%	1.06%

Ratios/Supplemental Data

Net Assets, End of Period (Millions)	\$60,529	\$57,434	\$50,886	\$39,165	\$24,270	\$19,521
Ratio of Total Expenses to Average Net Assets	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
Ratio of Net Investment Income to Average Net Assets	2.08%	1.96%	1.89%	1.96%	2.23%	1.91%
Portfolio Turnover Rate ¹	4%	3%	3%	4%	3%	5%

The expense ratio, net investment income ratio, and turnover rate for the current period have been annualized.

¹ Excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the fund's capital shares, including ETF Creation Units.

Financial Highlights

Admiral Shares

	Six Months Ended June 30, 2016	Year Ended December 31,				
For a Share Outstanding Throughout Each Period		2015	2014	2013	2012	2011
Net Asset Value, Beginning of Period	\$50.79	\$51.60	\$46.69	\$35.65	\$31.30	\$31.57
Investment Operations						
Net Investment Income	.508	1.013	.912	.807	.761	.602
Net Realized and Unrealized Gain (Loss) on Investments	1.334	(.818)	4.908	11.047	4.350	(.273)
Total from Investment Operations	1.842	.195	5.820	11.854	5.111	.329
Distributions						
Dividends from Net Investment Income	(.462)	(1.005)	(.910)	(.814)	(.761)	(.599)
Distributions from Realized Capital Gains	—	—	—	—	—	—
Total Distributions	(.462)	(1.005)	(.910)	(.814)	(.761)	(.599)
Net Asset Value, End of Period	\$52.17	\$50.79	\$51.60	\$46.69	\$35.65	\$31.30
Total Return¹	3.65%	0.39%	12.56%	33.52%	16.38%	1.08%

Ratios/Supplemental Data

Net Assets, End of Period (Millions)	\$136,132	\$126,363	\$117,476	\$86,541	\$59,771	\$49,496
Ratio of Total Expenses to Average Net Assets	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%
Ratio of Net Investment Income to Average Net Assets	2.08%	1.96%	1.89%	1.96%	2.23%	1.91%
Portfolio Turnover Rate ²	4%	3%	3%	4%	3%	5%

The expense ratio, net investment income ratio, and turnover rate for the current period have been annualized.

¹ Total returns do not include account service fees that may have applied in the periods shown. Fund prospectuses provide information about any applicable account service fees.

² Excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the fund's capital shares, including ETF Creation Units.

Financial Highlights

Institutional Shares

	Six Months Ended June 30, 2016	Year Ended December 31,				
For a Share Outstanding Throughout Each Period		2015	2014	2013	2012	2011
Net Asset Value, Beginning of Period	\$50.80	\$51.60	\$46.69	\$35.66	\$31.30	\$31.57
Investment Operations						
Net Investment Income	.511	1.017	.915	.808	.763	.603
Net Realized and Unrealized Gain (Loss) on Investments	1.324	(.808)	4.908	11.038	4.359	(.272)
Total from Investment Operations	1.835	.209	5.823	11.846	5.122	.331
Distributions						
Dividends from Net Investment Income	(.465)	(1.009)	(.913)	(.816)	(.762)	(.601)
Distributions from Realized Capital Gains	—	—	—	—	—	—
Total Distributions	(.465)	(1.009)	(.913)	(.816)	(.762)	(.601)
Net Asset Value, End of Period	\$52.17	\$50.80	\$51.60	\$46.69	\$35.66	\$31.30
Total Return	3.64%	0.42%	12.56%	33.49%	16.42%	1.09%

Ratios/Supplemental Data

Net Assets, End of Period (Millions)	\$67,616	\$57,438	\$96,674	\$65,738	\$39,367	\$29,467
Ratio of Total Expenses to Average Net Assets	0.04%	0.04%	0.04%	0.04%	0.04%	0.04%
Ratio of Net Investment Income to Average Net Assets	2.09%	1.97%	1.90%	1.97%	2.24%	1.92%
Portfolio Turnover Rate ¹	4%	3%	3%	4%	3%	5%

The expense ratio, net investment income ratio, and turnover rate for the current period have been annualized.

¹ Excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the fund's capital shares, including ETF Creation Units.

Financial Highlights

Institutional Plus Shares

	Six Months Ended June 30, 2016	April 28, 2015 ¹ to Dec. 31, 2015
For a Share Outstanding Throughout Each Period		
Net Asset Value, Beginning of Period	\$95.26	\$100.00
Investment Operations		
Net Investment Income	.966	1.335
Net Realized and Unrealized Gain (Loss) on Investments	2.494	(4.631)
Total from Investment Operations	3.460	(3.296)
Distributions		
Dividends from Net Investment Income	(.880)	(1.444)
Distributions from Realized Capital Gains	—	—
Total Distributions	(.880)	(1.444)
Net Asset Value, End of Period	\$97.84	\$95.26
Total Return	3.66%	-3.28%

Ratios/Supplemental Data

Net Assets, End of Period (Millions)	\$75,165	\$63,093
Ratio of Total Expenses to Average Net Assets	0.02%	0.02% ²
Ratio of Net Investment Income to Average Net Assets	2.11%	1.99% ²
Portfolio Turnover Rate ³	4%	3% ⁴

The expense ratio, net investment income ratio, and turnover rate for the current period have been annualized.

1 Inception.

2 Annualized.

3 Excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the fund's capital shares, including ETF Creation Units.

4 Reflects the fund's portfolio turnover for the fiscal year ended December 31, 2015.

Financial Highlights

Institutional Select Shares

For a Share Outstanding Throughout the Period	June 27, 2016 ¹ to June 30, 2016
Net Asset Value, Beginning of Period	\$97.70
Investment Operations	
Net Investment Income	.045
Net Realized and Unrealized Gain (Loss) on Investments	4.925
Total from Investment Operations	4.970
Distributions	
Dividends from Net Investment Income	—
Distributions from Realized Capital Gains	—
Total Distributions	—
Net Asset Value, End of Period	\$102.67
Total Return	5.09%

Ratios/Supplemental Data

Net Assets, End of Period (Millions)	\$672
Ratio of Total Expenses to Average Net Assets	0.01% ²
Ratio of Net Investment Income to Average Net Assets	2.12% ²
Portfolio Turnover Rate ³	4% ⁴

The expense ratio, net investment income ratio, and turnover rate for the current period have been annualized.

1 Inception.

2 Annualized.

3 Excludes the value of portfolio securities received or delivered as a result of in-kind purchases or redemptions of the fund's capital shares, including ETF Creation Units.

4 Reflects the fund's portfolio turnover for the six months ended June 30, 2016.

Notes to Financial Statements

Vanguard Total Stock Market Index Fund is registered under the Investment Company Act of 1940 as an open-end investment company, or mutual fund. The fund offers six classes of shares: Investor Shares, ETF Shares, Admiral Shares, Institutional Shares, Institutional Plus Shares, and Institutional Select Shares. Investor Shares are available to any investor who meets the fund's minimum purchase requirements. ETF Shares are listed for trading on NYSE Arca; they can be purchased and sold through a broker. Admiral Shares, Institutional Shares, Institutional Plus Shares, and Institutional Select Shares are designed for investors who meet certain administrative, service, and account-size criteria. Institutional Select Shares were issued on June 27, 2016.

A. The following significant accounting policies conform to generally accepted accounting principles for U.S. investment companies. The fund consistently follows such policies in preparing its financial statements.

1. **Security Valuation:** Securities are valued as of the close of trading on the New York Stock Exchange (generally 4 p.m., Eastern time) on the valuation date. Equity securities are valued at the latest quoted sales prices or official closing prices taken from the primary market in which each security trades; such securities not traded on the valuation date are valued at the mean of the latest quoted bid and asked prices. Securities for which market quotations are not readily available, or whose values have been materially affected by events occurring before the fund's pricing time but after the close of the securities' primary markets, are valued by methods deemed by the board of trustees to represent fair value. Investments in Vanguard Market Liquidity Fund are valued at that fund's net asset value. Temporary cash investments acquired over 60 days to maturity are valued using the latest bid prices or using valuations based on a matrix system (which considers such factors as security prices, yields, maturities, and ratings), both as furnished by independent pricing services. Other temporary cash investments are valued at amortized cost, which approximates market value.

2. **Futures Contracts:** The fund uses index futures contracts to a limited extent, with the objectives of maintaining full exposure to the stock market, enhancing returns, maintaining liquidity, and minimizing transaction costs. The fund may purchase futures contracts to immediately invest incoming cash in the market, or sell futures in response to cash outflows, thereby simulating a fully invested position in the underlying index while maintaining a cash balance for liquidity. The fund may seek to enhance returns by using futures contracts instead of the underlying securities when futures are believed to be priced more attractively than the underlying securities. The primary risks associated with the use of futures contracts are imperfect correlation between changes in market values of stocks held by the fund and the prices of futures contracts, and the possibility of an illiquid market. Counterparty risk involving futures is mitigated because a regulated clearinghouse is the counterparty instead of the clearing broker. To further mitigate counterparty risk, the fund trades futures contracts on an exchange, monitors the financial strength of its clearing brokers and clearinghouse, and has entered into clearing agreements with its clearing brokers. The clearinghouse imposes initial margin requirements to secure the fund's performance and requires daily settlement of variation margin representing changes in the market value of each contract.

Futures contracts are valued at their quoted daily settlement prices. The aggregate settlement values of the contracts are not recorded in the Statement of Net Assets. Fluctuations in the value of the contracts are recorded in the Statement of Net Assets as an asset (liability) and in the Statement of Operations as unrealized appreciation (depreciation) until the contracts are closed, when they are recorded as realized futures gains (losses).

During the six months ended June 30, 2016, the fund's average investments in long and short futures contracts represented less than 1% and 0% of net assets, respectively, based on the average of aggregate settlement values at each quarter-end during the period.

3. Swap Contracts: The fund has entered into equity swap contracts to earn the total return on selected reference stocks in the fund's target index. Under the terms of the swaps, the fund receives the total return on the referenced stock (i.e., receiving the increase or paying the decrease in value of the selected reference stock and receiving the equivalent of any dividends in respect of the selected referenced stock) over a specified period of time, applied to a notional amount that represents the value of a designated number of shares of the selected reference stock at the beginning of the equity swap contract. The fund also pays a floating rate that is based on short-term interest rates, applied to the notional amount. At the same time, the fund invests an amount approximating the notional amount of the swap in high-quality temporary cash investments.

The notional amounts of swap contracts are not recorded in the Statement of Net Assets. Swaps are valued daily based on market quotations received from independent pricing services or recognized dealers and the change in value is recorded in the Statement of Net Assets as an asset (liability) and in the Statement of Operations as unrealized appreciation (depreciation) until termination of the swap, at which time realized gain (loss) is recorded. A risk associated with all types of swaps is the possibility that a counterparty may default on its obligation to pay net amounts due to the fund. The fund's maximum amount subject to counterparty risk is the unrealized appreciation on the swap contract. The fund mitigates its counterparty risk by entering into swaps only with a diverse group of prequalified counterparties, monitoring their financial strength, entering into master netting arrangements with its counterparties, and requiring its counterparties to transfer collateral as security for their performance. In the event of a counterparty's default (including bankruptcy), the fund may terminate any swap contracts with that counterparty, determine the net amount owed by either party in accordance with its master netting arrangements, and sell or retain any collateral held up to the net amount owed to the fund under the master netting arrangements. The swap contracts contain provisions whereby a counterparty may terminate open contracts if the fund net assets decline below a certain level, triggering a payment by the fund if the fund is in a net liability position at the time of the termination. The payment amount would be reduced by any collateral the fund has pledged. Any securities pledged as collateral for open contracts are noted in the Statement of Net Assets. The value of collateral received or pledged is compared daily to the value of the swap contracts exposure with each counterparty, and any difference, if in excess of a specified minimum transfer amount, is adjusted and settled within two business days.

During the six months ended June 30, 2016, the fund's average amounts of investments in total return swaps represented less than 1% of net assets, based on the average of notional amounts at each quarter-end during the period.

4. Federal Income Taxes: The fund intends to continue to qualify as a regulated investment company and distribute all of its taxable income. Management has analyzed the fund's tax positions taken for all open federal income tax years (December 31, 2012–2015), and for the period ended June 30, 2016, and has concluded that no provision for federal income tax is required in the fund's financial statements.

5. Distributions: Distributions to shareholders are recorded on the ex-dividend date.

6. Securities Lending: To earn additional income, the fund lends its securities to qualified institutional borrowers. Security loans are subject to termination by the fund at any time, and are required to be secured at all times by collateral in an amount at least equal to the market value of securities loaned. Daily market fluctuations could cause the value of loaned securities to be more or less than the value of the collateral received. When this occurs, the collateral is adjusted and settled on the next business day. The fund further mitigates its counterparty risk by entering into securities lending transactions only with a diverse group of prequalified counterparties, monitoring their financial strength, and entering into master securities lending agreements with its counterparties. The master securities lending agreements provide that, in the event of a counterparty's default (including bankruptcy), the fund may terminate any loans with that borrower, determine the net amount owed, and sell or retain the collateral up to the net amount owed to the fund; however, such actions may be subject to legal proceedings. While collateral mitigates counterparty risk, in the absence of a default the fund may experience delays and costs in recovering the securities loaned. The fund invests cash collateral received in Vanguard Market Liquidity Fund, and records a liability in the Statement of Net Assets for the return of the collateral, during the period the securities are on loan. Securities lending income represents fees charged to borrowers plus income earned on invested cash collateral, less expenses associated with the loan.

7. Credit Facility: The fund and certain other funds managed by The Vanguard Group ("Vanguard") participate in a \$3.1 billion committed credit facility provided by a syndicate of lenders pursuant to a credit agreement that may be renewed annually; each fund is individually liable for its borrowings, if any, under the credit facility. Borrowings may be utilized for temporary and emergency purposes, and are subject to the fund's regulatory and contractual borrowing restrictions. The participating funds are charged administrative fees and an annual commitment fee of 0.10% of the undrawn amount of the facility; these fees are allocated to the funds based on a method approved by the fund's board of trustees and included in Management and Administrative expenses on the fund's Statement of Operations. Any borrowings under this facility bear interest at a rate based upon the higher of the one-month London Interbank Offered Rate, federal funds effective rate, or overnight bank funding rate plus an agreed-upon spread.

The fund had no borrowings outstanding at June 30, 2016, or at any time during the period then ended.

8. Other: Dividend income is recorded on the ex-dividend date. Interest income includes income distributions received from Vanguard Market Liquidity Fund and is accrued daily. Premiums and discounts on debt securities purchased are amortized and accreted, respectively, to interest income over the lives of the respective securities. Security transactions are accounted for on the date securities are bought or sold. Costs used to determine realized gains (losses) on the sale of investment securities are those of the specific securities sold.

Each class of shares has equal rights as to assets and earnings, except that each class separately bears certain class-specific expenses related to maintenance of shareholder accounts (included in Management and Administrative expenses) and shareholder reporting. Marketing and distribution expenses are allocated to each class of shares based on a method approved by the board of trustees. Income, other non-class-specific expenses, and gains and losses on investments are allocated to each class of shares based on its relative net assets.

B. In accordance with the terms of a Funds' Service Agreement (the "FSA") between Vanguard and the fund, Vanguard furnishes to the fund investment advisory, corporate management, administrative, marketing, and distribution services at Vanguard's cost of operations (as defined by the FSA). These costs of operations are allocated to the fund based on methods and guidelines approved by the board of trustees. Vanguard does not require reimbursement in the current period for certain costs of operations (such as deferred compensation/benefits and risk/insurance costs); the fund's liability for these costs of operations is included in Payables to Vanguard on the Statement of Net Assets.

Upon the request of Vanguard, the fund may invest up to 0.40% of its net assets as capital in Vanguard. At June 30, 2016, the fund had contributed to Vanguard capital in the amount of \$35,505,000, representing 0.01% of the fund's net assets and 14.20% of Vanguard's capitalization. The fund's trustees and officers are also directors and employees, respectively, of Vanguard.

C. Various inputs may be used to determine the value of the fund's investments. These inputs are summarized in three broad levels for financial statement purposes. The inputs or methodologies used to value securities are not necessarily an indication of the risk associated with investing in those securities.

Level 1—Quoted prices in active markets for identical securities.

Level 2—Other significant observable inputs (including quoted prices for similar securities, interest rates, prepayment speeds, credit risk, etc.).

Level 3—Significant unobservable inputs (including the fund's own assumptions used to determine the fair value of investments).

Total Stock Market Index Fund

The following table summarizes the market value of the fund's investments as of June 30, 2016, based on the inputs used to value them:

Investments	Level 1 (\$000)	Level 2 (\$000)	Level 3 (\$000)
Common Stocks	436,554,213	32	7,997
Temporary Cash Investments	3,826,054	107,936	—
Futures Contracts—Assets ¹	27,923	—	—
Swap Contracts—Assets	—	218	—
Swap Contracts—Liabilities	—	(518)	—
Total	440,408,190	107,668	7,997

¹ Represents variation margin on the last day of the reporting period.

D. At June 30, 2016, the aggregate settlement value of open futures contracts and the related unrealized appreciation (depreciation) were:

		(\$000)		
Futures Contracts	Expiration	Number of Long (Short) Contracts	Aggregate Settlement Value Long (Short)	Unrealized Appreciation (Depreciation)
E-mini S&P 500 Index	September 2016	21,784	2,276,646	21,070
E-mini Russell 2000 Index	September 2016	957	109,806	(1,129)
E-mini S&P Mid-Cap 400 Index	September 2016	240	35,832	87
				20,028

Unrealized appreciation (depreciation) on open futures contracts is required to be treated as realized gain (loss) for tax purposes.

At June 30, 2016, the fund had the following open total return swap contracts:

Reference Entity	Termination Date	Counterparty	Notional Amount (\$000)	Floating Interest Rate Received (Paid)	Unrealized Appreciation (Depreciation) (\$000)
Ambac Financial Group Inc.	7/6/16	GSCM	4,867	(0.848%)	218
Empire State Realty Trust Inc.	8/11/16	GSCM	20,463	(0.842%)	(77)
SLM Corp.	8/18/16	GSI	21,170	(0.848%)	(441)
					(300)

GSCM—Goldman Sachs Capital Management.

GSI—Goldman Sachs International.

E. Distributions are determined on a tax basis and may differ from net investment income and realized capital gains for financial reporting purposes. Differences may be permanent or temporary. Permanent differences are reclassified among capital accounts in the financial statements to reflect their tax character. Temporary differences arise when certain items of income, expense, gain, or loss are recognized in different periods for financial statement and tax purposes. These differences will reverse at some time in the future. Differences in classification may also result from the treatment of short-term gains as ordinary income for tax purposes.

During the six months ended June 30, 2016, the fund realized \$2,448,918,000 of net capital gains resulting from in-kind redemptions—in which shareholders exchanged fund shares for securities held by the fund rather than for cash. Because such gains are not taxable to the fund, and are not distributed to shareholders, they have been reclassified from accumulated net realized losses to paid-in capital.

Realized and unrealized gains (losses) on certain of the fund's swap contracts are treated as ordinary income (loss) for tax purposes. Realized gains of \$182,000 on swap contracts have been reclassified from accumulated net realized losses to undistributed net investment income.

The fund's tax-basis capital gains and losses are determined only at the end of each fiscal year. For tax purposes, at December 31, 2015, the fund had available capital losses totaling \$1,270,736,000 to offset future net capital gains. Of this amount, \$1,003,435,000 is subject to expiration on December 31, 2016. Capital losses of \$267,301,000 realized beginning in fiscal 2011 may be carried forward indefinitely under the Regulated Investment Company Modernization Act of 2010, but must be used before any expiring loss carryforwards. The fund will use these capital losses to offset net taxable capital gains, if any, realized during the year ending December 31, 2016; should the fund realize net capital losses for the year, the losses will be added to the loss carryforward balance above.

At June 30, 2016, the cost of investment securities for tax purposes was \$319,589,820,000. Net unrealized appreciation of investment securities for tax purposes was \$120,906,412,000, consisting of unrealized gains of \$138,493,232,000 on securities that had risen in value since their purchase and \$17,586,820,000 in unrealized losses on securities that had fallen in value since their purchase.

F. During the six months ended June 30, 2016, the fund purchased \$38,671,577,000 of investment securities and sold \$11,881,516,000 of investment securities, other than temporary cash investments. Purchases and sales include \$6,779,445,000 and \$4,488,728,000, respectively, in connection with in-kind purchases and redemptions of the fund's capital shares.

G. Capital share transactions for each class of shares were:

	Six Months Ended June 30, 2016		Year Ended December 31, 2015	
	Amount (\$000)	Shares (000)	Amount (\$000)	Shares (000)
Investor Shares				
Issued	6,703,264	137,739	9,615,095	187,612
Issued in Lieu of Cash Distributions	829,581	16,344	2,000,863	39,195
Redeemed	(7,801,531)	(155,183)	(32,002,680)	(616,831)
Net Increase (Decrease)—Investor Shares	(268,686)	(1,100)	(20,386,722)	(390,024)
ETF Shares				
Issued	6,039,080	58,780	25,815,534	241,287
Issued in Lieu of Cash Distributions	—	—	—	—
Redeemed	(4,574,399)	(44,400)	(18,296,939)	(170,900)
Net Increase (Decrease)—ETF Shares	1,464,681	14,380	7,518,595	70,387
Admiral Shares				
Issued	11,560,183	233,139	22,278,360	430,686
Issued in Lieu of Cash Distributions	1,026,219	20,207	2,101,249	41,298
Redeemed	(6,558,092)	(131,629)	(13,518,885)	(260,874)
Net Increase (Decrease)—Admiral Shares	6,028,310	121,717	10,860,724	211,110
Institutional Shares				
Issued	12,432,040	250,240	34,182,938	666,236
Issued in Lieu of Cash Distributions	533,102	10,492	1,369,736	26,567
Redeemed	(4,800,150)	(95,419)	(76,016,761)	(1,435,499)
Net Increase (Decrease)—Institutional Shares	8,164,992	165,313	(40,464,087)	(742,696)
Institutional Plus Shares¹				
Issued	11,164,121	119,173	70,375,821	710,136
Issued in Lieu of Cash Distributions	634,389	6,657	668,273	7,223
Redeemed	(1,863,333)	(19,902)	(5,371,679)	(55,060)
Net Increase (Decrease)—Institutional Plus Shares	9,935,177	105,928	65,672,415	662,299
Institutional Select Shares²				
Issued	640,213	6,552	—	—
Issued in Lieu of Cash Distributions	—	—	—	—
Redeemed	(329)	(3)	—	—
Net Increase (Decrease)—Institutional Select Shares	639,884	6,549	—	—

¹ Inception was April 28, 2015, for Institutional Plus Shares.

² Inception was June 27, 2016, for Institutional Select Shares.

H. Management has determined that no material events or transactions occurred subsequent to June 30, 2016, that would require recognition or disclosure in these financial statements.

About Your Fund's Expenses

As a shareholder of the fund, you incur ongoing costs, which include costs for portfolio management, administrative services, and shareholder reports (like this one), among others. Operating expenses, which are deducted from a fund's gross income, directly reduce the investment return of the fund.

A fund's expenses are expressed as a percentage of its average net assets. This figure is known as the expense ratio. The following examples are intended to help you understand the ongoing costs (in dollars) of investing in your fund and to compare these costs with those of other mutual funds. The examples are based on an investment of \$1,000 made at the beginning of the period shown and held for the entire period.

The accompanying table illustrates your fund's costs in two ways:

- **Based on actual fund return.** This section helps you to estimate the actual expenses that you paid over the period. The "Ending Account Value" shown is derived from the fund's actual return, and the third column shows the dollar amount that would have been paid by an investor who started with \$1,000 in the fund. You may use the information here, together with the amount you invested, to estimate the expenses that you paid over the period.

To do so, simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number given for your fund under the heading "Expenses Paid During Period."

- **Based on hypothetical 5% yearly return.** This section is intended to help you compare your fund's costs with those of other mutual funds. It assumes that the fund had a yearly return of 5% before expenses, but that the expense ratio is unchanged. In this case—because the return used is not the fund's actual return—the results do not apply to your investment. The example is useful in making comparisons because the Securities and Exchange Commission requires all mutual funds to calculate expenses based on a 5% return. You can assess your fund's costs by comparing this hypothetical example with the hypothetical examples that appear in shareholder reports of other funds.

Note that the expenses shown in the table are meant to highlight and help you compare *ongoing* costs only and do not reflect transaction costs incurred by the fund for buying and selling securities. Further, the expenses do not include any purchase, redemption, or account service fees described in the fund prospectus. If such fees were applied to your account, your costs would be higher. Your fund does not carry a "sales load."

The calculations assume no shares were bought or sold during the period. Your actual costs may have been higher or lower, depending on the amount of your investment and the timing of any purchases or redemptions.

You can find more information about the fund's expenses, including annual expense ratios, in the Financial Statements section of this report. For additional information on operating expenses and other shareholder costs, please refer to your fund's current prospectus.

Six Months Ended June 30, 2016

Total Stock Market Index Fund	Beginning Account Value 12/31/2015	Ending Account Value 6/30/2016	Expenses Paid During Period
Based on Actual Fund Return			
Investor Shares	\$1,000.00	\$1,035.86	\$0.76
ETF Shares	1,000.00	1,036.42	0.25
Admiral Shares	1,000.00	1,036.54	0.25
Institutional Shares	1,000.00	1,036.39	0.20
Institutional Plus Shares	1,000.00	1,036.60	0.10
Institutional Select Shares	1,000.00	1,050.87	0.00
Based on Hypothetical 5% Yearly Return			
Investor Shares	\$1,000.00	\$1,024.12	\$0.75
ETF Shares	1,000.00	1,024.61	0.25
Admiral Shares	1,000.00	1,024.61	0.25
Institutional Shares	1,000.00	1,024.66	0.20
Institutional Plus Shares	1,000.00	1,024.76	0.10
Institutional Select Shares	1,000.00	1,000.55	0.00

The calculations are based on expenses incurred in the most recent six-month period. The fund's annualized six-month expense ratios for that period are 0.15% for Investor Shares, 0.05% for ETF Shares, 0.05% for Admiral Shares, 0.04% for Institutional Shares, 0.02% for Institutional Plus Shares, and 0.01% for Institutional Select Shares (since inception). The dollar amounts shown as "Expenses Paid" are equal to the annualized expense ratio multiplied by the average account value over the period, multiplied by the number of days in the most recent six-month period, then divided by the number of days in the most recent 12-month period (182/366 for Investor, ETF, Admiral, Institutional, and Institutional Plus Shares and 4/366 for Institutional Select Shares).

Trustees Approve Advisory Arrangement

The board of trustees of Vanguard Total Stock Market Index Fund has renewed the fund's investment advisory arrangement with The Vanguard Group, Inc. (Vanguard)—through its Equity Index Group. The board determined that continuing the fund's internalized management structure was in the best interests of the fund and its shareholders.

The board based its decision upon an evaluation of the advisor's investment staff, portfolio management process, and performance. The trustees considered the factors discussed below, among others. However, no single factor determined whether the board approved the arrangement. Rather, it was the totality of the circumstances that drove the board's decision.

Nature, extent, and quality of services

The board reviewed the quality of the fund's investment management services over both the short and long term, and took into account the organizational depth and stability of the advisor. The board considered that Vanguard has been managing investments for more than three decades. The Equity Index Group adheres to a sound, disciplined investment management process; the team has considerable experience, stability, and depth.

The board concluded that Vanguard's experience, stability, depth, and performance, among other factors, warranted continuation of the advisory arrangement.

Investment performance

The board considered the short- and long-term performance of the fund, including any periods of outperformance or underperformance relative to a target index and peer group. The board concluded that the performance was such that the advisory arrangement should continue. Information about the fund's most recent performance can be found in the Performance Summary section of this report.

Cost

The board concluded that the fund's expense ratio was well below the average expense ratio charged by funds in its peer group and that the fund's advisory fee rate was also well below its peer-group average. Information about the fund's expenses appears in the About Your Fund's Expenses section of this report as well as in the Financial Statements section.

The board does not conduct a profitability analysis of Vanguard because of Vanguard's unique "at-cost" structure. Unlike most other mutual fund management companies, Vanguard is owned by the funds it oversees, and produces "profits" only in the form of reduced expenses for fund shareholders.

The benefit of economies of scale

The board concluded that the fund's at-cost arrangement with Vanguard ensures that the fund will realize economies of scale as it grows, with the cost to shareholders declining as fund assets increase.

The board will consider whether to renew the advisory arrangement again after a one-year period.

Glossary

30-Day SEC Yield. A fund's 30-day SEC yield is derived using a formula specified by the U.S. Securities and Exchange Commission. Under the formula, data related to the fund's security holdings in the previous 30 days are used to calculate the fund's hypothetical net income for that period, which is then annualized and divided by the fund's estimated average net assets over the calculation period. For the purposes of this calculation, a security's income is based on its current market yield to maturity (for bonds), its actual income (for asset-backed securities), or its projected dividend yield (for stocks). Because the SEC yield represents hypothetical annualized income, it will differ—at times significantly—from the fund's actual experience. As a result, the fund's income distributions may be higher or lower than implied by the SEC yield.

Beta. A measure of the magnitude of a fund's past share-price fluctuations in relation to the ups and downs of a given market index. The index is assigned a beta of 1.00. Compared with a given index, a fund with a beta of 1.20 typically would have seen its share price rise or fall by 12% when the index rose or fell by 10%. For this report, beta is based on returns over the past 36 months for both the fund and the index. Note that a fund's beta should be reviewed in conjunction with its R-squared (see definition). The lower the R-squared, the less correlation there is between the fund and the index, and the less reliable beta is as an indicator of volatility.

Dividend Yield. Dividend income earned by stocks, expressed as a percentage of the aggregate market value (or of net asset value, for a fund). The yield is determined by dividing the amount of the annual dividends by the aggregate value (or net asset value) at the end of the period. For a fund, the dividend yield is based solely on stock holdings and does not include any income produced by other investments.

Earnings Growth Rate. The average annual rate of growth in earnings over the past five years for the stocks now in a fund.

Equity Exposure. A measure that reflects a fund's investments in stocks and stock futures. Any holdings in short-term reserves are excluded.

Expense Ratio. A fund's total annual operating expenses expressed as a percentage of the fund's average net assets. The expense ratio includes management and administrative expenses, but does not include the transaction costs of buying and selling portfolio securities.

Foreign Holdings. The percentage of a fund represented by securities or depositary receipts of companies based outside the United States.

Inception Date. The date on which the assets of a fund (or one of its share classes) are first invested in accordance with the fund's investment objective. For funds with a subscription period, the inception date is the day after that period ends. Investment performance is measured from the inception date.

Median Market Cap. An indicator of the size of companies in which a fund invests; the midpoint of market capitalization (market price x shares outstanding) of a fund's stocks, weighted by the proportion of the fund's assets invested in each stock. Stocks representing half of the fund's assets have market capitalizations above the median, and the rest are below it.

Price/Book Ratio. The share price of a stock divided by its net worth, or book value, per share. For a fund, the weighted average price/book ratio of the stocks it holds.

Price/Earnings Ratio. The ratio of a stock's current price to its per-share earnings over the past year. For a fund, the weighted average P/E of the stocks it holds. P/E is an indicator of market expectations about corporate prospects; the higher the P/E, the greater the expectations for a company's future growth.

R-Squared. A measure of how much of a fund's past returns can be explained by the returns from the market in general, as measured by a given index. If a fund's total returns were precisely synchronized with an index's returns, its R-squared would be 1.00. If the fund's returns bore no relationship to the index's returns, its R-squared would be 0. For this report, R-squared is based on returns over the past 36 months for both the fund and the index.

Return on Equity. The annual average rate of return generated by a company during the past five years for each dollar of shareholder's equity (net income divided by shareholder's equity). For a fund, the weighted average return on equity for the companies whose stocks it holds.

Short-Term Reserves. The percentage of a fund invested in highly liquid, short-term securities that can be readily converted to cash.

Turnover Rate. An indication of the fund's trading activity. Funds with high turnover rates incur higher transaction costs and may be more likely to distribute capital gains (which may be taxable to investors). The turnover rate excludes in-kind transactions, which have minimal impact on costs.

Benchmark Information

Spliced Total Stock Market Index: Dow Jones U.S. Total Stock Market Index (formerly known as the Dow Jones Wilshire 5000 Index) through April 22, 2005; MSCI US Broad Market Index through June 2, 2013; and CRSP US Total Market Index thereafter.

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The People Who Govern Your Fund

The trustees of your mutual fund are there to see that the fund is operated and managed in your best interests since, as a shareholder, you are a part owner of the fund. Your fund's trustees also serve on the board of directors of The Vanguard Group, Inc., which is owned by the Vanguard funds and provides services to them on an at-cost basis.

A majority of Vanguard's board members are independent, meaning that they have no affiliation with Vanguard or the funds they oversee, apart from the sizable personal investments they have made as private individuals. The independent board members have distinguished backgrounds in business, academia, and public service. Each of the trustees and executive officers oversees 198 Vanguard funds.

The following table provides information for each trustee and executive officer of the fund. More information about the trustees is in the *Statement of Additional Information*, which can be obtained, without charge, by contacting Vanguard at 800-662-7447, or online at vanguard.com.

Interested Trustee¹

F. William McNabb III

Born 1957. Trustee Since July 2009. Chairman of the Board. Principal Occupation(s) During the Past Five Years and Other Experience: Chairman of the Board of The Vanguard Group, Inc., and of each of the investment companies served by The Vanguard Group, since January 2010; Director of The Vanguard Group since 2008; Chief Executive Officer and President of The Vanguard Group, and of each of the investment companies served by The Vanguard Group, since 2008; Director of Vanguard Marketing Corporation; Managing Director of The Vanguard Group (1995–2008).

Independent Trustees

Emerson U. Fullwood

Born 1948. Trustee Since January 2008. Principal Occupation(s) During the Past Five Years and Other Experience: Executive Chief Staff and Marketing Officer for North America and Corporate Vice President (retired 2008) of Xerox Corporation (document management products and services); Executive in Residence and 2009–2010 Distinguished Minett Professor at the Rochester Institute of Technology; Lead Director of SPX FLOW, Inc. (multi-industry manufacturing); Director of the United Way of Rochester, the University of Rochester Medical Center, Monroe Community College Foundation, North Carolina A&T University, and Roberts Wesleyan College.

Rajiv L. Gupta

Born 1945. Trustee Since December 2001.² Principal Occupation(s) During the Past Five Years and Other Experience: Chairman and Chief Executive Officer (retired 2009) and President (2006–2008) of Rohm and Haas Co. (chemicals); Director of Tyco International plc (diversified manufacturing and services), HP Inc. (printer and personal computer manufacturing), and Delphi Automotive plc (automotive components); Senior Advisor at New Mountain Capital.

Amy Gutmann

Born 1949. Trustee Since June 2006. Principal Occupation(s) During the Past Five Years and Other Experience: President of the University of Pennsylvania; Christopher H. Browne Distinguished Professor of Political Science, School of Arts and Sciences, and Professor of Communication, Annenberg School for Communication, with secondary faculty appointments in the Department of Philosophy, School of Arts and Sciences, and at the Graduate School of Education, University of Pennsylvania; Trustee of the National Constitution Center; Chair of the Presidential Commission for the Study of Bioethical Issues.

JoAnn Heffernan Heisen

Born 1950. Trustee Since July 1998. Principal Occupation(s) During the Past Five Years and Other Experience: Corporate Vice President and Chief Global Diversity Officer (retired 2008) and Member of the Executive Committee (1997–2008) of Johnson & Johnson (pharmaceuticals/medical devices/consumer products); Director of Skytop Lodge Corporation (hotels) and the Robert Wood Johnson Foundation; Member of the Advisory Board of the Institute for Women's Leadership at Rutgers University.

F. Joseph Loughrey

Born 1949. Trustee Since October 2009. Principal Occupation(s) During the Past Five Years and Other Experience: President and Chief Operating Officer (retired 2009) of Cummins Inc. (industrial machinery); Chairman of the Board of Hillenbrand, Inc. (specialized consumer services), and of Oxfam America; Director of SKF AB (industrial machinery), Hyster-Yale Materials Handling, Inc. (forklift trucks), the Lumina Foundation for Education, and the V Foundation for Cancer Research; Member of the Advisory Council for the College of Arts and Letters and of the Advisory Board to the Kellogg Institute for International Studies, both at the University of Notre Dame.

Mark Loughridge

Born 1953. Trustee Since March 2012. Principal Occupation(s) During the Past Five Years and Other Experience: Senior Vice President and Chief Financial Officer (retired 2013) at IBM (information technology services); Fiduciary Member of IBM's Retirement Plan Committee (2004–2013); Director of the Dow Chemical Company; Member of the Council on Chicago Booth.

Scott C. Malpass

Born 1962. Trustee Since March 2012. Principal Occupation(s) During the Past Five Years and Other Experience: Chief Investment Officer and Vice President at the University of Notre Dame; Assistant Professor of Finance at the Mendoza College of Business at Notre Dame; Member of the Notre Dame 403(b) Investment Committee, the Board of Advisors for Spruceview Capital Partners, and the Investment Advisory Committee of Major League Baseball; Board Member of TIFF Advisory Services, Inc., and Catholic Investment Services, Inc. (investment advisors).

André F. Perold

Born 1952. Trustee Since December 2004. Principal Occupation(s) During the Past Five Years and Other Experience: George Gund Professor of Finance and Banking, Emeritus at the Harvard Business School (retired 2011); Chief Investment Officer and Managing Partner of HighVista Strategies LLC (private investment firm); Director of Rand Merchant Bank; Overseer of the Museum of Fine Arts Boston.

Peter F. Volanakis

Born 1955. Trustee Since July 2009. Principal Occupation(s) During the Past Five Years and Other Experience: President and Chief Operating Officer (retired 2010) of Corning Incorporated (communications equipment); Trustee of Colby-Sawyer College and Chairman of its Finance and Enrollment Committee; Member of the Advisory Board of the Norris Cotton Cancer Center.

Executive Officers

Glenn Booraem

Born 1967. Treasurer Since May 2015. Principal Occupation(s) During the Past Five Years and Other Experience: Principal of The Vanguard Group, Inc.; Treasurer of each of the investment companies served by The Vanguard Group; Controller of each of the investment companies served by The Vanguard Group (2010–2015); Assistant Controller of each of the investment companies served by The Vanguard Group (2001–2010).

Thomas J. Higgins

Born 1957. Chief Financial Officer Since September 2008. Principal Occupation(s) During the Past Five Years and Other Experience: Principal of The Vanguard Group, Inc.; Chief Financial Officer of each of the investment companies served by The Vanguard Group; Treasurer of each of the investment companies served by The Vanguard Group (1998–2008).

Peter Mahoney

Born 1974. Controller Since May 2015. Principal Occupation(s) During the Past Five Years and Other Experience: Head of Global Fund Accounting at The Vanguard Group, Inc.; Controller of each of the investment companies served by The Vanguard Group; Head of International Fund Services at The Vanguard Group (2008–2014).

Heidi Stam

Born 1956. Secretary Since July 2005. Principal Occupation(s) During the Past Five Years and Other Experience: Managing Director of The Vanguard Group, Inc.; General Counsel of The Vanguard Group; Secretary of The Vanguard Group and of each of the investment companies served by The Vanguard Group; Director and Senior Vice President of Vanguard Marketing Corporation.

Vanguard Senior Management Team

Mortimer J. Buckley	James M. Norris
Kathleen C. Gubanich	Thomas M. Rampulla
Martha G. King	Glenn W. Reed
John T. Marcante	Karin A. Risi
Chris D. McIsaac	Michael Rollings

Chairman Emeritus and Senior Advisor

John J. Brennan

Chairman, 1996–2009
Chief Executive Officer and President, 1996–2008

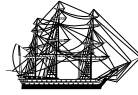
Founder

John C. Bogle

Chairman and Chief Executive Officer, 1974–1996

1 Mr. McNabb is considered an "interested person," as defined in the Investment Company Act of 1940, because he is an officer of the Vanguard funds.

2 December 2002 for Vanguard Equity Income Fund, the Vanguard Municipal Bond Funds, and the Vanguard State Tax-Exempt Funds.



Vanguard®

P.O. Box 2600
Valley Forge, PA 19482-2600

Connect with Vanguard® > vanguard.com

Fund Information > 800-662-7447

Direct Investor Account Services > 800-662-2739

Institutional Investor Services > 800-523-1036

Text Telephone for People

Who Are Deaf or Hard of Hearing > 800-749-7273

This material may be used in conjunction with the offering of shares of any Vanguard fund only if preceded or accompanied by the fund's current prospectus.

All comparative mutual fund data are from Lipper, a Thomson Reuters Company, or Morningstar, Inc., unless otherwise noted.

You can obtain a free copy of Vanguard's proxy voting guidelines by visiting vanguard.com/proxyreporting or by calling Vanguard at 800-662-2739. The guidelines are also available from the SEC's website, sec.gov. In addition, you may obtain a free report on how your fund voted the proxies for securities it owned during the 12 months ended June 30. To get the report, visit either vanguard.com/proxyreporting or sec.gov.

You can review and copy information about your fund at the SEC's Public Reference Room in Washington, D.C. To find out more about this public service, call the SEC at 202-551-8090. Information about your fund is also available on the SEC's website, and you can receive copies of this information, for a fee, by sending a request in either of two ways: via email addressed to publicinfo@sec.gov or via regular mail addressed to the Public Reference Section, Securities and Exchange Commission, Washington, DC 20549-1520.

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Item 7: Disclosure of Proxy Voting Policies and Procedures for Closed-End Management Investment Companies.

Not Applicable.

Item 8: Portfolio Managers of Closed-End Management Investment Companies.

Not Applicable.

Item 9: Purchase of Equity Securities by Closed-End Management Investment Company and Affiliated Purchasers.

Not Applicable.

Item 10: Submission of Matters to a Vote of Security Holders.

Not Applicable.

Item 11: Controls and Procedures.

(a) Disclosure Controls and Procedures. The Principal Executive and Financial Officers concluded that the Registrant's Disclosure Controls and Procedures are effective based on their evaluation of the Disclosure Controls and Procedures as of a date within 90 days of the filing date of this report.

(b) Internal Control Over Financial Reporting. There were no significant changes in Registrant's Internal Control Over Financial Reporting or in other factors that could significantly affect this control subsequent to the date of the evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Item 12: Exhibits.

(a) Certifications.

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

VANGUARD INDEX FUNDS

BY: /s/ F. WILLIAM MCNABB III*

F. WILLIAM MCNABB III
CHIEF EXECUTIVE OFFICER

Date: August 17, 2016

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

VANGUARD INDEX FUNDS

BY: /s/ F. WILLIAM MCNABB III*

F. WILLIAM MCNABB III
CHIEF EXECUTIVE OFFICER

Date: August 17, 2016

VANGUARD INDEX FUNDS

BY: /s/ THOMAS J. HIGGINS*

THOMAS J. HIGGINS
CHIEF FINANCIAL OFFICER

Date: August 17, 2016

* By: /s/ Heidi Stam

Heidi Stam, pursuant to a Power of Attorney filed on April 22, 2014 see file Number 2-17620, Incorporated by Reference.

CERTIFICATIONS

I, F. William McNabb III, certify that:

1. I have reviewed this report on Form N-CSR of Vanguard Index Funds;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, changes in net assets, and cash flows (if the financial statements are required to include a statement of cash flows) of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940) and internal control over financial reporting (as defined in Rule 30a-3(d) under the Investment Company Act of 1940) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of a date within 90 days prior to the filing date of this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the second fiscal quarter of the period covered by this report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 17, 2016

/s/ F. William McNabb III
F. William McNabb III
Chief Executive Officer

CERTIFICATIONS

I, Thomas J. Higgins, certify that:

1. I have reviewed this report on Form N-CSR of Vanguard Index Funds;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, changes in net assets, and cash flows (if the financial statements are required to include a statement of cash flows) of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Rule 30a-3(c) under the Investment Company Act of 1940) and internal control over financial reporting (as defined in Rule 30a-3(d) under the Investment Company Act of 1940) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of a date within 90 days prior to the filing date of this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the second fiscal quarter of the period covered by this report that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 17, 2016

/s/ Thomas J Higgins

Thomas J. Higgins
Chief Financial Officer

**Certification Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

Name of Issuer: **Vanguard Index Funds**

In connection with the Report on Form N-CSR of the above-named issuer that is accompanied by this certification, the undersigned hereby certifies, to his knowledge, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Date: August 17, 2016

/s/ F. William McNabb III
F. William McNabb III
Chief Executive Officer

**Certification Pursuant to 18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

Name of Issuer: **Vanguard Index Funds**

In connection with the Report on Form N-CSR of the above-named issuer that is accompanied by this certification, the undersigned hereby certifies, to his knowledge, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Date: August 17, 2016

/s/ Thomas J Higgins

Thomas J. Higgins
Chief Financial Officer