

Prepared for

# Community Foundation for Oceana County

May 28, 2020



**Vanguard**

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# Agenda

- I. Market recap
- II. Portfolio review
- III. Economic and market outlook
- IV. Appendix
  - Fund pages

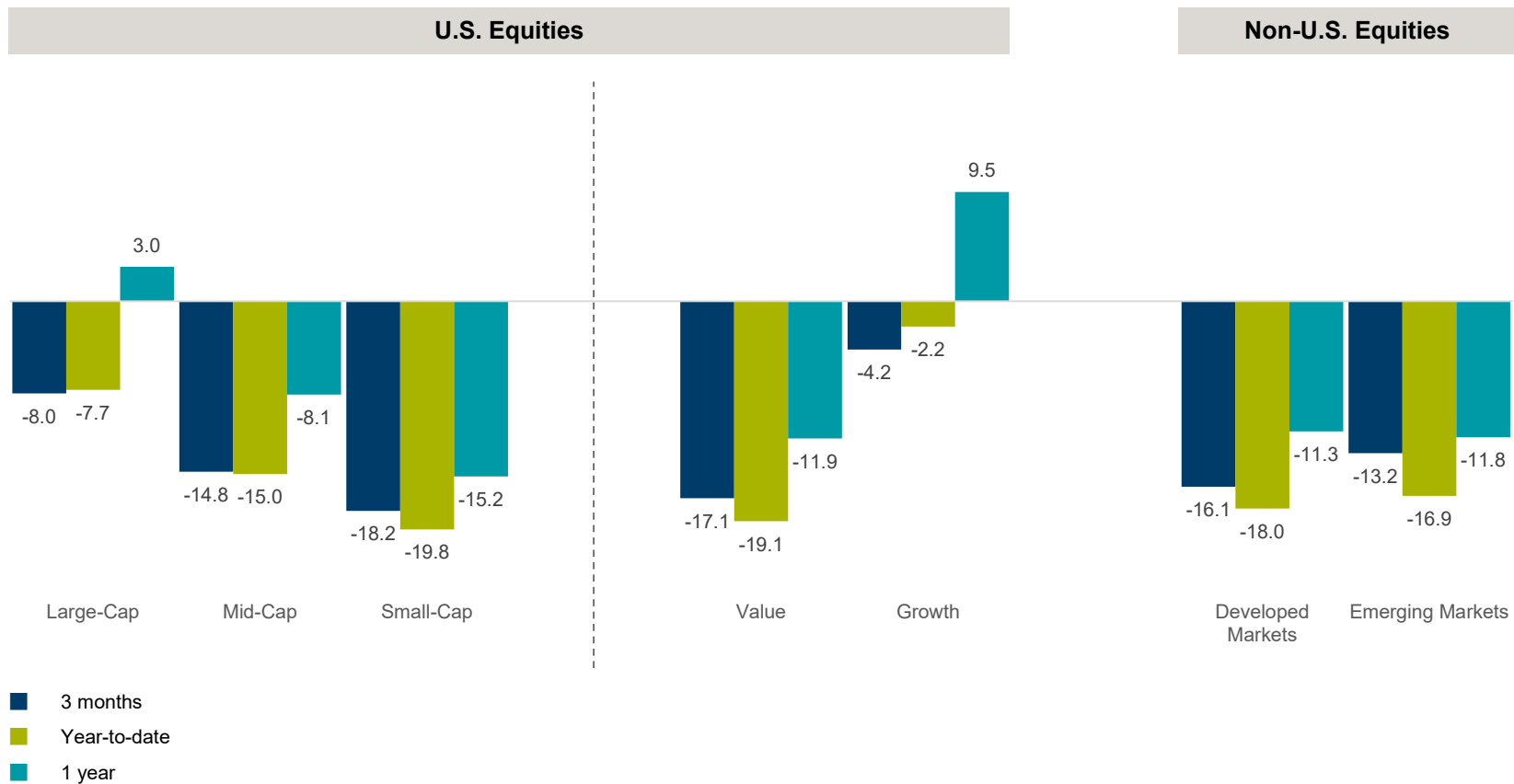
**Presented by:**

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Senior Investment Consultant  
Vanguard Institutional Advisory Services®

# Market recap

## Mixed performance across U.S. segments; broad declines in non-U.S. equity markets

Global equity market returns as of April 30, 2020 (%)



**Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.**

Sources: FTSE, MSCI, Russell, CRSP and Dow Jones.

Large-cap (CRSP US Mega Cap Index), Mid-cap (CRSP US Mid Cap Index), Small-cap (CRSP US Small Cap Index); Value (Russell 3000 Value Index), Growth (Russell 3000 Growth Index); Developed markets (FTSE Developed All Cap ex-US Index), Emerging markets (FTSE Emerging Markets All Cap China A Inclusion Index)

## Wide dispersion in U.S. sector returns over all periods

U.S. equity sector returns as of April 30, 2020 (%)

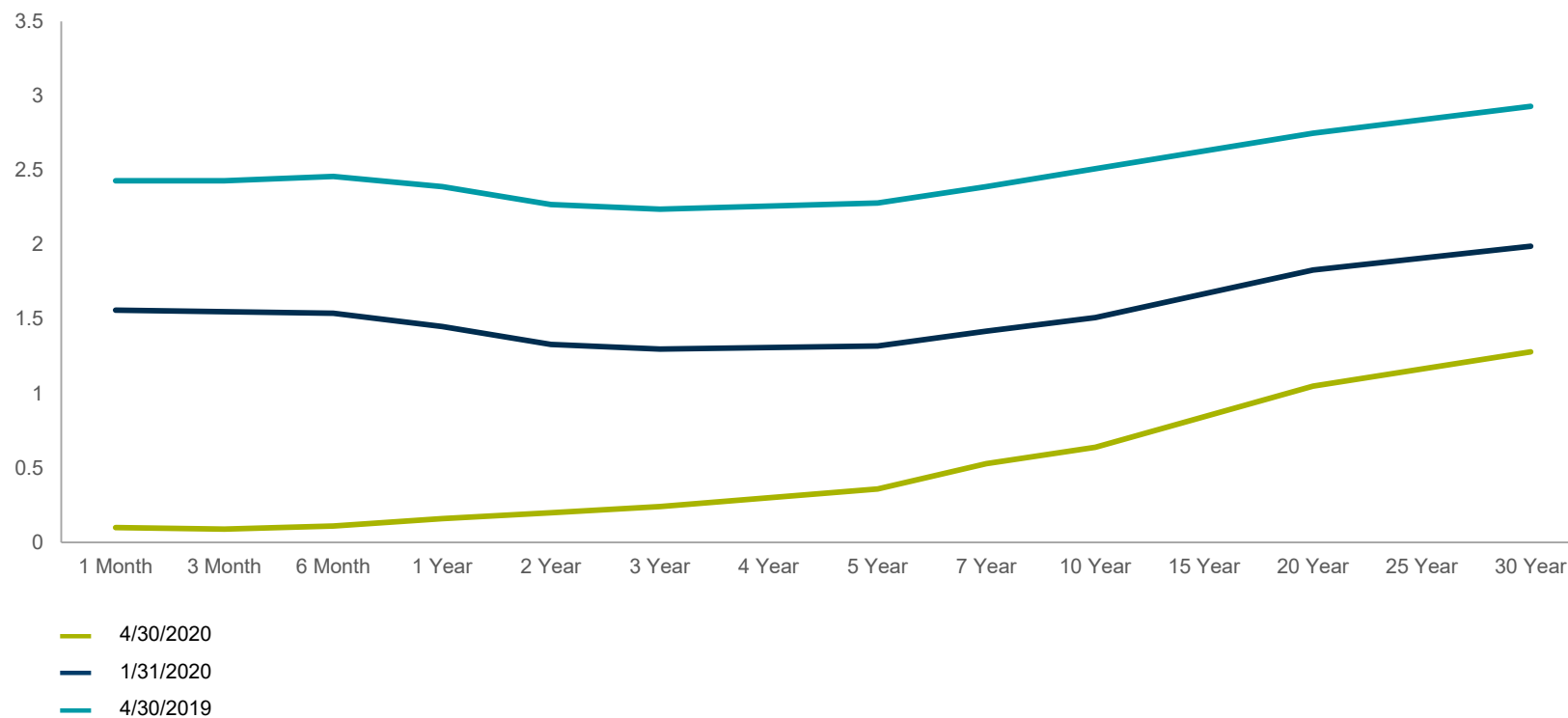


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Sources: FactSet and Vanguard.  
U.S. markets measured by CRSP US Total Market Index.

## U.S. Treasury yields continued their decline across all maturities

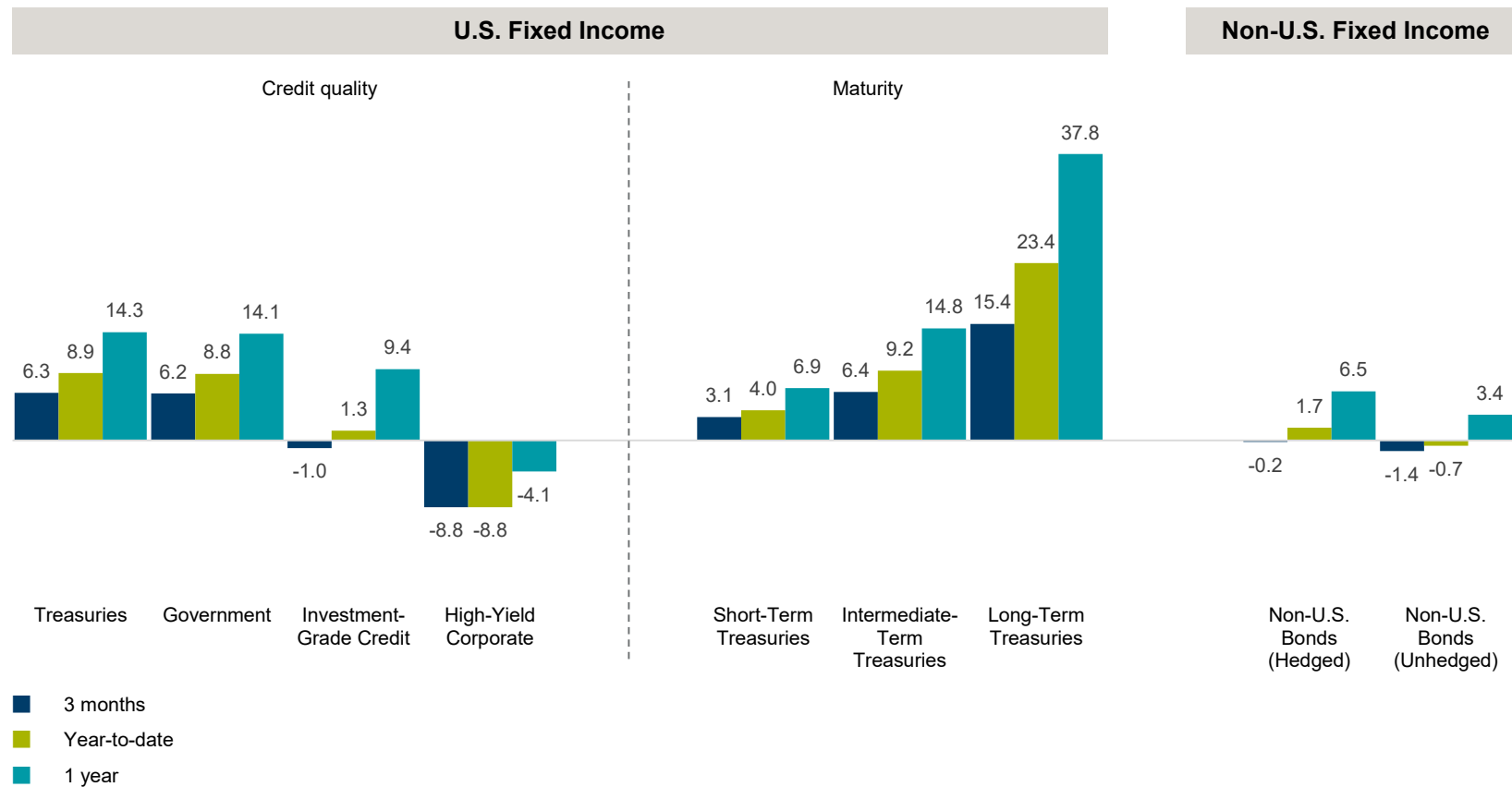
Yield (%) and change (bps)	1 month	3 month	6 month	1 year	2 year	3 year	5 year	7 year	10 year	20 year	30 year
Current yield (%)	0.1	0.09	0.11	0.16	0.20	0.24	0.36	0.53	0.64	1.05	1.28
3 month change	-146	-146	-143	-129	-113	-106	-96	-89	-87	-78	-71
12 month change	-233	-234	-235	-223	-207	-200	-192	-186	-187	-170	-165
YTD change	-143	-145	-146	-140	-138	-135	-131	-126	-124	-114	-105



Source: U.S. Treasury.

# High quality bonds produce positive returns in 2020 amid continued uncertainty

Global fixed income market returns as of April 30, 2020 (%)



Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Sources: Bloomberg Barclays.  
 Treasuries-Government-Investment Grade Corporates-High Yield (Bloomberg Barclays US Treasury/Government/Credit/Corporate High Yield Indices); Short-Inter-Long-term Treasuries (Bloomberg Barclays US 1-5/5-10/Long Year Treasury Indices)  
 Non-US Bonds hedged (Bloomberg Barclays Global Aggregate ex-USD Float Adjusted RIC Capped Index hedged), Non-US Bonds unhedged (Bloomberg Barclays Global Aggregate Index ex-USD).

# Portfolio review

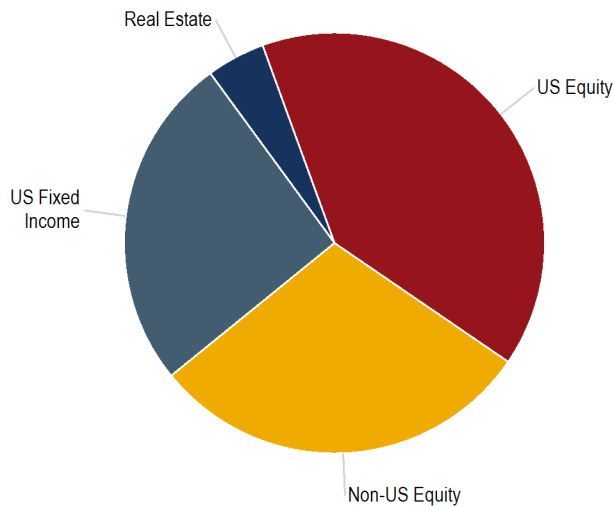
## Total Portfolio Performance & Asset Allocation

Performance Summary ending April 30, 2020

	Market Value (\$)	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>COMMUNITY FOUNDATION FOR OCEANA COUNTY</b>	<b>11,260,768</b>	<b>8.34</b>	--	--	--	--	--	--	<b>8.34</b>	<b>Mar-20</b>
<b>COMMUNITY FOUNDATION FOR OCEANA COUNTY (Net)</b>		<b>8.32</b>	--	--	--	--	--	--	<b>8.32</b>	
Composite Benchmark		8.59	--	--	--	--	--	--	8.59	Mar-20

- Composite Benchmark = 39% Spliced Total Stock Market Index / 31% Spliced Total International Stock Index / 25% Spliced Bloomberg Barclays US Aggregate Float Adjusted Index / 5% Real Estate Spliced Index

Current Allocation as of April 30, 2020



	Current \$	Current %	Policy	Difference*
US Equity	\$4,519,860	40.1%	39.0%	1.1%
Non-US Equity	\$3,331,892	29.6%	31.0%	-1.4%
US Fixed Income	\$2,901,394	25.8%	25.0%	0.8%
Real Estate	\$507,621	4.5%	5.0%	-0.5%
<b>Total</b>	<b>\$11,260,768</b>	<b>100.0%</b>	<b>100.0%</b>	

\*Difference between Policy and Current Allocation

Gross of Advisory Fee returns reflect the deduction of fund expense ratios and any purchase or redemption fees.

Net of Fee returns reflect the deduction of fund expense ratios, any purchase or redemption fees, and VIAS advisory fee applied to the client portfolio.

Returns greater than one year represent annualized returns. Returns less than one year represent cumulative returns.

## Performance Summary (Gross of Advisory Fees) ending April 30, 2020

	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>COMMUNITY FOUNDATION FOR OCEANA COUNTY</b>	<b>11,260,768</b>	<b>100.00</b>	<b>8.34</b>	--	--	--	--	--	--	<b>8.34</b>	<b>Mar-20</b>
<b>COMMUNITY FOUNDATION FOR OCEANA COUNTY (Net)</b>			<b>8.32</b>	--	--	--	--	--	--	<b>8.32</b>	
Composite Benchmark			8.59	--	--	--	--	--	--	8.59	Mar-20
<b>Total Equity</b>	<b>7,851,753</b>	<b>69.73</b>	<b>10.99</b>	--	--	--	--	--	--	<b>10.99</b>	<b>Mar-20</b>
<b>Equity Domestic</b>	<b>4,519,860</b>	<b>40.14</b>	<b>13.26</b>	--	--	--	--	--	--	<b>13.26</b>	<b>Mar-20</b>
Spliced Total Stock Market Index			13.26	-10.32	-10.39	-1.14	8.02	8.32	11.31	13.26	Mar-20
<b>Equity International</b>	<b>3,331,892</b>	<b>29.59</b>	<b>8.03</b>	--	--	--	--	--	--	<b>8.03</b>	<b>Mar-20</b>
Spliced Total International Stock Index			8.12	-15.48	-17.84	-11.47	-0.44	0.02	3.07	8.12	Mar-20
<b>Total Fixed Income</b>	<b>2,901,394</b>	<b>25.77</b>	<b>1.70</b>	--	--	--	--	--	--	<b>1.70</b>	<b>Mar-20</b>
<b>Fixed Income Domestic</b>	<b>2,901,394</b>	<b>25.77</b>	<b>1.70</b>	--	--	--	--	--	--	<b>1.70</b>	<b>Mar-20</b>
Spliced Bloomberg Barclays US Aggregate Float Adjusted Index			1.84	3.01	5.07	11.03	5.24	3.84	3.99	1.84	Mar-20
<b>Total Real Estate</b>	<b>507,621</b>	<b>4.51</b>	<b>8.86</b>	--	--	--	--	--	--	<b>8.86</b>	<b>Mar-20</b>
<b>Real Estate Domestic</b>	<b>507,621</b>	<b>4.51</b>	<b>8.86</b>	--	--	--	--	--	--	<b>8.86</b>	<b>Mar-20</b>
REIT Spliced Index			8.24	-21.89	-20.98	-14.25	-0.48	2.41	7.54	8.24	Mar-20

Gross of Advisory Fee returns reflect the deduction of fund expense ratios and any purchase or redemption fees.

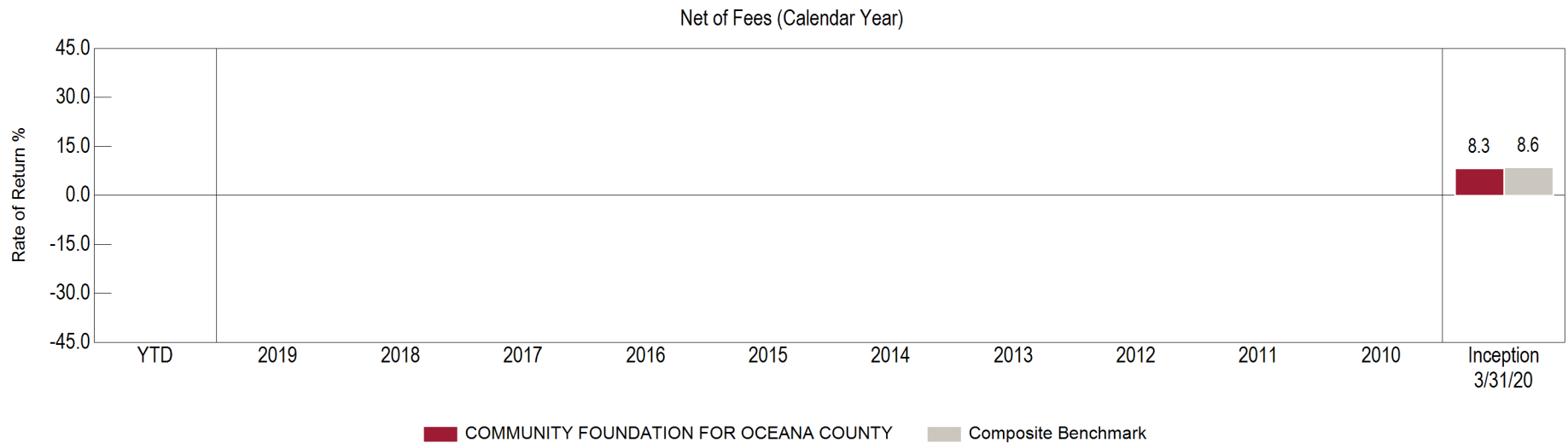
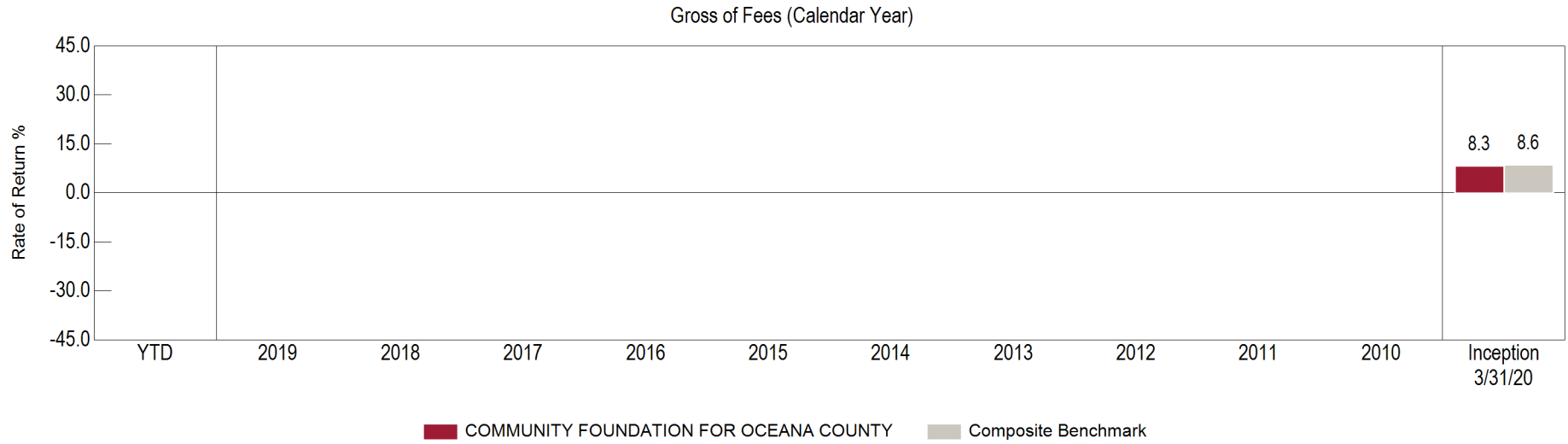
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Returns greater than one year represent annualized returns. Returns less than one year represent cumulative returns.

## Performance Summary (Gross of Advisory Fees) ending April 30, 2020

	Market Value (\$)	% of Portfolio	1 Mo (%)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>COMMUNITY FOUNDATION FOR OCEANA COUNTY</b>	<b>11,260,768</b>	<b>100.00</b>	<b>8.34</b>	--	--	--	--	--	--	<b>8.34</b>	<b>Mar-20</b>
Composite Benchmark			8.59	--	--	--	--	--	--	8.59	Mar-20
<b>Total Equity</b>	<b>7,851,753</b>	<b>69.73</b>	<b>10.99</b>	--	--	--	--	--	--	<b>10.99</b>	<b>Mar-20</b>
<b>Equity Domestic</b>	<b>4,519,860</b>	<b>40.14</b>	<b>13.26</b>	--	--	--	--	--	--	<b>13.26</b>	<b>Mar-20</b>
Spliced Total Stock Market Index			13.26	-10.32	-10.39	-1.14	8.02	8.32	11.31	13.26	Mar-20
Vanguard® Total Stock Market Index Fund Institutional Shares	4,519,860	40.14	13.26	-10.32	-10.37	-1.14	8.02	8.32	11.30	13.26	Mar-20
Spliced Total Stock Market Index			13.26	-10.32	-10.39	-1.14	8.02	8.32	11.31	13.26	Mar-20
Multi-Cap Core Funds Average			12.64	-11.76	-12.40	-4.74	4.83	5.26	8.73	12.64	Mar-20
<b>Equity International</b>	<b>3,331,892</b>	<b>29.59</b>	<b>8.03</b>	--	--	--	--	--	--	<b>8.03</b>	<b>Mar-20</b>
Spliced Total International Stock Index			8.12	-15.48	-17.84	-11.47	-0.44	0.02	3.07	8.12	Mar-20
Vanguard® Total International Stock Index Fund Admiral™ Shares	3,331,892	29.59	8.03	-15.42	-18.23	-12.29	-0.74	-0.12	3.03	8.03	Mar-20
Spliced Total International Stock Index			8.12	-15.48	-17.84	-11.47	-0.44	0.02	3.07	8.12	Mar-20
International Funds Average			7.96	-14.93	-17.17	-10.77	-0.62	-0.11	3.29	7.96	Mar-20
<b>Total Fixed Income</b>	<b>2,901,394</b>	<b>25.77</b>	<b>1.70</b>	--	--	--	--	--	--	<b>1.70</b>	<b>Mar-20</b>
<b>Fixed Income Domestic</b>	<b>2,901,394</b>	<b>25.77</b>	<b>1.70</b>	--	--	--	--	--	--	<b>1.70</b>	<b>Mar-20</b>
Spliced Bloomberg Barclays US Aggregate Float Adjusted Index			1.84	3.01	5.07	11.03	5.24	3.84	3.99	1.84	Mar-20
Vanguard® Total Bond Market Index Fund Admiral™ Shares	2,901,394	25.77	1.70	2.85	5.03	10.86	5.15	3.75	3.90	1.70	Mar-20
Spliced Bloomberg Barclays US Aggregate Float Adjusted Index			1.84	3.01	5.07	11.03	5.24	3.84	3.99	1.84	Mar-20
Spliced Intermediate-Term Investment-Grade Debt Funds Average			2.50	1.01	2.92	8.27	4.19	3.16	3.72	2.50	Mar-20
<b>Total Real Estate</b>	<b>507,621</b>	<b>4.51</b>	<b>8.86</b>	--	--	--	--	--	--	<b>8.86</b>	<b>Mar-20</b>
<b>Real Estate Domestic</b>	<b>507,621</b>	<b>4.51</b>	<b>8.86</b>	--	--	--	--	--	--	<b>8.86</b>	<b>Mar-20</b>
REIT Spliced Index			8.24	-21.89	-20.98	-14.25	-0.48	2.41	7.54	8.24	Mar-20
Vanguard® Real Estate Index Fund Admiral™ Shares	507,621	4.51	8.86	-18.33	-17.37	-9.08	1.31	3.46	8.07	8.86	Mar-20
Real Estate Spliced Index			8.86	-18.32	-17.35	-8.99	1.40	3.56	8.15	8.86	Mar-20
Real Estate Funds Average			8.10	-19.00	-17.93	-10.46	0.61	2.57	7.25	8.10	Mar-20

## Total Portfolio Performance



Gross of Advisory Fee returns reflect the deduction of fund expense ratios and any purchase or redemption fees.

Net of Fee returns reflect the deduction of fund expense ratios, any purchase or redemption fees, and VIAS advisory fee applied to the client portfolio.

Returns greater than one year represent annualized returns. Returns less than one year represent cumulative returns.

## Cash Flow Summary

	Last Month	Last Three Months	Year-To-Date	One Year
Beginning Market Value	\$10,348,324	--	--	--
Net Cash Flow	\$48,736	\$12,004,647	\$12,004,647	\$12,004,647
Capital Appreciation	\$857,916	-\$785,618	-\$785,618	-\$785,618
Income	\$5,792	\$41,739	\$41,739	\$41,739
Ending Market Value	\$11,260,768	\$11,260,768	\$11,260,768	\$11,260,768

## Month Ending April 30, 2020

	Beginning Market Value	Net Cash Flow	Capital Appreciation	Income	Ending Market Value
Vanguard® Real Estate Index Fund Admiral™ Shares	\$464,233	\$2,260	\$41,128	\$0	\$507,621
Vanguard® Total Bond Market Index Fund Admiral™ Shares	\$2,854,079	-\$1,264	\$42,787	\$5,792	\$2,901,394
Vanguard® Total International Stock Index Fund Admiral™ Shares	\$3,039,207	\$47,740	\$244,946	\$0	\$3,331,892
Vanguard® Total Stock Market Index Fund Institutional Shares	\$3,990,805	\$0	\$529,055	\$0	\$4,519,860
<b>Total</b>	<b>\$10,348,324</b>	<b>\$48,736</b>	<b>\$857,916</b>	<b>\$5,792</b>	<b>\$11,260,768</b>

## Investment Expense Analysis as of April 30, 2020

Name	Market Value	% of Portfolio	Expense Ratio
<b>Total Equity</b>	<b>\$7,851,753</b>	<b>69.7%</b>	
<b>Equity Domestic</b>	<b>\$4,519,860</b>	<b>40.1%</b>	
Vanguard® Total Stock Market Index Fund Institutional Shares	\$4,519,860	40.1%	0.030%
<b>Equity International</b>	<b>\$3,331,892</b>	<b>29.6%</b>	
Vanguard® Total International Stock Index Fund Admiral™ Shares	\$3,331,892	29.6%	0.110%
<b>Total Fixed Income</b>	<b>\$2,901,394</b>	<b>25.8%</b>	
<b>Fixed Income Domestic</b>	<b>\$2,901,394</b>	<b>25.8%</b>	
Vanguard® Total Bond Market Index Fund Admiral™ Shares	\$2,901,394	25.8%	0.050%
<b>Total Real Estate</b>	<b>\$507,621</b>	<b>4.5%</b>	
<b>Real Estate Domestic</b>	<b>\$507,621</b>	<b>4.5%</b>	
Vanguard® Real Estate Index Fund Admiral™ Shares	\$507,621	4.5%	0.120%
<b>Total</b>	<b>\$11,260,768</b>	<b>100.0%</b>	<b>0.063%</b>

## Market Performance as of April 30, 2020

Name	Apr-20	Last 3 Months	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
US Equity							
CRSP US Total Market TR USD	13.3	-10.3	-10.4	-1.1	8.0	8.3	11.3
S&P 500	12.8	-9.3	-9.3	0.9	9.0	9.1	11.7
S&P 400 MidCap	14.2	-17.6	-19.7	-14.9	0.0	3.6	8.9
S&P 600 SmallCap	12.7	-20.9	-24.1	-19.6	-1.8	3.4	8.7
International Equity							
MSCI Emerging Markets	9.2	-12.5	-16.6	-12.0	0.6	-0.1	1.4
MSCI Emerging Markets NR LCL	8.8	-8.9	-11.9	-7.7	3.4	2.6	4.6
MSCI EAFE	6.5	-16.1	-17.8	-11.3	-0.6	-0.2	3.5
MSCI EAFE NR LCL	5.4	-15.2	-16.2	-10.8	-0.5	0.7	5.0
MSCI ACWI ex USA	7.6	-15.3	-17.5	-11.5	-0.3	-0.2	2.9
Fixed Income Domestic							
BBgBarc US Aggregate TR	1.8	3.0	5.0	10.8	5.2	3.8	4.0
BBgBarc US Corporate 1-5 Years TR	3.0	-0.2	0.7	4.6	3.2	2.8	3.1
BBgBarc US Credit/Corp 5-10 Yr TR	5.3	-1.4	0.8	8.5	5.2	4.4	5.5
BBgBarc US Corporate Long TR	7.4	-1.3	2.6	16.9	8.7	6.7	7.7
BBgBarc US Govt/Credit Long TR	4.5	5.5	11.0	25.2	10.7	7.5	8.2
BBgBarc US Treasury Strips 20-30 Yr Equal Parity TR	2.0	20.5	31.8	53.5	18.4	11.0	12.7
BBgBarc US High Yield TR	4.5	-8.8	-8.8	-4.1	1.9	3.4	5.9
BBgBarc US Govt TR	0.6	6.2	8.8	14.1	5.8	3.9	3.7
BBgBarc US Credit TR	4.6	-1.0	1.3	9.4	5.4	4.3	5.0
BBgBarc US Treasury 1-5 Yr TR	0.2	3.1	4.0	6.9	3.2	2.3	2.0
BBgBarc US Treasury 5-10 Yr TR	0.5	6.4	9.2	14.8	6.0	4.2	4.6
BBgBarc US Treasury Long TR	2.0	15.4	23.4	37.8	13.6	8.4	8.9
BBgBarc US Treasury TIPS 0-5 Yr TR	1.2	0.1	0.5	3.2	2.0	1.7	1.5
BBgBarc US TIPS TR	2.8	2.4	4.5	9.5	4.2	3.1	3.5
Fixed Income International							
BBgBarc Global Aggregate ex US Tres Hedged TR	1.4	0.2	1.9	6.5	4.8	4.0	4.3
BBgBarc Emerging Markets TR	2.6	-8.5	-7.1	-0.8	2.0	3.4	5.2
REIT							
MSCI US REIT Gross	8.2	-21.9	-21.0	-14.3	-0.5	2.4	7.5

## Benchmark History as of April 30, 2020

## COMMUNITY FOUNDATION FOR OCEANA COUNTY

4/1/2020	Present	39% Spliced Total Stock Market Index / 31% Spliced Total International Stock Index / 25% Spliced Bloomberg Barclays US Aggregate Float Adjusted Index / 5% Real Estate Spliced Index
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## Total Equity

N/A

## Equity Domestic

3/31/2020	Present	100% CRSP US Total Market TR USD
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Vanguard® Total Stock Market Index Fund Institutional Shares

3/31/2020	Present	100% CRSP US Total Market TR USD
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## Equity International

3/31/2020	Present	100% FTSE Global All-Cap ex-US Index
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Vanguard® Total International Stock Index Fund Admiral™ Shares

3/31/2020	Present	100% FTSE Global All-Cap ex-US Index
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## Total Fixed Income

N/A

## Fixed Income Domestic

3/31/2020	Present	100% BBgBarc US Aggregate Float Adjusted TR
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Vanguard® Total Bond Market Index Fund Admiral™ Shares

3/31/2020	Present	100% BBgBarc US Aggregate Float Adjusted TR
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## Total Real Estate

N/A

## Real Estate Domestic

3/31/2020	Present	100% MSCI US REIT Gross
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Vanguard® Real Estate Index Fund Admiral™ Shares

3/31/2020	Present	100% MSCI US IM Real Estate 25/50 Index
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## Legal

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Total Portfolio returns represent client-specific time-weighted returns (TWR) are presented gross of any applicable service fees with the exception of mutual fund expense ratios and other security-level expenses.

Internal rates of return (IRR) are net of any applicable service fees, include account-specific cash flows, and are not directly comparable to a benchmark, since benchmarks do not include cash flows.

Client performance inception date is generally the first month-end after initial funding. Mutual funds and all investments are subject to risk, including the possible loss of the money you invest. Diversification does not ensure a profit or protect against a loss.

Performance figures assume the reinvestment of dividends and capital gains distributions. The fund performance percentages are based on fund total return data, adjusted for expenses, obtained from Lipper, a Thomson Reuters Company. The total return data was not adjusted for fees and loads.

Benchmark comparative indexes represent unmanaged or average returns on various financial assets, which can be compared with funds' total returns for the purpose of measuring relative performance.

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# Economic and market outlook

## Vanguard May 2020 market and economic outlook at a glance

### Key takeaways:

- The global recession will be short, with growth turning positive in the second half.
- Developed economies will not return to normal until later in 2021.
- Labor markets in face-to-face sectors such as leisure and hospitality will be hit hardest.
- Expect the U.S. to lift shelter-in-place measures and most extreme social distancing by June 30.

### Asset-class return outlooks

Recent market performance has moderately raised portfolio expected returns. Our preliminary 10-year annualized nominal return projections, as of March 31, 2020

EQUITIES	FIXED INCOME	
U.S. equities <b>4.8%–7.8%</b>	U.S. bonds <b>1.0%–2.0%</b>	Global bonds ex-U.S. (hedged) <b>0.6%–1.6%</b>
Global equities ex-U.S. (unhedged) <b>8.3%–11.3%</b>	U.S. Treasury bonds <b>0.4%–1.4%</b>	U.S. cash <b>0.6%–1.6%</b>

These probabilistic return assumptions depend on current market conditions and, as such, may change over time.

**IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model® regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results.**

**Distribution of return outcomes from the VCMM are derived from 10,000 simulations for each modeled asset class. Simulations are as of March 31, 2020. Results from the model may vary with each use and over time. For more information, see page 6.**

Source: Vanguard Investment Strategy Group.

## Vanguard May 2020 market and economic outlook at a glance

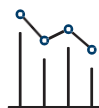


Coronavirus  
outlook: A few  
bright spots

### Countries battling the pandemic look ahead

Several countries recently among the world's hardest hit by the COVID-19 pandemic are beginning to talk about how and when they might start to reopen their economies.

- Renewed containment efforts in countries including Japan and Singapore, which had experienced early success in containing the coronavirus through vigorous testing and tracking, remind us that the battle isn't easily won, and may not be over until a vaccine is developed or broad populations achieve immunity.
- The strength of eventual recovery will depend in large part on the duration of required containment measures, the depth and breadth of unemployment, and the extent to which consumers overcome lingering fear of resuming normal activities.
- It will be crucial to avert a second wave of infection and associated renewed containment efforts that could carry long beyond the second quarter.



Economic growth  
plummets

### Expect the sharpest global recession in recent history

Growth in the United States and Europe is expected to contract in the second quarter at the steepest pace since at least the 1930s.

- We continue to anticipate that the global recession will be short, however, with global growth turning positive in the second half of 2020.
- We expect the recovery will be "U-shaped" in that it will be at least the end of 2021 before economic activity returns to its pre-COVID-19 level.
- We expect recovery to proceed in two stages, as we're beginning to see in China: a bounce-back in growth as supply constraints recede, but a longer wait for demand to strengthen.
- Vanguard believes that monetary policy responses taken globally in recent weeks have largely helped keep markets functioning in the face of dislocations related to the COVID-19 pandemic and efforts to contain it.

## Vanguard May 2020 market and economic outlook at a glance

### Global scenario estimates and transmission channel impact

	Scenario 1	Scenario 2 (Base case)	Scenario 3	Scenario 4
	Minimal outside China	Shelter in place and social distancing measures lifted by June	Shelter in place and social distancing measures lifted by September	Shelter in place and social distancing measures continue through 2020
<b>Probability</b>	<b>0%</b>	<b>60%</b>	<b>30%</b>	<b>10%</b>
Export demand shock	●	●	●	●
Supply chain disruption	●	●	●	●
Financial markets	●	●	●	●
Face-to-face sectors	●	●	●	●
Factory shutdowns	●	●	●	●

● Sector unaffected   
 ● Minimally impacted   
 ● Moderately impacted   
 ● Significantly impacted   
 ● Extensively impacted

In Vanguard’s base case, our 2020 growth estimate for the world is –2%.

## Vanguard May 2020 market and economic outlook at a glance

### Will stimulus measures be sufficient?

The key question remains if they will be enough to bind employees to their jobs and keep solvency measures for households and businesses high.

### When will the global economy reopen?

We expect a gradual and rolling reopening of global supply commencing in the May timeframe as regions move beyond peak infections.

### How important is a health care solution?

The speed and shape of a demand rebound is critically tied to the degree of confidence in future health care solutions.



### Region by region outlook

#### China and developed economies are on different paths

Although we see China's economy returning to normal by the end of the year (assuming no significant second wave of infection), we believe it will take three or four additional quarters before developed markets' economies return to normal, likely toward the end of 2021.

**United States.** Vanguard believes that GDP in the United States could contract at a significantly greater degree in the second quarter than it did at the worst point of the global financial crisis, with the extent and timing of recovery dependent on when containment efforts can be rolled back.

- It will take time for activity to return to normal as consumers come to terms with their fears about re-engaging with important face-to-face sectors of the economy
- In our current base-case scenario, the U.S. lifts shelter-in-place measures and most extreme social distancing by June 30.
- The **U.S. Federal Reserve** has taken steps to support the flow of credit to the economy, making loans available to assist households and employers of all sizes, and bolster the ability of state and local governments to deliver critical services during the coronavirus pandemic.
- We believe that the unprecedented response by the Federal Reserve and Congress will help stave off worse outcomes.
- Small business with little ability to work from home represent over 50% of industry employment, so fiscal policy providing small-business loans and expanded unemployment insurance is essential.
- If there is mass unemployment coming out of the downturn, growth impacts are likely to persist for longer.
- While we expect the April unemployment rate to rise significantly from 4.4% in March, it may overstate the rate in its historical context because the CARES Act allows some previously ineligible self-employed workers to file for unemployment insurance.
- Valuations remain below fair value estimates for U.S. equities, and the long-term picture has brightened for them.

## Vanguard May 2020 market and economic outlook at a glance

**China.** Although the worst of the coronavirus-related economic effects may now be in China's past, we expected normalization to be slow. the first such economic contraction since China began reporting quarterly GDP figures in 1992.

- China's GDP declined by 6.8% in the first quarter of 2020 compared with the year-earlier quarter, the first such economic contraction since China began reporting quarterly GDP figures in 1992.
- We expect that weak global demand and slower-than-expected normalization in domestic service industries will prohibit a strong bounce-back in growth in the second and third quarters.
- China's first-quarter GDP numbers also shouldn't be viewed as a harbinger for second-quarter GDP data in other countries, given vast differences in economic structures and epidemiology.

**Euro area.** Evidence that the virus outbreak has peaked in Italy, Spain, and Germany is leading to expectations that lockdowns within the euro area will begin to gradually be lifted this month.

- Vanguard's view that the economy can start to rebound in the third and fourth quarters as lockdowns are removed is tempered by the risk of a second wave of infection that could necessitate containment measures to be reinstated. The assessment is similar for the U.K.

# Fund pages

# Vanguard Total Stock Market Index Fund (VITSX)

## Equity characteristics

	VITSX	Benchmark
Number of stocks	3,535	3,476
Median market cap	\$84.0B	\$84.0B
P/E ratio (trailing earnings)	16.9x	16.9x
P/B ratio	2.5x	2.5x
Return on equity (5-year average)	17.1%	17.1%
Earnings growth rate (5-year)	13.4%	13.4%
Equity yield (dividend)	2.2%	2.2%
Foreign holdings	0.6%	—
Turnover (fiscal year end)	4.1%	—
Short-term reserves	0.0%	N/A

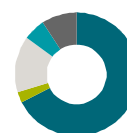
## Sector diversification as a % of common stock



Sector	VITSX	Benchmark
Technology	24.4%	24.4%
Financials	17.4	17.4
Health Care	14.7	14.7
Consumer Services	13.5	13.5
Industrials	12.0	12.0
Consumer Goods	8.1	8.1
Utilities	3.5	3.5
Oil & Gas	2.5	2.5
Telecommunications	2.0	2.0
Basic Materials	1.9	1.9

Sector categories are based on the Industry Classification Benchmark ("ICB"), except for the "Other" category (if applicable), which includes securities that have not been provided an ICB classification as of the effective reporting period.

## Market-cap breakdown



Market capitalization	VITSX	Benchmark
More than \$34	67.4%	67.4%
\$27 to \$34	2.9	2.9
\$10 to \$27	14.8	14.8
\$5 to \$10	5.7	5.7
Below \$5	9.2	9.2

## Risk and volatility

	R-squared	Beta	Alpha	Standard deviation	Sharpe ratio
VITSX	N/A	N/A	-0.00	15.83	0.14
Primary benchmark	1.00	1.00	N/A	15.84	0.14
Broad-based benchmark	1.00	1.00	N/A	15.86	0.14

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark.  
Broad-based benchmark: Dow Jones U.S. Total Stock Market Float Adjusted Index.

## Ten largest holdings

	% of total net assets
Microsoft Corp.	4.8%
Apple Inc.	4.0
Amazon.com Inc.	3.3
Alphabet Inc.	2.7
Facebook Inc.	1.6
Berkshire Hathaway Inc.	1.4
Johnson & Johnson	1.4
Visa Inc.	1.1
Procter & Gamble Co.	1.1
JPMorgan Chase & Co.	1.0
<b>Top ten as a % of total net assets</b>	<b>22.4%</b>

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

All data as of March 31, 2020, unless otherwise noted.

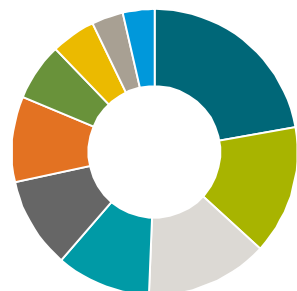
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# Vanguard Total International Stock Index Fund (VTSNX)

## Equity characteristics

	VTSNX	Benchmark
Number of stocks	7,521	7,134
Median market cap	\$23.4B	\$23.4B
P/E ratio (trailing earnings)	12.6x	12.6x
P/B ratio	1.3x	1.3x
Return on equity (5-year average)	12.9%	12.9%
Earnings growth rate (5-year)	10.6%	10.7%
Equity yield (dividend)	3.8%	3.8%
Turnover (fiscal year end)	3.9%	—
Short-term reserves	0.0%	N/A

## Sector diversification as a % of common stock



Sector	VTSNX	Benchmark
Financials	22.2%	22.3%
Consumer Goods	14.6	14.6
Industrials	13.9	14.0
Technology	10.6	10.5
Health Care	10.3	10.3
Consumer Services	9.7	9.7
Basic Materials	6.5	6.4
Oil & Gas	5.0	5.1
Telecommunications	3.6	3.6
Utilities	3.6	3.5

Sector categories are based on the Industry Classification Benchmark (“ICB”), except for the “Other” category (if applicable), which includes securities that have not been provided an ICB classification as of the effective reporting period.

## Market-cap breakdown



Market capitalization	VTSNX	Benchmark
More than \$12	64.9%	64.8%
\$10 to \$12	3.4	3.3
\$4 to \$10	14.6	14.6
\$2 to \$4	6.7	6.7
Below \$2	10.4	10.6

## Risk and volatility

	R-squared	Beta	Alpha	Standard deviation	Sharpe ratio
VTSNX	N/A	N/A	-0.01	15.55	-0.27
Primary benchmark	0.99	1.01	N/A	15.29	-0.26
Broad-based benchmark	0.99	1.01	N/A	15.29	-0.26

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: FTSE Global All Cap ex US Index.

## Market allocation

	% of common stock	
	VTSNX	Benchmark
Japan	18.2%	18.2%
China	10.3	10.2
United Kingdom	10.0	10.3
Switzerland	6.6	6.6
Canada	6.3	6.3
France	6.2	6.3
Germany	5.3	5.4
Australia	4.2	4.1
Taiwan	3.7	3.7
Korea	3.2	3.3
Other	26.0	25.6

## Ten largest holdings

	% of total net assets
Alibaba Group Holding Ltd.	1.7%
Nestle SA	1.5
Tencent Holdings Ltd.	1.4
Roche Holding AG	1.2
Taiwan Semiconductor Manufacturing Co. Ltd.	1.1
Samsung Electronics Co. Ltd.	1.1
Novartis AG	0.9
Toyota Motor Corp.	0.8
Royal Dutch Shell plc	0.7
Unilever	0.6
<b>Top ten as a % of total net assets</b>	<b>11.0%</b>

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

# Vanguard Total Bond Market Index Fund (VBTIX)

## Fixed income characteristics

	VBTIX	Benchmark
Number of bonds	9,237	11,152
Average duration	6.2 years	5.9 years
Average effective maturity	8.1 years	7.9 years
Turnover (fiscal year end)	30.8%	—
Short-term reserves	0.0%	N/A

## Distribution by issuer type

	% of total net assets
Treasury/Agency	45.3%
Government Mortgage-Backed	22.1%
Industrial	15.2%
Finance	8.2%
Foreign	4.8%
Commercial Mortgage-Backed	2.1%
Utilities	1.9%
Asset-Backed	0.4%

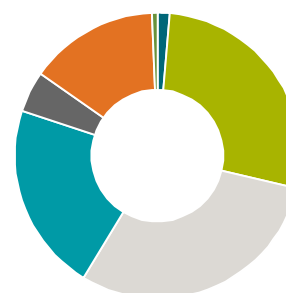
Hedged non-U.S. dollar-denominated bonds are included in the sector of issuer, not as part of the foreign category.

## Risk and volatility

	R-squared	Beta	Alpha	Standard deviation	Sharpe ratio
VBTIX	N/A	N/A	0.00	3.25	0.95
Primary benchmark	0.99	0.99	N/A	3.28	0.95
Broad-based benchmark	0.99	0.99	N/A	3.28	0.95

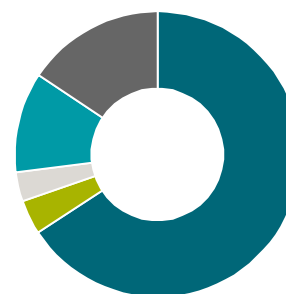
R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: Spliced Bloomberg Barclays U.S. Aggregate Float Adjusted Index.

## Distribution by effective maturity as a % of funds



Under 1 Year	1.4%
1 - 3 Years	27.3
3 - 5 Years	30.0
5 - 10 Years	21.4
10 - 20 Years	4.6
20 - 30 Years	14.6
Over 30 Years	0.7

## Distribution by credit quality as a % of funds



U.S. Government	65.8%
Aaa	3.9
Aa	3.3
A	11.4
Baa	15.6
Less Than Baa	0.0

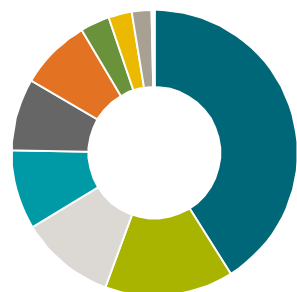
Credit-quality ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest). "NR" is used to classify securities for which a rating is not available. NR securities may include a fund's investment in Vanguard Market Liquidity Fund or Vanguard Municipal Cash Management Fund, each of which invests in high-quality money market instruments and may serve as a cash management vehicle for the Vanguard funds, trusts, and accounts. U.S. Treasury, U.S. Agency, and U.S. Agency mortgage-backed securities appear under "U.S. Government." Credit-quality ratings for each issue are obtained from Barclays using ratings derived from Moody's Investors Service (Moody's), Fitch Ratings (Fitch), and Standard & Poor's (S&P). When ratings from all three agencies are available, the median rating is used. When ratings are available from two of the agencies, the lower rating is used. When one rating is available, that rating is used.

# Vanguard Real Estate Index Fund (VGSNX)

## Equity characteristics

	VGSNX	Benchmark
Number of stocks	183	180
Median market cap	\$14.6B	\$14.6B
P/E ratio (trailing earnings)	26.3x	26.4x
P/B ratio	2.0x	2.0x
Return on equity (5-year average)	6.4%	6.1%
Earnings growth rate (5-year)	12.5%	12.4%
Equity yield (dividend)	4.6%	4.6%
Foreign holdings	0.0%	—
Turnover (fiscal year end)	5.8%	—
Short-term reserves	0.0%	N/A

## Subindustry diversification as a % of common stock



Sector	VGSNX	Benchmark
Specialized REITs	41.0%	41.2%
Residential REITs	14.5	14.4
Industrial REITs	10.7	10.7
Office REITs	9.0	8.9
Retail REITs	8.1	8.1
Health Care REITs	8.0	7.9
Diversified REITs	3.3	3.3
Hotel & Resort REITs	2.6	2.6
Real Estate Services	2.2	2.2
Diversified Real Estate Activities	0.2	0.2
Real Estate Development	0.2	0.2

Sector categories are based on the Global Industry Classification Standard ("GICS"), except for the "Other" category (if applicable), which includes securities that have not been provided a GICS classification as of the effective reporting period.

## Market-cap breakdown



Market capitalization	VGSNX	Benchmark
More than \$34	31.3%	31.0%
\$27 to \$34	6.2	6.9
\$10 to \$27	28.7	28.4
\$5 to \$10	13.9	14.0
Below \$5	19.9	19.7

## Risk and volatility

	R-squared	Beta	Alpha	Standard deviation	Sharpe ratio
VGSNX	N/A	N/A	-0.01	17.06	-0.19
Primary benchmark	1.00	1.00	N/A	17.06	-0.18
Broad-based benchmark	0.54	0.79	N/A	15.86	0.14

R-squared and beta are calculated from trailing 36-month fund returns relative to the associated benchmark. Broad-based benchmark: Dow Jones U.S. Total Stock Market Float Adjusted Index.

## Ten largest holdings

	% of total net assets
Vanguard Real Estate II Index Fund	11.4%
American Tower Corp.	8.8
Crown Castle International Corp.	5.5
Prologis Inc.	5.4
Equinix Inc.	4.9
Digital Realty Trust Inc.	3.2
Public Storage	2.9
SBA Communications Corp.	2.8
Equity Residential	2.1
AvalonBay Communities Inc.	1.9
<b>Top ten as a % of total net assets</b>	<b>48.9%</b>

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

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The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model<sup>®</sup> is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

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