

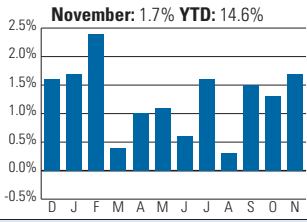
THE INDEPENDENT ADVISER

for Vanguard Investors

DECEMBER 2017

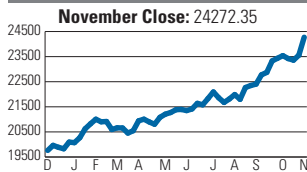
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AVERAGE VANGUARD INVESTOR*

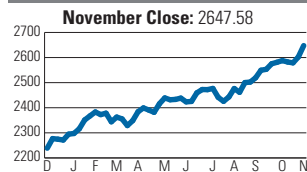


*See the footnotes on page 2.

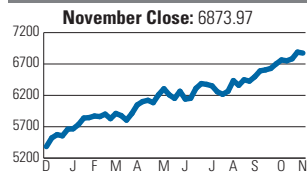
DOW JONES INDUSTRIALS



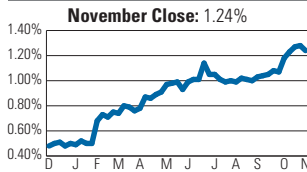
STANDARD & POOR'S 500



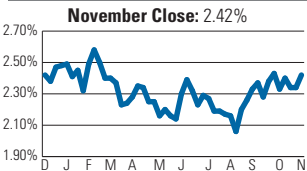
NASDAQ COMPOSITE



3-MO. TREASURY BILL YIELD



10-YR. TREASURY NOTE YIELD



Improving on the Decade

'TIS THE SEASON FOR GIVING THANKS, particularly for the extraordinary long-term returns we all now behold.

And barring a calamity it's going to get better. Over the next several months, most funds' 10-year returns will start skyrocketing. Why? I hate to remove the punch bowl from a holiday celebration, but in a nutshell, it's the math.

Ten years ago, the U.S. stock market began a descent into one of the worst bear markets Wall Street has ever witnessed. **Total Stock Market Index**, for example, fell 4.5% in November, a fractional 0.6% in December, 6.1% in January 2008 and 3.1% in February before an all-too-brief respite. Fast forward to today, and these negative months are being wiped off current 10-year return calculations. The distortions will only get worse (some would say better) as we roll into 2018. Should you care? Well, an astute investor is a successful investor and won't let the numbers fool her. This gives you a leg up on your neighbor, who may, for instance, be willing to throw his investment plan to the wind and chase the past decade's gains.

Maybe you think you can temper risk by buying into the just-announced suite of computer-driven "factor" ETFs that Vanguard plans to bring to market in February. It may sound sexy to, say, add low-volatility stocks to your portfolio, or maybe even grab more value to counteract those growthy tech stocks you now own.

Don't hold your breath. After deriding the so-called "smart beta" strategies that have been a marketing bonanza for the ETF industry, Vanguard is joining the fray. Oh, yes, they'll do it at super-low costs, and have set themselves apart by calling it factor-based

SEE **DECADE** PAGE 3 >

INCOME - PART II

Income Solutions

INCOME. WE ALL WANT IT. And for the mutual fund industry, including Vanguard, income is the Holy Grail of investment objectives.

Fund companies are well aware of investors' need for income, and you can bet that where product developers see a need, they will come up with a solution (or three).

Last month, Dan and I put several of Vanguard's bond and stock funds under the income microscope. This month, we're going to scrutinize Vanguard's income "solutions."

The search for solutions to the income problem is not new. **Wellesley Income**, launched in 1970, was arguably Vanguard's first income product. And despite holding just 35% of its portfolio in bonds, **Wellington** has also paid investors a steady stream of income. Of course, there is also Wellington's in-house, index-based competitor, **Balanced Index**.

SEE **INCOME** PAGE 4 >

GROWTH MODEL

	Ticker	Shares	Price	Value	%	Mo. Return
Capital Opportunity	VHCOX	3,371	\$69.04	\$232,757	22%	3.1%
Dividend Growth	VDIGX	7,885	\$27.16	\$214,143	20%	3.8%
S&P MidCap 400 Growth ETF	IVOG	1,270	\$134.49	\$170,773	16%	3.6%
S&P MidCap 400 Value ETF	IVOV	1,346	\$122.97	\$165,556	15%	3.9%
International Growth	VWIGX	4,561	\$30.01	\$136,879	13%	0.8%
Health Care	VGHCX	328	\$214.57	\$70,440	7%	2.1%
Emerging Markets Stock Index	VEIEX	1,774	\$28.21	\$50,044	5%	0.2%
Short-Term Inv.-Grade	VFSTX	2,457	\$10.65	\$26,165	2%	-0.1%
TOTAL				\$1,066,757		

CURRENT PERFORMANCE	Nov. 2.8%	YTD 21.5%	1-yr 23.3%	3-yr 10.5%	5-yr 15.3%
Risk last 24 months	1.12		Risk since inception	0.97	

Beg. Value: \$50,000 (1/1/91)

PAST PERFORMANCE

2016:	9.6%	2003:	32.0%
2015:	1.4%	2002:	-17.8%
2014:	10.9%	2001:	-6.4%
2013:	34.2%	2000:	20.4%
2012:	14.3%	1999:	36.3%
2011:	-1.4%	1998:	23.5%
2010:	14.3%	1997:	23.2%
2009:	34.4%	1996:	16.6%
2008:	-38.4%	1995:	26.1%
2007:	10.0%	1994:	-0.2%
2006:	18.4%	1993:	16.6%
2005:	11.4%	1992:	6.1%
2004:	15.7%	1991:	28.9%

This Month's Changes

None.

About our Model Portfolios The Growth portfolio is aimed at investors with long time horizons who can withstand a certain amount of monthly volatility in exchange for above-average returns. Most appropriate for younger investors who continue to add money as markets gyrate. Since inception the model has been slightly less volatile than the stock market. The **Conservative Growth** portfolio is appropriate for investors seeking to match the market's risk-adjusted returns over time. Since inception it has been just 80% as volatile as the stock market. The **Income** portfolio is designed for investors who desire a higher level of income plus the opportunity for capital growth with low risk, such as retirees or near-retirees. Since inception the model has been only two-thirds as volatile as the stock market. Returns have been substantially higher than the bond market. The **Growth Index** model is designed for young investors who wish to invest exclusively. All *Model* relative volatility figures are measured against the stock market.

When trades are recommended we will announce them on our *Hotline* and they will also appear on this page.

Our Average Vanguard Investor index (see page 1) measures the monthly performance of the typical Vanguard fund investor. The average Vanguard Investor index (VII) is a dollar-weighted performance measure for the entire Vanguard fund group, including stock, bond, balanced and money market funds. It provides a yardstick against which to measure an individual portfolio's performance.

NOTE: All returns are total returns with distributions reinvested. Flagship investors may be able to open new accounts in closed funds in the *Model Portfolios* though some may only allow a maximum of \$25,000 per year. If you don't qualify, here are some alternatives. For **Dividend Growth**, use **Dividend Appreciation Index**. With **Capital Opportunity** (and **PRIMECAP Odyssey Aggressive Growth**) closed I recommend investors consider **PRIMECAP Odyssey Growth** (POGRX) as a replacement. **PRIMECAP Odyssey Stock** (POSKX) is the preferred replacement for **PRIMECAP Core**. Both Odyssey funds can be purchased directly at www.OdysseyFunds.com or for a fee through Vanguard Brokerage.

CONSERVATIVE GROWTH MODEL

	Ticker	Shares	Price	Value	%	Mo. Return
Capital Opportunity	VHCOX	2,556	\$69.04	\$176,490	25%	3.1%
Dividend Growth	VDIGX	5,916	\$27.16	\$160,677	22%	3.8%
Short-Term Inv.-Grade	VFSTX	9,066	\$10.65	\$96,548	13%	-0.1%
International Growth	VWIGX	2,320	\$30.01	\$69,621	10%	0.8%
Health Care	VGHCX	235	\$214.57	\$50,348	7%	2.1%
High-Yield Corporate	VWEHX	8,299	\$5.93	\$49,216	7%	-0.3%
S&P MidCap 400 Value ETF	IVOV	387	\$122.97	\$47,584	7%	3.9%
S&P MidCap 400 ETF	IVOO	351	\$128.29	\$45,003	6%	3.8%
Emerging Markets Stock Index	VEIEX	835	\$28.21	\$23,548	3%	0.2%
TOTAL				\$719,033		

CURRENT PERFORMANCE	Nov. 2.3%	YTD 18.6%	1-yr 20.2%	3-yr 9.4%	5-yr 13.9%
Risk last 24 months	1.01		Risk since inception	0.83	

Beg. Value: \$50,000 (1/1/91)

PAST PERFORMANCE

2016:	9.6%	2003:	28.9%
2015:	1.2%	2002:	-16.4%
2014:	10.8%	2001:	-3.5%
2013:	29.8%	2000:	14.0%
2012:	13.8%	1999:	19.7%
2011:	1.0%	1998:	15.2%
2010:	12.0%	1997:	22.6%
2009:	29.1%	1996:	17.6%
2008:	-33.6%	1995:	21.5%
2007:	8.6%	1994:	1.1%
2006:	15.8%	1993:	14.9%
2005:	8.8%	1992:	6.5%
2004:	13.0%	1991:	26.0%

INCOME MODEL

	Ticker	Shares	Price	Value	%	Mo. Return
Dividend Growth	VDIGX	4,713	\$27.16	\$128,008	26%	3.8%
PRIMECAP Core	VPCCX	4,592	\$27.66	\$127,024	26%	3.2%
Int-Term Investment-Grade	VFICX	8,145	\$9.76	\$79,491	16%	-0.4%
High-Yield Corporate	VWEHX	7,753	\$5.93	\$45,978	9%	-0.3%
International Growth	VWIGX	1,169	\$30.01	\$35,074	7%	0.8%
Health Care	VGHCX	155	\$214.57	\$33,163	7%	2.1%
Short-Term Inv.-Grade	VFSTX	2,879	\$10.65	\$30,658	6%	-0.1%
MidCap Index	VIMSX	352	\$42.00	\$14,792	3%	3.1%
TOTAL				\$494,188		

CURRENT PERFORMANCE	Nov. 2.0%	YTD 16.2%	1-yr 17.4%	3-yr 7.8%	5-yr 10.8%
Risk last 24 months	0.70		Risk since inception	0.61	

Beg. Value: \$50,000 (1/1/91)

PAST PERFORMANCE

2016:	6.4%	2003:	19.1%
2015:	1.9%	2002:	-4.5%
2014:	11.1%	2001:	-1.1%
2013:	18.6%	2000:	-3.5%
2012:	11.5%	1999:	9.9%
2011:	5.1%	1998:	18.2%
2010:	11.2%	1997:	22.5%
2009:	21.9%	1996:	18.4%
2008:	-24.1%	1995:	28.4%
2007:	3.8%	1994:	-1.2%
2006:	10.6%	1993:	10.8%
2005:	6.2%	1992:	6.3%
2004:	8.4%	1991:	22.4%

GROWTH INDEX MODEL

	Ticker	Shares	Price	Value	%	Mo. Return
S&P MidCap 400 Growth ETF	IVOG	688	\$134.49	\$92,560	21%	3.6%
Dividend Appreciation ETF	VIG	861	\$101.12	\$87,056	20%	4.5%
S&P MidCap 400 Value ETF	IVOV	625	\$122.97	\$76,914	18%	3.9%
S&P 500 Growth ETF	VOOG	516	\$136.60	\$70,530	16%	2.8%
Total International Stock ETF	VXUS	844	\$56.19	\$47,431	11%	0.6%
Health Care ETF	VHT	200	\$155.49	\$31,153	7%	2.9%
Emerging Markets Stock ETF	VWO	451	\$44.48	\$20,043	4%	-0.3%
Short-Term Corporate ETF	VCSH	146	\$79.63	\$11,587	3%	-0.3%
TOTAL				\$437,275		

CURRENT PERFORMANCE	Nov. 3.0%	YTD 19.6%	1-yr 21.5%	3-yr 10.1%	5-yr 14.3%
Risk last 24 months	1.04		Risk since inception	1.05	

Beg. Value: \$50,000 (3/1/95)

PAST PERFORMANCE

2016:	12.0%	2005:	12.1%
2015:	-0.5%	2004:	15.1%
2014:	10.6%	2003:	28.2%
2013:	30.7%	2002:	-16.9%
2012:	14.8%	2001:	-2.4%
2011:	-0.3%	2000:	-15.6%
2010:	18.8%	1999:	21.4%
2009:	33.2%	1998:	26.7%
2008:	-40.3%	1997:	25.8%
2007:	11.7%	1996:	19.9%
2006:	16.0%		

PAST ALTERNATIVES TO CLOSED/HIGH MINIMUM FUNDS

Fund	Ticker	11/30 Price	Nov. Return	YTD Return	12-Mo. Return	3-Year Return	5-Year Return	Alternative For
Artisan MidCap	ARTMX	\$38.15	0.8%	20.6%	17.9%	6.7%	12.6%	Capital Opp.
Artisan MidCap Value	ARTQX	\$22.40	3.2%	10.7%	11.6%	6.8%	11.4%	Selected Value
Fidelity High Income	SPHIX	\$8.98	-0.1%	7.9%	10.4%	5.3%	5.4%	High-Yield Corporate
Hartford Healthcare	HGHAX	\$35.48	1.8%	22.2%	23.2%	8.3%	19.0%	Health Care
PRIMECAP Odyssey Aggressive Growth	POAGX	\$44.45	7.3%	32.8%	33.8%	15.6%	23.6%	Capital Opp.
PRIMECAP Odyssey Growth	POGRX	\$37.66	5.7%	31.5%	32.1%	14.3%	19.5%	PRIMECAP
PRIMECAP Odyssey Stock	POSKX	\$32.14	3.6%	24.2%	26.3%	12.3%	17.4%	PRIMECAP Core

The Alternative Funds in the table to the left are both current and past recommendations I've made for Vanguard funds that either closed or were saddled with high minimums. Some of these funds have subsequently closed, but many of you own them, so I've provided this performance data for your interest. Note that HGHAX is typically sold with a front-end load, though clients of private money managers can sometimes buy the fund no-load. **Please refer to the note above for my current alternative recommendations.**

investing rather than smart beta. But you and I know what it is.

Let me ask you just one question: After watching the starts and stumbles of the computer-driven **Strategic Equity** (10-year return of 136.7% versus 143.6% for **MidCap Value Index** and 137.4% for **Extended Market Index**) since its inception more than 22 years ago, or the top-of-the-rankings, bottom-of-the-rankings performance of the newer **Global Minimum Volatility**, are you really going to trust your portfolio to a bunch of “factor” ETFs, no matter how low-cost they are? I didn’t think so. Let’s learn a bit more about them before simply buying into what is essentially just a promise. Vanguard has tested these strategies in Canada and the U.K., and investors have been pretty hesitant to put much money into any one of them.

Oh, one last little note on all this: Like the “factor” versus “smart beta” labels, Vanguard is rebranding its quantitative (or computer-driven) stock group. The latest iteration is something called the Alpha Equity Investments group, which, apparently, is either the old Equity Research & Portfolio Strategies group or some new entity entirely. What Vanguard is doing is marketing its strategies as capable of adding “alpha,” or active-management outperformance. And to think that Vanguard’s index marketing all but claimed that active management was dead.

Distribution season is approaching (see pages 14 and 15); however, **Emerging Markets Bond** is standing apart from the rest and paid capital gains on the last day of November. The actively managed fund is the top-performing

bond fund in Vanguard’s stable this year, with a gain of 12.5%. But few have experienced those returns. Vanguard seeded the fund with \$10 million in March 2016, but the fund saw essentially no flows in or out on a monthly basis until someone added \$8 million in October. It’s not clear who invested that money, as Vanguard has yet to open the fund to the public. When they do, they’ll have a nifty record to run on, despite the fact that almost no one was there for it.

Fundamental Strength

As November ends, the S&P 500 index has registered 13 straight months of gains. If we see even a point or two of profit in December, 2017 will be the first calendar year of straight monthly gains since the S&P’s inception in the 1950s.

For all the hand-wringing in the media, the stock market gains reflect a fundamentally strong economy. From what I’m seeing in the economic stats both here and abroad, 2018 is shaping up nicely unless we’re derailed by an exogenous event that, by definition, we won’t see coming. Gross domestic product grew at a better than 3% annualized rate in the third quarter. New home sales surged in October to their highest level in a decade. Don’t look now, but unemployment, whether you prefer the headline number or the broader U-6 figure, is below pre-credit-crisis levels.

And it’s not just the United States. The IMF expects fewer than 10 countries to be in a recession next year. That would be the lowest number of “in-recession” countries since 1980. To put that into recent perspective, more than 90 countries tracked by the IMF were suffering recessions in 2009.

Just about the only thing we haven’t seen much of is inflation, and that puts the Fed’s mid-December meeting and expectations for one more interest-rate hike in focus. Policymakers will have to cross their fingers that they’re doing the right thing at Janet Yellen’s final meeting, given the evidence doesn’t really support another rate hike.

With just one month to year-end, 2017 is poised to go down as a very good year for investors. **500 Index** has gained 20.3%, and foreign stocks have done even better—**Total International Stock Index** is up 24.8%.

Only four Vanguard funds are in the red—**Energy ETF** (-7.5%), **Telecom Services ETF** (-6.1%), **Market Neutral** (-5.1%) and **Energy** (-0.7%).

As you can see on page 2, our *Model Portfolios* have returned between 16.2% and 21.5%. Sticking with **International Growth** paid off, as it’s up 41.6% this year, tops among Vanguard’s funds. The PRIMECAP Management-run funds have also contributed nicely, with **Capital Opportunity** and **PRIMECAP Core** returning 28.3% and 24.7%, respectively. **Dividend Growth**’s 17.7% gain and **Health Care**’s 19.4% return are just behind 500 Index’s pace, but the absolute returns are nothing to sneeze at, particularly from two funds that aren’t designed to lead when the market is running with the bulls.

Yes, there will be another recession, and we are arguably “due” for a normal 10% (or 2,427 Dow points!) correction in the stock market at some point. Jeff and I will talk about our concerns in next month’s *Outlook*—but, as I said at the top, there is plenty to be thankful for this year. ■

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More recently, Vanguard has expanded its income line-up to include **STAR LifeStrategy Income, Target Retirement Income and Managed Payout.**

How do these income options compare to the funds I identified last month as “winners” in the search for the Holy Grail, **High-Yield Corporate and High-Yield Tax-Exempt?**

If you haven’t read the November issue’s income story or if you need a refresher, now is a good time to get up to speed. As I did last time, I’ll run this set of funds through three different scenarios to determine which might best meet the needs of an investor looking to live off of their investment income.

Let’s start with a \$10,000 investment in each fund made at the end of June 2008 and follow that money through September 2017. Last month, our analysis began at the end of 2006, but I’ve shortened the timeframe for the funds in this piece because Managed Payout launched in June 2008.

In the first case, all distributions made by the funds, whether they’re dividends or capital gains, are withdrawn. This means that you have the same number of shares at the end of September 2017 as you did at the start. This is the “total income” picture.

Second, to get a sense of the “predictable income” picture, I look at a scenario where you only withdraw dividends, while reinvesting capital gains. Capital gains are erratic, but reinvesting them at least results in acquiring more shares over time.

Finally, as the tax man takes his cut, I’ve taken a look at what happens when you apply taxes to the dividends and capital gains paid out in the first scenario. I used a 20% tax rate for long-term gains and qualified dividends, which a portion of these funds’ dividends are, and the top 43.4% rate to short-term gains and interest.

Just a reminder: In last month’s analysis I applied that same 43.4% tax rate to the distributions paid out by High-Yield Corporate while assuming all the distributions from High-Yield Tax-Exempt were tax-free.

Tough To Beat High-Yield for Income

Income Funds	—NO REINVESTMENT—			—REINVEST— —CAPITAL GAINS—	
	Total Income Pre-Tax	Total Income After-Tax	Final Portfolios’ Value	Total Income	Final Portfolio Value
High-Yield Corporate	\$6,148	\$3,492	\$10,773	\$6,097	\$10,833
Managed Payout	\$4,895	\$3,666	\$9,863	\$4,005	\$10,922
High-Yield Tax-Exempt	\$3,971	\$3,971	\$11,071	\$3,971	\$11,071
Wellesley Income	\$4,953	\$3,440	\$13,094	\$3,808	\$14,626
Wellington	\$4,782	\$3,501	\$13,887	\$3,070	\$16,070
STAR LifeStrategy Income	\$3,000	\$1,921	\$11,392	\$2,433	\$12,084
Balanced Index	\$2,398	\$1,694	\$16,485	\$2,398	\$16,485
Target Retirement Income	\$2,765	\$1,822	\$12,533	\$2,275	\$13,104
Stock Funds					
REIT Index	\$4,146	\$2,371	\$14,256	\$4,146	\$14,256
High Dividend Yield Index	\$3,544	\$2,835	\$18,933	\$3,544	\$18,933
Equity Income	\$4,822	\$3,804	\$17,118	\$3,381	\$19,099
Convertible Securities	\$5,448	\$3,618	\$10,212	\$2,968	\$13,381
Dividend Appreciation Index	\$2,500	\$2,000	\$18,946	\$2,500	\$18,946
Dividend Growth	\$3,560	\$2,801	\$18,648	\$2,436	\$20,023

Note: Assumes initial \$10,000 investment in each fund, made at the end of June 2008 and held through September 30, 2017. Final portfolios’ value under No Reinvestment applies to both pre-tax and after-tax scenarios.

The income paid out by the balanced funds—Wellington, Wellesley Income, STAR LifeStrategy Income, Target Retirement Income and Balanced Index—is a mix of qualified and non-qualified income, so I applied a blended tax rate to each fund’s distributions based on its history. I also applied a custom tax rate to the income paid out by Managed Payout. Why? Portions of the fund’s distributions (about 40%) have been classified as “return of capital” because the fund has paid out more income than its portfolio generated. A return of capital distribution is not a taxable event, but has the effect of lowering your cost basis, which could result in a bigger tax bill when you sell the fund.

The table above summarizes the total income generated and the portfolios’ final values for the three different scenarios. Note that the final portfolio value is the same for scenarios with no reinvestment because taxes were only applied to the income paid. To limit redundancy I’ve grouped those two scenarios’ portfolio values together. Additionally, to make the comparison easier for you (and since it’s a shorter time period) I’ve also included the stock funds we looked at last month.

Once again, the two high-yield bond funds are difficult to beat if you are looking for income. Before taxes, High-

Yield Corporate is the winner by a wide margin, and it’s competitive even after taxes. And it is worth mentioning that to be conservative I applied the highest possible tax rate to the fund’s distributions. Everyone’s situation is different, but it’s likely that if you are retired, you will not be in the highest tax bracket, and hence you’ll keep more of the fund’s payout.

Old-timers Wellington and Wellesley Income deserve some applause. They’ve paid out a high level of income and grown your \$10,000 nicely. Balanced Index has also grown your initial investment, but didn’t distribute anywhere near the same level of income.

Despite being billed as income solutions, STAR LifeStrategy Income and Target Retirement Income are near the bottom of the scoreboard—they delivered half of the income of High-Yield Corporate and roughly as much as Balanced Index and **Dividend Appreciation Index.** With more than \$26 billion between them, these income solutions have been better for Vanguard than they’ve been for their investors. They just aren’t that successful when it comes to paying out income.

Of Vanguard’s newer income solutions, only Managed Payout has supplied a competitive level of income. But as I noted, it’s done so by returning your capital to you rather than generating it from its investments. If all you care about is

that the distribution hits your account, a return of capital may not be an issue, but it does demonstrate how hard it can be to deliver on the income promise. Managed Payout reflects some of the newest thinking in portfolio construction and is a complicated portfolio for Vanguard to manage, employing hedge-fund-like strategies. It sounds impressive, but the results haven't been much, if any, better than the tried-and-true Wellesley Income and its bonds-plus-stocks strategy.

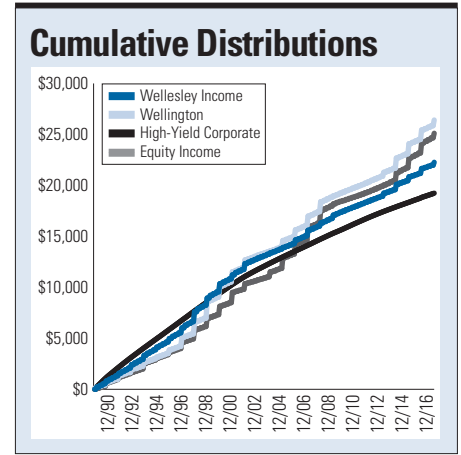
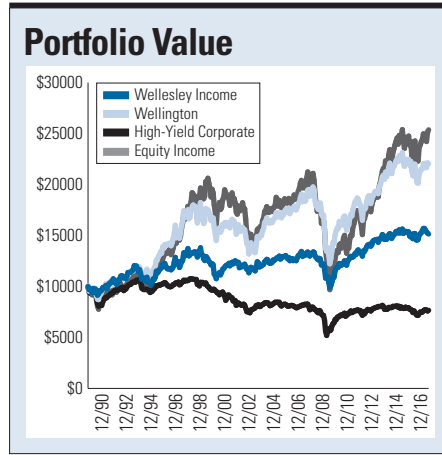
In my estimation, High-Yield Corporate remains at the top of the heap for an investor looking to live off their income today.

But that's not the full story. You may recall that just last month I suggested that investors seeking to live off their income for decades might still want to hold some stocks. Let me elaborate on why I say that.

The first chart above shows the growth of a \$10,000 investment in High-Yield Corporate, Wellington, Wellesley Income and **Equity Income** from the end of 1989 through 2016, assuming all distributions, both dividends and capital gains, went to cash—no reinvestment. The second chart shows the growth in the funds' income generation.

You can see that, after a decade, the two balanced funds had distributed as much income as High-Yield Corporate. Equity Income's income surpassed that of the bond fund five years or so after that.

All three funds with some stocks in the mix grew your portfolio, while the bond fund did not. And that's important. Inflation can have a big impact on your portfolio and the income it generates over a longer period like this. Plus, a greater portfolio value can come in



handy should an unexpected bill (such as a health care expense) come your way later in retirement.

Before drawing a concrete and final conclusion, of course, keep in mind that my analysis covers just one time period. Even my longer-term analysis from 1989 through 2016 reflects an extended run of declining interest rates. If interest rates rise, we can expect to see High-Yield Corporate's payouts trend higher, not lower. So, any conclusions should be tempered by acknowledging that what the markets have handed us in the past may not be what we see in the future—or, in common industry parlance, past returns are no guarantee of future returns.

That said, here is what I take away from my income exploration over the last two months:

If you are looking for income today, High-Yield Corporate is tough to beat. And for investors in high tax brackets, consider High-Yield Tax-Exempt. However, if you have a longer time horizon, I think it's imperative that you own some stocks—and that you shift your focus from "income" to total returns.

Also, be leery of purported "income

solutions." Two of Vanguard's income funds, STAR *LifeStrategy* Income and Target Retirement Income, have not delivered much income to investors. Given their commitment to building their portfolios from investment-grade, government-bond-heavy index funds, I wouldn't expect these two funds to suddenly improve their payouts.

Managed Payout has been competitive, but given its complexity and patchy history (remember, there were originally three Managed Payout funds that were merged into one), I'd still be cautious—particularly when an old classic like Wellesley Income has been just as effective without all the mumbo-jumbo and returns of capital.

Finally, and you knew this was coming, investors must focus on more than just income. Income is only one piece of the return equation. You should never ignore capital appreciation.

Whether it's generating current income or long-term gains, Dan and I will continue to advise you on just how to build a portfolio from Vanguard's best products, and how to avoid the hype and false promises of its worst. ■

ANNIVERSARY

Short TIPS Fund Falls Short

A LITTLE OVER FIVE YEARS AGO, Vanguard launched **Short-Term Inflation-Protected Securities Index**, bringing to life a little stepbrother to actively managed behemoth **Inflation-Protected Securities**.

It has been a forgettable five years for the index fund.

I'll explain, but first it helps to understand exactly what TIPS, or Treasury Inflation-Protected Securities, are. As their name implies, TIPS are Treasury

bonds. Like traditional Treasuries, they essentially have no default risk. However, unlike plain-vanilla Treasury bills, bonds and notes, there is an inflation-indexed component to these bonds. The prices of TIPS are adjusted >

➤ every six months based on the recent rate of inflation. When inflation is rising, TIPS prices go up. While the bond's interest (or coupon) rate remains constant, the rising principal amount means your payout also increases. The idea behind these bonds is that investors' real returns, or returns above and beyond inflation, should remain constant.

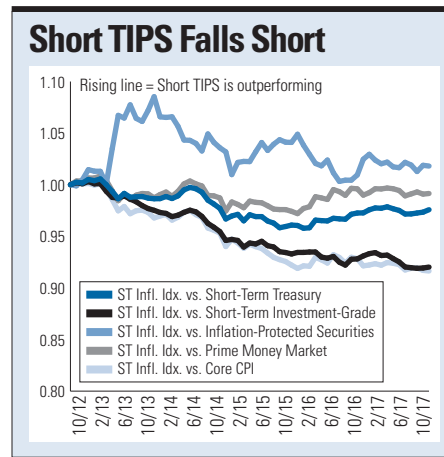
Short-Term Inflation Index (I'm shortening the name to make this easier), mimics an index of TIPS maturing in the near future. Specifically, the fund aims to track the Bloomberg Barclays U.S. Treasury Inflation-Protected Securities 0–5 Year index.

When Short-Term Inflation Index launched, Dan and I said that it “could be seen as a money-market alternative for investors who don't have an immediate plan to use their cash, but don't want to venture too far out into the bond universe—preferring to invest in something that at least guarantees, or comes close to guaranteeing, they won't lose value to inflation.” We were hardly bullish on the fund.

Unfortunately, Short-Term Inflation Index failed even to clear that low bar in its first five years. Let's take a look.

The chart above compares Short-Term Inflation Index's performance against a handful of in-house peers and against inflation. A rising line means Short-Term Inflation Index is outperforming. With a total return (not an annualized return, but a cumulative total return!) of just 0.5% in its first five years (through October), Short-Term Inflation Index didn't do much outperforming of anything. It trailed **Prime Money Market's** 1.4% gain and **Short-Term Treasury's** 3.0% return. The fund fell well short of inflation, as prices (measured by core CPI) rose 9.7% over the last five years. The sole fund charted that competed with inflation was **Short-Term Investment-Grade**, which gained 9.2%. Short-Term Inflation Index only looks good compared to its big brother, Inflation-Protected Securities, which lost a total 1.3% over the last five years.

To add insult to injury, the index fund has not paid out quarterly income on a regular basis and failed to pay any



distribution for all of 2015. If the index fund pays out income in December, it will be the first distribution of 2017, and only its fifth payout in 21 calendar quarters.

Why has performance been so poor? Blame it partly on the fact that yields are low across the bond-market spectrum. Remember, TIPS are meant to reflect the real, or after-inflation, yield. When short-term Treasury bonds are yielding less than inflation, investors are, for better or worse, accepting a negative return after inflation. This was the case for most of Short-Term Inflation Index's first five years. The fund sported a negative SEC yield for 52 of its first 60 months.

Despite this poor performance record, investors have funneled over \$22 billion into Short-Term Inflation Index—that's a successful fund launch even by Vanguard standards. Yes, about \$5 billion is attributable to Vanguard's decision in May 2013 to use the fund as a replacement for Inflation-Protected Securities and Prime Money Market in the Target Retirement funds. If you exclude the Vanguard-directed assets, only \$225 million or so has been invested directly in the fund's Investor shares. However, investors have put over \$16 billion into the fund's Admiral, ETF and Institutional shares. So it isn't all “Vanguard's” money in the pot.

Short-Term Inflation Index's popularity leaves me scratching my head. My best guess is that investors are blindly following a diversification recipe that calls for a “real return” or inflation-protection holding at all times. Yes, in theory, this fund's income should be

protected if inflation picks up. But in practice it has failed to keep up with inflation in what has been a benign environment.

Personally, I'd rather own Short-Term Investment-Grade. It may not respond as quickly as the inflation fund if and when inflation rears its head, but given that the corporate-heavy fund owns short-maturity bonds, its portfolio turns over regularly. This means that if interest rates rise with inflation, this fund will see its income increase as well. On top of that, you're at least earning some income with Short-Term Investment-Grade today, rather than waiting and hoping for more income from Short-Term Inflation Index.

Could the next five years be better for Short-Term Inflation Index? Of course. Rising interest rates could result in a positive yield for the fund. And it's possible that inflation will catch hold. If you're considering an inflation fund, one measurement that's always worth looking at is the spread (or difference) between the inflation fund's current yield and that of a Treasury fund with a similar maturity. When the spread is small (i.e., the regular Treasury fund's yield is only slightly higher than the inflation fund's yield), you aren't paying much of a premium for inflation protection, making the TIPS fund relatively attractive. When the spread is large, you are paying a much bigger premium for that protection, and it may not be worth doing.

Today, the difference in yield between Short-Term Inflation Index and Short-Term Treasury is 1.61%, or 161 basis points. The average spread over the last five years has been 1.29%, suggesting that insurance for inflation protection is expensive today.

Not only does Short-Term Inflation Index not look particularly attractive in this relative comparison, but consider its yield of -0.11%. Given it still has a negative yield, I wouldn't expect this fund to do much beyond preserving the present value of your money, in inflation-adjusted terms—and even that has proven to be a tall order.

I can only hope that when the fund marks its 10th birthday, the results will have inflated a bit. ■

Not Your Average Bond Fund

SOME ANNIVERSARIES are worth forgetting—see the **Short-Term Inflation-Protected Securities Index** story starting on page 5 for a textbook example.

Others are worth celebrating: In December, **Extended Duration Treasury ETF** will complete a wild, but also very successful first 10 years.

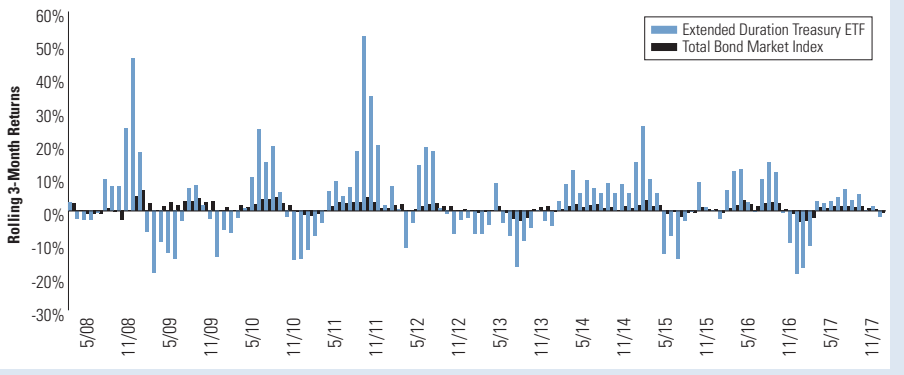
From the end of December 2007 through November, Extended Duration Treasury ETF's 118.7% gain is tops among all of Vanguard's bond funds. Heck, this bond ETF has nearly kept pace with **500 Index**'s 121.0% gain.

I wouldn't party too hard, though, as the fund could also leave you with a nasty hangover.

Extended Duration Treasury ETF's portfolio consists of long-maturity zero-coupon Treasury bonds. These bonds don't pay any interest, and typically trade at a discount to their face value. Because you don't receive any interest, the bonds trade solely on price, and hence are very, very sensitive to changes in interest rates. The fund's 24.5-year duration is in a league of its own. (Remember, duration indicates how much we can expect a bond fund's price to rise or fall if interest rates move by 1%. By way of example, **Total Bond Market Index**'s duration is 6.1 years.)

This is certainly not your grandmother's Treasury fund. Extended Duration Treasury ETF is designed as a tool for pension funds to provide them with a long-duration asset to match against their long-term liabilities. Vanguard considers the fund an institutional strategy, which is why you won't find low-minimum Investor shares nor slightly higher-minimum Admiral shares of the fund. The primary investment vehicles are two institutional-only mutual funds with buy-ins of \$5 million and \$100 million. However, as you can clearly see, the ETF shares allow gamblers to hitch a ride. And I say that because earning those returns took some serious fortitude for investors, or serious luck for traders.

Extended Duration Treasury's Wild Ride



Consider that an investor who bought Extended Duration Treasury ETF at the end of February 2009, the end of the credit crisis, has had to deal with five separate bear-market declines of 20% or greater since then—with a bond fund!

Or keep in mind that in five of the past nine calendar years, the fund has generated double-digit gains or losses—and 2017 is on course to make it six out of 10. Even a calm-looking year like 2016, when the fund gained just 1.6%, was anything but placid. The fund ran up 27.6% in the first seven months and then tumbled 20.4% in the final five. Extended Duration Treasury ETF moved 20% or more in a single month four times in its first decade.

Or check out the chart above, showing the rolling three-month returns for

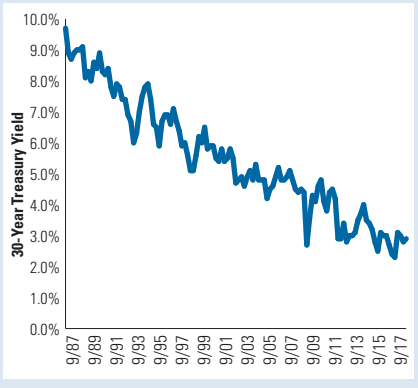
Extended Duration Treasury ETF and Total Bond Market Index. Extended Duration Treasury ETF's three-month returns ranged from -18.9% to 52.7%, dwarfing Total Bond Market Index's returns, which ran between -3.5% and 6.3%. Like I said, this isn't your grandmother's Treasury fund.

If those stats don't have you thinking twice before jumping into Extended Duration Treasury ETF, remember that since inception, the fund has had an enormous tailwind at its back—falling interest rates. The chart to the left shows how the 30-Year Treasury's yield has trended lower over the past three decades. A decade ago, when Extended Duration Treasury ETF launched, the 30-Year Treasury yielded 4.5%. Today it's 2.8%. (The benchmark 10-Year Treasury yield has fallen from 4.1% a decade ago to 2.4% today.)

Those falling yields have pushed bond prices higher, and Extended Duration Treasury ETF has been, as I said, the biggest beneficiary. While it is possible that the next 10 years will be as good to Extended Duration Treasury ETF as the last, I think it's highly unlikely.

I don't have a crystal ball when it comes to interest rates, but I am certain that investors in Extended Duration Treasury ETF are in for a turbulent ride. You need a stronger stomach than mine to weather the ups and downs that this fund delivers. ■

Tailwind of Falling Yields



VANGUARD EQUITY FUNDS

Fund (fund #)	Ticker	Minimum	Loads	Advice	11/30 Price	Nov. Return	YTD Return	12-Mo. Return	3-Year Return	5-Year Return	12-Mo. Yield	Risk
ALTERNATIVE/SECTOR												
Alternative Strategies (1298)†	VASFX	\$250K	—	—	\$20.32	-0.7%	0.5%	1.1%	—	—	0.4%	0.58
Market Neutral (634)	VMNFX	\$250K	—	Sell	\$11.76	-1.0%	-5.1%	-3.9%	0.8%	2.9%	0.4%	0.63
Energy (51)	VGENX	\$3K	—	Hold	\$53.27	1.5%	-0.7%	0.8%	0.1%	1.3%	1.9%	2.11
Precious Metals & Mining (53)	VGPMX	\$3K	—	Sell	\$9.96	-1.1%	6.0%	5.3%	4.2%	-8.0%	0.0%	4.58
Health Care (52)	VGHGX	\$3K	—	Buy	\$214.57	2.1%	19.4%	19.8%	6.7%	17.7%	0.8%	1.56
REIT Index (123)	VGSIX	\$3K	—	Hold	\$28.04	2.6%	5.1%	10.0%	5.9%	9.9%	4.5%	1.55
Global ex-U.S. Real Estate Index (738)	VGXRX	\$3K	0.25%/0.25%r	Hold	\$24.19	1.7%	22.3%	22.5%	6.1%	6.3%	3.3%	1.32
AGGRESSIVE GROWTH												
Capital Opportunity (111) (CLOSED)	VHCOX	\$3K	—	Buy	\$69.04	3.1%	28.3%	30.7%	13.2%	20.2%	0.5%	1.55
Explorer (24)	VEXPX	\$3K	—	Hold	\$105.39	3.2%	21.8%	22.8%	9.8%	15.0%	0.3%	1.56
Explorer Value (1690)	VEVFX	\$3K	—	Hold	\$37.64	1.7%	12.1%	14.7%	10.2%	14.3%	0.8%	1.60
MidCap Growth (301)	VMGRX	\$3K	—	Sell	\$27.36	3.2%	22.1%	22.0%	7.1%	13.1%	0.5%	1.37
SmallCap Growth Index (861)	VISGX	\$3K	—	Buy	\$45.26	3.0%	21.5%	22.2%	9.6%	14.0%	0.8%	1.53
SmallCap Index (48)	NAESX	\$3K	—	Hold	\$70.85	3.1%	15.7%	17.8%	10.0%	14.9%	1.2%	1.54
SmallCap Value Index (860)	VISVX	\$3K	—	Hold	\$31.86	3.1%	11.1%	14.2%	10.3%	15.5%	1.6%	1.61
Strategic Equity (114)	VSEQX	\$3K	—	Hold	\$36.55	2.6%	12.9%	16.0%	9.7%	16.7%	1.4%	1.61
Strategic SmallCap Equity (615)	VSTCX	\$3K	—	Hold	\$38.05	2.1%	10.3%	13.9%	9.4%	15.6%	1.2%	1.77
Admiral Tax-Managed SmallCap (116)	VMTSX	\$10K	—	Sell	\$62.21	3.4%	13.7%	17.4%	13.0%	16.8%	1.0%	1.80
GROWTH												
Capital Value (328)	VCVLX	\$3K	—	Buy	\$13.39	3.2%	11.5%	12.9%	3.8%	12.3%	1.5%	1.61
Extended Market Index (98)	VEXMX	\$3K	—	Sell	\$84.78	2.9%	17.4%	19.5%	9.9%	14.9%	1.1%	1.55
Growth Index (9)	VIGRX	\$3K	—	Buy	\$72.06	2.5%	26.7%	28.1%	11.1%	15.8%	1.1%	1.18
MidCap Growth Index (832)	VMGIX	\$3K	—	Buy	\$50.31	2.8%	21.8%	22.0%	8.6%	14.5%	0.7%	1.34
MidCap Index (859)	VIMSX	\$3K	—	Hold	\$42.00	3.1%	18.0%	18.8%	9.0%	15.2%	1.2%	1.28
MidCap Value Index (835)	VMVIX	\$3K	—	Hold	\$43.36	3.4%	14.8%	16.0%	9.3%	15.8%	1.7%	1.27
Morgan Growth (26)	VMRGX	\$3K	—	Hold	\$31.46	2.0%	29.1%	29.9%	12.1%	16.4%	0.6%	1.20
PRIMECAP (59) (CLOSED)	VPMCX	—	—	Buy	\$134.44	3.3%	28.0%	30.2%	13.1%	19.6%	1.0%	1.26
PRIMECAP Core (1220) (CLOSED)	VPCCX	—	—	Buy	\$27.66	3.2%	24.7%	27.2%	12.1%	18.4%	1.0%	1.24
Selected Value (934)	VASVX	\$3K	—	Hold	\$33.90	2.3%	17.8%	20.1%	9.8%	14.9%	1.4%	1.47
Social Index (213)	VFTSX	\$3K	—	Hold	\$17.37	2.8%	22.8%	24.9%	11.2%	17.2%	1.5%	1.12
Admiral Tax-Mgd. Capital App. (5102)	VTCLX	\$10K	—	Sell	\$136.46	3.1%	21.1%	23.4%	11.2%	16.0%	1.6%	1.06
U.S. Growth (23)	VWUSX	\$3K	—	Hold	\$38.13	2.4%	30.9%	30.9%	11.8%	16.8%	0.3%	1.22
GROWTH & INCOME												
500 Index (40)	VFINX	\$3K	—	Buy	\$245.24	3.1%	20.3%	22.7%	10.8%	15.6%	1.8%	1.00
Convertible Securities (82)	VCVSX	\$3K	—	Sell	\$13.73	0.3%	8.9%	9.9%	4.4%	7.3%	1.3%	0.75
Diversified Equity (608)	VDEQX	\$3K	—	Sell	\$36.55	2.8%	21.5%	22.8%	9.8%	15.2%	1.1%	1.17
Dividend Appreciation Index (602)	VDAIX	\$3K	—	Buy	\$40.45	4.5%	20.5%	21.8%	9.7%	13.4%	1.9%	0.88
Dividend Growth (57) (CLOSED)	VDIGX	\$3K	—	Buy	\$27.16	3.8%	17.7%	19.2%	9.0%	13.9%	1.9%	0.87
Equity Income (65)	VEIPX	\$3K	—	Hold	\$37.36	3.0%	16.7%	19.9%	10.3%	14.5%	2.4%	0.90
Growth & Income (93)	VGNPX	\$3K	—	Hold	\$49.08	3.1%	19.4%	21.4%	10.8%	15.8%	1.6%	1.03
High Dividend Yield Index (623)	VHDYX	\$3K	—	Hold	\$33.69	3.1%	14.8%	18.1%	10.0%	14.7%	2.8%	0.89
LargeCap Index (307)	VLACX	\$3K	—	Buy	\$49.15	3.0%	20.5%	22.8%	10.6%	15.5%	1.7%	1.02
Total Stock Market Index (85)	VTSMX	\$3K	—	Hold	\$66.35	3.0%	19.9%	22.2%	10.6%	15.5%	1.7%	1.08
U.S. Value (124)	VUVLX	\$3K	—	Hold	\$20.43	3.0%	11.6%	14.9%	8.8%	14.9%	1.9%	1.35
Value Index (6)	VIVAX	\$3K	—	Hold	\$41.05	3.5%	15.3%	18.3%	10.1%	15.3%	2.2%	1.04
Windsor (22)	VWNDX	\$3K	—	Hold	\$24.04	2.8%	18.0%	20.1%	8.7%	15.0%	1.8%	1.43
Windsor II (73)	VWNFX	\$3K	—	Hold	\$39.83	2.6%	14.5%	16.3%	7.7%	13.2%	2.0%	1.11
BALANCED												
Balanced Index (2)	VBINX	\$3K	—	Hold	\$34.63	1.8%	12.9%	14.2%	7.2%	9.9%	1.9%	0.64
Global Wellesley Income (1496)	VGWIX	\$3K	—	Hold	\$20.04	0.2%	—	—	—	—	—	—
Global Wellington (1567)	VGWLX	\$3K	—	Hold	\$20.17	0.9%	—	—	—	—	—	—
Managed Payout (1498)	VPGDX	\$25K	—	Sell	\$18.98	0.9%	12.1%	13.6%	5.7%	8.2%	3.6%	0.57
STAR (56)	VGSTX	\$1K	—	Hold	\$27.53	1.4%	17.1%	18.1%	7.3%	9.8%	1.8%	0.75
STAR Conservative Growth (724)	VSCGX	\$3K	—	Sell	\$20.02	0.9%	10.1%	11.2%	5.1%	6.5%	2.1%	0.46
STAR Growth (122)	VASGX	\$3K	—	Sell	\$33.67	1.7%	17.8%	19.7%	7.7%	10.7%	2.0%	0.84
STAR Income (723)	VASIX	\$3K	—	Sell	\$15.63	0.4%	6.4%	7.1%	3.7%	4.3%	2.1%	0.34
STAR Moderate Growth (914)	VSMGX	\$3K	—	Sell	\$27.24	1.3%	13.9%	15.3%	6.4%	8.6%	2.0%	0.64
Admiral Tax-Managed Balanced (103)	VTMFX	\$10K	—	Sell	\$30.59	1.1%	11.5%	13.2%	6.6%	8.7%	2.0%	0.49
Wellesley Income (27)	VWINX	\$3K	—	Hold	\$27.19	1.1%	9.0%	10.5%	6.0%	7.1%	2.8%	0.45
Wellington (21)	VWELX	\$3K	—	Buy	\$43.45	1.8%	13.3%	15.7%	7.9%	10.8%	2.3%	0.68
TARGET RETIREMENT												
Target Retirement 2065 (1791)	VTSX	\$1K	—	—	\$21.59	1.9%	—	—	—	—	—	—
Target Retirement 2060 (1691)	VTTX	\$1K	—	—	\$34.79	1.9%	19.8%	22.0%	8.3%	11.7%	1.6%	0.94
Target Retirement 2055 (1487)	VFFVX	\$1K	—	—	\$39.43	1.9%	19.8%	22.0%	8.3%	11.7%	1.7%	0.94
Target Retirement 2050 (699)	VFIIX	\$1K	—	—	\$36.42	1.9%	19.8%	22.0%	8.3%	11.8%	1.6%	0.94
Target Retirement 2045 (306)	VTIVX	\$1K	—	—	\$22.64	1.9%	19.9%	22.0%	8.3%	11.7%	1.6%	0.94
Target Retirement 2040 (696)	VFORX	\$1K	—	—	\$36.01	1.8%	19.2%	21.3%	8.1%	11.6%	1.7%	0.93
Target Retirement 2035 (305)	VTHHX	\$1K	—	—	\$20.88	1.7%	17.7%	19.6%	7.6%	11.0%	1.7%	0.85
Target Retirement 2030 (695)	VTHRX	\$1K	—	—	\$33.94	1.5%	16.2%	18.0%	7.2%	10.2%	1.7%	0.77
Target Retirement 2025 (304)	VTVVX	\$1K	—	—	\$18.76	1.4%	14.7%	16.3%	6.7%	9.4%	1.7%	0.70
Target Retirement 2020 (682)	VTWVX	\$1K	—	—	\$31.94	1.1%	13.0%	14.4%	6.1%	8.6%	1.7%	0.62
Target Retirement 2015 (303)	VTXVX	\$1K	—	—	\$16.05	0.9%	10.6%	11.8%	5.1%	7.3%	1.8%	0.51
Target Retirement Income (308)	VTINX	\$1K	—	—	\$13.65	0.6%	7.8%	8.7%	4.1%	4.9%	1.9%	0.37
INTERNATIONAL/GLOBAL												
Developed Markets Index (1397)	VDEVX	\$3K	—	Sell	\$11.08	0.9%	24.2%	27.3%	6.9%	—	2.4%	1.22
Emerging Markets Stock Index (533)	VEIEX	\$3K	—	Buy	\$28.21	0.2%	26.7%	26.5%	4.3%	3.8%	2.1%	1.66
Emerging Markets Select Stock (752)	VMMSX	\$3K	—	Hold	\$22.60	0.2%	28.9%	29.3%	6.2%	5.0%	1.1%	1.70
European Index (79)	VEURX	\$3K	—	Hold	\$31.48	0.1%	25.0%	30.9%	5.1%	7.9%	2.4%	1.42
Global Equity (129)	VHGX	\$3K	—	Hold	\$31.30	1.1%	26.1%	28.0%	9.7%	12.9%	1.2%	1.14
Global Minimum Volatility (1194)	VMMFX	\$3K	—	Buy	\$13.80	1.7%	15.6%	17.4%	9.8%	—	2.3%	0.69
International Dividend Appreciation Index (2015)	VIAIX	\$3K	0.25%/0.25%r	Hold	\$26.27	2.2%	26.2%	28.1%	—	—	1.5%	—
International Explorer (126)	VINEX	\$3K	—	Hold	\$21.97	0.5%	34.5%	36.6%	12.6%	13.5%	1.4%	1.51
International Growth (81)	VWIGX	\$3K	—	Buy	\$30.01	0.8%	41.6%	42.0%	10.9%	11.5%	0.9%	1.60
International High Dividend Yield Index (1530)	VHIX	\$3K	0.25%/0.25%r	Hold	\$26.36	0.3%	19.8%	23.5%	—	—	2.9%	—
International Value (46)	VTRIX	\$3K	—	Hold	\$39.87	1.6%	25.6%	27.5%	5.3%	7.9%	1.8%	1.22
Pacific Index (72)	VPACX	\$3K	—	Hold	\$13.84	2.1%	26.5%	26.0%	9.9%	9.8%	2.1%	1.23
Total International Stock Index (113)	VTGSX	\$3K	—	Hold	\$18.04	0.7%	24.8%	27.3%	6.4%	7.5%	2.5%	1.21
Total World Stock Index (628)	VTWSX	\$3K	—	Hold	\$29.97	1.9%	22.2%	24.6%	8.5%	11.3%	2.0%	1.06
World ex-U.S. Index (770)	VFWIX	\$3K	—	Sell	\$21.32	0.7%	24.6%	27.2%	6.1%	7.2%	2.4%	1.21
World ex-U.S. SmallCap Index (1684)	VFSVX	\$3K	—	Hold	\$44.83	1.1%	26.5%	28.2%	9.0%	8.9%	2.3%	1.27

VANGUARD INCOME FUNDS

Fund (fund #)	Ticker	Advice	Avg. Mat.	11/30 Price	Nov. Return	YTD Return	12-Mo. Return	3-Year Return	5-Year Return	12-Mo. Yield	SEC Yield	Tax Equivalent Yield					Risk	
												25%	28%	36.8%*	38.8%*	43.4%*		
TAXABLE INCOME																		
Ultra-Short-Term Bond (1492)	VUBFX	Buy	1.0	\$9.99	0.1%	1.2%	1.3%	—	—	1.4%	1.71%	—	—	—	—	—	0.10	
Short-Term Treasury (32)	VFISX	Sell	2.1	\$10.57	-0.3%	0.5%	0.5%	0.6%	0.5%	1.1%	1.50%	—	—	—	—	—	0.35	
Short-Term Federal (49)	VSGBX	Sell	2.6	\$10.63	-0.3%	0.7%	0.6%	0.8%	0.7%	1.3%	1.62%	—	—	—	—	—	0.37	
Short-Term Inflation Index (1967)	VTIPX	Hold	2.6	\$24.77	-0.2%	0.6%	0.9%	0.5%	0.0%	0.5%	-0.11%	—	—	—	—	—	0.47	
Short-Term Investment-Grade (39)	VFSTX	Buy	3.1	\$10.65	-0.1%	2.0%	2.1%	1.8%	1.7%	1.9%	2.11%	—	—	—	—	—	0.44	
Short-Term Bond Index (132)	VBISX	Hold	2.9	\$10.39	-0.3%	1.1%	1.1%	1.0%	0.9%	1.6%	1.85%	—	—	—	—	—	0.46	
Inflation-Protected Sec. (119)	VIPSX	Hold	8.5	\$13.12	0.1%	1.9%	1.8%	1.2%	-0.3%	4.2%	0.15%	—	—	—	—	—	1.13	
Intermed. Treasury (35)	VFITX	Sell	5.6	\$11.08	-0.4%	1.5%	1.4%	1.3%	1.0%	1.7%	1.91%	—	—	—	—	—	1.13	
Intermed. Investment-Grade (71)	VFICX	Buy	6.1	\$9.76	-0.4%	3.8%	4.0%	3.0%	2.7%	2.7%	2.67%	—	—	—	—	—	1.04	
Intermed.-Term Bond Index (314)	VBIIIX	Hold	7.2	\$11.36	-0.4%	3.4%	3.5%	2.4%	2.0%	2.5%	2.57%	—	—	—	—	—	1.30	
Total Bond Market (84)	VBMFX	Hold	8.3	\$10.73	-0.2%	3.0%	3.3%	2.0%	1.8%	2.4%	2.40%	—	—	—	—	—	1.00	
Core Bond (1320)	VCORX	Buy	7.5	\$9.95	-0.2%	3.3%	3.4%	—	—	2.1%	2.40%	—	—	—	—	—	—	
GNMA (36)	VFHIX	Hold	6.6	\$10.46	-0.2%	1.6%	1.7%	1.7%	1.8%	2.6%	2.73%	—	—	—	—	—	0.62	
Long-Term Treasury (83)	VUSTX	Sell	24.7	\$12.22	0.6%	6.7%	6.3%	3.0%	2.6%	2.6%	2.54%	—	—	—	—	—	3.31	
Long-Term Investment-Grade (28)	VWESX	Hold	23.7	\$10.62	0.4%	9.6%	10.8%	5.5%	5.0%	3.9%	3.54%	—	—	—	—	—	2.25	
Long-Term Bond Index (522)	VBLTX	Sell	24.2	\$14.19	0.5%	8.7%	9.5%	4.3%	3.7%	3.7%	3.47%	—	—	—	—	—	2.54	
High-Yield Corporate (29)	VWEHX	Buy	7.6	\$5.93	-0.3%	6.7%	8.2%	5.3%	5.3%	5.3%	4.92%	—	—	—	—	—	1.27	
Emerging Mkts. Gov't Bond Ixd. (1120)**	VGOVX	Buy	10.1	\$10.06	-0.2%	7.8%	9.0%	5.3%	—	—	4.5%	3.93%	—	—	—	—	1.67	
Emerging Markets Bond (1431)	VEMBX	—	10.5	\$10.62	0.4%	12.5%	14.1%	—	—	—	4.0%	3.70%	—	—	—	—	—	
Total International Bond Index (1231)	VTIBX	Hold	9.2	\$10.99	0.4%	2.3%	2.8%	3.0%	—	1.6%	0.69%	—	—	—	—	—	0.93	
MONEY MARKET																		
Treasury Money Market (11)	VUSXX	—	58.0	\$1.00	0.1%	0.7%	0.7%	0.3%	0.2%	0.7%	1.09%	—	—	—	—	—	—	
Federal Money Market (33)	VMFXX	—	55.0	\$1.00	0.1%	0.7%	0.7%	0.4%	0.2%	0.7%	1.07%	—	—	—	—	—	—	
Prime Money Market (30)	VMMXX	—	51.0	\$1.00	0.1%	0.9%	1.0%	0.5%	0.3%	1.0%	1.20%	—	—	—	—	—	—	
Municipal Money Market (45)	VMSXX	—	38.0	\$1.00	0.1%	0.6%	0.7%	0.3%	0.2%	0.7%	0.86%	1.1%	1.2%	1.4%	1.4%	1.5%	—	
CA Municipal Money Market (62)	VCTX	—	22.0	\$1.00	0.1%	0.6%	0.6%	0.3%	0.2%	0.6%	0.77%	1.1%	1.2%	1.4%	1.4%	1.5%	—	
NJ Municipal Money Market (95)	VNJXX	—	53.0	\$1.00	0.1%	0.6%	0.6%	0.3%	0.2%	0.6%	0.82%	1.2%	1.3%	1.4%	1.5%	1.6%	—	
NY Municipal Money Market (163)	VYFXX	—	39.0	\$1.00	0.1%	0.6%	0.7%	0.3%	0.2%	0.7%	0.84%	1.2%	1.3%	1.5%	1.5%	1.6%	—	
PA Municipal Money Market (63)	VPTXX	—	22.0	\$1.00	0.1%	0.6%	0.6%	0.3%	0.2%	0.6%	0.80%	1.1%	1.1%	1.3%	1.3%	1.5%	—	
TAX-FREE INCOME																		
Short-Term Tax-Exempt (41)	VWSTX	Buy	1.4	\$15.71	-0.4%	0.9%	1.0%	0.5%	0.5%	1.0%	1.16%	1.5%	1.6%	1.8%	1.9%	2.0%	0.24	
Limited-Term Tax-Exempt (31)	VMLTX	Buy	3.0	\$10.87	-0.8%	1.7%	2.0%	0.9%	1.0%	1.5%	1.45%	1.9%	2.0%	2.3%	2.4%	2.6%	0.61	
Intermed.-Term Tax-Exempt (42)	VWITX	Buy	5.5	\$14.04	-0.7%	3.6%	4.6%	2.4%	2.2%	2.7%	1.89%	2.5%	2.6%	3.0%	3.1%	3.3%	1.13	
Tax-Exempt Bond Index (1491)***	VTEBX	Buy	5.6	\$10.25	-0.5%	3.9%	5.1%	—	—	1.8%	1.99%	2.7%	2.8%	3.1%	3.3%	3.5%	1.19	
Long-Term Tax-Exempt (43)	VWLTX	Hold	6.6	\$11.59	-0.2%	5.1%	6.5%	3.5%	3.1%	3.5%	2.37%	3.2%	3.3%	3.8%	3.9%	4.2%	1.39	
High-Yield Tax-Exempt (44)	VWAHX	Hold	6.8	\$11.34	0.0%	6.6%	7.7%	4.1%	3.6%	3.7%	2.84%	3.8%	3.9%	4.5%	4.6%	5.0%	1.43	
STATE TAX-FREE																		
CA Intermed. Tax-Exempt (100)	VCAIX	Buy	5.6	\$11.70	-0.7%	3.9%	5.1%	2.4%	2.5%	2.6%	1.79%	2.7%	2.8%	3.2%	3.3%	3.5%	1.23	
CA Long-T. Tax-Exempt (75)	VCITX	Sell	7.1	\$12.10	-0.3%	5.5%	7.2%	3.5%	3.4%	3.3%	2.21%	3.3%	3.4%	3.9%	4.0%	4.4%	1.56	
MA Tax-Exempt (168)	VMATX	Sell	6.7	\$10.74	-0.2%	4.7%	6.2%	3.1%	2.7%	2.9%	2.28%	3.2%	3.3%	3.8%	3.9%	4.3%	1.43	
NJ Long-T. Tax-Exempt (14)	VNJTX	Sell	6.7	\$12.09	-0.1%	6.9%	8.0%	3.7%	3.1%	3.5%	2.72%	4.0%	4.2%	4.7%	4.9%	5.3%	1.51	
NY Long-T. Tax-Exempt (76)	VNYTX	Sell	6.4	\$11.71	-0.6%	4.5%	5.8%	3.3%	2.9%	3.2%	2.17%	3.2%	3.3%	3.8%	3.9%	4.2%	1.33	
OH Long-T. Tax-Exempt (97)	VOHIX	Sell	6.5	\$12.56	-0.2%	5.0%	6.5%	3.6%	3.2%	3.2%	2.39%	3.4%	3.6%	4.0%	4.2%	4.5%	1.34	
PA Long-T. Tax-Exempt (77)	VPAIX	Sell	6.5	\$11.56	-0.2%	5.3%	6.8%	3.5%	3.2%	3.4%	2.51%	3.5%	3.6%	4.1%	4.2%	4.6%	1.32	

Our ratings: BUY: Best choice. Generally funds held in our Model Portfolios or funds with similar objectives. HOLD: Current prospects for the fund are not as good as those with a Buy rating. However, investors who own shares in the fund may wish to assess tax costs of trading into a Buy-rated fund. SELL: The fund's long-term prospects are not as compelling as other funds', or other factors may make the fund unattractive compared to alternatives. "+" is a rating upgrade over the previous month; "-" is a downgrade.

Investors should weigh all tax implications of fund switches before making a sale or purchase. Some closed funds are available for purchase by high-net-worth investors. All funds charge a \$20 annual account fee unless you have \$10,000 in the fund, \$100,000 with Vanguard or accept all paperwork through online means.

Minimum refers to the dollar amount (e.g., \$3K means \$3,000) needed to open a new taxable account. **Loads** are denoted with an "f" for front-end and "r" for back-end. Holding periods are noted for loads imposed on sales of shares held less than two months (<2 mo.) or one year (<1). **3-year** and **5-year returns** are compound, annualized returns. **Average maturity** is in years for bond funds and days for money market funds. **12-month yields** are based on trailing 12-month dividend/income distributions. **SEC yields** are reported 30-day yields. **Taxable equivalent yields** are based on SEC yields. For state funds, taxable equivalent yields incorporate state taxes. **Risk** is fund volatility measured over the previous 24 months. Equity fund risk is measured against the S&P 500 index. Bond fund risk is measured against the Barclays Aggregate Bond index.

Annuity ratings May differ from taxable funds since choices in the annuity area are more limited.

* Tax equivalent yields incorporate the 3.8% health care surtax in the 33%, 35% and 39.6% tax rates.

** Fund sold with a 0.75% front-end load

*** Fund sold with a 0.25% front-end load

† **Alternative Strategies** is only available to clients of Vanguard Institutional Advisory Services. It is also a component of Managed Payout's portfolio.

VANGUARD VARIABLE ANNUITIES

Fund (fund #)	Advice	11/30 Price	Nov. Return	YTD Return	12-Mo. Return	3-Year Return	5-Year Return	Risk
Money Market Annuity (64)	—	\$1.91	0.1%	0.6%	0.7%	0.2%	0.1%	—
Short-Term Inv.-Grade Annuity (144)	Buy	\$19.30	-0.2%	1.8%	1.8%	1.6%	1.5%	0.46
Total Bond Market Annuity (67)	Hold	\$38.69	-0.2%	2.8%	2.9%	1.7%	1.5%	0.99
High-Yield Bond Annuity (146)	Buy	\$34.12	-0.4%	6.5%	7.8%	4.9%	4.9%	1.29
Global Bond Index Annuity (804)	Hold	\$19.89	-0.1%	—	—	—	—	—
Conservative Allocation Annuity (801)	Hold	\$29.89	0.8%	9.7%	10.7%	4.9%	6.2%	0.46
Moderate Allocation Annuity (803)	Hold	\$33.78	1.2%	13.4%	14.8%	6.4%	8.4%	0.64
Balanced Annuity (69)	Buy	\$103.09	1.8%	13.0%	15.5%	7.6%	10.5%	0.68
Capital Growth Annuity (603)	Buy	\$55.89	3.1%	27.0%	29.2%	12.7%	18.9%	1.22
Diversified Value Annuity (145)	Buy	\$34.75	3.0%	10.0%	11.4%	6.1%	11.5%	1.06
Equity Income Annuity (8)	Hold	\$94.36	2.9%	16.2%	19.5%	10.1%	14.2%	0.90
Equity Index Annuity (68)	Buy	\$107.55	3.0%	20.0%	22.3%	10.4%	15.2%	1.00
Growth Annuity (10)	Hold	\$54.47	2.5%	29.9%	29.8%	11.0%	16.2%	1.19
MidCap Index Annuity (143)	Buy	\$60.29	3.1%	17.7%	18.4%	8.7%	14.9%	1.27
REIT Index Annuity (147)	Hold	\$61.66	2.5%	4.7%	9.6%	5.5%	9.6%	1.55
Small Company Growth Annuity (160)	Hold	\$87.95	2.3%	21.7%	22.7%	11.5%	15.9%	1.77
Total Stock Market Annuity (604)	Hold	\$39.15	3.0%	19.5%	21.8%	10.3%	15.1%	1.08
International Annuity (86)	Buy	\$52.57	0.7%	41.0%	41.5%	10.5%	11.1%	1.62
Total Int'l Stock Market Annuity (802)	Hold	\$20.71	0.8%	—	—	—	—	—

VANGUARD ADMIRAL FUNDS

Admiral Fund (fund #)	Ticker	Min.	Loads	Advice	11/30 Price	Nov. Return	YTD Return	12-Mo. Return	3-Year Return	5-Year Return	12-Mo. Yield	SEC Yield	Risk
ADMIRAL SECTOR SHARES													
Consumer Discret. Index (5483)	VCDAX	\$100K	—	—	\$79.16	5.0%	20.1%	20.4%	11.1%	16.7%	1.4%	—	1.24
Consumer Staples Index (5484)	VCSAX	\$100K	—	—	\$71.06	5.5%	9.6%	13.2%	7.1%	12.4%	2.5%	—	1.07
Energy (551)	VGELX	\$50K	—	Hold	\$100.00	1.5%	-0.6%	0.9%	0.2%	1.4%	2.0%	—	2.11
Energy Index (5480)	VENAX	\$100K	—	—	\$47.26	2.1%	-7.2%	-5.6%	-2.9%	1.0%	3.0%	—	2.38
Financials Index (5486)	VFAIX	\$100K	—	—	\$34.76	3.5%	18.4%	23.2%	14.4%	18.3%	1.4%	—	1.96
Health Care (552)	VGHAX	\$50K	—	Buy	\$90.53	2.1%	19.4%	19.8%	6.8%	17.7%	0.9%	—	1.56
Health Care Index (5485)	VHCIX	\$100K	—	—	\$77.83	3.0%	24.1%	24.7%	8.5%	18.1%	1.3%	—	1.52
Industrials Index (5482)	VINAX	\$100K	—	—	\$72.08	3.8%	19.3%	20.1%	11.5%	17.1%	1.6%	—	1.41
Info. Technology Index (5487)	VITAX	\$100K	—	—	\$84.56	1.2%	37.1%	39.0%	17.4%	20.5%	1.0%	—	1.65
Materials Index (5481)	VMIAX	\$100K	—	—	\$68.53	0.9%	21.3%	21.2%	9.7%	12.6%	1.6%	—	1.79
REIT Index (5123)	VGSIX	\$10K	—	Hold	\$119.64	2.6%	5.2%	10.1%	6.0%	10.1%	4.7%	—	1.55
Global ex-U.S. Real Estate Index (1758)	VGRILX	\$10K	0.25% ^f /0.25% ^r	Hold	\$36.66	1.7%	22.6%	22.7%	6.3%	6.5%	3.5%	—	1.32
Telecom Svcs. Index (5488)	VTCAX	\$100K	—	—	\$46.78	2.5%	-5.8%	1.0%	4.7%	9.3%	3.5%	—	1.44
Utilities Index (5489)	VUIAX	\$100K	—	—	\$62.62	2.8%	19.5%	25.2%	11.4%	14.3%	3.0%	—	1.49
ADMIRAL EQUITY SHARES													
Capital Opportunity (5111) (CLOSED)	VHCAX	—	—	Buy	\$159.46	3.1%	28.3%	30.8%	13.3%	20.3%	0.6%	—	1.55
Explorer (5024)	VEXRX	\$50K	—	Hold	\$98.06	3.2%	22.0%	23.0%	10.0%	15.2%	0.4%	—	1.56
SmallCap Growth Index (5861)	VSGAX	\$10K	—	Buy	\$56.59	3.0%	21.6%	22.4%	9.8%	14.2%	0.9%	—	1.53
SmallCap Index (548)	VSMAX	\$10K	—	Hold	\$70.88	3.1%	15.8%	18.0%	10.2%	15.1%	1.3%	—	1.54
SmallCap Value Index (5860)	VSIAX	\$10K	—	Hold	\$57.11	3.1%	11.2%	14.4%	10.4%	15.6%	1.7%	—	1.61
Extended Mkt. Index (598)	VEXAX	\$10K	—	Sell	\$84.76	2.9%	17.5%	19.7%	10.1%	15.1%	1.2%	—	1.55
Growth Index (509)	VIGAX	\$10K	—	Buy	\$72.07	2.5%	26.9%	28.3%	11.3%	15.9%	1.2%	—	1.18
MidCap Growth Index (5832)	VMGMX	\$10K	—	Buy	\$55.09	2.8%	21.9%	22.1%	8.7%	14.7%	0.8%	—	1.34
MidCap Index (5859)	VIMAX	\$10K	—	Hold	\$190.56	3.2%	18.1%	18.9%	9.1%	15.4%	1.4%	—	1.28
MidCap Value Index	VMVAX	\$10K	—	Hold	\$57.06	3.4%	15.0%	16.1%	9.4%	15.9%	1.8%	—	1.27
Morgan Growth (526)	VMRAX	\$50K	—	Hold	\$97.54	2.0%	29.3%	30.1%	12.3%	16.5%	0.7%	—	1.20
PRIMECAP (559) (CLOSED)	VPMAX	—	—	Buy	\$139.34	3.3%	28.0%	30.2%	13.2%	19.7%	1.0%	—	1.26
U.S. Growth (523)	VWUAX	\$50K	—	Hold	\$98.77	2.4%	31.0%	31.1%	12.0%	16.9%	0.4%	—	1.22
500 Index (540)	VFIAX	\$10K	—	Buy	\$245.29	3.1%	20.5%	22.8%	10.9%	15.7%	1.8%	—	1.00
Dividend Appreciation Index (5702)	VDADX	\$10K	—	Buy	\$27.44	4.5%	20.6%	21.9%	9.8%	—	1.9%	—	0.88
Equity Income (565)	VEIRX	\$50K	—	Hold	\$78.31	3.0%	16.8%	20.0%	10.4%	14.5%	2.5%	—	0.90
Growth & Income (593)	VGIAX	\$50K	—	Hold	\$80.15	3.1%	19.5%	21.6%	10.9%	15.9%	1.7%	—	1.03
LargeCap Index (5307)	VLCAIX	\$10K	—	Buy	\$61.46	3.1%	20.7%	23.0%	10.7%	15.6%	1.8%	—	1.02
Total Stock Market Index (585)	VTSAX	\$10K	—	Hold	\$66.38	3.0%	20.0%	22.3%	10.7%	15.6%	1.8%	—	1.08
Value Index (506)	VVIAIX	\$10K	—	Hold	\$41.05	3.5%	15.4%	18.5%	10.3%	15.5%	2.4%	—	1.04
Windsor (5022)	VWNEX	\$50K	—	Hold	\$81.10	2.8%	18.1%	20.2%	8.8%	15.1%	1.9%	—	1.43
Windsor II (573)	VWNAX	\$50K	—	Hold	\$70.69	2.6%	14.5%	16.4%	7.8%	13.3%	2.1%	—	1.11
Balanced Index (502)	VBIAX	\$10K	—	Hold	\$34.63	1.8%	13.0%	14.3%	7.3%	10.1%	2.0%	—	0.64
Global Wellesley Income (1896)	VGYAX	\$50K	—	Hold	\$25.05	0.2%	—	—	—	—	—	—	—
Global Wellington (1767)	VGWAX	\$50K	—	Hold	\$25.22	0.9%	—	—	—	—	—	—	—
Wellesley Income (527)	VWIAIX	\$50K	—	Hold	\$65.87	1.1%	9.1%	10.6%	6.1%	7.2%	2.9%	—	0.45
Wellington (521)	VWENX	\$50K	—	Buy	\$75.04	1.8%	13.4%	15.8%	8.0%	10.8%	2.4%	—	0.68
Developed Markets Index (127)	VTMGX	\$10K	—	Sell	\$14.31	0.8%	24.3%	27.4%	7.0%	8.7%	2.5%	—	1.21
Emerging Markets Stock Index (5533)	VEMAX	\$10K	—	Buy	\$37.06	0.2%	26.9%	26.7%	4.5%	4.0%	2.3%	—	1.66
European Index (579)	VEUSX	\$10K	—	Hold	\$73.32	0.1%	25.2%	31.1%	5.2%	8.1%	2.6%	—	1.42
Global Minimum Volatility (594)	VMINVX	\$50K	—	Buy	\$27.61	1.7%	15.7%	17.5%	9.9%	—	2.4%	—	0.69
International Dividend Appreciation Index (515)	VIAAX	\$10K	0.25% ^f /0.25% ^r	Hold	\$31.93	2.2%	26.3%	28.3%	—	—	1.6%	—	—
International Growth (581)	VWILX	\$50K	—	Buy	\$95.46	0.8%	41.8%	42.2%	11.0%	11.6%	1.0%	—	1.60
International High Dividend Yield Index (530)	VIHAX	\$10K	0.25% ^f /0.25% ^r	Hold	\$31.92	0.3%	19.9%	23.6%	—	—	3.0%	—	—
Pacific Index (572)	VPADX	\$10K	—	Hold	\$89.82	2.1%	26.7%	26.2%	10.0%	9.9%	2.3%	—	1.23
Total International Stock Index (569)	VTIAX	\$10K	—	Hold	\$30.19	0.8%	25.0%	27.5%	6.5%	7.6%	2.5%	—	1.22
World ex-U.S. Index (570)	VFWAX	\$10K	—	Sell	\$33.60	0.7%	24.8%	27.4%	6.2%	7.4%	2.5%	—	1.22
ADMIRAL INCOME SHARES													
Ultra-Short-Term Bond (592)	VUSFX	\$50K	—	Buy	\$19.98	0.0%	1.3%	1.4%	—	—	1.4%	1.82%	0.11
Short-Term Treasury (532)	VFIRX	\$50K	—	Sell	\$10.57	-0.3%	0.5%	0.6%	0.7%	0.6%	1.2%	1.60%	0.35
Short-Term Federal (549)	VSGDX	\$50K	—	Sell	\$10.63	-0.3%	0.8%	0.7%	0.9%	0.8%	1.4%	1.72%	0.37
Short-Term Gov't Index (1942)	VSBSX	\$10K	—	Sell	\$20.13	-0.2%	0.4%	0.4%	0.5%	0.5%	1.1%	1.63%	0.27
Short-Term Inflation Index (567)	VTAPX	\$10K	—	Hold	\$24.80	-0.2%	0.6%	1.0%	0.6%	0.1%	0.8%	-0.02%	0.47
Short-Term Inv.-Grade (539)	VFSUX	\$50K	—	Buy	\$10.65	-0.1%	2.1%	2.2%	1.9%	1.8%	2.1%	2.21%	0.44
Short-Term Corp. Index (1945)	VSCSX	\$10K	—	Buy	\$21.62	-0.3%	2.3%	2.5%	1.9%	1.9%	2.2%	2.36%	0.51
Short-Term Bond Idx. (5132)	VBRX	\$10K	—	Hold	\$10.39	-0.3%	1.1%	1.2%	1.1%	1.0%	1.6%	1.93%	0.46
Inflation-Protected Securities (5119)	VAIPX	\$50K	—	Hold	\$25.76	0.1%	2.0%	1.9%	1.3%	-0.2%	4.4%	0.25%	1.13
Interm.-Term Treasury (535)	VFIUX	\$50K	—	Sell	\$11.08	-0.4%	1.6%	1.5%	1.4%	1.1%	1.8%	2.01%	1.13
Interm.-Term Gov't Index (1943)	VSIIGX	\$10K	—	Sell	\$21.62	-0.4%	1.6%	1.5%	1.3%	1.1%	1.6%	2.02%	1.12
Interm.-Term Inv.-Grade (571)	VFDIX	\$50K	—	Buy	\$9.76	-0.4%	3.9%	4.1%	3.1%	2.8%	2.8%	2.77%	1.04
Interm.-Term Corp. Index (1946)	VICSX	\$10K	0.25% ^f	Buy	\$23.48	-0.4%	4.9%	5.3%	3.6%	3.3%	3.2%	3.21%	1.28
Intermed.-Term Bond Idx. (5314)	VBILX	\$10K	—	Hold	\$11.36	-0.4%	3.5%	3.6%	2.4%	2.1%	2.6%	2.65%	1.30
Total Bond Market (584)	VBTIX	\$10K	—	Hold	\$10.73	-0.2%	3.1%	3.4%	2.1%	1.9%	2.5%	2.51%	1.00
Core Bond (1520)	VCOBX	\$50K	—	Buy	\$19.90	-0.1%	3.4%	3.5%	—	—	2.2%	2.50%	—
GNMA (536)	VFIJX	\$50K	—	Hold	\$10.46	-0.2%	1.7%	1.8%	1.8%	1.9%	2.7%	2.83%	0.62
Mortgage-Backed Sec. Idx (1948)	VMBSX	\$10K	—	Hold	\$20.96	-0.2%	2.0%	2.1%	1.7%	1.9%	2.1%	2.13%	0.65
Long-Term Treasury (583)	VUSUX	\$50K	—	Sell	\$12.22	0.6%	6.8%	6.4%	3.1%	2.7%	2.7%	2.65%	3.31
Long-Term Gov't Index (1944)	VLSGX	\$10K	—	Sell	\$25.84	0.6%	6.8%	6.4%	3.1%	2.7%	2.6%	2.69%	3.28
Long-Term Inv.-Grade (568)	VWETX	\$50K	—	Hold	\$10.62	0.4%	9.7%	10.9%	5.6%	5.1%	4.0%	3.64%	2.25
Long-Term Corp. Index (1947)	VLTCX	\$10K	1.00% ^f	Hold	\$25.18	0.3%	9.9%	11.5%	5.4%	4.9%	4.1%	4.09%	2.41
High-Yield Corporate (529)	VWEAX	\$50K	—	Buy	\$5.93	-0.3%	6.8%	8.3%	5.4%	5.4%	5.4%	5.02%	1.27
Emerging Markets Gov't Bond Index (520)	VGAVX	\$10K	0.75% ^f	Buy	\$20.12	-0.2%	7.9%	9.2%	5.5%	—	4.7%	4.10%	1.67
Emerging Markets Bond (1531)	VEGBX	—	—	—	\$24.72	0.4%	12.8%	14.4%	—	—	—	3.85%	—
Total International Bond Index (511)	VTABX	\$10K	—	Hold	\$21.97	0.4%	2.4%	2.8%	3.0%	—	1.7%	0.71%	0.93
Short-Term Tax-Exempt (541)	VWSUX	\$50K	—	Buy	\$15.71	-0.4%	1.0%	1.1%	0.6%	0.6%	1.1%	1.26%	0.24
Limited-Term Tax-Exempt (531)	VMLUX	\$50K	—	Buy	\$10.87	-0.8%	1.8%	2.1%	1.0%	1.1%	1.6%	1.55%	0.61
Interm.-Term Tax-Exempt (542)	VWUIX	\$50K	—	Buy	\$14.04	-0.7%	3.7%	4.7%	2.5%	2.3%	2.8%	1.99%	1.13
Tax-Exempt Bond Index (591)	VTEAX	\$50K	0.25% ^f	Buy	\$20.48	-0.6%	3.9%	5.1%	—	—	1.9%	2.09%	1.19
Long-Term Tax-Exempt (543)	VWLUX	\$50K	—	Hold	\$11.59	-0.2%	5.2%	6.6%	3.6%	3.2%	3.6%	2.47%	1.39
High-Yield Tax-Exempt (5044)	VWALX	\$50K	—	Hold	\$11.34	0.0%	6.7%	7.8%	4.2%	3.7%	3.8%	2.94%	1.43
CA Interm. Tax-Exempt (5100)	VCADX	\$50K	—	Buy	\$11.70	-0.7%	4.0%	5.2%	2.5%	2.6%	2.7%	1.89%	1.23
CA Long-T. Tax-Exempt (575)	VCLAX	\$50K	—	Sell	\$12.10	-0.3%	5.6%	7.3%	3.6%	3.5%	3.4%	2.31%	1.56
NJ Tax-Exempt (514)	VNJUX	\$50K	—	Sell	\$12.09	-0.0%	7.0%	8.1%	3.8%	3.2%	3.6%	2.82%	1.51
NY Tax-Exempt (576)	VNYUX	\$50K	—	Sell	\$11.71	-0.6%	4.6%	5.9%	3.4%	3.1%	3.3%		

VANGUARD EXCHANGE-TRADED FUNDS

Fund	Ticker	Advice	11/30 Price	Nov. Return	YTD Return	12-Mo. Return	3-Year Return	5-Year Return	12-Mo. Yield	SEC Yield	Risk
BROAD EQUITY ETFs											
SmallCap Growth	VBK	Buy	\$160.98	3.1%	21.5%	22.4%	9.7%	14.1%	0.9%	—	1.52
S&P SmallCap 600 Growth	VIQG	Buy	\$147.31	3.3%	15.4%	19.3%	13.6%	17.1%	0.8%	—	1.78
Russell 2000 Growth	VTWG	Hold	\$135.64	2.8%	22.2%	23.5%	11.2%	15.9%	0.7%	—	1.86
SmallCap	VB	Hold	\$147.91	3.1%	15.7%	18.0%	10.1%	15.0%	1.3%	—	1.53
S&P SmallCap 600	VIQO	Hold	\$141.76	3.6%	13.9%	17.7%	13.1%	16.8%	0.8%	—	1.83
Russell 2000	VTWO	Hold	\$123.39	3.0%	15.2%	18.5%	11.2%	15.0%	1.2%	—	1.79
SmallCap Value	VBR	Hold	\$132.97	3.2%	11.2%	14.4%	10.4%	15.6%	1.7%	—	1.60
S&P SmallCap 600 Value	VIQV	Hold	\$133.29	3.6%	11.8%	15.3%	11.6%	16.2%	1.3%	—	1.98
Russell 2000 Value	VTWV	Hold	\$110.94	2.7%	8.7%	13.2%	10.7%	14.0%	1.6%	—	1.94
Extended Market	VXF	Sell	\$111.94	3.1%	17.7%	19.9%	10.1%	15.2%	1.2%	—	1.54
Growth	VUG	Hold	\$139.90	2.4%	26.6%	28.1%	11.2%	15.9%	1.2%	—	1.18
S&P 500 Growth	VOOG	Buy	\$136.60	2.8%	26.4%	28.1%	12.2%	16.7%	1.3%	—	1.09
Russell 1000 Growth	VONG	Hold	\$137.29	3.0%	28.9%	30.5%	12.9%	17.0%	1.2%	—	1.14
MegaCap Growth	MGK	Buy	\$110.58	2.5%	28.1%	29.8%	11.9%	16.2%	1.2%	—	1.16
MidCap Growth	VOT	Buy	\$127.97	2.8%	21.8%	22.1%	8.7%	14.6%	0.8%	—	1.34
S&P MidCap 400 Growth	IVOG	Buy	\$134.49	3.6%	20.1%	22.6%	12.0%	15.1%	0.9%	—	1.27
MidCap	VO	Hold	\$153.83	3.2%	18.0%	18.9%	9.1%	15.3%	1.4%	—	1.28
S&P MidCap 400	IVOO	Buy	\$128.29	3.8%	16.2%	18.4%	11.3%	15.3%	1.2%	—	1.42
MidCap Value	VOE	Hold	\$110.13	3.4%	14.9%	16.1%	9.4%	15.9%	1.8%	—	1.26
S&P MidCap 400 Value	IVOV	Buy	\$122.97	3.9%	11.6%	13.7%	10.0%	15.6%	1.2%	—	1.57
S&P 500	VOO	Buy	\$243.35	3.1%	20.2%	22.7%	10.9%	15.7%	1.8%	—	1.00
Russell 1000	VONE	Buy	\$121.65	3.0%	20.1%	22.3%	10.4%	15.6%	1.7%	—	1.06
Dividend Appreciation	VIG	Buy	\$101.12	4.5%	20.5%	21.9%	9.8%	13.5%	1.9%	—	0.88
High Dividend Yield	VYM	Hold	\$85.01	3.1%	14.7%	18.1%	10.0%	14.8%	2.9%	—	0.90
LargeCap	VV	Buy	\$121.64	3.0%	20.5%	22.9%	10.7%	15.6%	1.8%	—	1.03
MegaCap	MGC	Hold	\$91.09	3.0%	21.1%	23.7%	11.1%	15.7%	1.8%	—	0.98
Total Stock Market	VTI	Hold	\$136.34	3.0%	19.8%	22.2%	10.7%	15.6%	1.8%	—	1.09
Russell 3000	VTHR	Hold	\$121.83	3.0%	19.5%	22.1%	10.5%	15.5%	1.7%	—	1.07
Value	VTV	Hold	\$105.23	3.5%	15.2%	18.4%	10.3%	15.9%	2.4%	—	1.05
S&P 500 Value	VOOV	Hold	\$108.82	3.5%	13.4%	16.2%	8.9%	14.2%	2.1%	—	1.14
Russell 1000 Value	VONV	Hold	\$107.58	3.0%	11.8%	14.6%	8.2%	14.0%	2.3%	—	1.12
MegaCap Value	MGV	Hold	\$75.70	3.4%	15.0%	18.4%	10.3%	15.3%	2.4%	—	1.02
INTERNATIONAL ETFs											
Emerging Markets Stock	VWVO	Buy	\$44.48	-0.3%	26.8%	25.9%	4.5%	4.0%	2.3%	—	1.66
Developed Markets	VEA	Sell	\$44.56	0.9%	24.4%	27.4%	7.0%	8.7%	2.5%	—	1.20
European	VGK	Hold	\$58.57	-0.1%	25.1%	31.2%	5.2%	8.0%	2.6%	—	1.42
Int'l Dividend Appreciation	VIGI	Hold	\$65.83	2.2%	26.6%	27.8%	—	—	1.6%	—	—
Int'l High Dividend Yield	VYMI	Hold	\$66.18	0.4%	20.0%	23.6%	—	—	3.0%	—	—
Pacific	VPL	Hold	\$72.74	2.2%	26.9%	26.2%	10.1%	9.9%	2.3%	—	1.25
Total International Stock	VXUS	Hold	\$56.19	0.6%	24.9%	27.3%	6.4%	7.5%	2.5%	—	1.23
Total World Stock	VT	Hold	\$73.58	1.9%	22.5%	24.8%	8.5%	11.4%	2.1%	—	1.09
World ex-U.S.	VEU	Sell	\$54.08	0.6%	24.8%	27.2%	6.2%	7.4%	2.5%	—	1.23
World ex-U.S. SmallCap	VSS	Hold	\$117.64	0.9%	26.7%	28.0%	8.9%	8.9%	2.4%	—	1.26
SECTOR ETFs											
Consumer Discretionary	VCR	—	\$152.97	5.0%	20.0%	20.3%	11.1%	16.7%	1.4%	—	1.25
Consumer Staples	VDC	—	\$144.13	5.6%	9.6%	13.2%	7.1%	12.4%	2.5%	—	1.07
Energy	VDE	—	\$94.49	2.1%	-7.5%	-5.7%	-2.9%	1.0%	3.0%	—	2.40
Financials	VFH	—	\$69.38	3.5%	18.2%	23.1%	14.3%	18.3%	1.4%	—	1.97
Health Care	VHT	—	\$155.49	2.9%	23.9%	24.5%	8.5%	18.1%	1.3%	—	1.53
Industrials	VIS	—	\$140.36	3.9%	19.2%	20.0%	11.5%	17.1%	1.6%	—	1.43
Information Tech.	VGT	—	\$165.01	1.1%	36.9%	38.7%	17.3%	20.5%	1.0%	—	1.65
Materials	VAW	—	\$134.47	0.9%	21.2%	21.2%	9.7%	12.6%	1.6%	—	1.79
REIT	VNQ	Hold	\$84.39	2.7%	5.1%	10.1%	6.0%	10.1%	4.7%	—	1.57
Global ex-U.S. Real Estate	VNQI	Hold	\$60.49	1.4%	23.0%	22.6%	6.3%	6.4%	3.4%	—	1.31
Telecom Services	VOX	—	\$91.65	2.5%	-6.1%	0.9%	4.6%	9.2%	3.5%	—	1.46
Utilities	VPU	—	\$124.86	2.9%	19.5%	25.3%	11.4%	14.3%	3.0%	—	1.49
INCOME ETFs											
Short-Term Government	VGSH	Sell	\$60.42	-0.2%	0.0%	0.4%	0.5%	0.5%	1.0%	1.63%	0.30
Short-Term Inflation Bond	VTIP	Hold	\$49.48	-0.1%	0.7%	1.0%	0.6%	0.1%	0.8%	-0.02%	0.48
Short-Term Corporate	VCSH	Buy	\$79.63	-0.3%	2.2%	2.5%	1.9%	1.9%	2.2%	2.36%	0.52
Short-Term Bond	BSV	Hold	\$79.36	-0.3%	1.2%	1.3%	1.1%	1.0%	1.6%	1.93%	0.47
Int.-Term Government Bond	VGIT	Sell	\$64.12	-0.4%	1.7%	1.5%	1.4%	1.1%	1.6%	2.02%	1.10
Int.-Term Corporate	VCIT	Buy	\$87.49	-0.3%	4.8%	5.4%	3.6%	3.3%	3.2%	3.21%	1.27
Int.-Term Bond	BIV	Hold	\$84.08	-0.3%	3.4%	3.6%	2.5%	2.1%	2.6%	2.65%	1.32
Total Bond Market	BND	Hold	\$81.51	-0.1%	3.0%	3.3%	2.0%	1.9%	2.5%	2.51%	0.99
Total Corporate Bond	VTC	Hold	\$84.69	—	—	—	—	—	—	0.00%	—
Mortgage-Backed Securities	VMBS	Hold	\$52.54	-0.2%	2.3%	2.2%	1.7%	1.9%	2.1%	2.13%	0.65
Long-Term Government	VGLT	Sell	\$77.03	0.7%	6.8%	6.4%	3.2%	2.7%	2.6%	2.69%	3.25
Long-Term Corporate	VCLT	Hold	\$94.35	0.2%	9.3%	11.6%	5.5%	4.8%	4.1%	4.09%	2.57
Long-Term Bond	BLV	Sell	\$93.91	0.8%	8.7%	9.8%	4.4%	3.9%	3.7%	3.55%	2.59
Ext. Duration Treasury	EDV	Sell	\$118.43	1.4%	10.5%	10.1%	4.0%	3.6%	2.8%	2.82%	4.98
Emerging Mkts. Gov't Bond	VWOB	Buy	\$80.24	-0.5%	7.5%	9.1%	5.3%	—	4.6%	4.10%	1.85
Total International Bond	BNDX	Hold	\$54.96	0.2%	2.1%	2.5%	3.0%	—	1.7%	0.71%	0.93
Tax-Exempt Bond	VTEB	Buy	\$51.41	-0.3%	4.0%	5.5%	—	—	1.9%	2.09%	1.25

DISTRIBUTIONS

Fund	Dist.
NOVEMBER REGULAR	
Ultra-Short-Term Bond	\$0.02
Short-Term Treasury	\$0.01
Short-Term Federal	\$0.01
Short-Term Investment-Grade	\$0.02
Short-Term Bond Index	\$0.01
Intermediate-Term Treasury	\$0.02
Intermediate-Term Investment-Grade	\$0.02
Intermediate-Term Bond Index	\$0.02
Total Bond Market Index	\$0.02
Core Bond	\$0.02
GNMA	\$0.02
Long-Term Treasury	\$0.03
Long-Term Investment-Grade	\$0.03
Long-Term Bond Index	\$0.04
High-Yield Corporate	\$0.02
Emerging Markets Gov't Bond	\$0.04
Emerging Markets Bond	\$0.04
Total International Bond	\$0.01
Treasury MM	\$0.0086
Federal MM	\$0.0085
Prime MM	\$0.0096
Municipal MM	\$0.0069
CA Municipal MM	\$0.0063
NJ Municipal MM	\$0.0066
NY Municipal MM	\$0.0067
PA Municipal MM	\$0.0064
Short-Term Tax-Exempt	\$0.01
Limited-Term Tax-Exempt	\$0.01
Intermediate-Term Tax-Exempt	\$0.03
Tax-Exempt Bond Index	\$0.02
Long-Term Tax-Exempt	\$0.03
High-Yield Tax-Exempt	\$0.03
CA Int.-Term Tax-Exempt	\$0.02
CA Long-Term Tax-Exempt	\$0.03
MA Tax-Exempt	\$0.03
NJ Long-Term Tax-Exempt	\$0.03
NY Long-Term Tax-Exempt	\$0.03
OH Long-Term Tax-Exempt	\$0.03
PA Long-Term Tax-Exempt	\$0.03
ETF DISTRIBUTIONS	
Short-Term Government Bond	\$0.06
Short-Term Corporate Bond	\$0.15
Short-Term Bond	\$0.11
Intermed.-Term Government Bond	\$0.09
Intermed.-Term Corporate Bond	\$0.24
Intermediate-Term Bond	\$0.19
Total Bond Market	\$0.17
Mortgage-Backed Securities Bond	\$0.10
Long-Term Government Bond	\$0.15
Long-Term Corporate Bond	\$0.32
Long-Term Bond	\$0.29
Emerging Markets Gov't Bond	\$0.34
Total International Bond	\$0.05
Tax-Exempt Bond	\$0.08

Distributions are per share. All distributions are reinvested at month-end Net Asset Value unless otherwise noted.

Vanguard exchange-traded fund shares can be bought and sold like stocks, anytime markets are open. They are expected to track the performance of Vanguard's like-named index funds closely, though not precisely. Price and performance are based on actual closing prices, not net asset value. Individual investor performance can vary depending on price variability during the trading day. Buy, Sell and Hold ratings may differ from open-end versions of the same index funds listed in the Investor share section of the Performance Review if an alternative ETF is better or worse.

Admiral shares are identical to regular, "investor" shares (and my recommendations are the same as those for "investor" shares) except that their operating expenses are several basis points lower. (One basis point equals one one-hundredth of a percent.) For instance, a fund with an operating expense ratio of, say, 0.25%, might have Admiral shares available with an operating expense ratio of 0.21%.

Sector index funds are not rated, in part, because we cannot consistently forecast which sector will lead the way (or fall behind) in any given year.

October Hot Hands

MOMENTUM CAN BE a powerful force for stocks. It isn't astrophysics, but momentum definitely has its market moments, as well as some time-tested strategies that take advantage of it. Vanguard uses a momentum model for choosing stocks in many of its quantitatively run funds like **Strategic Equity** and **Strategic SmallCap Equity**, as well as in portions of funds like **Morgan Growth** or **Explorer**. My longstanding calendar-year *Hot Hands* strategy and its offshoot, the *October Hot Hands* strategy, are two momentum-based strategies.

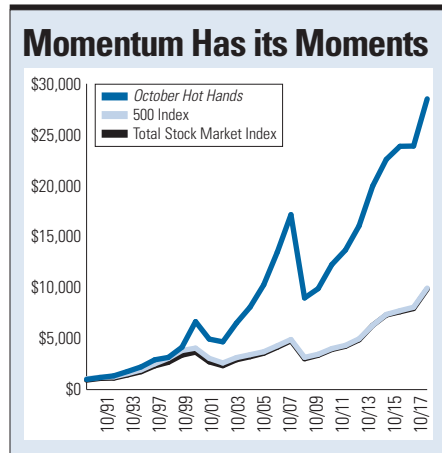
As with any investment strategy that uses a numbers-driven process, you have to take the long view, as the systems can hiccup from time to time. Year-to-year performance can vary greatly, and that's been illustrated in spades with *October Hot Hands*. That said, long-term performance generated by investing with the winner over each 12-month period from October to October has been a market-beater.

What is *October Hot Hands*? It's a mechanical, momentum-based strategy of investing with Vanguard's best-performing diversified stock fund over 12-month periods ending each year on October 31. I'll provide context and more detail, but, first, let's get a couple of updates out of the way.

As I announced last month, the official *October Hot Hands* fund for the period from the end of October 2017 through the end of October 2018 is **International Growth**. Luckily, for those following the *Model Portfolios*, we already own a good chunk of the fund.

As for last year's *October Hot Hands* fund, **High Dividend Yield Index**, it produced a decent total return of 19.4% over the 12 months ending in October 2017. However, it wasn't enough to match the 23.8% return for **Total Stock Market Index** or the 23.5% return for **500 Index**.

Still, it's important to keep recent underperformance in perspective. The



October Hot Hands strategy, which I have been tracking for 25 years, remains a winner. Over that full period, *October Hot Hands* has produced an annualized return of 14.3% versus 9.6% for both 500 Index and Total Stock Market Index.

The strategy's underperformance from October 2007 through October 2008, the first year after I wrote about it, hurt the overall numbers considerably, as the graph above so clearly illustrates. Over those 12 months, International Growth (which was also the 2007–2008 *October Hot Hands* fund) suffered a 47.6% loss—more than 11 percentage points worse than the U.S. market. But recovery afterwards was strong. And, as I said at the beginning, this isn't a works-every-year kind of trading strategy. It's for those with a long-term view.

Like my longstanding calendar-year *Hot Hands* strategy (which is based on 12-month periods ending December 31), the *October Hot Hands* strategy is a momentum-based concept rooted in research I've conducted over many years. As with any investment strategy based on price and performance momentum, it can have good periods and bad periods. The period from the end of October 2007 to the end of October 2008 was clearly one of the bad ones, but on balance, the strategy has matched the market since then and,

coming off a strong early start, it's outpaced the index funds over the long haul.

Back to the Basics

For those who aren't familiar with *October Hot Hands*, let me back up. It was in the October 2007 newsletter issue that I first laid out the strategy. My research indicated that it might be as good as, or possibly better than, the original calendar-year *Hot Hands* strategy. Like the original, the October version identifies the top diversified equity fund over the prior 12 months and holds it for one year, then trades to the next candidate.

While the 12-month period ending in December remains my choice for my annual *Hot Hands* portfolio update for reasons of simplicity and taxes, I still believe both of these strategies have merit.

Back-testing shows that using the *Hot Hands* methodology in any month other than February (and that month doesn't miss by much) can give you a winner over the market, confirming

Using the Hot Hands methodology can give you a winner over the market, confirming my thesis that "hot hands stay hot," at least for short periods.

my thesis that "hot hands stay hot," at least for short periods of time like my 12-month cycle. What distinguishes one month from another is how often the strategy fails to beat the market, as well as the average level of outperformance over my testing period. Some months simply don't look as good as others when it comes to implementing a momentum strategy like this one.

The table on the next page shows the average annualized market outper-

formance, failure rate, and worst year's performance of a *Hot Hands* strategy using returns for one-year periods ending in each of the 12 months of the year. The data is based on running the test over the past 25 years.

As you can see, my standard *Hot Hands* strategy, which uses calendar-year performance (see the "December" row in the table), has both a fairly strong average outperformance versus 500 Index and a fairly low failure rate, having failed to beat the market 11 times over the 25-year period measured. And at its worst, it lagged the market by 13.6%, compared to the 31.7% gap for the worst single year following a May strategy.

October looks very strong on most measures, with a good long-term average outperformance of 4.9% over 500 Index (third best of all 12 months). It also has solid consistency, with just eight years in which the strategy failed, making it the best of the 12 monthly strategies on that front. Its worst performance failure was a 21.0% gap. (A small note on this figure: That 21.0% gap assumes that MidCap Growth was the *October Hot Hands* fund in the period from October 2000 through October 2001, though MidCap Growth

25 Years of Hot Hands by Month

	Average Outperf. vs. 500 Index	Failure Rate	Worst 12-Month Gap*
January	1.3%	12	-12.0%
February	-0.5%	16	-19.2%
March	0.9%	14	-17.9%
April	5.5%	11	-21.9%
May	3.5%	11	-31.7%
June	4.0%	11	-22.8%
July	3.5%	11	-15.6%
August	2.2%	11	-24.0%
September	0.4%	14	-26.1%
October	4.9%	8	-21.0%
November	3.8%	9	-11.9%
December	6.4%	11	-13.6%

*Difference in returns between each monthly *Hot Hands* fund and 500 Index.

wasn't "adopted" by Vanguard until mid-2002. Had the strategy been followed using only Vanguard funds in existence at the time, the loss would have been minimal, and the October strategy's worst gap compared to 500 Index would be just 13.9%, making it fourth-best among the 12 monthly strategies. I just don't want to mislead anyone by ignoring a fund that is now part of the Vanguard fold.)

A *Hot Hands* strategy using the non-sector fund with the best one-year return at the end of November would

show a failure rate almost as low as the *October Hot Hands* strategy. But on average, the returns using a November strategy are a bit lower versus the market compared to those from an October strategy. The tradeoff, though, is that the worst gap with the market in the November-to-November time period is actually better than October's.

Yes, the *October Hot Hands* strategy remains a good one, with the best success rate (lowest failure rate) of any month. Still, I prefer the December (calendar year) strategy since it triggers a purchase after the year-end distribution season, an important factor for those following *Hot Hands* in a taxable account.

Please remember that a fund that qualifies for either the *October Hot Hands* strategy or the calendar-year *Hot Hands* strategy may not be rated a Buy in the *Performance Review* if we feel, on a qualitative basis, that there are better places to invest your money. That's not an issue with International Growth, of course, but it's worth noting. This momentum strategy is quantitative, not qualitative, in nature. But I'm happy to have both the quantitative and qualitative selecting the same fund for this year's October to October period. ■

FUNDS

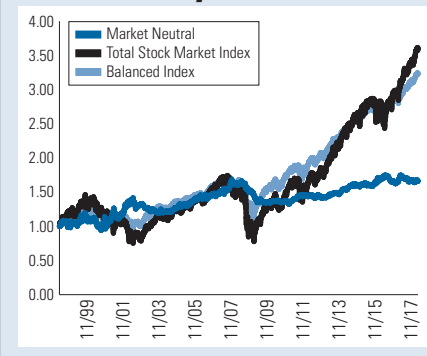
Net Neutrality?

NET-NET, it hasn't exactly been a big decade for **Market Neutral**, which celebrated its 10th birthday on November 30.

Yes, it's been a decade since Vanguard "adopted" Market Neutral, renaming the former Laudus Rosenberg U.S. Large/Mid Capitalization Long/Short Equity Fund and handing half the assets to its internal Quantitative Equity Group while retaining original manager AXA Rosenberg for the other half and kicking the fund's minimum up from a mere \$2,500 to \$250,000 (institutional shares can be had for \$5 million). Vanguard took over the whole enchilada in 2010 after AXA got caught up in a bit of a scandal.

Today, most investors gain "access" to the fund through its 5% allocation in **Managed Payout's** portfolio.

Market Neutral's Best Years Were its Early Years



However, some investors bought the fund before the price-hike and are grandfathered in. I put \$2,500 in when Vanguard first announced its adoption intentions, and I wouldn't say it's been my best investment (or even close to my best investment). In fact, at the end of November, my \$2,500 had grown to a whopping \$2,666. That stinks—but I always like to own the funds I write about, much the way I think Vanguard's directors ought to own the funds they oversee. And, by the way, not a single Vanguard director owns the fund.

And that's the story of Market Neutral, a fund that...well, here's how Vanguard describes it: ➤

> “This fund has a unique and complex investment approach, compared with other Vanguard funds. Its goal is to “neutralize,” or limit, the effect of stock market movement on returns. Because of this, the fund’s return is

often uncorrelated to that of the stock market. Unlike other Vanguard funds, this fund uses long- and short-selling strategies, which involve specific risks not apparent in traditional mutual funds. The fund may be appropriate

for a small portion of an already well-diversified portfolio.”

Luckily, my \$2,500 investment—which, again, has turned into just \$2,666—is a “small portion” of my

DISTRIBUTIONS

Making Money, Paying Taxes

DECEMBER IS UPON US, which—as always—means it’s also year-end distribution season.

While some fund companies start their year-end payouts in October, others wait until November. But like clockwork, Vanguard makes its capital gains and quarterly distributions in December.

Based on the most recent estimates, this season’s capital gains payouts are shaping up to look a lot like last year’s. Shareholders in a few funds, including **Explorer, Diversified Equity, Growth & Income, International Explorer, Morgan Growth, PRIMECAP, Selected Value, Strategic Equity, Strategic SmallCap Equity, U.S. Growth, U.S. Value** and **Windsor II** are expected to see capital gains distributions greater than 4% in the coming weeks. Explorer’s estimated 11.5% gain is huge, but also par for the course for this multiple-manager mess.

Since the credit crisis and bear market, overseas gains have not been as strong as those at home, meaning that funds like my favorite foreign stock fund, **International Growth**, don’t look to be paying much if anything in the way of cap gains, though of course they’ll pay out income. So enjoy the lack of distributions while you can. Once foreign markets have rallied for a few years, we’ll see more of the overseas funds distributing gains as the portfolio managers finally use up their embedded losses.

Watch the Wash

Every year, and this one is no exception, I have to remind investors that it can be complicated trying to avoid distributions by trading around them. If you’re making some trades to avoid distributions or to realize losses in your taxable accounts, you need to know your distribution and record dates so that you don’t run afoul of the wash-sale rule.

What’s the wash-sale rule? In short, if you sell a fund for a loss within 30 days of receiving more shares in a reinvested distribution, you won’t be able to recognize the full loss, since the number of shares received in the reinvestment will count as shares purchased within the 30-day window. Nor can you buy shares within 30 days of taking a loss without also running afoul of the wash-sale rule.

And if you’ve ceded control of your portfolio to a robo-adviser, like Vanguard’s *Personal Advisor Services* group, be extra wary. Two years ago, I was told that, to many investors’ dissatisfaction, Vanguard’s computers hadn’t exactly figured out the wash-sale rule, which is a nice way of saying that Vanguard messed up some investors’ tax planning by automating the rebalancing process. Given the problems Vanguard has had with its computer systems, I wouldn’t expect the situation to have

improved. Since you and your accountant may not be happy when you see what the robots have wrought, be extra careful.

Distribution Basics

Because capital gains season only comes around once a year, I always like to refresh investors on a couple of things they need to remember: First, the record date. If you own shares in a fund at the close of trading on the record date, you will receive the distribution. You are, by definition, a shareholder of record. You must sell a fund before or on the record date to avoid the distribution.

The reinvestment or ex-dividend date is the day the fund’s price drops by the amount of the distribution, though market action can cause the fund’s price to move up or down independent of the actual size of the distribution. The record date is the day before the distribution, or ex-date, for open-end funds. But be forewarned that this is *not* the case for ETFs. ETFs have a wacky distribution process, due in part to the gap between when you buy a stock (or ETF) and when your trade settles.

That’s the selling side. But there’s also the buying side. The general rule of thumb is that investors in taxable accounts don’t want to “buy a distribution.” (Those with IRAs or other tax-deferred accounts don’t have to worry about this one.) Taxable investors don’t want to buy a fund, or add to it, right before it makes a distribution, since you are immediately receiving some of your capital back in a form that is taxable. This is poor tax planning.

It’s always tough to figure out how far in advance of a distribution you should avoid buying shares in a fund. Jeff uses a handy little metric that says you stop buying one week ahead of a distribution for every 1% of estimated NAV the fund is expected to pay out. If a fund is looking at a 4% distribution, then don’t buy any shares for four weeks leading up to the distribution date. Of course, there’s no science to this—it’s just a suggestion. Obviously, if you knew (and you wouldn’t know far enough in advance) that a fund was paying out a 15% distribution, you wouldn’t stop investing in the fund almost four months ahead of time. (As for Explorer and its 11.5% distribution, you shouldn’t have bought that fund, at least not since I traded it out of the *Models* in 1997.) So take this as a rough rule of thumb. I should note that at Adviser Investments, my wealth management firm (which is a separate company neither owned nor operated by InvestorPlace Media, the publisher of this newsletter), we use a more sophisticated strategy. In specific cases, we may buy a long-term capital gains distribution and then sell to realize a short-term loss in a fund whose price has declined commensurate with the distribution. We then swap back into the fund after 30 days.

With all that said, here are the record and ex-dividend dates for capital gains and income distributions from each fund, as reported to me by

portfolio. And I hope that's the case for you, if you own it at all. The fund has generated a total 10-year return of just 3.1%. No, not an annualized 3.1%, but 3.1% in total—that's only 0.3% annualized.

Why did Vanguard get into this business? One reason may be that, 10 years ago, the numbers didn't look so bad. For example, the old Market Neutral had almost matched the returns from **Total Stock Market Index** as well as

Balanced Index over the preceding nine years or so. And AXA Rosenberg touted its "proprietary expert systems" technology that allowed it to sift through more than 20,000 securities to find just the right stocks to buy long and to sell short. ➤

Vanguard. I've sorted them by their ex-dividend dates. Note that Admiral and Investor share classes pay out on the same day. And while it may seem strange that ETF ex-dividend dates are earlier than their record dates, this is because of the time delay between the brokerage purchase of an ETF and its actual record date of ownership. Expect bond funds to make their income payouts at month-end as they normally do, and also for **Managed Payout** to pay both its regular mid-month income distribution and a year-end distribution.

One last reminder. Vanguard isn't perfect, and last year they actually forgot to pay out **Selected Value's** capital gains distribution on the same day as its income distribution. Vanguard claimed it made no difference to shareholders, but in fact, it did—and I proved it. The point is you need to keep a wary eye on what Vanguard's doing, and Vanguard needs to maintain better procedures for what it's doing.

Finally, things can and do change, including distribution dates. So keep an eye out for any changes by watching Vanguard's website. I'll try to keep you posted via the *Hotline* as well.

RECORD DATE: 12/12 EX-DATE: 12/13 Consumer Discretionary Index, Consumer Staples Index, Energy Index, Financials Index, Health Care Index, Industrials Index, Information Technology Index, Materials Index, Telecom Services Index, Utilities Index. Also, active bond funds paying capital gains only.

RECORD DATE: 12/15 EX-DATE: 12/14 Consumer Discretionary ETF, Consumer Staples ETF, Energy ETF, Financials ETF, Health Care ETF, Industrials ETF, Information Technology ETF, Materials ETF, Russell 1000 ETF, Russell 1000 Growth ETF, Russell 1000 Value ETF, Russell 2000 ETF, Russell 2000 Growth ETF, Russell 2000 Value ETF, Russell 3000 ETF, Telecom Services ETF, Utilities ETF

RECORD DATE: 12/15 EX-DATE: 12/18 Capital Opportunity, Capital Value, Emerging Markets Select Stock, Equity Income, European Stock Index, Explorer, Explorer Value, Global Equity, Global ex-U.S. Real Estate Index, Global Wellesley Income, Growth and Income, International Growth, International Value, International Explorer, International Dividend Appreciation Index, International High Dividend Yield Index, Managed Payout, MidCap Growth, Morgan Growth, Pacific Stock Index, PRIMECAP, PRIMECAP Core, Selected Value, Social Index, Strategic Equity, Strategic SmallCap Equity, Total World Stock Index, U.S. Growth, U.S. Value, Wellesley Income, Windsor, Windsor II

RECORD DATE: 12/20 EX-DATE: 12/19 Europe ETF, Global ex-U.S. Real Estate ETF, International Dividend Appreciation ETF, International High

Dividend Yield ETF, Pacific ETF, S&P 500 Growth ETF, S&P 500 Value ETF, S&P MidCap 400 ETF, S&P MidCap 400 Growth ETF, S&P SmallCap 600 ETF, S&P SmallCap 600 Growth ETF, S&P SmallCap 600 Value ETF, Total World Stock ETF

RECORD DATE: 12/19 EX-DATE: 12/20 Developed Markets Index, Dividend Appreciation Index, Dividend Growth, Emerging Markets Stock Index, Energy, Extended Market Index, Global Minimum Volatility, Growth Index, Health Care, High Dividend Yield Index, LargeCap Index, MidCap Growth Index, MidCap Index, MidCap Value Index, Precious Metals & Mining, REIT Index, SmallCap Growth Index, SmallCap Index, SmallCap Value Index, Total International Stock Index, Total Stock Market Index, Value Index, World ex-U.S. SmallCap Stock Index, World ex-U.S. Stock Index

RECORD DATE: 12/22 EX-DATE: 12/21 Developed Markets ETF, Dividend Appreciation ETF, Emerging Markets ETF, Extended Market ETF, Growth ETF, High Dividend Yield ETF, LargeCap ETF, MidCap ETF, MidCap Growth ETF, MidCap Value ETF, REIT ETF, S&P MidCap 400 Value ETF, SmallCap ETF, SmallCap Growth ETF, SmallCap Value ETF, Total International Stock ETF, Total Stock Market ETF, Value ETF, World ex-U.S. ETF, World ex-U.S. SmallCap ETF

RECORD DATE: 12/21 EX-DATE: 12/22 500 Index, Alternative Strategies, Balanced Index, Convertible Securities, Core Bond, Emerging Markets Government Bond Index, Global Wellington, Market Neutral, Tax-Managed Capital Appreciation, Tax-Managed Balanced, Tax-Managed SmallCap, Ultra-Short-Term Bond, Wellington. Also, bond index funds paying capital gains only.

RECORD DATE: 12/27 EX-DATE: 12/26 Emerging Markets Government Bond ETF, Extended Duration Treasury ETF, Intermediate-Term Bond ETF, Intermediate-Term Corporate Bond ETF, Intermediate-Term Government Bond ETF, Long-Term Bond ETF, Long-Term Corporate Bond ETF, Long-Term Government Bond ETF, MegaCap ETF, MegaCap Growth ETF, MegaCap Value ETF, Mortgage-Backed Securities ETF, S&P 500 ETF, Short-Term Bond ETF, Short-Term Corporate Bond ETF, Short-Term Government Bond ETF, Short-Term Inflation-Protected Securities ETF, Tax-Exempt Bond ETF, Total Bond Market ETF, Total Corporate Bond ETF, Total International Bond ETF

RECORD DATE: 12/27 EX-DATE: 12/28 Diversified Equity, Managed Payout, STAR, STAR *LifeStrategy* funds, Target Retirement funds

Upgrade Now



When I started this newsletter in 1991, I had to thumb through paper SEC filings and copy fund data by hand. But now, thanks to advances in technology and the efforts of our team at InvestorPlace, Jeff and I are able to bring you an unprecedented research tool for Vanguard investors: **The Independent Vanguard Fund Analyzer**.

The Fund Analyzer takes everything you know from our monthly newsletter and annual guidebook to a whole new level. Like our guidebook, it contains comprehensive data on every Vanguard fund we track. And like our newsletter, it's updated every month. (Some data is even updated daily.)

But unlike either, it gives you direct access to a suite of online, interactive charts, tables, and other analytical tools created directly from our in-house database—and it's designed to work with any computer or mobile device you own. It's like being right there in our office with us, as your own independent fund analyst on our research team, with our proprietary risk and return statistics like rolling returns, relative returns, Maximum Cumulative Loss (MCL), and many more at your fingertips.

And the best part is, you can get the Fund Analyzer for only \$199 a year. For details on how you can try it risk-free for 30 days, visit www.thefundanalyzer.com/JoinNow or call 800/211-7641 and mention code **MT9207**.

> I imagine Vanguard thought they were catching liquid gold in a fund with low volatility and high relative returns. In the fund's first annual report under Vanguard control, then-chairman Jack Brennan praised the fund's managers for earning a 5.3% annualized return since inception compared to the stock market's 4.4% return. Those good times never rolled so well again.

Brennan also said, when Vanguard announced the adoption of the fund, that he saw it as an “opportunity to expand our relationship with a respected advisor and bring a new investment strategy to our institutional clients through a relatively low-cost fund with an established track record,” while noting that Vanguard had expanded its institutional offerings to include “structured” equity funds.

Well, today those structured funds have all been shuttered. And Market Neutral's “respected advisor” was, as I said, pink-slipped. Meantime, Market Neutral soldiers on with little to show for all its ups and downs.

Yes, as Jeff explained last month, Market Neutral's upside/downside capture ratio is very, very good—which is, of course, what a market neutral fund tries to achieve. But what the ratio doesn't tell you is that while the

fund doesn't go down as much as the markets, it also doesn't go up very much at all. If I want a fund to do that for me, well, I guess I could buy a money market. In fact, investors who

While the fund doesn't go down as much as the markets, it also doesn't go up very much.

bought **Prime Money Market** 10 years ago earned a 5.4% return compared to Market Neutral's 3.1% return.

And, for what it's worth, with a money market fund there's no volatility at all!

If you can handle a little volatility, consider **Short-Term Investment-Grade**, which has earned 32.5% over the past decade without being dependent on the stock market. And while still new, I think it's a good bet that **Ultra-Short-Term Bond** would be another option for beating three-month Treasury bills, which is the rather low benchmark hurdle that Market Neutral is held to.

Happy 10th birthday, Market Neutral. I wonder if you'll reach your 20s. ■

DO-IT-NOW ACTION RECOMMENDATIONS

- ✓ Funds with “Income” in the name don't always deliver much income. Which are the best? (see page 1)
- ✓ **Short-Term Inflation-Protected Securities Index**, **Extended Duration Treasury ETF** and **Market Neutral** may all be celebrating birthdays, but I won't be sending any of them a check this year—you shouldn't either. (see pages 5, 7 and 13)
- ✓ Distribution season is here, and a few funds are going to have big payouts. Check the schedule to avoid “buying a dividend.” (see page 14)



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Jeffrey D. DeMaso, Editor/Director of Research, works directly with Dan Wiener researching and writing the multiple-award winning *Independent Adviser for Vanguard Investors* newsletter. He also leads the analyst team for Adviser Investments, LLC. Jeff gradu-

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