

Selections & Timing Vanguard Fund Family

PO Box 3367 Bella Vista AR 72715

Striving to provide you with the most return and the least risk.

Date: June 2019 (pricing data through 5/30/19) Publisher: Watercourse Way Holdings, LLC

Volume: 5 Number: 6 SelectionsAndTiming.com 401kSelections.com Editor: Stephen L. McKee

UPDATE: We suggest the following changes, if any, noted under "ACTIVITY TO DO NEW ON".

| | 1 | /ANGUARD, | selected & | & timed (3-mc | nth hold |
|----------------|--------------|----------------|------------|---------------|----------|
| Past & Future | | | Action | Number | Action |
| Activity | Activity | Fund | Price | of Shares | Value |
| ACTIVITY PAST | Ī | | | | |
| 1-Mar | buy | VFICX | 9.50 | 3,684.2105 | 35,000 |
| 1-Mar | buy | VWEHX | 5.74 | 6,097.5610 | 35,000 |
| 1-Mar | buy | VGSLX | 118.67 | 294.9355 | 35,000 |
| corrected VGSI | X to VGSLX | | | | |
| ACTIVITY TO D | O NEW ON | | | | |
| 31-May | sell | VWEHX | | | |
| 31-May | sell | VGSLX | | | |
| 31-May | buy | VFSTX | | | |
| 31-May | buy | VBMFX | | | |
| | | | | | |
| buys are each | about 32% of | total portfoli | io | | |

| | | 2015 | 2016 | 2017 | 2018 | ytd 2019 | 12 m | 9 m | 6 m | 3 m | 1 m |
|---|----------------------------|------|------|------|------|----------|------|------|-----|------|------|
| | Vanguard Portfolio | -1.1 | -6.5 | 16.8 | 6.6 | 3.3 | 3.5 | -4.2 | 3.4 | 2.9 | 0.4 |
| | World Growth Index | -3.0 | 10.7 | 23.6 | -6.7 | 11.7 | 0.2 | -5.8 | 1.8 | -0.7 | -5.9 |
| | World Income Index | 0.2 | 2.6 | 5.0 | -1.5 | 6.5 | 7.5 | 6.4 | 8.1 | 3.8 | 1.3 |
| ١ | World Hybrid (60/40) Index | -2.0 | 8.0 | 17.8 | -5.2 | 10.0 | 2.3 | -2.4 | 3.7 | 0.6 | -3.8 |

We track and rank 48 Vanguard funds monthly by C, the risk-adjusted relative strength metric. We buy and hold the three top funds.

After at least a three-month hold, we either stay with the buys or sell the laggards and buy the new leaders. This is a proactive rotational allocation strategy. The funds and ranks are shown on page 2.

The right side of the top table above shows the Vanguard Portfolio at month end. The left side

shows new trades upcoming for the month and past trades from previous months.

The lower table above shows the Vanguard Portfolio compared with the World Indexes.

If you have any questions, please email us. Thank you.

Info@SelectionsAndTiming.com

Vanguard Fund Family by C

VANGUARD FUND FAMILY by C

| ETF | Sell | | | | | | | | | | | | | | | Fmly |
|---------|-----------|--------|------------------------------|--------|-----|---|-------|-------|------|------|------|--------|-----|-------|-------|-------|
| Altrntv | Eligible | Legend | Fund Name | Symbol | S | Α | 12m | 9m | 6m | 3m | 1m | NAV | ٧ | cs | С | Rank |
| BSV | to buy | FST | Vanguard ST InvstGrd | VFSTX | BS | В | 4.1 | 3.4 | 3.5 | 1.5 | 0.3 | 10.63 | 0.3 | 12.4 | 35.8 | **** |
| BIV | 5/31/2019 | FST | Vanguard IT InvstGrd | VFICX | BI | В | 6.8 | 5.8 | 6.7 | 3.2 | 0.8 | 9.77 | 0.7 | 22.9 | 32.1 | **** |
| VGSH | | FST | Vanguard ST Federal | VSGBX | BS | В | 3.2 | 3.0 | 2.7 | 1.4 | 0.4 | 10.66 | 0.3 | 10.1 | 30.3 | **** |
| BND | to buy | FST | Vanguard TTL Bond Index | VBMFX | BI | В | 5.8 | 5.2 | 6.0 | 3.1 | 1.1 | 10.78 | 0.7 | 20.8 | 29.9 | **** |
| VGSH | | FST | Vanguard ST Trsry | VFISX | BS | В | 3.1 | 2.7 | 2.4 | 1.2 | 0.3 | 10.54 | 0.3 | 9.2 | 29.8 | **** |
| VGIT | | FST | Vanguard IT Trsry | VFITX | BI | В | 5.9 | 5.4 | 5.3 | 3.0 | 1.3 | 11.19 | 0.8 | 20.4 | 27.0 | **** |
| BLV | | FST | Vanguard LT InvstGrd | VWESX | ВІ | В | 9.2 | 8.3 | 12.8 | 6.7 | 2.3 | 10.32 | 1.5 | 38.8 | 25.9 | **** |
| VMBS | | FST | Vanguard GNMA | VFIIX | BU | В | 4.4 | 3.9 | 4.3 | 1.8 | 0.7 | 10.41 | 0.6 | 14.5 | 25.1 | **** |
| VTIP | | FST | Vanguard FI TIP | VIPSX | BS | В | 3.8 | 3.0 | 5.1 | 3.2 | 1.1 | 13.04 | 0.7 | 15.8 | 21.5 | **** |
| VGLT | | FST | Vanguard LT Trsry | VUSTX | BL | В | 10.1 | 9.5 | 13.8 | 8.7 | 5.1 | 12.64 | 2.5 | 46.6 | 19.0 | **** |
| NotAvI | | FST | Vanguard Wellesley Incm | VWINX | Н | I | 7.0 | 4.1 | 5.1 | 1.7 | -0.5 | 26.03 | 1.2 | 17.7 | 14.3 | **** |
| NotAvI | to sell | FST | Vanguard High Yld Corp | VWEHX | BH | В | 6.4 | 3.8 | 5.7 | 1.5 | -1.0 | 5.76 | 1.2 | 15.8 | 12.7 | **** |
| VNQ | to sell | FST | Vanguard REIT | VGSLX | | Е | 14.2 | 6.2 | 7.4 | 3.6 | -0.5 | 122.41 | 3.4 | 30.4 | 8.9 | **** |
| VIG | | FST | Vanguard Div Grth | VDIGX | | Е | 13.7 | 6.7 | 5.8 | 4.4 | -2.0 | 28.15 | 3.2 | 28.1 | 8.7 | * * * |
| VUG | | FST | Vanguard Morgan Growth | VMRGX | ELC | Е | 8.9 | 1.0 | 9.1 | 4.0 | 0.0 | 27.82 | 3.6 | 22.6 | 6.3 | * * * |
| NotAvI | na | FSTC | Vanguard Wellington | VWELX | Н | Η | 6.2 | 1.7 | 3.5 | 1.7 | -2.2 | 40.14 | 2.1 | 10.5 | 5.1 | *** |
| NotAvI | | FST | Vanguard Balanced | VBINX | Н | Н | 5.0 | 0.2 | 3.8 | 1.3 | -2.6 | 35.81 | 2.2 | 7.2 | 3.3 | * * * |
| MGK | | FST | Vanguard Index Grth | VIGRX | | Е | 5.9 | -2.5 | 6.1 | 2.5 | -5.1 | 80.03 | 4.0 | 6.4 | 1.6 | * * * |
| MGK | | FST | Vanguard US Growth | VWUSX | ELC | Е | 6.6 | -1.7 | 5.3 | 1.4 | -4.8 | 38.88 | 4.1 | 6.3 | 1.5 | * * * |
| NotAvI | | FST | Vanguard Star | VGSTX | Н | Н | 1.9 | -1.3 | 3.5 | 0.3 | -3.4 | 25.80 | 2.2 | 0.6 | 0.3 | * * * |
| VOO | | FST | Vanguard 500 Index | VFINX | ELC | Е | 5.0 | -2.5 | 2.0 | 0.6 | -5.1 | 258.17 | 3.6 | -0.5 | -0.2 | * * * |
| VYM | | FST | Vanguard Equity Income | VEIPX | EGI | Е | 4.6 | -0.7 | 0.2 | -0.6 | -4.3 | 34.48 | 2.9 | -1.3 | -0.4 | * * * |
| VT | | FST | Vanguard Global Eqty | VHGEX | EW | Е | -0.1 | -3.0 | 3.6 | 0.2 | -4.7 | 29.27 | 3.0 | -4.4 | -1.3 | * * * |
| VO | | FST | Vanguard MidCap Index | VIMSX | EMC | Е | 2.4 | -3.5 | 3.4 | -0.5 | -5.3 | 43.12 | 3.6 | -4.0 | -1.4 | * * * |
| VYM | | FST | Vanguard Grw th & Incm | VQNPX | EGI | E | 3.4 | -4.2 | 1.2 | -0.2 | -5.4 | 46.47 | 3.6 | -5.7 | -2.0 | * * * |
| MGV | | FST | Vanguard Value Index | VIVAX | EV | Е | 3.9 | -2.7 | -1.5 | -1.4 | -5.1 | 41.20 | 3.2 | -7.3 | -2.3 | * * * |
| VYM | | FST | Vanguard High Yld Dividend | VHDYX | EV | Е | 2.9 | -2.0 | -1.4 | -1.9 | -5.1 | 33.13 | 3.0 | -8.0 | -2.4 | * * * |
| VGK | | FST | Vanguard European Index | VEURX | EW | E | -5.3 | -4.8 | 4.1 | -0.5 | -4.9 | 28.43 | 3.0 | -12.0 | -3.6 | * * * |
| MGV | | FST | Vanguard Windsor II | VWNFX | ELC | E | 1.6 | -4.9 | -0.5 | -1.2 | -6.0 | 34.17 | 3.4 | | -3.9 | * * * |
| VBK | | FST | Vanguard SmlCap Grwth | VISGX | ESC | _ | 1.4 | -7.3 | 4.1 | -2.2 | -5.5 | 49.31 | 4.6 | -9.9 | -4.6 | *** |
| NotAvI | | FST | Vanguard Intl Value | VTRIX | EW | Е | -6.5 | -5.6 | 0.7 | -2.2 | -5.5 | 34.25 | 2.8 | -19.6 | -5.6 | *** |
| VWO | | FST | Vanguard Emrg Mrkt | VEIEX | EW | Е | -7.0 | -2.1 | 2.8 | -3.0 | -6.8 | 25.58 | 3.6 | -16.6 | -5.9 | * * * |
| NotAvI | | FST | Vanguard Pacific Index | VPACX | EW | Е | -9.5 | -6.9 | -0.9 | -2.8 | -4.5 | 12.17 | 2.7 | -25.2 | -6.7 | *** |
| VBK | | FST | Vanguard Explorer | VEXPX | ESC | Е | 1.2 | -8.5 | 2.1 | -3.0 | -6.1 | 96.00 | 4.8 | -14.8 | -7.0 | *** |
| NotAvI | | FST | Vanguard Intl Growth | VWIGX | EW | E | -7.4 | -7.2 | 2.9 | -2.2 | -7.9 | 27.53 | 3.6 | -22.4 | -8.0 | * * |
| MGV | | FST | Vanguard Windsor | VWNDX | ELC | E | -4.5 | -7.8 | -1.5 | -3.1 | -6.6 | 19.83 | 3.4 | -24.0 | -8.2 | * * |
| VXUS | | FST | Vanguard Intl Equity | VFSVX | EW | E | -13.1 | -9.9 | 8.0 | -3.1 | -5.4 | 38.52 | 2.8 | -31.1 | -8.7 | * * |
| VTV | | FST | Vanguard US Value | VUVLX | EV | E | -4.5 | -8.9 | -4.1 | -3.5 | -6.0 | 16.99 | 3.2 | -27.5 | -8.9 | * * |
| VXF | | FST | Vanguard Extended Mrkt Index | VEXMX | EMC | E | -2.7 | -9.2 | 0.9 | -3.5 | -6.0 | 85.40 | 4.3 | -20.9 | -9.0 | * * |
| VOE | | FST | Vanguard Cap Value | VCVLX | EV | E | -4.0 | -8.7 | -2.2 | -4.0 | -6.5 | 12.30 | 3.7 | -25.9 | -9.5 | * * |
| VB | | FST | Vanguard SmlCap Index | NAESX | ESC | Е | -2.9 | -9.4 | 0.2 | -3.8 | -6.3 | 71.07 | 4.4 | -22.6 | -9.9 | * * |
| VOE | | FST | Vanguard Slctd Value | VASVX | EV | E | -6.4 | -7.8 | -2.0 | -3.7 | -6.4 | 24.91 | | -26.6 | | * * |
| MGK | na | FSTC | Vanguard PRIMECAP | VPMCX | ELC | | -0.8 | -8.2 | -3.7 | -4.8 | -7.0 | | | -25.0 | | * * |
| VO | | FST | Vanguard Strtg Eqty | VSEQX | EMC | | | -11.6 | 0.0 | -4.4 | -6.5 | 30.30 | | -28.7 | | * * |
| MGK | na | FSTC | Vanguard Cap Opprtn | VHCOX | ELC | | -1.7 | | -3.6 | -5.5 | -7.6 | 61.41 | | -28.7 | | * |
| VWO | | FST | Vanguard Intl Explorer | VINEX | | Е | -17.7 | | -1.5 | -3.0 | -7.0 | 16.12 | 3.2 | | | * |
| NotAvI | | FST | Vanguard Prcs Mtls | VGPMX | EG | Е | -23.9 | -10.7 | -2.0 | -5.1 | -6.4 | 7.33 | 3.4 | -48.6 | -16.3 | * |
| | | | | | | | | | | | | | | | | |

This table shows the Vanguard funds we track and their ETF counterparts (column 1). The green highlight in column 2 (Sell Eligible) means these 35 funds were part of the back test. For the most part, those will also be the funds in the portfolio, even if there are higher ranked funds. The reason for this is to provide continuity. The results of the back test are shown on page 3. The Sell Eligible column 2 also shows the three funds in the portfolio and their eligible sell date. For Vanguard, we assume at least a three-month holding period to avoid redemption charges. Please see page 4 for more legend details.

Back Test Results



The chart and tables show the back tested results of buying the top three Vanguard Family funds as measured by C, holding for at least 90 days, and rotating out of the laggards into the leaders on an ongoing continuous basis. On the chart, C-lect 3 Vanguard is the blue line following a rotation strategy, VWELX (Vanguard Wellington), a balanced fund, is the red line following a buy and hold approach, and SPY (S&P 500), a domestic large cap ETF, is the green line following a buy and hold approach. The period is from 1/1/1993 through 9/30/2015. Account start values were \$100,000. No additions or subtractions were made thereafter.

While buying and selling based on C, the risk-adjusted relative performance metric, over the years and decades in the back test produced superior results, in any one year the C ranking may or may not outperform the markets. This may be due to increased market volatility in that year.

For the test, one fund's sell and buy rebalanced all funds held, though in real time, one sell buys one fund for about the same amount would be practiced.

The same funds were used for the whole back test.

Dividends are reinvested. Taxes are not considered.

Information does not take into account your personal situation.

Past performance does not guarantee future performance. There is no assurance that future periods will be equivalent or similar to past periods. In a back test, there is no guarantee that actual trades could actually be made at the actual prices. All investments have risk; you may lose principle when investing. There are no guarantees. Read the fund's prospectus.

| TRAILING RETURNS | to year end 2014 |
|---------------------|---------------------|
| 1 year | 11.2 |
| 3 years | 14.0 |
| 5 years | 9.4 |
| 10 years | 12.2 |
| 15 years | 13.6 |
| 20 years | 16.0 |
| Inception | 14.7 |

| PAST PERFORM | MANCE |
|--------------|-------|
| 2014 | 11.2 |
| 2013 | 36.0 |
| 2012 | (2.2) |
| 2011 | 3.1 |
| 2010 | 2.8 |
| 2009 | 20.4 |
| 2008 | (0.1) |
| 2007 | 18.3 |
| 2006 | 24.2 |
| 2005 | 14.2 |
| 2004 | 25.7 |
| 2003 | 21.5 |
| 2002 | 12.6 |
| 2001 | 4.9 |
| 2000 | 18.8 |
| 1999 | 55.1 |
| 1998 | (0.2) |
| 1997 | 25.8 |
| 1996 | 14.5 |
| 1995 | 28.2 |
| 1994 | 2.5 |
| 1993 | 10.9 |
| 1992 | (1.0) |
| 1991 | 22.4 |

Legend

| ETF | Sell | | | | | | | | | | | | | | | Fmly |
|---------|----------|--------|-----------|--------|---|---|-----|----|----|----|----|-----|---|----|---|------|
| Altrntv | Eligible | Legend | Fund Name | Symbol | S | Α | 12m | 9m | 6m | 3т | 1m | NAV | V | CS | С | Rank |

This information below identifies the column headings shown above, which are also on page 2.

ETF Altrntv is the Vanguard ETF alternative to its mutual fund.

Sell Eligible is the earliest date from purchase that the fund may be sold. For Vanguard, it is three months. If there is a green highlight, it means the fund was part of the back test. If there is a date, it means the portfolio owns the fund and it is the earliest date the fund may be sold, assuming a minimum of a three-month hold.

Legend shows fund specific information. It is a short list of where the fund is available for purchase (F is Fidelity, S is Schwab, T is TDAmeritrade). C means the fund is closed. R means there is a short-term redemption fee.

Fund Name is the fund name.

Symbol is the fund ticker symbol. This is the official identification.

S is Style. The first letter is for the A, the next letter or two is the style. BS is bond short-term. BI is bond intermediate. BL is bond long. BH is bond high-yield. BW is bond world. BU is bond government. EG is equity gold. EGI is equity growth/income. ELC is large cap. EMC is mid cap. ESC is small cap. EV is value. EW is world. H is hybrid. **A** is Asset. B is bond. H is hybrid. E is equity.

12m, 9m, 6m, 3m, 1m is a fund's returns over those periods. Dividends are reinvested.

NAV is net asset value.

V is volatility, a measure of risk.

CS is comet strength, a measure of relative performance to an index. The index is 60% of the World Growth Index and 40% of the World Income Index.

C is comet, the risk-adjusted relative performance metric. The higher the C is the better.

Fmly Rank is family rank. This shows where the fund ranks by C within the fund family. This is either 5, 4, 3, 2, or 1 comets. 5 is the highest ranked by C.

World Growth Index (WGI) is made up of 20% EEM, EFA, IWM, QQQ, SPY.

World Income Index (WII) is made up of 20% PCY, BSV, TLH, LOD, JNK.

World Hybrid Index is made up of 60% WGI and 40% WII.

Watercourse Way Holdings, LLC publishes and owns *Selections & Timing Vanguard Fund Family*. It is normally posted to SelectionsAndTiming.com by the fifth business day of the month. Price data is through the previous month's end. Email notifications go to subscribers that the new issue is posted. Hotlines may be sent between issues. There is no mailed issue. Currently this newsletter is included with subscriptions to *No-Load Mutual Fund Selections & Timing Newsletter*.

Email SMcKee@SelectionsAndTiming.com or call 1-800-800-6563 with any questions or comments.

To subscribe, please call 1-800-800-6563 or visit our web site SelectionsAndTiming.com or write to PO Box 3367 Bella Vista AR 72715. Subscriptions are \$180.00 per 12 issues (12 months) or \$18/month. Subscriptions also include emailed hotline updates and special reports. Subscriptions may be tax deductible.

Disclaimer, Nothing in this Newsletter should be construed as an offer to buy or sell any securities. Information herein does not consider your personal situation. Information is assembled from sources who are believed reliable, but the accuracy of data or advice cannot be guaranteed. Past performance does not guarantee future performance. No chart, strategy, back test, or tactic guarantees gains or losses. No assurances can be given that objectives will be met. The company, its officers, staff, and clients may or may not invest in the funds and/or in the proportions shown herein. All disclaim any and all liability for any losses that may result from use of any information presented herein. All investments involve risk of loss. Read a fund's prospectus carefully before investing.

To reprint limited material, provide full credit, including name, address, phone number, and web site SelectionsAndTiming.com. **Copyright**, ©, 2015-19, Watercourse Way Holdings, LLC. All rights reserved.