

## A DIYer's Turn

The portfolio subjected to HCM's latest deep-dive analysis belongs to a 68 year old , retired Do-It-Yourselfer. It's 34.9% cash is the result of attempting to time the Market's top. According to the front page of yesterday's WSJ, "Many Investors Bailed Out Early", he isn't alone: "One of the biggest surprises of the U.S. stock market's relentless rally is how many individual investors have run away from it... Throughout the nearly nine-year surge in share prices, individual investors have continued to yank money out of funds that own U.S. stocks. Nearly \$1 trillion has been pulled from retail-investor mutual funds that target U.S. stocks since the start of 2012, according to EPFR Global, a fund-tracking firm. Over that same period through Wednesday, the S&P 500 soared 116% and, along with the Dow Industrials and Nasdaq Composite Index, rose to 190 all-time highs... Rather than celebrating this wealth-generating machine, individual investors have made clear in multiple surveys just how little enthusiasm they have for this stock market."

Our "biggest" surprise wasn't that a DIYer would be nervous about the stock market. Nearly all the calls we receive looking for reassurance are from DIYers, despite the fact that the majority of those who receive these Worth Sharing's are clients (we restrict the free advice to family and friends, and only provide recommendations on positions after we have taken action for HCM's clients). Our "biggest" surprise wasn't this "portfolio's lack of international diversification." That has been the case for nearly every portfolio we've analyzed. It is an all too common unforced "error" that was costly in 2017, as foreign stocks outperformed domestic stocks. Our "biggest" surprise was that despite 34.9% in cash, this portfolio's potential drawdown during the next correction or bear market equals that of the S&P 500. Finally, it is important to note that "Our Recommended Portfolio" was designed to show how the cash could be put to work while lowering the portfolio's **Risk** to **0.8** of the S&P 500's, and did not result from establishing a Risk Profile, always the first step with a client.

January 3, 2018

I have consolidated your 4 accounts into a single portfolio for analysis:

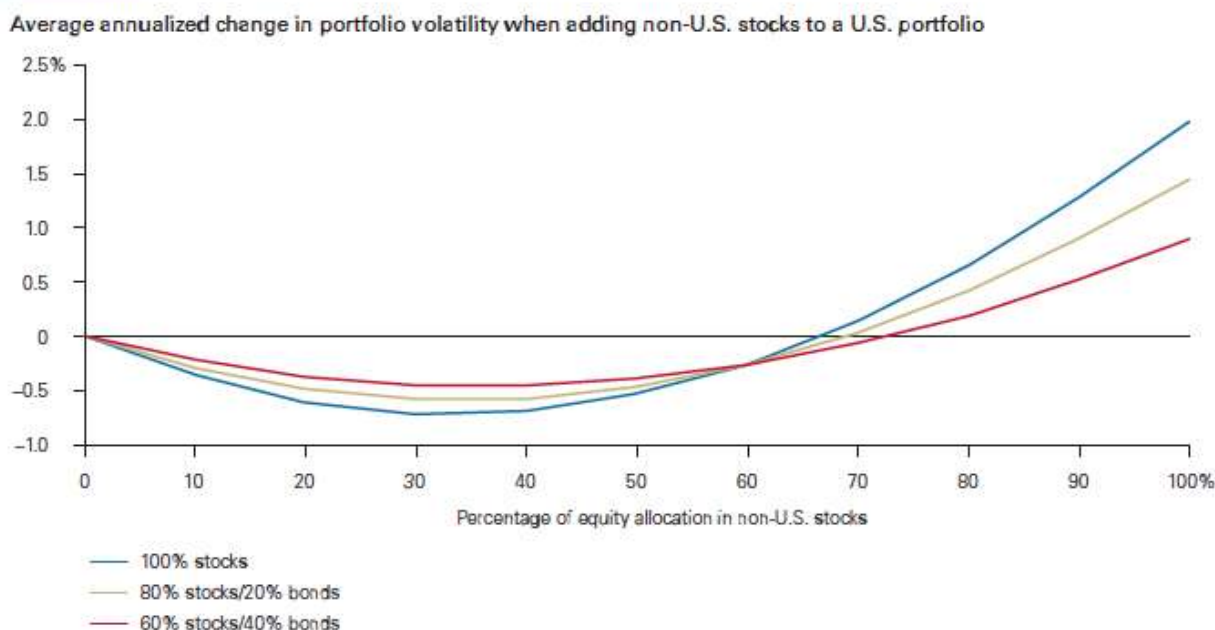
%	Symbol	Type	Description	Risk (1)
<b>DIY</b>				
34.9			Cash	0
6.1			3 Stocks	1.7
2.3	BPLEX	OEF	Domestic Long/Short Equity-Mid Blend	0.9
2.2	FRIFX	OEF	Domestic Real Estate	0.6
7.1	FSCSX	OEF	Domestic Technology	1.4
4.9	FSRFX	OEF	Domestic Transportation	2.1
19.8	RYPNX	OEF	Domestic Small Value	1.8
19.2	VALUX	OEF	Domestic Large Value	1.3
1.5	DODFX	OEF	Foreign Large Blend	1.8
1.3	PRWCX	OEF	Domestic 50-70% Lg Growth	0.7
0.7	WASAX	OEF	World Allocation	1.6
			<b>Weighted Average:</b>	<b>1.0</b>
<b>Notes</b>				
1	Ratio of average historical Maximum Drawdowns to S&P 500 declines of at least 10%			

In the above chart, **Type** refers to Funds, all of which in this case are Open-End Funds (OEFs), often referred to as Mutual Funds. **Description** includes the Morningstar Category for most of these Funds. **Risk** is fully explained on our website: <http://www.hughescapitalmanagement.com/>

"Volatility creates Opportunity, but only if the investor has a sufficient Investment Horizon and can keep the inevitable fear during market declines in check. ... Instead of volatility, HCM uses maximum drawdown as its preferred measurement of risk." As described in **Note 1**, we calculate the Maximum Drawdown of each fund relative to the S&P 500 when it declines by at least 10%, since and including the Great Recession's Bear Market, which ended on March 9, 2009, unless there has been a subsequent Manager change, in which case only those Drawdowns attributable to the new Manager are included.

Before discussing each fund, we need to note our biggest concern, your portfolio's lack of international diversification. From "Wells Fargo's Turn - 12/13/16", under Worth Sharing on our website: "As investing legend John Templeton once observed, **"The only investors who shouldn't diversify are those who are right 100% of the time."** The minimum allocation to International stocks that HCM currently recommends is 40%. International stocks constitute nearly half of the most widely followed global benchmark, the Morgan Stanley Capital International All Country World Index (MSCI ACWI), and two thirds of the world's total market capitalization. ... Academics term this error **Home Bias**, which is defined by Investopedia as "the tendency for investors to invest in a large amount of domestic equities, despite the purported benefits of diversifying into foreign equities." From International Diversification, Part 2 - 9/10/17: "Our continuing recommendation of a 40% allocation to International Stocks for clients whose primary objective is Capital Appreciation and for whom we are buying individual stocks is at the high end of the range that has historically been most effective in reducing volatility. As noted by Jon Seed in "Passive" Investing: Theory and Practice in a Global Market,

**Figure 3.** Adding non-U.S. stocks has historically reduced the total volatility of a portfolio



Notes: U.S. equities represented by MSCI USA Index; non-U.S. equities represented by MSCI World Index ex USA from 1970 through 1987 and MSCI All Country World Index ex USA thereafter. Bond data represented by Salomon High Grade Index from 1970 through 1972, Lehman Long-Term AA Corporate Index from 1973 through 1975, and Barclays U.S. Aggregate Bond Index thereafter. Data through December 31, 2013.

Sources: Vanguard, Thomson Reuters Datastream, and MSCI.

"While Vanguard recognizes that the diversification benefits of international equities are real, they suggest that anywhere between 20-40% is "adequate." Vanguard buttresses this conclusion by showing that most of the benefits of international equity diversification dissipates quickly."

**Cash** - Surprisingly, despite your portfolio's 34.9% cash, which is dead money, its **Risk** is equal to that of the S&P 500. Even after excluding the Great Depression, which began in 1929, and Recession, which began in 2007, the average Bear Market has resulted in a Maximum Drawdown of 33%. By our calculations your current portfolio would suffer a similar loss.

**3 Stocks** - While we do build diversified portfolios of individual stocks for clients focused on Capital Appreciation or Income, each position typically starts at 2% of the portfolio, and is trimmed back to 2% when it reaches 4%. AMAT is 5.7% of your portfolio, and doesn't meet either our Insider Buying or Valuation criteria. For what it is worth, here is Morningstar's analysis of this 2 star rated stock:

## **Applied Materials Shows No Signs of Slowing Down in 2018; Raising Fair Value to \$43 Per Share**

by Abhinav Davuluri Senior Equity Analyst

**Analyst Note** 11/16/2017

Applied Materials reported fiscal fourth-quarter results that were slightly ahead of our expectations, thus concluding a year characterized by stellar equipment spending and share gains. We continue to view Applied's prospects favorably, particularly in 3D NAND, future logic/foundry processes, and advanced display (OLED). Similar to major peer Lam Research, Applied's management views 2018 as another year of strong wafer fab equipment spending, with calendar 2017 and 2018 on pace to surpass \$90 billion in aggregate. Furthermore, the firm claimed fiscal 2018 should be its third consecutive year generating double-digit revenue growth. Consequently, we are raising our fair value estimate to \$43 from \$35 per share. Nevertheless, we caution investors to be mindful when extrapolating recent share gains and addressable market expansion beyond 2018 for this wide-moat equipment behemoth, as current levels appear overly optimistic.

Fourth-quarter revenue rose 20% year over year to \$3.97 billion, as equipment sold to semiconductor manufacturers was up 14%. Sequential declines in foundry and DRAM sales were offset by strength in logic supporting Intel's 10-nanometer process ramp, corroborated by an uptick in logic revenue at other equipment providers. Display revenue also contributed to the strong quarter, coming in ahead of our model at \$677 million (up 50% year-over-year) primarily in support of OLED screens in premium smartphones. Gross margins fell 40 basis points from the prior quarter to 45% due to a product mix skewed to lower-margin display products.

**Investment Thesis** 08/18/2017

Applied Materials is a leading vendor of semiconductor fabrication tools. While competitors tend to specialize in a single core competency, Applied competes in almost every key equipment segment with the exception of photolithography. As a result, all major chipmakers develop strong relationships with Applied that span multiple process steps of their chip production. The firm is the dominant player in the material deposition and removal (etch and planarization) areas, among others.

Applied boasts an impressive global presence with an installed base of more than 30,000 tools and customer engineers stationed in nearly every chip-manufacturing facility in the world. With semiconductor fabrication becoming increasingly complex, resulting in more process steps and new manufacturing technologies, collaboration between chipmakers and equipment providers is set to reach unprecedented levels. We expect Applied to leverage existing relationships and insights into future customer technology needs to take advantage of the proliferating demand for state-of-the-art chips.

The company's scale and resources allow a research and development budget in excess of \$1.5 billion to serve cutting-edge technologies. Recent inflections such as 3D architectures (found in advanced NAND and logic chips) have been enabled by advanced tools in deposition and removal. As a result, these segments have grown faster than the broader market in recent years, and firms such as Applied have directly benefited, as they can outspend smaller chip equipment firms in R&D to develop relevant solutions.

Beyond semiconductors, Applied is a leading supplier of manufacturing tools for flat-panel displays, including liquid crystal displays, or LCDs, and organic light-emitting diodes, or OLEDs. The cyclical nature of the chip industry and the display market is a ubiquitous threat to equipment suppliers. However, we believe Applied's expansive product portfolio and large installed base will allow the firm to comfortably weather business cycles over time, and we expect the company to experience decent growth over the long term.

#### **Economic Moat 08/18/2017**

We believe Applied Materials has a wide economic moat based on its intangible assets around equipment design expertise and research and development cost advantages required to compete for the business of leading-edge manufacturers. These characteristics have allowed it to become the top vendor in the semiconductor equipment market. Applied's scale and resources allow a research and development budget in excess of \$1.5 billion to serve cutting-edge technologies and thus benefit from inflections such as fin field-effect transistors, or FinFET, and 3D NAND. Advanced tools in deposition and etch have become critical for multiple patterning that enables leading-edge processes. As a result, these segments have grown faster than the broader market in recent years, and firms such as Applied have directly benefited, as it can outspend smaller chip equipment firms in research and development, or R&D, to develop relevant solutions. Incumbent tool providers also have intangible assets derived from developing tools for advanced process technologies, that are bolstered through collaboration with customers during the R&D and volume manufacturing phases.

#### **Valuation 11/16/2017**

We are increasing our fair value estimate to \$43 per share from \$35 per share. Applied has been redirecting investments to more favorable opportunities, including the deposition and etch segments catered to multiple patterning and 3D NAND. Furthermore, the display segment has benefited from the ongoing transition of LCD to OLED screens that will be featured in the majority of future smartphones. We project the firm's revenue will be up 10% in fiscal 2018 as a result of persisting 3D NAND equipment demand and OLED capacity expansion. Longer term, we expect the firm to grow in the low-mid-single digits through fiscal 2022. We believe the global services business will also support future growth due to greater collaboration with customers to troubleshoot high-value problems that reduce cost, improve product yields, and accelerate new technology ramps. This higher margin and relatively less cyclical segment will help Applied maintain gross margins in the mid-40s. As Applied looks to stay at the forefront of innovation, large research and development spending will remain

paramount. We project operating margins will remain in the mid-20s (up from the low 20s) over our five-year forecast period as a result.

## **Risk 08/18/2017**

The cyclical nature of the semiconductor industry is the foundation of the risks faced by Applied. Demand for chip-embedded devices fluctuates over time and thus equipment for manufacturing does as well. As a result, at the bottom of a cycle chipmakers tend to significantly curtail capital expenditures and firms such as Applied are financially afflicted. Furthermore, the extensive breadth of Applied's products leaves the firm vulnerable to specialized competitors that channel their entire R&D toward one or two segments. Mitigating some of these risks is Applied's global service group, which provides on-site troubleshooting for chipmakers and has grown into a material part of the firm's overall business. In addition to creating sticky relationships with customers, we believe service revenue is more immune to business cycles than equipment sales. Additionally, a more consolidated customer base, greater capital intensity due to increased complexity, and more diverse demand drivers have mitigated volatility in recent years. Taking into account these factors, we assign a high uncertainty rating to Applied.

## **Management 11/16/2017**

Gary Dickerson took over as CEO from Michael Splinter in September 2013. Dickerson had been the CEO of Varian, which Applied acquired in fiscal 2012, and is well respected in the chip equipment industry. Other key executives include CFO Dan Durn, who joined in August 2017 from NXP Semiconductors replacing Bob Halliday, who also joined Applied as part of the Varian acquisition, and Randhir Thakur, executive vice president and general manager of the main semiconductor equipment unit.

We think management's stewardship of shareholder capital is Standard. It is highly focused on profitability, paying particular attention to returns on invested capital and free cash flow, and it has been successful in achieving it. The firm has a strong track record of returning excess cash to shareholders in the form of both a quarterly dividend and its share-repurchase program.

However, management's foray into the solar equipment market wasn't as impressive. While Applied was a key manufacturing equipment supplier to the solar industry through acquisitions and significant investments, it had to restructure the segment, including the elimination of the thin-film solar equipment business, because of a lack of profitability. Nonetheless, most of the headwinds facing the solar equipment unit can be attributed to the severe cyclical downturn in the solar industry, which has now dragged on for a few years. Positively, Applied pivoted away from solar toward the display market to augment its primary semiconductor equipment segment, and has enjoyed success in recent years.

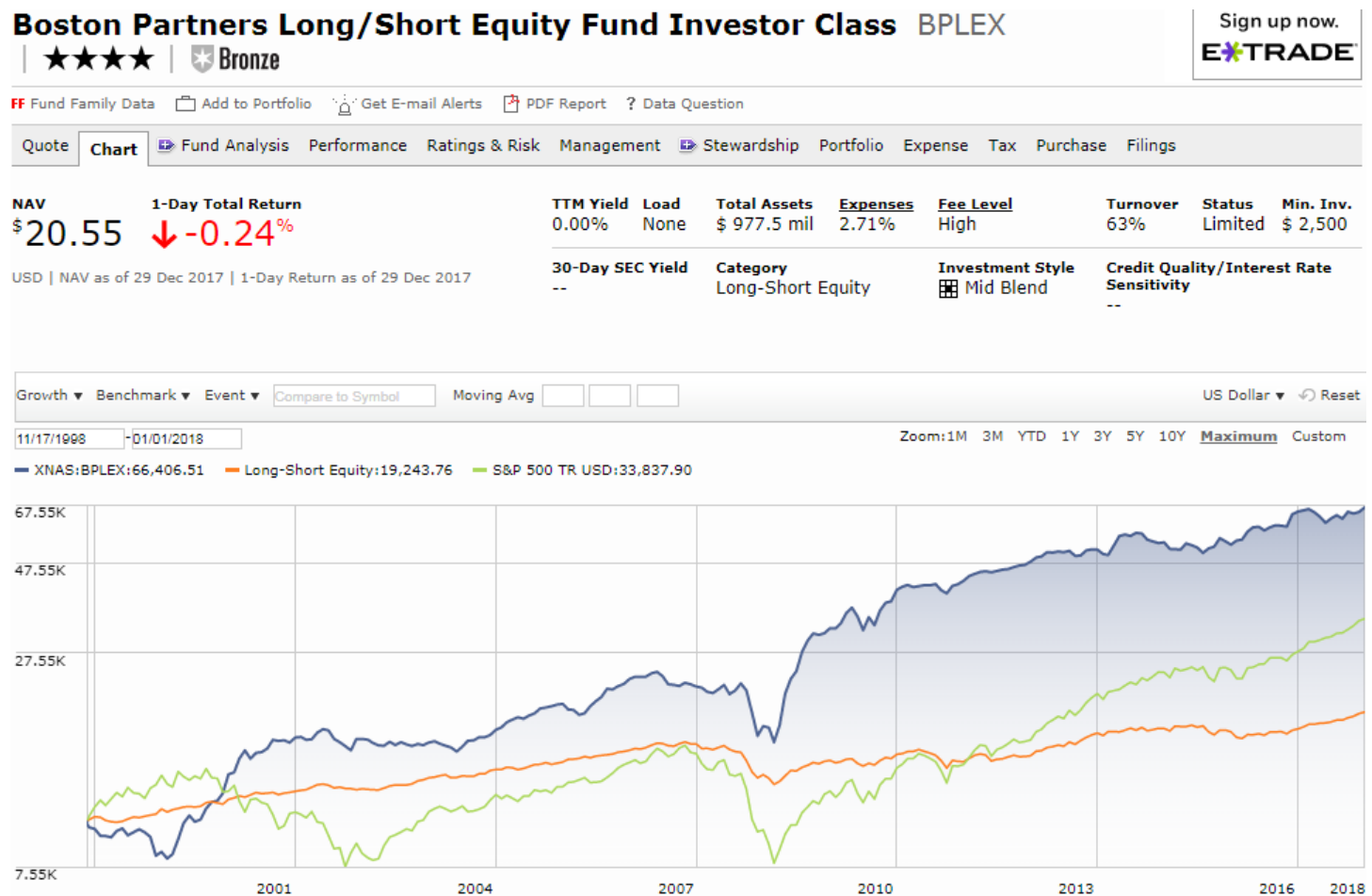
Applied periodically partakes in mergers and acquisitions in its main chip equipment business. In fiscal 2012, the firm acquired ion implant tool supplier Varian Semiconductor to bolster its product line. In 2013, the firm announced plans to merge with major chip equipment supplier Tokyo Electron in an all-stock deal, though the deal was terminated following discussions with regulators. In hindsight, the failure of this deal to go through was unsurprising, as the chip equipment industry was already fairly consolidated. Going forward, we expect the firm to focus on organic growth in lieu of additional M&A.

## **Overview**

## Profile:

Applied Materials is the world's largest supplier of semiconductor manufacturing equipment. The firm's systems are used in the chemical and physical vapor deposition steps of the chip-fabrication process. Applied also supplies etching, chemical mechanical polishing, and wafer- and reticle-inspection systems, as well as critical dimension measurement and defect-inspection scanning electron microscopes.

**BPLEX** - We strongly prefer the better performing, 5 star rated, and less expensive QMNIX, as detailed in **Our Recommended Portfolio**:



## A standout performer.

by Tayfun Icten 08/11/2017

Bob Jones' skillfully opportunistic style and Boston Partners' strong process make this closed fund a standout in the long-short equity Morningstar Category. We are maintaining its Morningstar Analyst Rating of Bronze.

This fund implements a diversified and generally contrarian equity long-short strategy. Since Jones took the helm in June 2004, the fund has been the top performer in its category with an 11.8% annualized return through July 2017. His success is a product of his contrarian style and Boston Partners' strong, firmwide investment

process. It encapsulates a standardized company analysis focusing on: 1) improving business fundamentals, 2) favorable valuations, and 3) momentum. This time-tested process has also led to solid numbers in other Boston Partners funds, such as Silver-rated Boston Partners Long/Short Research BPIRX.

Jones has been fearless in executing contrarian bets. From January 2009 through 2010, for instance, the fund increased a whopping 130.6% as Jones scooped up small- and micro-cap stocks. In this period, it outperformed the S&P 500 by 85.1%. While Jones' strategic shifts, driven by fundamental analysis of a large number of

individual stocks, haven't been perfect (in 2013, the fund gained only about half as much as the market) his stock-selection skills have been superb. In 2016, Jones' skillfully executed bets, particularly during the first and the last quarter, led to a 22.5% gain, double the S&P 500's with a 70% average net exposure. This year through July 2017, the fund declined 2.1% as the fund's short portfolio incurred a loss driven by investors' strong appetite for growth stocks across the market caps, and a reversal in the small to mid-cap value stocks affecting the long portfolio. This positioning falls squarely with the fund's long-term investment approach and it should provide a decent downside protection in market turbulence.

This fund's focus on small to mid-cap names limits its capacity and contributes to its high expenses (3.6% gross expense ratio). Despite the fund's overall high expense ratio, investors in this closed fund should continue to be rewarded.

### **Process Pillar: Positive**

This time-tested and consistent investment process earns a Positive Process rating.

Management follows the same investment approach as other Boston Partners funds. Although this fund has historically exhibited a small-cap value bias, on both the long and short side, management can own stocks of any market cap. Management selects stocks according to three primary factors: valuation, business fundamentals, and momentum. For example, on the long side, management seeks improving fundamentals, coupled with strong momentum characteristics. This three-factor approach keeps the team disciplined and focused. Although Bob Jones has three supporting analysts, his team has access to Boston's 25 other research analysts.

This fund's short-selling process stands out among long-short equity funds. Jones looks for "concept stocks" with overhyped but unstable business models like some biotech stocks with binary drug approval outcomes, or companies that rely on heavy borrowing to execute a capital-intensive business. Because there are risks to shorting high-fliers (as they can increase in price indefinitely), management diversifies heavily (generally holding 100-300 longs and 100-300 shorts), and also attempts to enter trades at high points using momentum indicators. Finally, because shorting smaller-cap names can be difficult and expensive, management factors in cost of borrowing before shorting stocks.

This fund's portfolio has historically been concentrated in small-cap value longs and small-cap growth shorts, playing into the management team's strengths, but the market-cap exposure has shown some variation. The fund's exposure is driven by breadth of its analysis across several hundred positions in a contrarian fashion. Management does not make market calls on the basis of macro data. As more shorting opportunities present themselves, Bob Jones will increase shorts, reducing net exposure of the fund against a generally stable 90% to 100% long exposure. As of July 2017, the fund was 98% long and 33% short, and held a diversified portfolio of 374 positions.

In early 2009, for example, management loaded up on micro- and small-cap names such as Telular Corp and Digi International DGII, which subsequently ran up. Toward the end of 2011, the fund's long investment style shifted from small-cap to mid-cap value/blend because management found relatively better opportunities there. Recently, large financial stocks such as Citigroup C and Bank of America BAC are the largest holdings, but small- and micro-cap stocks are still 50% of the gross exposure (35% on the long side). Management says nearly 100% of the portfolio can be liquidated within seven days, indicating decent liquidity.

**Performance Pillar:** Positive

Since Bob Jones took over in June 2004, this has been the top-performing fund in the long-short equity category, earning a Performance rating of Positive.

Jones' bold, contrarian bets have elevated the fund to the top of its category. From June 2004 through July 2017, the fund has produced an annualized 11.8% return, outperforming the category by a whopping 9.1% and the S&P 500 by 3.4%. Jones entered 2008 with a 60% net exposure and increased it to 95% by the first quarter of 2009 based on the fundamental opportunities in the long book, propelling the fund to crush the category by 72 percentage points. The fund's net exposure has ranged from 18% to 95%, a wide range compared with a typical fund in its category.

Management has historically added value both on the long and short sides of the portfolio. First-quarter 2016 was a typical example when the fund's short portfolio contributed 7.2% on a gross basis, while the long portfolio added 1.9%. In 2017, the fund lagged its peers losing 2.1%, because its long portfolio has a value tilt and the short portfolio is affected by indiscriminate bullishness on growth stocks across the market cap spectrum. Even though the management has a preference for high-quality value stocks on the long side and overvalued growth stocks on the short side, the fund is not designed to track the style factors on either side of the portfolio.

**People Pillar:** Positive

Bob Jones and his team provide deep experience and continuity. The People rating is Positive.

Jones began managing this fund as the sole manager with its current strategy in June 2004, and prior to this role he was the firm's research director (2000-04) and manager of the large-cap-value and large-cap-focused separate accounts (1995-04). Jones has more than \$1 million invested in the fund and also was a founding partner of Boston Partners.

In October 2015, Ali Motamed, a senior analyst who was named a comanager in 2013, left Boston Partners. Even though his loss is meaningful, Jones is the brains behind this fund's operations, and we are satisfied with the supporting resources available to him.

After Patrick Regan rejoined the firm in October 2015, the dedicated supporting analyst team increased to three people. Regan is a seasoned analyst who had been with Boston Partners for 10 years prior to his six-year stint at Westfield Capital, and he assumed most of Motamed's stock coverage. Bruce Wimberly and Ross Klein began working on the fund in 2010. Wimberly was formerly the manager of American Century Ultra TWUIX from 1998 to 2006. Klein joined Boston Partners out of college six years ago. The team can also bounce ideas off of the 26-person analyst team at Boston Partners.

**Parent Pillar:** Positive | 09/02/2016



A focused investment process, a careful eye on fund launches and capacity, and commendable manager investment levels contribute to Boston Partners' Positive Parent rating. The firm is an independent subsidiary of Robeco Groep N.V., a Netherlands-based firm that was bought by Japan's Orix Corporation in February 2013. Robeco purchased Boston Partners in 2002, but the U.S. firm has maintained the same investment process since its 1995 founding and is managed by Boston Partners employees. Boston Partners manages around \$78 billion, with \$10.6 billion in U.S. Boston Partners-branded mutual funds, as well as a significant chunk of around \$26 billion in subadvised assets for John Hancock funds.

The firm's investment-driven culture, focused on long-only and long-short value investing, features a clear and consistent research process that has translated into good outcomes for fundholders--90% of the firm's assets are in 4- or 5-star funds. Incentives are strongly aligned, as 99% of assets are with managers who have more than \$1 million invested in their funds. Finally, the firm conscientiously closes funds well before they are in danger of becoming capacity-constrained (though the funds it subadvises for John Hancock have gotten rather large).

Fees are an area that could improve, with Morningstar Fee Levels slightly Above Average across all share classes; the board could press the firm harder on this issue.

### **Price Pillar: Negative**

Both of this fund's share classes have Morningstar Fee Levels of High relative to similarly distributed alternative mutual funds, owing to high management fees. The institutional shares cost 2.46%, and the Investor shares charge 2.71%, both rank at the bottom 10% of its peer group. The high fees could temper future returns; thus, the fund gets a Negative Price Pillar rating.

**FRIFX** - With a **Risk** ratio of only **0.6**, this is an outstanding OEF which we will be using for other clients focused on Capital Preservation in the future:

### **Real estate exposure, income, and low volatility.**

by David Kathman, CFA, Ph.D. 11/03/2017

Fidelity Real Estate Income's distinctive income-focused approach makes it virtually unique within the Real Estate Morningstar category. It earns a Morningstar Analyst Rating of Bronze, thanks to its experienced manager, solid track record, and low price tag.

Manager Mark Snyderman's goal on this fund is to achieve a higher yield than pure real estate equity funds and investment-grade bond funds, but with less volatility and interest-rate sensitivity. To achieve that goal, he can invest in real estate securities across the capital structure, including common stocks, preferred securities, commercial mortgage-backed securities, and corporate bonds. He has access to Fidelity's deep analyst resources to find attractive real estate companies and evaluate macroeconomic conditions, but Snyderman makes all the decisions on which companies to invest in and which of those firms' securities are most attractive.

At first glance, the fund's returns appear to be all over the map, ranking near either the bottom or the top of the real estate category each year from 2007 through 2016. However, those numbers are misleading, since the fund's substantial holdings in preferred and fixed-income securities mean that comparisons to an equity-only real estate peer group are not especially useful. The fund has looked pretty good relative to a more appropriate custom benchmark consisting of 20% real estate common stocks, 40% REIT corporate bonds, and 40% REIT

FF Fund Family Data Add to Portfolio Get E-mail Alerts PDF Report ? Data Question

Quote **Chart** Fund Analysis Performance Ratings & Risk Management Stewardship Portfolio Expense Tax Purchase Filings

<b>NAV</b> \$11.99	<b>1-Day Total Return</b> 0.00%	<b>TTM Yield</b> 4.32%	<b>Load</b> None	<b>Total Assets</b> \$ 5.4 bil	<b>Expenses</b> 0.78%	<b>Fee Level</b> Low	<b>Turnover</b> 22%	<b>Status</b> Open	<b>Min. Inv.</b> \$ 2,500
USD   NAV as of 29 Dec 2017   1-Day Return as of 29 Dec 2017		<b>30-Day SEC Yield</b> 3.84%	<b>Category</b> Real Estate		<b>Investment Style</b> Mid Value				



preferreds, beating that benchmark since the fund's 2003 inception. Over the past decade it has also beaten Invesco Global Real Estate Income ASRAX, a global REIT fund with a similar approach drawing on the entire capital structure.

In line with its stated goals, this fund has been far less volatile than the equity-only FTSE NAREIT All REIT Index, while achieving a higher yield than the real estate category (4.04% versus 2.73% as of November 2017). Its 0.77% expense ratio also makes it one of the cheapest actively managed funds in the real estate category. It's a fine option for investors seeking real estate exposure combined with decent income.

### Process Pillar: Neutral

This fund has a distinctive, income-oriented approach that's dependent on manager Mark Snyderman, earning it a Process Pillar rating of Neutral. It aims to achieve a better yield than pure real estate equity funds and most bond funds, but with less volatility and interest rate sensitivity. Snyderman tries to do this by investing in a diverse mix of commercial real estate security types ranging across the capital structure: common stock, preferred stock, commercial mortgage-backed securities, and real estate corporate bonds. Historically, 30% or less of the portfolio has been in REIT common stocks, with roughly 10%-30% in preferred stock, 15%-30% in CMBS, 25% to 50% in corporate bonds, and 0%-10% in cash and other.

With the help of Fidelity's research analysts and visits with company management, Snyderman keeps track of all the major real estate companies in the fund's universe, thinking about their entire capital structures. His fundamental research focuses on such factors as balance sheet strength, property quality, cash flows, quality of

company management, growth rates, debt to property value, debt yield, and covenants. When he finds a fundamentally strong company, Snyderman determines which of its securities (common stock, preferred stock, bonds, and so on) is most attractive in terms of valuation, yield, or other fundamentals, before deciding what to add to the portfolio.

As of June 30, 2017, this fund's portfolio consisted of 31% common stocks (primarily REITs), 19% preferred stock, 18% commercial mortgage-backed securities, and 25% corporate bonds. The common stock weighting, 95% of which is in the real estate sector, is about as high as it has been since the fund's 2003 inception, and has stayed fairly steady since mid-2013. Manager Mark Snyderman thinks that real estate stocks are currently cheap relative to real estate bonds and the value of the underlying securities, even though they're somewhat expensive relative to the broader stock market. Conversely, the fund's 25% weighting in corporate bonds is about as low as it has been since the fund's inception.

The portfolio's preferred stock weighting is higher than it was during the 2008 financial crisis, when it got down to about 10% of funds assets, but it's lower than it was from 2004 to 2006, when it hovered around 30%. Snyderman has focused on higher coupon paying preferred issues, while being cognizant of their interest rate sensitivity.

The portfolio's 18% weighting in commercial mortgage-backed securities is similar to what it has been for most of the fund's history except from 2010 to 2012, when it swelled above 20%. Snyderman has focused on pockets of opportunity within this asset class, such as conservatively underwritten seasoned deals, and has avoided bonds containing mortgages dating from the pre-2007 bubble years.

#### **Performance Pillar:** Positive

This fund earns a Performance Pillar rating of Positive, thanks to returns that look solid once its unique exposures are considered. Through Sept. 30, 2017, its total returns ranked in the real estate Morningstar Category's bottom quartile over the trailing three and five years, and in the bottom decile since the fund's 2003 inception; however, it ranked in the top decile over the trailing 10 years. These feast-or-famine results are also reflected in the fund's annual returns, which have ranked in either the category's top or bottom quartile each year from 2007 through 2016, including four years in the top 10% and two years in the bottom 10%.

However, the real estate category isn't a particularly good basis for comparison, given this fund's substantial holdings in preferred securities and fixed-income securities, which often perform very differently from real estate common stocks. Fidelity compares this fund's returns to those of the Fidelity Real Estate Income Composite Index, a custom benchmark consisting of 20% real estate common stocks, 40% real estate corporate bonds, and 40% REIT preferred securities. The fund has beaten that custom benchmark over the trailing three, five, and 10 years, and since inception.

The fund has been far less volatile than the average real estate fund. Its risk-adjusted returns have beaten the category's over all these trailing periods, as have its Sharpe and Sortino ratios, which account for both returns and volatility.

#### **People Pillar:** Positive

This fund earns a People Pillar rating of Positive, thanks to an experienced manager backed by deep resources. Mark Snyderman has been the sole listed manager since the fund's February 2003 inception. He has also managed Fidelity Strategic Real Return FSRRX and its Fidelity Advisor version since that fund's September

2005 inception, and Fidelity Series Real Estate Income FSREX since its October 2011 inception. Prior to this fund, Snyderman managed Fidelity Real Estate High-Income, an institutional open-end fund, from 1995 to 2000, as well as institutional commercial mortgage-backed securities accounts from 1995 to 1999 and institutional REIT accounts from 1999 to 2002. He has been with Fidelity since 1994, managing real estate portfolios that whole time, and has been in the industry since 1988.

Snyderman works most closely with Fidelity's high yield real estate debt team, which he has headed up since this fund's launch in 2003. It includes seven investment professionals, including Snyderman, who analyze high-yield CMBS. He also makes use of Fidelity's high-yield, investment-grade debt, and investment-grade CMBS analysts when necessary. Snyderman also uses Fidelity's eight-person U.S. real estate securities research team led by Steve Buller, manager of Fidelity Real Estate Securities FRESX, as well as the firm's 380 U.S. & international equity research analysts, to provide research on key tenants and industries.

**Parent Pillar:** Positive | 04/18/2017

Long one of the industry's biggest asset managers, Fidelity has faced pressure as investors have pulled money from the active U.S. equity funds for which the firm is best known. While significant outflows could gravely impact some firms, Fidelity is shielded by its diverse mix across asset classes (including its own competitively priced index funds), success in other business lines, and private ownership that helps it escape quarterly earnings scrutiny.

The asset-management division remains well-staffed amid cost-cutting across the firm. Still, the firm could stand to rationalize its active-equity fund lineup: There are many redundant or mediocre funds alongside the standouts run by longtime star managers and up-and-comers. Retaining talent remains critical, particularly following the unexpected retirement announcement of a talented young small-cap manager. To its credit, Fidelity has handled equity manager transitions better than in the past. Meanwhile, Fidelity's fixed-income division remains among the industry's best, with a team-oriented approach assuaging key-person risk. Fidelity's target-date funds have improved, and the firm's technology and trading resources remain topnotch.

Even as it has raced to address competitive headwinds by unveiling a handful of factor-based exchange-traded funds, Fidelity remains capable on the actively managed side, earning a Positive Parent rating.

**Price Pillar:** Positive

This fund's 0.77% expense ratio ranks in the cheapest quintile of the Specialty No Load fee comparison group, earning it a Price Pillar rating of Positive. That expense ratio has come down from 0.81% in 2016 and 0.84% in 2013.

**FSCSX** - Technology has Momentum going for it, for now, but picking Sectors, as opposed to Factors, is a strategy without academic support. We gave substituted the S&P 500 (green line) for one of Morningstar's benchmarks.

**FSRFX** - Unlike Technology, Transportation has the GOP Tax Bill going for it. We gave substituted the S&P 500 (orange line) for what Morningstar showed as benchmarks.

# Fidelity® Select Software & IT Services Portfolio FSCSX | ★★★★★

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Quote **Chart** Fund Analysis Performance Ratings & Risk Management Stewardship Portfolio Expense Tax Purchase Filings

NAV **\$165.70** 1-Day Total Return **↓ -0.35%** TTM Yield 0.00% Load None Total Assets \$ 5.0 bil Expenses 0.76% Fee Level Low Turnover 44% Status Open Min. Inv. \$ 2,500

USD | NAV as of 29 Dec 2017 | 1-Day Return as of 29 Dec 2017

30-Day SEC Yield --

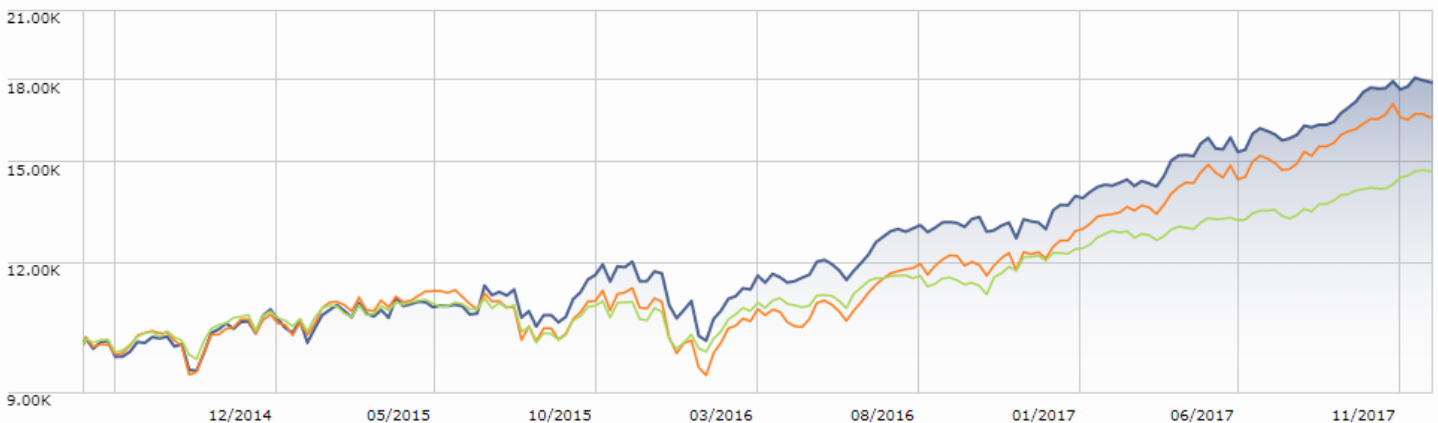
Category Technology

Investment Style Large Growth

Growth ▼ Benchmark ▼ Event ▼ Compare to Symbol Moving Avg US Dollar ▼ Reset

07/01/2014 - 01/01/2018 Zoom: 1M 3M YTD 1Y 3Y 5Y 10Y Maximum Custom

XNAS:FSCSX:17,892.21 Technology:16,545.60 IXUS:SPYZ:14,674.82



# Fidelity® Select Transportation Portfolio FSRFX | ★★★★★

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Quote **Chart** Fund Analysis Performance Ratings & Risk Management Stewardship Portfolio Expense Tax Purchase Filings

NAV **\$104.28** 1-Day Total Return **↓ -0.42%** TTM Yield 0.61% Load None Total Assets \$ 561.1 mil Expenses 0.83% Fee Level Below Average Turnover 104% Status Open Min. Inv. \$ 2,500

USD | NAV as of 29 Dec 2017 | 1-Day Return as of 29 Dec 2017

30-Day SEC Yield --

Category Industrials

Investment Style Large Blend

Growth ▼ Benchmark ▼ Event ▼ Compare to Symbol Moving Avg US Dollar ▼ Reset

01/31/2012 - 01/01/2018 Zoom: 1M 3M YTD 1Y 3Y 5Y 10Y Maximum Custom

XNAS:FSRFX:25,537.79 IXUS:SPYZ:23,098.86



**RYPNX** - Over the long run, Small beats Large (Size Factor), Value beats Growth (Value Factor), but SMLF is the better choice, as we show below.



## A fund for the strong-willed.

by Andrew Daniels, CFA, CMA 03/06/2017

Royce Opportunity benefits from experienced managers and a disciplined focus on micro- and small-cap deep-value stocks. The fund is a solid option, but its high-risk profile and middling expense ratio limit its Morningstar Analyst Rating to Bronze.

Managers Buzz Zaino and Bill Hensch, as well as two supporting analysts, scour the small-cap universe for undervalued stocks. Their investments fall into one of four broad themes: firms with undervalued assets, undervalued growth, turnarounds, and interrupted earnings. To qualify for inclusion, stocks must also look cheap relative to book value and sales. Many of the firms that make the cut are facing considerable challenges and have weak profitability. The fund's holdings tend to have lower net margins and returns on invested capital than the Russell 2000 Value Index and most peers in the small-value Morningstar Category; it also climbs deeper into micro-cap territory than its bogies. As a result of its approach, the fund is one of the most volatile options in the category. To manage risk and increase capacity, the managers typically hold 250-300 stocks and limit individual positions to 1% of assets.

The managers are benchmark-agnostic and pursue small-cap opportunities wherever they find them. That often leads them to micro-cap names with limited or no analyst coverage and can cause the fund's sector weightings

to look very different from the index. For instance, it had much greater exposure to the technology sector and an underweighting in financials as of December 2016.

Performance has been solid but lumpy. During the trailing 15-year period ended February 2017, the fund's annualized gain of 10.2% beats the index's gain of 9.1% as well as 82% of its small-value peers. But the fund's highly volatile nature makes risk-adjusted results less impressive: The fund's Sharpe ratio of 0.48 during the same period slightly trails the index's 0.49. All told, the fund is prone to steep losses at times, so investors must be willing to stomach short-term pain to reap the rewards of this fund's approach.

**Process Pillar:** Positive | Andrew Daniels, CFA, CMA 03/06/2017

This fund is a risky offering, but the managers' disciplined focus on valuations and under-the-radar names support a Positive Process rating.

Buzz Zaino and Bill Hench focus on stocks with up to \$3 billion in market capitalization, though most of their holdings are considerably smaller. Each holding falls into one of four buckets: stocks that look cheap relative to their assets; those with undervalued growth prospects; turnaround stories; or those suffering earnings disruptions. The last two are similar, but still distinct. Turnaround stories are recovering from poor operating performance, and often involve management changes. Companies with interrupted earnings tend to have strong growth potential but weak valuations because of what the managers perceive to be short-term problems. To qualify for inclusion, stocks must look cheap relative to book value and sales.

In order to give their holdings enough time to overcome short-term challenges, the managers turn the portfolio over only every two to three years. Because many of their holdings offer limited liquidity, they trade patiently to reduce transaction costs, moving in and out of positions in small increments. They trim positions as valuations become less attractive, position sizes increase to 1% of the portfolio, or when holdings don't meet expectations.

The managers' deep-value approach targets small firms going through turmoil, so the portfolio's profitability metrics--such as net margins and returns on invested capital--fall well below the Russell 2000 Value Index's and the typical small-value peer's. Similarly, price multiples such as price/sales and price/book trend lower than the index's. To diversify the impact of individual blowups, the managers keep position sizes small.

The portfolio's market cap orientation and sector weightings look very different from the index's. The average market cap of its holdings is less than half of the index's. Further, the managers do not constrain their sector weightings. As of December 2016, technology stocks accounted for about a third of the portfolio, more than 3 times the corresponding figure for the index. Large holdings in tech include security firm Unisys UIS and semiconductor firm Brooks Automation BRKS. The fund also had meaningfully overweightings in consumer cyclicals and basic materials. On the flip side, the fund's 7% exposure to financials was significantly below the index's 31% weighting; the fund also had underweightings in real estate and utilities.

The managers added footwear maker Skechers USA SKX in the third quarter of 2016 after investors grew concerned about slowing sales growth. Management remains confident in Skechers' ability to generate solid free cash flow.

**Performance Pillar:** Neutral

This fund has posted excellent long-term absolute results, but its focus on deep-value micro-cap stocks leaves it prone to steep losses during market downturns, hampering risk-adjusted results. The fund earns a Neutral Performance rating.

During the trailing 15-year period ended February 2017, the fund's annualized gain of 10.2% beats the Russell 2000 Value Index's gain of 9.1% as well as 82% of its small-value peers. But the fund's focus on tiny firms facing big challenges make the portfolio highly volatile. As a result, the fund's Sharpe ratio--a measure of risk-adjusted results--of 0.48 during the same period slightly trails the index's 0.49.

The fund has delivered strong outperformance in risking markets. In the 152 rolling three-year periods during the past 15 years in which the benchmark posted gains, the fund outperformed 71% of the time. But the fund has tended to struggle more than most during market downturns. For example, the fund lost 67% during the financial crisis of 2007-09, compared with the index's 59% loss; its 20% loss from July 2015 through February 2016 was more than the index's 14% loss. Still, the fund has rebounded strongly after market sell-offs. In the 28 rolling three-year periods in which the index posted losses, the fund managed to outperform 71% of the time. All told, investors must be willing to stomach short-term pain to reap the rewards of this fund's approach.

**People Pillar:** Positive | Andrew Daniels, CFA, CMA 03/06/2017

The managers' extensive experience with this strategy and large investments in the fund support a Positive People rating.

Buzz Zaino has been managing this fund since April 1998. Prior to joining Royce in 1998, he served as a portfolio manager at Lehman Brothers and as the group managing director of the TCW Value Added Funds at the Trust Company of the West TCW. He developed his distinctive value approach at Lehman Brothers and has decades of experience applying it. Bill Hench joined as an assistant portfolio manager in May 2004, but dropped "assistant" from his title at the end of 2013. Before joining Royce as an analyst in 2002, Hench worked at J.P. Morgan in U.S. equity sales. He started his career as an accountant. Hench also manages Royce Micro-Cap Opportunity ROSSX with Zaino and helps manage Royce Low Priced Stock RLPKX.

Hench is slated to take over this portfolio when Zaino retires, which he has no immediate plans to do. But Hench's lengthy experience comanaging the strategy should make this transition smooth when it occurs.

Both managers have more than \$1 million invested in this fund. Two dedicated analysts provide support, which is adequate but not especially rich for the labor-intensive task of researching small-cap stocks.

**Parent Pillar:** Positive | Andrew Daniels, CFA, CMA 03/06/2017

Legg Mason operates a multiaffiliate model, in which it handles marketing and distribution while affiliates--all owned by Legg Mason--are given investment autonomy. There are now nine affiliates: Prominent ones include Western Asset, a fixed-income investor, and ClearBridge Investments, a quality-driven fundamental equity shop. Other affiliates include Royce & Associates and Brandywine Global. Western Asset, ClearBridge, Royce, and Brandywine Global account for about 85% of Legg Mason's assets under management, and each has a strong investment culture and sticks to its areas of expertise. To reflect the strength of its underlying affiliates' investment cultures, Legg Mason's Parent rating has been upgraded to Positive from Neutral.

Several of Legg Mason's prominent funds performed poorly in the 2007-09 financial crisis, leading to steep outflows and personnel turnover. These included Western Asset Core Bond as well as Bill Miller's Legg Mason Value Trust. Western Asset has since invested heavily in its risk-management systems to mitigate woes in the future. Further, Legg Mason has diversified away from star managers: Legg Mason Capital Management was merged into ClearBridge in 2013; Miller and Legg Mason severed ties in February 2017. CEO Joe Sullivan has



helped make the firm more coherent and focused since assuming the role in 2012, but tough times could trigger changes that suggest less autonomy at the affiliate level.

**Price Pillar:** Neutral | Andrew Daniels, CFA, CMA 03/06/2017

This fund doesn't provide a fee advantage over peers and thus earns a Neutral Price rating.

The fund has two no-load share classes with a \$2,000 minimum investment. The Investment share class holds 52% of assets, charges 1.17%, and earns a Morningstar Fee Level of Average. The Service share class holds 5% of assets, charges 1.49%, and earns a High fee level. Additionally, the fund's Institutional shares hold 40% of assets, charge 1.05%, and earn an Average fee level.

The fund engages in securities lending. This generates ancillary income that helps offset the fund's expense ratio. However, this also introduces a small degree of counterparty risk--or risk that the borrower may not be able to return the shares on demand.

**VALUX** - Large Caps are a relatively efficient segment of the stock market, and this expensive OEF isn't earned its keep since the Great Recession. "Morningstar rates mutual funds from one to five stars based on how well they've performed (after adjusting for risk and accounting for all sales charges) in comparison to similar funds. Within each Morningstar Category, the top 10% of funds receive five stars, the next 22.5% four stars, the middle 35% three stars, the next 22.5% two stars, and the bottom 10% receive one star. Funds are rated for up to three time periods--three-, five-, and 10 years--and these ratings are combined to produce an overall rating. Funds with less than three years of history are not rated."

## Al Frank Fund Class Investor VALUX | ★★

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NAV	1-Day Total Return	TTM Yield	Load	Total Assets	Expenses	Fee Level	Turnover	Status	Min. Inv.
\$24.79	↓ -0.60%	1.23%	None	\$ 90.0 mil	1.51%	High	8%	Open	\$ 1,000
USD   NAV as of 29 Dec 2017   1-Day Return as of 29 Dec 2017		30-Day SEC Yield	Category		Investment Style				
		--	Large Value		Large Value				

Growth ▼ Benchmark ▼ Event ▼  Moving Avg    US Dollar ▼ [Reset](#)

-  Zoom: 1M 3M YTD 1Y 3Y 5Y 10Y **Maximum** Custom

■ XNAS:VALUX:67,197.12 ■ Large Value:33,981.10 ■ S&P 500 TR USD:40,134.57



**DODFX** - While we prefer Small to Large and Quantitative to Active, unlike VALUX, this OEF is a keeper.

## A top international equity option for the right investor.

by Andrew Daniels, CFA, CMA 11/22/2017

Dodge & Cox International Stock's deep investment team, decisive value approach, and low fees make it an excellent long-term choice. The fund continues to merit a Morningstar Analyst Rating of Gold.

Dodge & Cox's eight-person international equity investment committee, whose members average 23 years of firm tenure, manages the fund. Moreover, a deep and experienced analyst team, most of whom are Dodge & Cox lifers, supports the committee. The seasoned investment staff, combined with the consensus-oriented team approach, limit key-person risk.

The committee seeks non-U.S. stocks that look cheap on a range of valuation measures. It relies on bottom-up, fundamental research and favors firms with good management, competitive advantages, and solid growth potential. Oftentimes, they take advantage of bad news or a bad economic environment to buy fundamentally strong businesses. Once management initiates a position, it tends to hold on for the long term, so portfolio turnover is quite low. While the managers don't align country or sector weightings with the indexes, they do limit individual holdings to about 4% of assets to reduce the risks inherent in such a contrarian strategy.

The fund boasts an excellent long-term record. From its May 2001 inception through October 2017, its 8.1% annualized gain beats the MSCI ACWI Ex USA Index's 5.7% gain and 94% of its foreign large-blend peers. Moreover, the fund has been consistent, outperforming the index in 76% of the rolling five-year periods since inception.

### Dodge & Cox International Stock Fund DODFX | ★★ ★ | Gold

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Quote Chart Fund Analysis Performance Ratings & Risk Management Stewardship Portfolio Expense Tax Purchase Filings

NAV \$46.32	1-Day Total Return ↑0.13%	TTM Yield 1.93%	Load None	Total Assets \$ 64.9 bil	Expenses 0.64%	Fee Level Low	Turnover 17%	Status Limited	Min. Inv. \$ 2,500
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USD | NAV as of 29 Dec 2017 | 1-Day Return as of 29 Dec 2017

30-Day SEC Yield  
--

Category  
Foreign Large Blend

Investment Style  
Large Blend

Growth ▼ Benchmark ▼ Event ▼ Compare to Symbol Moving Avg US Dollar ▼ Reset

05/01/2001 - 01/01/2018  
Zoom: 1M 3M YTD 1Y 3Y 5Y 10Y Maximum Custom  
XNAS:DODFX:26,459.25 Foreign Large Blend:21,089.91 MSCI ACWI Ex USA NR USD:25,930.05



The team's contrarian nature and willingness to be patient have contributed to the fund's long-term success but have also led to elevated volatility and downside capture levels. This was evident during a subpar 2015 owing to its long-standing overweighting of poor-performing emerging-markets stocks. But the fund's subsequent strong showing in 2016 illustrates how it overcomes such setbacks.

All told, this closed fund is likely to reward investors willing to stomach short-term bouts of underperformance, but it's not for everyone.

### **Process Pillar: Positive**

This fund's decisive value approach earns it a Positive Process rating.

The fund's investment committee seeks non-U.S. stocks that look cheap on a range of valuation measures. The managers rely on bottom-up, fundamental research and favor firms with good management, competitive advantages, and solid growth potential. Often they take advantage of bad news or a bad economic environment to buy fundamentally strong businesses.

The managers don't align country or sector weightings with the indexes, but they do limit individual holdings to about 4% of assets to reduce the risks inherent in such a contrarian strategy. Broader macro views or other high-level factors play lesser roles, though the team does consider issues such as potential legislation. Management is also long-term focused, so turnover has--and should remain--low. Indeed, annual turnover has averaged 14% during the past five calendar years, well below the foreign large-blend Morningstar Category average of 54%.

The managers sell when valuations get rich, fundamentals deteriorate, or better opportunities become available. When valuations decline, they often seize the opportunity to increase stakes in stocks in which they still have conviction. This leads the fund to appear out of step at times, so it requires patience. Management does tactically hedge currency exposure, but it typically hedges just part of the portfolio's total exposure.

Reflecting management's attention to valuations, price multiples such as price/earnings and price/book value have trended below--or in line with--the MSCI ACWI Ex USA Index's and the typical foreign large-blend peer's. What's more, quality metrics such as returns on equity and net margins have tended to be lower than its bogies.

As of September 2017, the fund's 16% exposure to healthcare stocks was significantly more than the index's 7% weighting, driven by European drugmakers Sanofi SNY and Roche. Moreover, the team had modest overweights to the economically sensitive financials and energy sectors. In financials, holdings included Brazil-based Itau Unibanco and India-based ICICI Bank IBN. In energy, historically low oil prices have led the fund to build sizable stakes in Statoil and Suncor Energy SU. On the flip side, the portfolio had limited exposure to the consumer defensive sector, where the managers find plenty of solid firms but few at prices they're willing to pay.

It's worth noting that the portfolio continues to emphasize emerging-markets stocks, at 18% of assets, compared with the category's 7% weighting. Prominent emerging markets stakes included Chinese Internet stocks JD.com JD and Baidu BIDU; the fund also has a sizable position in South Africa-based Naspers, which owns 34% of Tencent Holdings. Conversely, the portfolio continues to be underweight Japanese stocks.

### **Performance Pillar: Positive**

This fund has an excellent long-term record, earning it a Positive Performance rating.

Since the fund's May 2001 inception through October 2017, its 8.1% annualized gain beats the MSCI ACWI Ex USA Index's 5.7% gain, as well as 94% of its foreign large-blend peers. Risk-adjusted results are also solid: Its Sharpe ratio of 0.43 during the same period beats the index's 0.35 as well as 93% of its peers. What's more, the fund has been consistent, outperforming the index in 76% of the 138 rolling five-year periods since its inception.

The team's contrarian nature and willingness to be patient have contributed to the fund's long-term success, but have also led to elevated volatility and downside-capture levels. This was evident during the financial crisis when bets in the financial sector hurt the fund. It also had a subpar 2015, when the fund's long-standing overweighting of emerging markets proved harmful as sentiment toward emerging markets soured. But the fund's subsequent strong showing in 2016 illustrates how it overcomes such setbacks.

In 2017 through October, the fund's 22.1% gain, though solid in absolute terms, trailed the index's 23.4% gain and 58% of its peers. The fund has benefitted from its overweighting to emerging markets--particularly Chinese Internet stocks JD.com JD and Baidu BIDU. But the fund has been held back by poor stock selection in energy.

### **People Pillar:** Positive

This fund's deep and experienced investment team earn it a Positive People rating.

Dodge & Cox's eight-member international equity investment committee manages the fund. The committee averages 23 years of tenure at the firm and includes director of international equity Diana Strandberg, chairman Charles Pohl, and vice president Roger Kuo. All but one of the committee members have more than \$1 million invested in the strategy, helping to align their interests with fundholders'. While the committee is quite stable overall, changes occasionally take place. In advance of the planned retirements of longtime committee members John Gunn and Greg Serrurier in 2016, Englebert Bangayan--who joined the firm in 2002--became a member of the committee in February 2015. Overall, Dodge & Cox's deep team, collaborative approach, and careful succession planning all help mitigate key-person risk.

The analyst ranks are also broad and deep, with impressive levels of experience. As of June 2017, the firm had 32 industry analysts and managers on the equity side; all but three have been at the firm for more than five years. There are also 28 analysts and managers with similar levels of experience on the fixed-income side--who sometimes pitch in here--as well as approximately 25 research associates on two- to four-year contracts. Nearly all team members have spent their entire careers at Dodge & Cox. Indeed, they rarely leave for any reason besides retirement.

### **Parent Pillar:** Positive

Dodge & Cox is an exemplary firm and earns a Positive Parent rating.

The firm, based in San Francisco, benefits from a strong investment culture. CEO and president Dana Emery and chairman Charles Pohl are also lead members of the investment team; they run both the firm and its funds with a long time horizon.

But there are no stars here. Each fund is run collaboratively by one of five investment policy committees, whose members average more than 20 years at the firm. Moreover, the analyst ranks are broad and deep, with impressive levels of experience. In all, the firm has approximately 60 managers and analysts, most of whom are Dodge & Cox lifers. Indeed, team members rarely leave for any reason other than retirement.

Dodge & Cox's approach to new strategies is also admirable, having rolled out just six since its 1930 founding. The most recent is a global fixed-income offering that launched in May 2014; the firm developed its foreign-bond capabilities as a natural extension of its international-equity expertise. Management has also proved willing in the past to safeguard its strategies by closing funds.

Managers are heavily invested in the funds and the firm and have ample incentive to serve shareholders, as evinced by low costs, clear communications, and a sober long-term approach. In all, the firm is built to last.

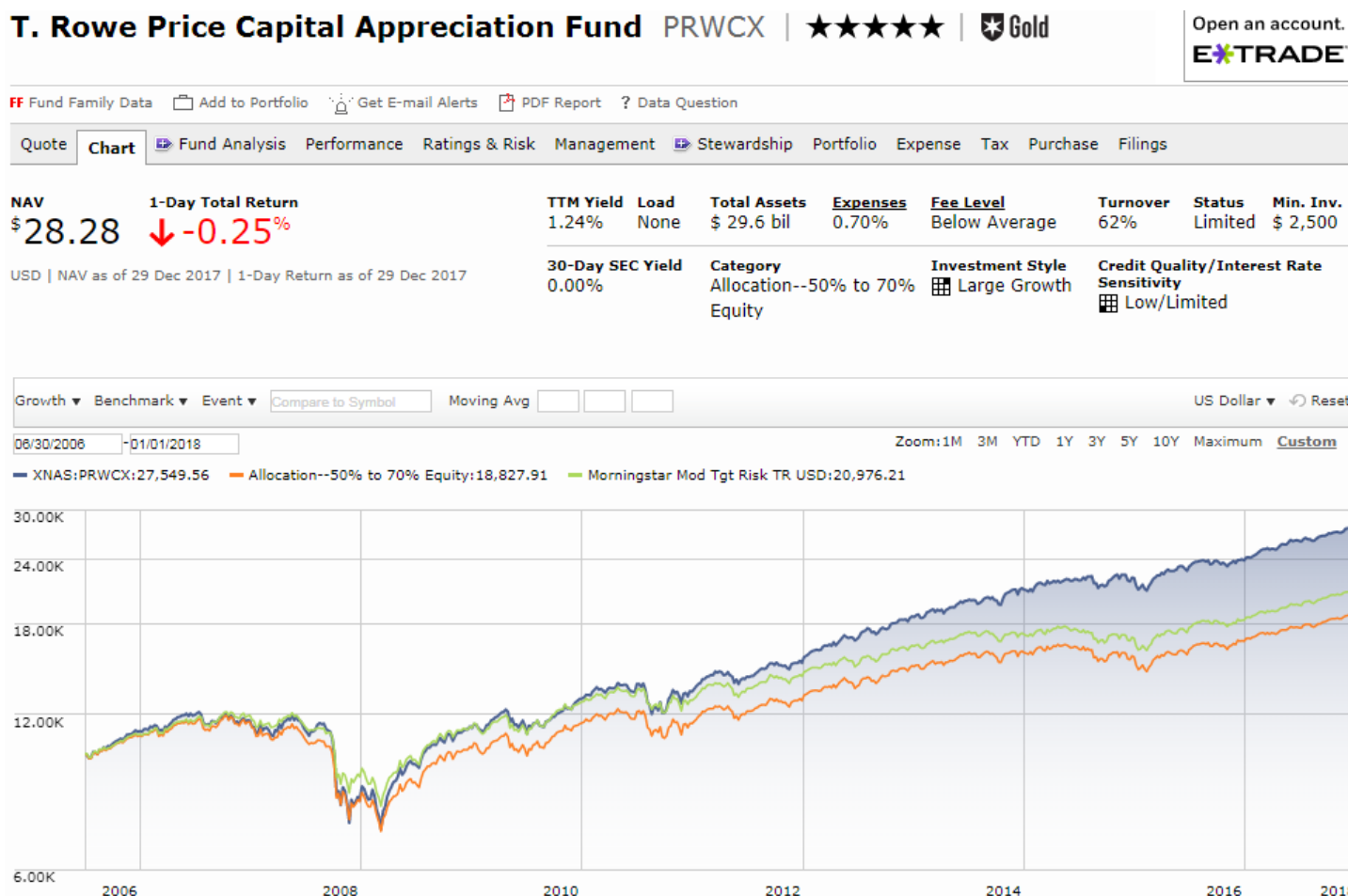
### Price Pillar: Positive

This fund is one of the cheapest actively managed options available, giving it a built-in advantage over most foreign large-cap peers. The fund earns a Positive Price rating.

All assets are in the fund's no-load share class, which charges 0.64% and earns a Morningstar Fee Level of Low. By comparison, the median net expense ratio for the foreign large-cap no-load peer group was 1.02%. Moreover, management's low-turnover strategy has also helped to keep transaction costs low.

It's worth noting that this fund has been closed to new investors since January 2015.

**PRWCX** - Despite our doubts about Active Management, this is another good fund that we recommend you keep.



## Defying the odds.

by Leo Acheson 11/01/2017

A proven lead manager, a disciplined investment process, and below-average fees support T. Rowe Price Capital Appreciation's Morningstar Analyst Rating of Gold.

The fund has amassed an remarkable record under David Giroux, who has managed the fund for more than a decade. The fund has outpaced its typical allocation--50% to 70% equity Morningstar Category peer in each calendar year since 2008. Moreover, during the past 10 years, the fund outperformed the S&P 500 by more than 1 percentage point annualized with about three fourths of the volatility.

That's an impressive feat given that equities have represented just 63% of assets, on average, over the past decade. Attribution provided by T. Rowe Price indicates that the stock sleeve more than doubled the return of the S&P 500 during that span, and the bond sleeve outpaced the Bloomberg Barclays U.S. Aggregate Bond Index by more than 250 basis points annually. Giroux and team leverage the firm's highly regarded equity and bond research groups, but they also conduct rigorous analysis on their own by projecting internal rates of return for every holding.

Giroux has also made some savvy allocation moves, typically increasing the portfolio's risk during sell-offs. Equities have ranged from 57% to 72% of assets. The remainder of the portfolio has consisted of a flexible mix of investment-grade and high-yield corporate bonds (currently 21% of assets), convertible bonds and preferred stocks (3%), and leveraged loans (2%). Cash has ranged from 3% to 20% of assets (currently 14%), as Giroux likes to keep dry powder on hand to take advantage of market corrections. In addition, he often writes call options on some equity holdings to generate income (currently 8% of total assets). Giroux also opportunistically allocates to Treasuries.

The fund closed to new investors in 2014, which has been effective in slowing growth; it experienced net outflows so far in 2017. Giroux runs about \$45 billion in the strategy. While the fund's size bears monitoring, the portfolio hasn't shown signs of becoming too large.

### **Process Pillar:** Positive

David Giroux typically keeps 55% to 65% of this fund's assets in stocks. However, he prefers to measure the fund's sensitivity to equities via its delta-weighted equity exposure-- a proprietary calculation that adjusts for covered calls and convertibles. Giroux expects that exposure to remain between 50% and 70%, but it can fall outside of that number when Giroux finds a lot of cheap companies.

In the equity portfolio, Giroux typically looks for blue chips selling at a discount based on their price/earnings or price/book ratios; he values more-cyclical companies on their earnings across a full market cycle. The fund typically owns 60-80 stocks, and individual positions rarely get much above 3% of assets. Giroux historically held equities for about two years, but he had sold some higher-quality picks too soon. Thus, in recent years, he's added a longer internal rate of return measure that extends to five years. Sector weightings can vary significantly from those of the S&P 500.

The rest of the portfolio is quite flexible. Giroux has found convertible bonds increasingly less attractive during his tenure, so their weighting has declined. The fund has at times also held double-digit weightings in traditional bonds (both investment-grade and high-yield debt), leveraged loans, and cash. Giroux also writes call options on some holdings. The fund's distinctive, wide-ranging approach earns a Positive Process rating.

The fund held 72% of its assets in stocks in mid-2011, but it hasn't come close to that level lately as manager David Giroux has found fewer compelling ideas. As of September 2017, the portfolio held 61% in equities. However, the portfolio's delta-weighted equity exposure stood at 56%, reflecting Giroux's somewhat cautious view on the market. (Calls written against stock holdings reduce the portfolio's sensitivity to equities.)

The equity portfolio has recently moved from the large-blend portion of the Morningstar Style Box to large growth. That's primarily due to two factors: First, within financials, the fund has largely steered clear of beaten-down money center banks and instead favored insurance companies that have commanded modestly higher valuations, such as Marsh McLennan. Second, Giroux has found more value in healthcare firms, which tend to land in the growth column.

The fixed-income portfolio has seen shifts as well. The fund's stake in convertible bonds (once in the teens) has shrunk to less than 3% because of a dearth of attractively valued new issues, as well as a lack of large enough deals to accommodate the fund's increasing size. Leveraged loans became more than a 10% weighting in recent years, but that stake has declined to 2% due to valuations. The fund added a slug of Treasuries in mid-2013 when yields rose but eventually sold that stake when the bonds rallied.

### **Performance Pillar:** Positive

This fund has been remarkably successful on manager David Giroux's watch. It outpaced all of its peers in the allocation--50% to 70% equity Morningstar Category from his June 2006 start through October 2017, and beat more than 90% of those peers on a risk-adjusted basis, as measured by the Sortino ratio and Sharpe ratio. The fund has also been a consistent performer: Over 77 rolling five-year periods during Giroux's tenure, it has surpassed a 60%/40% mix of the S&P 500 and the Bloomberg Barclays U.S. Aggregate Bond Index 100% of the time. The fund has also beaten at least 75% of its peers in every one of those periods. The fund earns a Positive Performance rating.

Giroux and the team behind him have added value across the various types of securities in which they invest. The equity portfolio has beaten the S&P 500 during his tenure by a hefty margin, and the fixed-income sleeve has outpaced the Bloomberg Barclays U.S. Aggregate Bond Index. Also, before the firm stopped including data on the performance of the convertibles subportfolio (because it shrank to a sliver of assets), that portion of the fund handily beat its benchmark.

Although Giroux will boost the fund's equity exposure when valuations are low (as he did in early 2009)--potentially juicing volatility in the process--the fund has lost 93% as much as its typical peer when stocks decline and captured 117% of its typical peer's gains in rising markets.

### **People Pillar:** Positive

This fund benefits from a veteran manager. David Giroux has run this fund since June 2006. He had Jeff Arricale as a comanager for the first 12 months, but Arricale became the head of the firm's financials team and later left the firm. In mid-2012, Steven Krichbaum, a key analyst since 2007, became associate manager. Giroux had been an analyst, primarily in the industrials sector, for eight years before taking over the fund. He was informed nearly two years in advance that he (and Arricale) would be running the fund.

Giroux has a big job because the fund invests in equities, convertibles, various types of traditional bonds, and cash. Giroux also co-heads the firm's asset-allocation committee, which meets monthly. While in the past he has relied on members of the fund's investment committee to some degree, he now has more help with Krichbaum,

as well as associate analyst Michael Signore and researchers Erik Ringo and Chen Tian. Giroux relies broadly on the firm's scores of equity and fixed-income analysts, though he'll turn more often to those who cover value-oriented sectors. Krichbaum handles much of the communication with analysts to save Giroux time.

Giroux invests more than \$1 million in the strategy, aligning his interests with shareholders. His record here, experience, and supporting cast earn a Positive People rating.

**Parent Pillar:** Positive | 04/06/2017

T. Rowe Price is evolving but retains the strong research-focused culture that's driven its long-term success. Despite the retirements of some long-tenured portfolio managers, the former CEO, and outgoing CIO Brian Rogers, the firm's careful focus on succession planning and long transition periods have eased the process. Even with a changing of the guard, there's no lack of talent. Successful former portfolio manager Rob Sharps is now co-head of global equities and oversees five CIOs who are among the firm's top managers. The analyst team is on solid footing, and the firm has continued hiring despite the pressures facing active managers. CEO Bill Stromberg, who joined T. Rowe in 1987 as an analyst, maintains an investment focus while recognizing that the business must evolve to flourish in an industry that's gravitated toward passive investing. The firm is bolstering its technology resources and is expanding its distribution overseas, achievable goals given its pristine balance sheet. In 2017, the firm opportunistically acquired the Henderson High Yield Opportunities team, led by a former T. Rowe employee, as it addresses demand for capacity-constrained strategies that are also part of its popular target-date lineup and potentially new multiasset products down the line (several T. Rowe strategies are closed). T. Rowe is sensibly adapting, and its fundholder-first mentality and ability to attract and retain investment talent support its Positive Parent rating.

**Price Pillar:** Positive

The 0.70% expense ratio of the fund's Investor share class, which holds 88% of the assets, earns a Morningstar Fee Level of Below Average and comes in 20 basis points cheaper than the median for similarly sold peers. The expense ratio (0.60%) for the I share class came down by 4 basis points over the past year. This share class holds 8% of the assets and earns a Low. The Advisor share class charges 1.00% and earns an Above Average, but it holds just 4% of the assets. True, the fund should be cheaper than most of its peers given its sizable \$29 billion asset base, but it earns a Positive Price rating.

**WASAX** - Sell and never, ever pay a Load.

**This fund's go-anywhere mandate has lately proved to be damaging.**

by Susan Wasserman 02/08/2017

Several challenges plague Ivy Asset Strategy, including a bout of turnover at the firm, substantial outflows, and a relatively illiquid private placement holding. Lagging results in the past few years suggest the management team isn't equipped to surmount these issues. We have downgraded the fund's Morningstar Analyst Rating to Negative from Neutral.

The fund uses a go-anywhere approach. The managers begin with a top-down view, aiming to identify global growth themes. They then find names that align with those themes. Overall, the managers have significant flexibility: Cash, U.S. equity, foreign stocks, Treasuries, and global credit can each take 0%-100% of assets.



# Ivy Asset Strategy Fund Class A WASAX | ★★ | Negative

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Quote **Chart** Fund Analysis Performance Ratings & Risk Management Stewardship Portfolio Expense Tax Purchase Filings

<b>NAV</b> \$24.07	<b>1-Day Total Return</b> ↓ -0.04%	<b>TTM Yield</b> 0.98%	<b>Load</b> 5.75	<b>Total Assets</b> \$ 3.6 bil	<b>Expenses</b> 1.12%	<b>Fee Level</b> Below Average	<b>Turnover</b> 51%	<b>Status</b> Open	<b>Min. Inv.</b> \$ 750
USD   NAV as of 02 Jan 2018   1-Day Return as of 29 Dec 2017		<b>30-Day SEC Yield</b> --	<b>Category</b> World Allocation		<b>Investment Style</b> Large Growth	<b>Credit Quality/Interest Rate Sensitivity</b> Mid/Limited			



Such flexibility warrants a deep and experienced bench, but fund's resources have thinned. Longtime manager Michael Avery retired in June 2016, roughly two years after former comanager Ryan Caldwell left the firm. Portfolio comanagers Cynthia Prince-Fox and Chace Brundige, who joined the fund's management roster after Caldwell departed, assumed leadership of the fund after Avery left. Prince-Fox and Brundige both earned solid results at their previous charges, but that hasn't translated to success here. Plus, several analyst departures and layoffs since early 2016 have reduced the resources available for this team to drawn on.

From August 2014 through January 2017, the fund has lost 6.6% annualized, placing in the world-allocation Morningstar Category's 99th percentile. Security selection has hurt, but so has an illiquid private placement position inherited from Caldwell and Avery. The team has been forced to sell more-liquid positions to meet outflows: The strategy has experienced more than \$20 billion in redemptions since Caldwell departed, and Delta Topco, the largest private placement position, stood at 15% of assets as of December 2016. (Other private placement positions took 2% of assets.) There's enough working against this fund to suggest the team will not be able to adequately manage the fund's composition or risks should outflows continue.

## Process Pillar: Negative

This fund invests in a range of global assets with the goal of delivering equity-market-like returns with less equity-market risk. Management's tactical and at times pronounced asset-allocation shifts set the fund apart from more-balanced world-allocation funds. Its market outlook and assessment of market valuations and growth determine positioning.

That approach has periodically resulted in concentrated regional or sector bets. Management aims to hold 25%-35% of assets in its top 10 stock holdings and periodically hedges some or all of its equity exposure. The portfolio is generally equity-heavy, often with stakes in gold bullion and fixed income. Cash has generally ranged between 5% and 45% of assets. Management also invests in private placements.

The fund's flexibility has become a hindrance. As a result of large outflows, the Ivy fund's illiquid private placement position has become larger as the team has had to sell more-liquid positions. Outflows have been significantly less on the Waddell & Reed version of this strategy, and the private placement position as a percentage of total assets is smaller. The difference in composition led to a return differential of more than 300 basis points in 2016. The fund's Negative Process rating reflects the team's struggles to manage the strategy's risks and deliver comparable results across the Ivy and Waddell & Reed versions.

The fund's tactical nature has been on full display since Cynthia Prince-Fox and Chace Brundige took over this fund in 2014. Management entered 2014 wary of rich-looking market valuations and policy- and economic growth-related concerns. Thus, the portfolio's cash stake reached nearly one fifth of assets early in the year.

In early 2015, the team became more optimistic, especially with regard to the U.S. economy, and the managers deployed much of the portfolio's dry powder into new ideas. However, during the second half of the year, the managers became cautious, owing to a variety of factors such as tighter monetary policy, a stronger U.S. dollar, and slowing growth in China. As a result, equity plummeted to 45% of assets in June 2016. After equity markets rebounded in the wake of Brexit and the U.S. presidential election, the team has gradually brought that equity stake back up.

The fund's private placement exposure has also crept up, though not intentionally. The exposure has historically been less than 10% of assets, but in December 2016, it reached 17% of assets in the Ivy version of this fund. The team has had to sell more-liquid positions to meet outflows. Management says it should be able to exit the position sometime in the first half of 2017, which should improve liquidity. Should large net outflows continue, however, the size of the private placement position will likely grow.

### **Performance Pillar:** Neutral

This fund's long-term results are impressive: Its 7.8% annualized gain during the trailing 15 years through January 2017 beats its S&P 500 benchmark, as well as a blended benchmark consisting of a 60/40 split between the MSCI World and Bloomberg Barclays Global Aggregate indexes. Those results are no longer relevant, given several manager departures and new additions to the team. The current managers have a much shorter track record. The fund earns a Neutral Performance rating.

While new comanagers Cynthia Prince-Fox and Chace Brundige don't own this fund's past track record, their results elsewhere are nothing to sneeze at. Prince-Fox delivered exceptional results during her long tenure at aggressive-allocation offerings Ivy Balanced IBNAX and Waddell & Reed Continental Income UNCIX, while Brundige delivered promising results during a shorter span at Waddell & Reed Global Growth UNCGX and Ivy Global Growth IVINX. Their defensive bent at those funds will likely benefit this fund at some point.

What's less certain is how effectively they'll ply their craft amid a broader opportunity set. Results so far are uninspiring. Since joining the team in August 2014, the fund has lost 6.6% annualized through January 2017, trailing the S&P 500 by 16 percentage points and the blended benchmark by 9 percentage points.

### **People Pillar:** Neutral

On Aug. 4, 2014, Waddell & Reed portfolio managers Cynthia Prince-Fox and Chace Brundige joined the fund as comanagers alongside Michael Avery, who began managing the strategy in January 1997. Scott Sullivan came on board as an assistant portfolio manager, alongside Aaron Young and newly promoted analyst Tim Burger. These changes followed in the wake of comanager Ryan Caldwell's abrupt June 2014 departure from the firm. In early 2016, Avery announced his plans to retire on June 30, 2016. Avery brought considerable macroeconomic and tactical management experience to the table. At the same time, the managers' support has weakened: Several analyst departures and layoffs in 2016 reduced available resources.

To be sure, the lead duo is experienced. Prince-Fox racked up impressive long-term results at aggressive-allocation offering Ivy Balanced. Brundige cut his teeth as an analyst at the firm in the late 1990s and returned in 2003 following stints at TCW/Westbridge Ventures and Citadel Investment Group. He generated solid results at Ivy Global Growth IVINX. Sullivan has focused mainly on the consumer staples and industrials sectors. Young has assumed more of the fund's trading responsibilities, while Burger has become more involved in the fund's private placement investments. Still, the number of departures from this fund and the firm add uncertainty. Thus, the fund's People rating remains Neutral.

**Parent Pillar:** Negative | 10/24/2017

Waddell & Reed, parent company to the Ivy Funds, is rebuilding its investment organization after significant setbacks, but continued uncertainty among the investment strategies and broader business pressure on the parent firm lead to a continued Negative Parent rating.

After key manager departures that began in late 2013 and a handful of firm-led severance agreements in 2016, this firm is shifting its corporate culture toward an institutional focus. It is rebuilding its analyst staff under a dedicated research chief and addressing succession by naming comanagers to most of its strategies. A new chief risk officer is helping establish parameters for each fund.

The firm's larger business model also is in transition. CEO Phil Sanders took over from Hank Herrmann in 2016 following a raft of outflows: The firm's mutual fund assets have declined by \$30 billion to about \$60 billion over the past two calendar years, dimming the firm's profitability. The firm's broker/dealer unit, which previously invested client assets exclusively in Waddell & Reed funds, is diversifying, and the firm plans to merge Waddell & Reed funds into its Ivy Funds siblings. If approved, the mergers may lower fund fees but not to relatively inexpensive levels. While changes are largely positive, the firm is playing catch-up to meet the industry standard for governance. Stability in investment teams and processes are crucial next steps.

**Price Pillar:** Positive

All but one of this fund's share classes carry Morningstar Fee Levels of Low or Below Average, meaning they carry reasonable price tags relative to similarly distributed world-allocation funds. Their expenses also fall well below the median for similarly distributed world-allocation rivals, earning the fund a Positive Price rating. While the fund doesn't have stated breakpoints, expenses have generally fallen when its assets under management have grown.

## Our Recommended Portfolio

%	Symbol	Type	Description	Factors (1)	Yield (2)	Risk (3)	
30	QMNIX	OEF	Global Long/Short Equity-Lg Blend	V, M, Q	3.5%	A	0
10	FRIFX	OEF	Domestic Real Estate		4.3%	Q	0.6
10	MTUM	ETF	Domestic Lg Growth	M	1.0%	Q	1.0
10	SMLF	ETF	Domestic Small Blend	S, V, M, Q	0.9%	Q	1.3
10	XSLV	ETF	Domestic Small Value	S, Q, LV	1.9%	Q	0.8
15	ISCF	ETF	Foreign Small/Mid Blend	S, V, M, Q	2.0%	S	1.2
15	GPIIX	OEF	Foreign Small/Mid Growth	S, Q	0.3%	A	1.7
			Weighted Average:				0.8
Notes							
1	V=Value, M=Momentum, Q=Quality, S=Size, LV=Low Volatility						
2	Distribution Frequency: A=Annual, S=Semi-Annual, Q=Quarterly						
3	Ratio of average historical Max. Drawdowns to S&P 500 declines of at least 10%						

In the above chart, **Type** now includes Exchange Traded Funds (ETFs). We have added columns for **Factors**, which are also fully explained on our website, **Yield** and Distribution Frequency (Note 2).

As noted on our site, Hughes Capital Management (HCM) "applies the academic findings of Behavioral Finance to the management of Individual Investment Accounts .... A factor is something that explains stock returns, ranging from Insider Buying and Value, to stock price Momentum. The concept of Factors has been around since Eugene Fama (**who won the Nobel Prize in Economics in 2013**) and Ken French began developing statistical models to explain stock returns relative to the broader market. Since their initial work, more and more factors have been added, and just in the past few years the idea has exploded in popularity, with so called "Smart Beta" funds (another term for Factor based investing) sprouting up everywhere one looks. Yet despite the newfound popularity and hype for this investing approach, very few of these Factors withstand academic scrutiny." Five of the **Factors** which we consider compelling and apply to Funds we are recommending are shown in **Note 1**.

**QMNIX** - We have added the S&P 500 (yellow line) and your BPLEX (purple line) to Morningstar's chart of our favorite OEF for reducing **Risk** and included their Analyst Report:

### AQR's systematic approach to market-neutral investing.

by [Patricia Oey](#) 09/01/2017

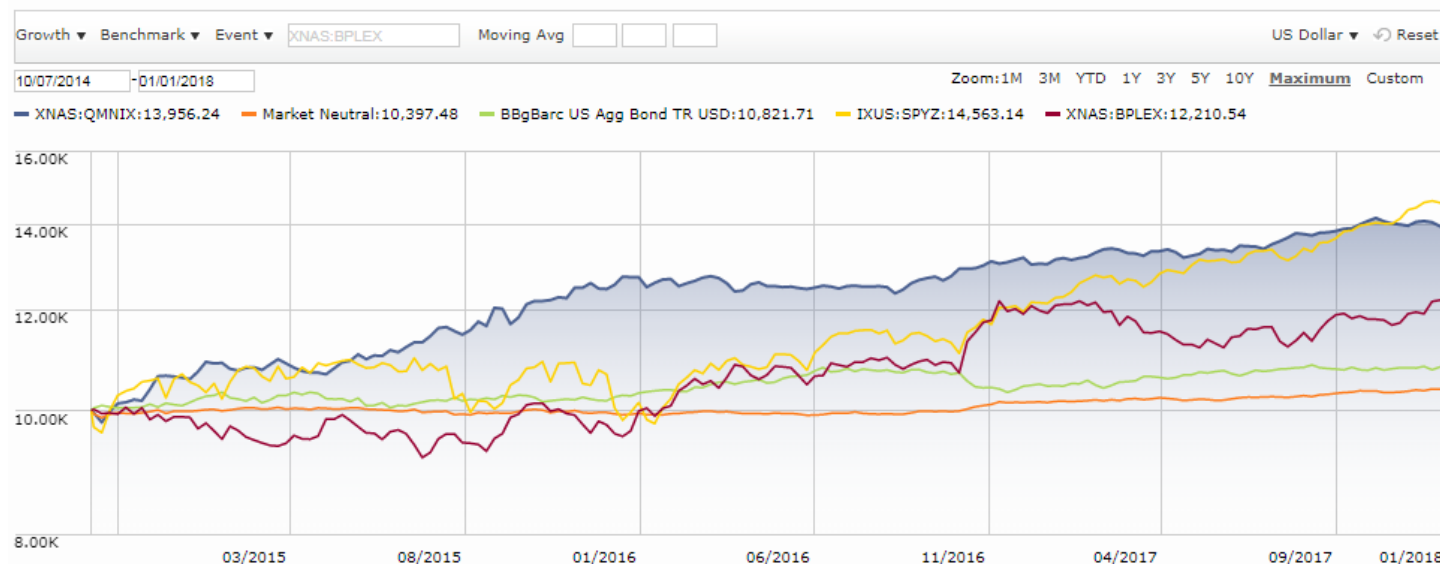
AQR conducts rigorous research into the sources of long-term investment performance. AQR Equity Market Neutral seeks to generate returns via a systematic stock-selection process that harnesses the output of this research. This well-designed process has manifested itself in a strong, albeit short, track record. The fund earns an initial Morningstar Rating of Bronze.

The stock-selection process employs a quantitative model to rank stocks from the MSCI World Index using well-established factors such as value and momentum and less quantifiable factors such as investor sentiment, which may use a metric (among others) such as change in percentage of shares shorted. High-ranking stocks are

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 Quote **Chart** Fund Analysis Performance Ratings & Risk Management Stewardship Portfolio Expense Tax Purchase Filings

<b>NAV</b> \$12.25	<b>1-Day Total Return</b> ↓ -0.33%	<b>TTM Yield</b> 3.48%	<b>Load</b> None	<b>Total Assets</b> \$ 2.2 bil	<b>Expenses</b> 1.39%	<b>Fee Level</b> Average	<b>Turnover</b> 227%	<b>Status</b> Limited	<b>Min. Inv.</b> \$ 5.0 mil
USD   NAV as of 29 Dec 2017   1-Day Return as of 29 Dec 2017		<b>30-Day SEC Yield</b> --	<b>Category</b> Market Neutral		<b>Investment Style</b> Large Blend	<b>Credit Quality/Interest Rate Sensitivity</b> --			



held in a long portfolio, low-ranking stocks are sold short, and the portfolio is structured to be market-neutral with no sector or country bets.

Since the fund's October 2014 inception through July 2017, its annualized gain of 10.8% trounced the market-neutral Morningstar Category average's 1.1% return. However, the fund's benchmark--three-month Treasuries--suggests that AQR's return expectations are much more modest relative to recent performance. Indeed, much of the fund's outperformance since its launch occurred in 2015, when it had a much smaller asset base and held more concentrated portfolios relative to current positioning. Outperformance has moderated, but the fund continues to outshine its category peers. As an indication of the fund's capacity constraints, AQR closed this fund to new investors in June 2017 when assets under management for this fund and AQR Long-Short Equity QLEIX, which employs the same stock-selection process, was \$5.9 billion.

Investors here face a few risks: The stock-selection model may become less effective as computing power and big data become more pervasive. Also, the fund uses derivatives, such as total return basket swaps and currency forwards, which come with counterparty and liquidity risks, especially during periods of market stress.

But overall, this fund is a solid liquid alternative option for those who have access to it.

### Process Pillar: Positive

This fund's research-driven systematic stock-selection process is based on AQR's extensive research on equity factors, which helps it earn a Positive Process rating.

Harnessing the research and experience of its 45-person global stock-selection team, Friedman and his group have built a systematic model that scores the 1,600 companies from the MSCI World Index using about 200 signals that can be grouped into one of the following categories: valuation, momentum, stability, earnings quality, investor sentiment, and management signaling. Well-established factors, such as value, are screened using common ratios such as price/earnings. Earnings quality may use a measure such as the change in accounts receivable. Others are proprietary ideas based on in-house research and lesser-known data sources. Friedman's team is always testing new ideas, and a few new signals are added to the model every year.

The model ranks stocks using these signals relative to peers within and across industries and countries. High-ranking stocks are held long, while low-ranking stocks are shorted. These portfolios are structured to create a market-neutral portfolio with the help of an optimizer, which also seeks to minimize transaction costs while maintaining the portfolio's key traits. Trading is done in-house, where traders and portfolio managers work closely together to facilitate efficient execution.

The managers seek to create a very diversified long and short market-neutral portfolio, with about 800-900 holdings on each side. For exposure to these securities, the fund may take long or short positions in individual stocks or use a custom total return basket swap. The long portfolio tends to be higher-quality and lower-beta relative to the short portfolio, so the fund generally tilts toward the long portfolio, in dollar terms, to achieve a market-neutral positioning. As assets have grown, the fund's average portfolio market cap has trended higher. This bears monitoring, as it may affect future performance. Annual turnover in the past two years has averaged around 300%.

Derivatives add leverage to this portfolio. As of June 2017, it had a long exposure of 150% and short exposure of 130%, for a total gross exposure of 280%. The fund's leverage is adjusted in order to achieve a targeted volatility of 6%.

Leverage here is higher than most market-neutral mutual fund peers, which generally don't use derivatives. Leverage can be a source of risk; however, the fund's diversified portfolio (of hundreds of stocks) mitigates the impact of a single stock going the wrong way. The fund's counterparties for its derivative transactions are five large, global banks. There is always the risk that the banks may not be able to honor these derivative contract, particularly during periods of market stress.

### **Performance Pillar: Positive**

Strong absolute and risk-adjusted returns since inception earn this fund a Positive Performance rating.

From inception in October 2014 through July 2017, this fund has returned 10.8% annualized, a blistering performance for a market-neutral fund. The category average during the same period was 1.1%. In the first and second quarters of 2015, the fund generated healthy returns of 2.6% and 1.8%, respectively. But the fund hit it out of the park during the very volatile third quarter of 2015, when it returned 10.1% versus the category average of negative 0.3%. AQR attributed these returns to the performance of stocks with a strong momentum signal.

The fund's 2015 performance may be partly attributable to the fund's small asset base, which was only \$266 million by year-end. With a low asset base, the fund's portfolios were more concentrated, with fewer holdings, and a lower market-cap average, relative to the fund's current portfolios. Performance in 2017 through July was much more moderate, at 1.9%. With three-month Treasuries as a benchmark, it is likely that AQR does not expect to sustain the fund's early category-topping performance.

Since inception, the fund has remained slightly below its volatility target of 6.0%, with a Sharpe ratio of 1.8, which is significantly higher than the category average of 0.6. This Sharpe ratio may also revert to a lower long-term average.

#### **People Pillar:** Positive

Of this fund's four managers, Jacques Friedman and Andrea Frazzini have been on the roster since the fund's inception in July 2013. Ronen Israel and Michele Aghassi were added in March 2016, when Lars Nielsen stepped down to become AQR's chief risk officer.

Friedman has been at AQR since its founding in 1998 and is currently head of the global stock-selection team, a group of 45 individuals who research and test potential new signals/factors for the stock-selection model. He is a named comanager for the 30 AQR strategies that employ this model (AQR has a total of 37 mutual funds). Prior to AQR, he developed quantitative stock-selection strategies at Goldman Sachs Asset Management, where he worked alongside Cliff Asness and the other AQR founders. The other three named managers all have Ph.D.s and have worked at AQR for about 10 years. Frazzini has only worked at AQR, Aghassi worked at DE Shaw as a quant analyst prior to grad school, and Israel worked at Quantitative Financial Strategies as a senior analyst from 1996 to 1999. Many of the senior members of the 45-person stock-selection team also have doctoral degrees and similar work experience.

Manager investment is reasonable; the portfolio managers invest in this fund and other AQR funds that employ the stock-selection model. Overall, this highly credentialed and experienced team earns the fund a Positive People rating.

#### **Parent Pillar:** Positive | 02/01/2017

AQR boasts a strong quantitative research culture, competitive fees, and high manager retention, warranting a Positive Parent Pillar rating. Quantitative research underpins all of the firm's strategies. It offers traditional equity and alternative strategies in both hedge fund and mutual fund formats. The firm puts a strong emphasis on infrastructure and efficient execution. Minor compliance gaffes over the past few years are not a cause for concern.

The leadership team has close ties to academia. In fact, 11 of the firm's 26 principals have doctorate degrees, and five are current or former professors. The principals own most of the firm, and the three remaining founding principals have final decision-making authority. Equity ownership and attractive compensation have promoted high manager retention (99% over the past five years).

While AQR does many things well, manager investment appears a little low. According to regulatory filings, only 2.7% of the firm's mutual fund assets are invested in funds where a manager has more than \$500,000 invested. The firm has kept fees generally reasonable with three quarters of its share classes featuring below-average fees for their distribution channels. Even though AQR has been attentive to capacity in the face of rapid asset growth in its liquid alternative products, capacity concerns may be an obstacle for return generation in the future.

#### **Price Pillar:** Neutral

On average, the fund's share classes are not cheap relative to similarly distributed peers. This fund earns a Neutral Price rating.

About 75% of the fund's assets are in the institutionally distributed shares. The I shares have an annual report net expense ratio of 1.28%, which carries an Average Morningstar Fee Level. The other share classes carry an Average or Above Average ranking.

In April 2017, AQR announced that it would close the fund to new investors as of July 1, 2017. Even though the fund's asset base of \$1.7 billion (as of June 2017) does not seem large, AQR Long-Short Equity QLEIX, which has \$4.2 billion, holds similar portfolios. In addition, the stock-selection model is used in some form across most of AQR's equity products.

**FRIFX** - see above for Morningstar's Chart and Analysis.

In our "REITs & Rates - 11/21/16" Worth Sharing we wrote: "Whether your objective is Capital Appreciation or Income, Real Estate is an Asset Class we recommend, and publically traded REITs are the best way to gain exposure. However, valuations matter."

As shown in a recent report from Cohen & Steers, as of September 30, 2017 REITs have underperformed stocks over the past 5 Years, but outperformed over the past 20 Years.

**Market Performance Review Total Annualized Returns**  
(% in US\$)

	5 Years	20 Years
Real Estate Securities Indexes <sup>(1)</sup>	Total Return (Annualized)	Total Return (Annualized)
Global	6.7	7.4
United States	9.7	9.4
Broad Stock Indexes <sup>(2)</sup>		
Global	11.0	6.3
U.S.	14.2	7.4
Real Estate Securities Indexes vs. Broad Stock Indexes <sup>(3)</sup>		
Global	-4.3	+1.1
U.S.	-4.5	+2.2

Cumulative five-year relative returns of global and U.S. real estate versus stocks have been -30% and -36% respectively.

As a result, REITs are relatively undervalued when compared to stocks.



# Equity Earnings Multiples Have Expanded to Near Cycle Highs versus Stable Multiples for Real Estate



**MTUM** - In an interview, Eugene Fama (the father of the Efficient Market Hypothesis and a winner of the Nobel Memorial Prize in Economic Sciences in 2013) admitted that "...the one thing that causes lots of trouble is the evidence that there's some short-term momentum in returns.... in my view that's the biggest challenge to market efficiency." The orange line in Morningstar's chart is the S&P 500.

## A cost-efficient momentum strategy.

by Alex Bryan, CFA 6/23/2017

### Suitability

IShares Edge MSCI USA Momentum Factor MTUM is one of the most attractive momentum funds available. This low-cost strategy targets stocks with strong recent performance, based on the observation that recent performance tends to persist in the short term. It effectively captures this phenomenon, while keeping costs in check, which should set up attractive category relative performance over the long run, supporting the Morningstar Analyst Rating of Silver.

The fund targets large- and mid-cap stocks with strong risk-adjusted price performance over the past seven and 13 months, excluding the most recent one. This focus on risk-adjusted performance should moderate the fund's volatility and reduce the fund's exposure to stocks that struggle when the market changes direction. Stocks that make the cut are weighted according to both their market capitalization and risk-adjusted momentum. This can lead to some large positions in individual names, but the fund caps these weightings at 5%. The resulting portfolio lands squarely in large-growth territory. It should effectively complement value-oriented holdings because momentum tends to work well when value doesn't, and vice versa.

To mitigate turnover, the fund only reconstitutes twice a year and applies a wide buffer around the stocks it targets. These adjustments reduce the fund's style purity, since momentum can shift from month to month. But they also improve cost efficiency. The fund can still experience high turnover. In the fund's most recent fiscal year, turnover was 129%. However, it has not yet distributed a capital gain. The exchange-traded fund structure

# iShares Edge MSCI USA Momentum Factor ETF MTUM | ★★★★★

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**Last Price**  
\$103.94 **Day Change**  
↑0.81 | 0.79%

As of Tue 01/02/2018 4:53 PM EST |USD

**Intraday Indicative Value**  
\$103.90 ↑0.83 | 0.81%

As of Tue 01/02/2018 6:33 PM EST |USD

**NAV** 103.07 **Open Price** 103.86 **Day Range** 103.46-103.94 **52-Week Range** 75.65-104.55 **12-Mo. Yield** 1.02% **Total Assets** 5.42 bil USD **Expenses** 0.15%

**Prem/Discount** 0.03% **Volume** 930725 **Avg Vol.** 347,422 **SEC Yield%** — **Bid/Ask/Spread** 103.50/ 104.60/ 1.06% **Category** Large Growth



allows the managers to transfer holdings out of the portfolio through a nontaxable in-kind transaction with the fund's authorized participants.

While the fund has a limited record, its approach has worked well so far. From its inception in April 2013 through May 2017, it outpaced the Russell 1000 Growth Index by 55 basis points annually, with comparable volatility. This was largely due to its overweighting in the healthcare sector and more-favorable stock exposure within the technology, industrial, and consumer cyclical sectors.

## Fundamental View

In theory, investors should arbitrage any predictable price pattern away. Yet, simple momentum strategies have historically worked (on paper) in nearly every market studied. A compelling explanation is that investors may anchor their investment thesis to old information and react slowly to new information, causing prices to adjust more slowly than they should. For instance, event studies have demonstrated that stocks beating earnings expectations have historically tended to offer excess returns for many weeks after the announcement. Similarly, stocks that miss expectations have tended to continue to underperform.

Investors may also be reluctant to sell losers in the hopes of breaking even and quick to sell winners in order to lock in gains (disposition effect). This behavior could also prevent stock prices from quickly adjusting to new information. Once a trend is established, investors may pile into a trade or extrapolate recent results too far into

the future, pushing prices away from their fair values, which may contribute to the long-term reversals underlying the value effect (the tendency for stocks trading at low valuations to outperform).

While momentum strategies have a good long-term record, they may struggle during periods of high volatility or market reversals, as relative performance is less likely to persist during those periods. As a result, the fund can underperform when it is most painful. For instance, its benchmark lagged the MSCI USA Index by 3.8% during 2008. Heading into a bear market, momentum strategies tend to have an overweighting in riskier stocks, which may underperform during a correction. After a market downturn, they tend to load up on defensive stocks, and they may miss out on some of the upside during a sharp recovery.

In order to improve performance when volatility spikes, the fund's benchmark rebalances in between the scheduled reconstitution dates if market volatility significantly increases. When this rebalancing is triggered, the index focuses on more-recent momentum to construct the portfolio. This adjustment may help, but it isn't a panacea. There is also a risk that momentum may become less profitable as more investors attempt to take advantage of it. That said, the momentum effect hasn't gone away even though it was first published in the academic literature in 1993. Like any strategy, momentum can underperform for years. This risk may limit arbitrage and allow momentum to persist.

The fund's moderate style-tilt takes some juice out of the strategy. However, it still captures the essence of the style at a lower cost than if it pursued a more aggressive rebalancing approach. It has a good chance of beating the market if momentum continues to pay off. But even if momentum doesn't pan out, the fund's low expense ratio doesn't hurt performance much.

The portfolio includes around 120 names, including Boeing BA, Comcast CMCSA, and Bank of America BAC. The composition of the portfolio and its sector weightings can change dramatically over time. Relative to the Russell 1000 Growth Index, the fund currently has greater exposure to the financial-services sector and less exposure to consumer (cyclical and defensive) stocks. There are no limits on the fund's sector tilts.

## **Portfolio Construction**

The fund tracks the MSCI USA Momentum Index, which draws stocks from the large- and mid-cap-oriented MSCI USA Index. This strategy captures momentum in a cost-efficient way, supporting the Positive Process Pillar rating. In May and November, MSCI calculates the ratio of each stock's price returns over the past 13 and seven months (excluding the most recent one) to its volatility over the past three years. The one-month exclusion addresses the tendency for performance to reverse over that horizon. The index averages these two scores and selects the highest-scoring stocks until it reaches a fixed target number of stocks. In order to reduce turnover, new constituents must rank in the top half of the index's target number of securities to get priority over stocks that were previously in the index. Stocks already in the index only have to rank within 1.5 times the target number of securities to remain in the index. Holdings are weighted according to both the strength of their risk-adjusted momentum and their market capitalization, subject to a 5% cap. In addition to the scheduled semiannual reconstitution, MSCI may rebalance the index when the month-over-month change in the trailing three-month volatility of the market is larger than the 95th percentile of such monthly changes historically. When this occurs, the index only uses each stock's seven-month risk-adjusted momentum score.

## **Fees**

The fund's 0.15% expense ratio makes it a bargain, giving it a very low-cost hurdle to overcome. Therefore, it

earns a Positive Price Pillar rating. Over the trailing three years through May 2017, the fund has lagged its benchmark by 22 basis points annually.

**SMLF** - From "For Factor Investors, It Pays to Go Small" by Morningstar's Alex Bryan, CFA on 12-6-17: "For those who do want to profit from momentum in the small-cap arena, it would probably be best to get that exposure through a multifactor fund, like iShares Edge MSCI Multifactor USA Small-Cap ETF (SMLF) (0.30% expense ratio). This is because 1) it will have lower turnover than a stand-alone momentum fund, and 2) it should better diversify risk. This fund targets small-cap stocks with strong value, momentum, quality, and small size characteristics under constraints that mitigate sector bets and turnover. Its holistic approach and demanding selection criteria should give it potent exposure to the factors it targets."

Morningstar's performance rating system requires that the fund be at least 3 years old:

"Morningstar rates mutual funds and ETFs from 1 to 5 stars based on how well they've performed (after adjusting for risk and accounting for sales charges) in comparison to similar funds and ETFs.

Within each Morningstar Category, the top 10% of funds and ETFs receive 5 stars and the bottom 10% receive 1 star. Funds and ETFs are rated for up to three time periods-three-, five-, and 10-years and these ratings are combined to produce an overall rating. Funds and ETFs with less than three years of history are not rated."

## iShares Edge MSCI Multifactor USA Small-Cap ETF SMLF

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**Last Price** **Day Change**  
\$39.78 ↑0.26 | 0.66%

As of Tue 01/02/2018 3:59 PM EST |USD

**Intraday Indicative Value**  
\$39.74 ↑0.39 | 0.99%

As of Tue 01/02/2018 4:30 PM EST |USD

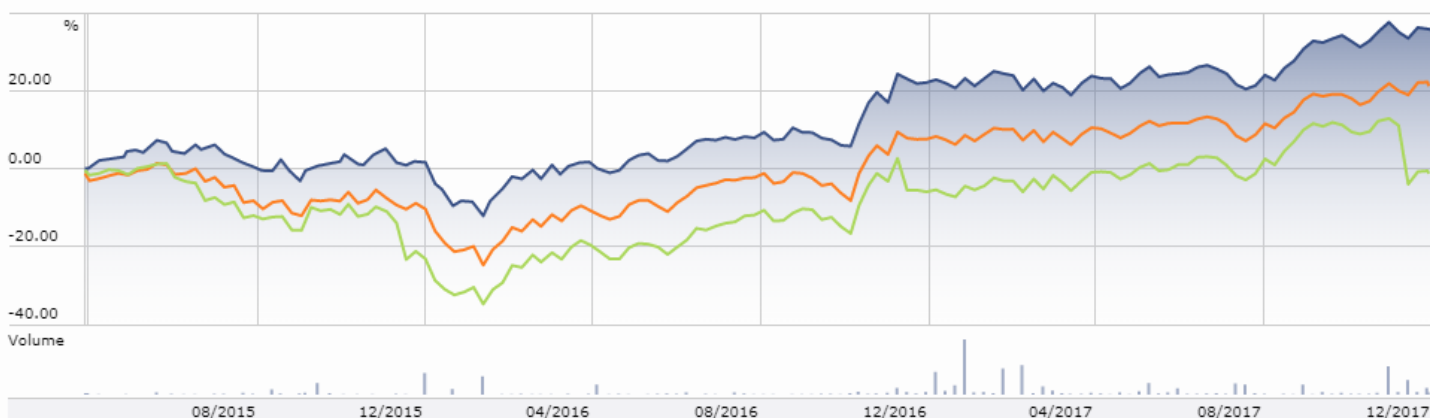
<b>NAV</b> 39.34 USD	<b>Open Price</b> 39.75	<b>Day Range</b> 39.65-39.78	<b>52-Week Range</b> 34.86-40.01	<b>12-Mo. Yield</b> 0.93%	<b>Total Assets</b> 74.75 mil USD	<b>Expenses</b> 0.30%
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<b>Prem/Discount</b> 0.11%	<b>Volume</b> 615	<b>Avg Vol.</b> 272	<b>SEC Yield%</b> —	<b>Bid/Ask/Spread</b> 0.00/ 0.00/ —%	<b>Category</b> Small Blend
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Benchmark ▼ Event ▼ XNAS:RYPNX Simple Moving Avg ☐ ☐ ☐ [Reset](#)

04/27/2015 - 01/01/2018 Zoom: 1D 5D 1M 3M YTD 1Y 3Y 5Y 10Y Maximum Custom

■ ARCX:SMLF: +10.37 | +35.57% ■ IXUS:RUT: +665.99 | +21.14% ■ XNAS:RYPNX: -0.18 | -1.31%



We have added the Russell 2000 (orange line), the most widely benchmarked index for domestic Small Caps, and your RYPNX (green line) to Morningstar's chart for comparison:

**XSLV** - We have previously shared with clients how the S&P SmallCap 600 (orange line) outperforms the commonly quoted Small Cap Russell 2000 (green line) benchmark due to its Quality Factor screening. Adding the Low Volatility Factor results in XSLV, which has a historical **Risk** ratio of **.8** to the S&P 500 based on Maximum Drawdown. Morningstar's Analyst Report follows, with our parenthetical notes in red:



## Potent exposure to small stocks with low volatility.

by Alex Bryan, CFA 2/28/2017

### Suitability

PowerShares S&P SmallCap Low Volatility ETF XSLV aggressively pursues small-cap stocks with low volatility. It should offer a smoother ride and better risk/reward profile than the S&P SmallCap 600 and most of its peers. But it can make concentrated industry bets at times and may require high turnover. And it has a limited record. These considerations limit its Morningstar Analyst Rating to Bronze.

Each quarter, the fund targets the 120 least volatile members of the S&P SmallCap 600 Index over the past 12 months and weights them by the inverse of their volatilities, so that the least volatile stocks receive the largest weightings in the portfolio. This strategy implicitly assumes that recent relative volatility will persist in the short term, which has historically held. It does not consider how stocks in the portfolio interact with each other.

Stocks that make the cut tend to enjoy more stable cash flows than the average small-cap firm. This should allow the fund to weather market downturns better than most of its peers but may cause it to lag in stronger market environments. Because there are no limits on sector weightings, the fund can end up with large sector bets. But these tilts can shift over time. For example, at the end of January 2017, real estate stocks represented 16% of the portfolio, down from 26% a year earlier (20.8% as of 10/25/17).

While small-cap stocks tend to be more volatile than their larger counterparts, the performance advantage from tilting toward low-volatility stocks has historically been the largest among the smallest stocks. A big part of this edge has come from avoiding the riskiest small-cap stocks, which tend to trade at high valuations and have poor profitability, two characteristics that have historically been associated with lackluster performance.

So far, the fund's approach has worked well. From its inception in February 2013 through January 2017, the fund exhibited about 13% less volatility and about 24% less market sensitivity than its parent index. It also beat the benchmark by 203 basis points annualized during that time, largely because of more-favorable stock exposure in the financial-services industry (27.2% as of 10/25/17).

## **Fundamental View**

Investors can always reduce risk by allocating a greater portion of their portfolios to less risky assets like cash or bonds. But this strategy will likely offer better returns than a market-cap-weighted stock/bond portfolio of comparable volatility, albeit with smaller diversification benefits.

Historically, less-volatile stocks have offered better risk-adjusted returns than their riskier counterparts, and this effect has tended to increase as market capitalization decreases. Robert Novy-Marx, a professor at the University of Rochester, attributes low-volatility stocks' attractive performance from 1968 to 2013 to their low average valuations and high profitability in his paper, "Understanding Defensive Equity." He argues that investors would be better off targeting stocks with value and profitability characteristics directly because there is no guarantee that low-volatility stocks will always have these characteristics. For example, although the fund is in the small-value Morningstar Category, it does not currently have a pronounced value tilt.

While low valuations and high profitability likely contributed to low-volatility stocks' attractive historical performance, there is probably more to the story. Many investors care about benchmark-relative returns, which may cause them to favor riskier stocks that have higher expected returns in bull markets, reducing their expected returns relative to their risk. Similarly, neglected lower-risk stocks can become undervalued relative to their risk. This is not necessarily the same as the traditional value effect, as many of these stocks often trade at comparable or even higher valuations than the market. Andrea Frazzini and Lasse Pedersen, two principals from AQR, develop this argument in their paper, "Betting Against Beta."

There may also be an element of behavior-induced mispricing behind the low-volatility effect, where investors may overpay for volatile stocks that offer a low probability of a high payoff. Much of the low-volatility performance benefit has come from simply avoiding the most volatile stocks (including many small biotech firms and junior miners), which tend to have low profitability and high valuations and may be mispriced.



The fund's narrow focus on recent volatility and frequent rebalancing allow it to effectively capture the low-volatility effect documented in the academic literature. But it can also lead to high turnover and introduce some indirect bets that investors may not anticipate. Turnover exceeded 50% in each of the past two years. In addition to large and fluid sector tilts, the fund's exposure to value stocks may change over time.

The fund has greater exposure to the financial-services (a plus in a moderately rising interest rate environment), utilities, and real estate sectors than the S&P SmallCap 600 Index, and less exposure to technology, consumer cyclical, and healthcare stocks. While the fund often takes large sector bets, it effectively diversifies firm-specific risk. It tends to favor profitable firms with conservative asset growth, which can translate into attractive free cash flows (this results from the S&P SmallCap 600's Quality Factor).

## Portfolio Construction

The fund employs full replication to track the S&P SmallCap 600 Low Volatility Index. It earns a Positive Process rating because it offers pure exposure to stocks with low volatility, which have historically offered superior risk-adjusted performance and should continue to do so. Each quarter, S&P ranks the constituents in the S&P SmallCap 600 by their volatility over the past 12 months and selects the least volatile 120 for inclusion in the index. It then weights these constituents by the inverse of their volatility, so that less-volatile stocks receive larger weightings in the portfolio. This approach is laudably transparent, and it offers clean exposure to the low-volatility effect. But because there are no constraints on sector weightings or turnover, the fund can end up with large sector tilts that change over time. And because it does not consider valuations in its selection process, the fund can drift across the Morningstar Style Box. It currently nets out in small-blend territory but has exhibited a greater value tilt in the past. Unlike some of its peers, the fund does not consider correlations among stocks, which can affect how the portfolio behaves.

## Fees

PowerShares charges a low 0.25% expense ratio for this offering, which is reasonable for this strategy and low relative to the small-value category, supporting the Positive Price Pillar rating. Over the trailing three years through January 2017, the fund lagged its benchmark by 31 basis points annualized, slightly more than the amount of its expense ratio. This was likely due to transaction costs.

## Alternatives

SPDR SSGA US Small Cap Low Volatility ETF SMLV is the cheapest alternative (0.12% expense ratio). At the end of December 2016, this fund switched to the SSGA US Small Cap Low Volatility Index from the Russell 2000 Low Volatility Index. It now targets stocks representing the least volatile 30% of each sector in the eligible universe and weights its holdings by the inverse of their volatility. This sector-relative approach keeps the fund's sector weightings more in line with the broader small-cap market. SMLV also measures volatility over a longer period (five years) than XSLV, which means it will be slower to adjust as volatility changes. (XSLV, which includes the Quality Factor, is better designed, and has superior performance.)

iShares Edge MSCI Minimum Volatility USA Small-Cap ETF SMMV (0.20% expense ratio) takes a more holistic approach to reduce volatility. It attempts to construct the least volatile portfolio possible with stocks from the MSCI USA Small Cap Index. To do this, it uses an optimizer that takes into account each stock's volatility, factor exposures, how stocks interact with each other, as well as several constraints. These include limiting sector tilts and turnover. (While this relatively new ETF, 9/9/16, is on our Watch List, its lack of

liquidity, just under 10 mil. Total Assets, precludes it from consideration for now despite its performance, which has been nearly as good as XSLV with even less volatility.)

Actively managed Royce Special Equity RYSEX (1.15% expense ratio) may also be worth considering. This fund carries a Morningstar Analyst Rating of Silver. Managers Charlie Dreifus and Steven McBoyle target highly profitable small-cap businesses with attractive valuations and conservatively stated financials. They hold a compact portfolio that has exhibited lower volatility than the S&P SmallCap 600 Index over the past decade. More importantly, the fund has distinguished itself during market downturns and will likely continue to do so in the future. (The much cheaper XSLV has significantly outperformed since inception. RYSEX is another example of active management not adding value.)

**ISCF** - The iShares Edge MSCI Multifactor Intl Small-Cap ETF seeks to track the investment results of an index composed of global developed market small-capitalization stocks, excluding the U.S., that have favorable exposure to the Value, Quality, and Momentum Factors. We have added EFA (orange line) as an appropriate benchmark. EFA tracks the market-cap-weighted MSCI EAFE Index, which covers more than 900 stocks listed in developed markets overseas, and is, at \$82.3 billion, the largest non-USA developed market ETF.

## iShares Edge MSCI Multifactor Intl Small-Cap ETF ISCF

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Last Price Day Change  
**\$32.75** **↑0.30** | **0.92%**

As of Tue 01/02/2018 6:29 PM EST |USD

Intraday Indicative Value [?](#)  
**\$32.47** **↑0.22** | **0.70%**

As of Tue 01/02/2018 4:29 PM EST |USD

NAV	Open Price	Day Range	52-Week Range	12-Mo. Yield	Total Assets	Expenses
32.29 USD	32.63	32.60-32.83	23.99-32.83	1.98%	25.83 mil USD	0.40%

Prem/Discount	Volume	Avg Vol.	SEC Yield%	Bid/Ask/Spread	Category
0.87%	9036	4,758	—	30.79/ 0.00/ -200.00%	Foreign Small/Mid Blend

Benchmark ▼ Event ▼  Simple Moving Avg    [Reset](#)

04/27/2015 - 01/01/2018 Zoom: 1D 5D 1M 3M YTD 1Y 3Y 5Y 10Y [Maximum](#) Custom

■ ARCX:ISCF: +7.50 | +30.06% ■ ARCX:EFA: +2.91 | +4.32%





## A Suite of New Multifactor ETFs for Your Watchlist

By Ben Johnson, CFA 08-21-15

In late April, iShares launched a crop of new multifactor strategic-beta exchange-traded funds, unveiling its FactorSelect suite. The five funds are the latest in a wave of increasingly complex multifactor funds being rolled off asset managers' assembly lines. By our count, 33 of the 88 multifactor strategic-beta ETFs that exist in the U.S. market today were launched in the past 12 months. I think these are some of the best of the bunch.

Combining stand-alone factors in a multifactor format is a sensible strategy to the extent that the factors in consideration are 1) credible; 2) well-constructed; and 3) combined in such a way as to improve the overall risk/reward profile of the resulting portfolio relative to owning any of the factors in a stand-alone format, a traditional cap-weighted index fund, or an actively managed peer. At first blush, the benchmarks underlying the iShares FactorSelect ETFs appear to meet all three criteria.

These indexes look to combine the quality, momentum, value, and low-size factors. Quality has been vetted but remains a relative newcomer. Low size has been called into question, but if nothing else, it can serve to magnify the value effect. Value and momentum are the classics, the peanut butter and jelly of factor investing. They have been tested across multiple time periods, geographies, and asset classes and have proved their worth in out-of-sample tests as well.

MSCI takes the same approach to constructing these factor exposures in the context of the FactorSelect suite as it does for their stand-alone versions .... There is a large gap to bridge between factor theory and investment reality. The academics who first discovered and continue to explore and measure these factors don't have to deal with the messy reality of transaction costs and taxes; as such, they are able to isolate and examine factors in their purest form. MSCI has made good work of delivering investable versions of these factors with an eye toward maintaining their "purity." From there, the firm's Diversified Multi-Factor Indexes combine these four factors in such a way as to tamp down cyclicalities (as compared with owning them on a stand-alone basis) and maintain marketlike levels of volatility.

The FactorSelect ETFs are sensibly designed and competitively priced, but are they better mousetraps? Only time will tell. These ETFs were launched just three months after MSCI began live calculations for the underlying indexes. I've never met a bad-looking back-test (the ugly ones never see the light of day), and I wouldn't suggest using a good-looking one as the sole basis for an investment decision. For now, I've got these funds on my watchlist.

**GPIIX** - We also use Grandeur Peak's International Opportunities Fund for International Small Cap exposure for clients. They (blue line) use a similar Quantitative approach to our own, and outperform their peers (orange line), which, in turn, outperform Morningstar's benchmark (green line), as shown below. While it is hard Closed to all investors, HCM has been granted a waiver.

Grandeur Peak International Opportunities Fund Institutional Class

GPIIX | ★★★★★

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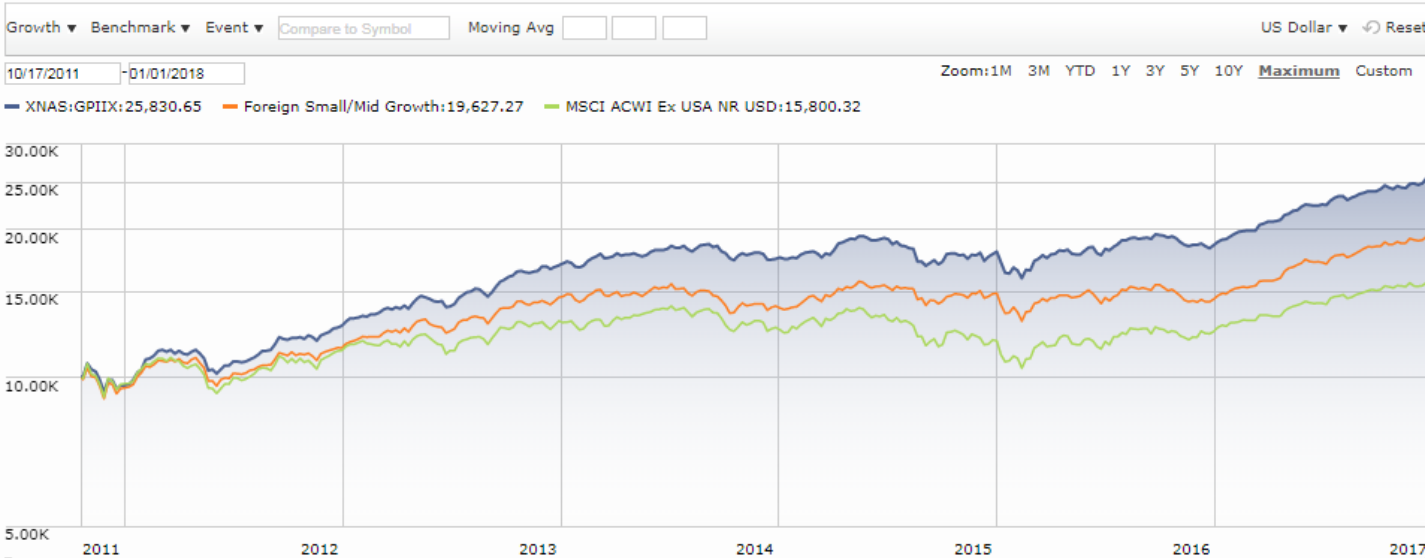
Expense

Tax

Purchase

Filings

NAV	1-Day Total Return	TTM Yield	Load	Total Assets	Expenses	Fee Level	Turnover	Status	Min. Inv.
\$4.19	↑0.73%	0.28%	None	\$ 923.5 mil	1.37%	High	30%	Closed	\$ 2,000
USD   NAV as of 02 Jan 2018   1-Day Return as of 29 Dec 2017		30-Day SEC Yield	Category		Investment Style				
		--	Foreign Small/Mid Growth		Small Growth				



Our Best,  
Devin