Strategic Financial Associates' Turn
(Is Variable Life Insurance a Red Flag?)

This latest Deep Dive came from an existing client. The delay in sharing resulted from my using the IRA portion as a case study for my Advanced Topics in Investments class at the University of Oklahoma. As detailed below, Variable Life Insurance is usually a Red Flag, especially when your financial advisor is also an agent for the insurance company.

"Our Recommended Portfolio" section has been updated, as Morningstar now rates both SMLF and ISCF 5 stars for past performance, and has a new Analyst Report for MTUM. Also, QMNIX's chart and **Risk** ratio have been updated. So far, QMNIX has had a Maximum Drawdown of 7.2% during the current correction, compared to 10.2% for the S&P 500. During the S&P 500's 11/3/15 to 2/11/16 correction of 13.3%, QMNIX actually gained .3%. Averaging the Maximum Drawdowns from both corrections results in an increased **Risk** ratio of 0.2. While QMNIX remains our favorite OEF for reducing risk, we are monitoring its performance closely, and are now limiting exposure for new clients with a primary or secondary focus on Capital Preservation to 20%. For existing clients with more than 20% of their portfolio in QMNIX, we may be reducing the position in the future.

March 27, 2018

Our analysis of your Strategic Financial Associates (SFA) Investment Portfolio Review has focused on its two largest components. I should note that this in one of the finest looking reviews we have seen, and, in that regard, far superior to anything you will likely ever receive from Hughes Capital Management (HCM). I appreciate being able to have my Advanced Topics in Investments students dissect it for their term project.

Life Insurance (42.5%)

Your portfolio includes variable whole life insurance with a combined cash value of $337,606. We have written extensively on the dangers of annuities in the past, and while variable life insurance and annuities are different products, they do share one thing in common: high fees. You are paying an annual fee of 4.75% on your combined premium of $29,400, which translates to $1,400 a year. While variable life insurance does provide tax benefits, these benefits are far outweighed by the cost of fees, as well as a massive opportunity cost from not having the funds invested properly.

I have a friend in NYC that works for Morgan Stanley as a CFP (Certified Financial Planner) and regularly deals with insurance. She stated that except in very rare cases, they always recommend term insurance (which is much cheaper), and investing the rest of the funds in a diversified portfolio. She also found it very peculiar that your Investment Advisor is also an agent for New York Life, as it raises significant conflicts of interest.

In sum, there are far cheaper insurance options that allow for the rest of the funds to be properly invested:

Is Life Insurance a Smart Investment?

By Amy Fontinelle | January 9, 2018

When it comes to considering life insurance as an investment, you’ve probably heard the adage, “Buy term and invest the difference.” This advice is based on the idea that term life insurance is the best choice for most individuals because it is the least expensive type of life insurance and leaves money free for other investments.

Permanent life insurance, the other major category of life insurance, allows policyholders to accumulate cash value, while term does not, but there are expensive management fees and agent commissions associated with permanent policies, and many financial advisors consider these charges a waste of money.

When you hear financial advisors and, more often, life insurance agents advocating for life insurance as an investment, they are referring to the cash-value component of permanent life insurance and the ways you can invest and borrow this money.

When does it make sense to invest in life insurance this way, and when are you better off buying term and investing the difference? Let's take a look at some of the most popular arguments in favor of investing in permanent life insurance and how other investment possibilities compare.

Arguments in Favor of Using Permanent Life Insurance as an Investment

There are many arguments in favor of using permanent life insurance as an investment. The issue is, these benefits aren't unique to permanent life insurance. You often can get them in other ways without paying the high management expenses and agent commissions that come with permanent life insurance. Let's examine a few of the most widely advocated benefits of permanent life insurance.

1. You get tax-deferred growth.

This benefit of the cash-value component of a permanent life insurance policy means you don't pay taxes on any interest, dividends or capital gains in your life insurance policy until you withdraw the proceeds. You can get this same benefit, however, by putting your money in any number of retirement accounts, including traditional IRAs, 401(k)s, 403(b)s, SIMPLE IRAs, SEP IRAs and self-employed 401(k) plans.

If you're maxing out your contributions to these accounts year after year, permanent life insurance might have a place in your portfolio and could provide some tax advantages.

2. You can keep your policy until age 100, as long as you pay the premiums.

A key advertised benefit of permanent life insurance over term life insurance is you don't lose your coverage after a set number of years. A term policy ends when you reach the end of your term, which for many policyholders is at age 65 or 70. But by the time you're 100, who will need your death benefit? Most likely, the people you originally took out a life insurance policy to protect—your spouse and children—are either self-sufficient or have also passed away.

3. You can borrow against the cash value to buy a house or send your kids to college, without paying taxes or penalties.

You can also use money you put in a savings account—one on which you don't pay fees and commissions—to buy a house or send your kids to college. But what insurance agents really mean when they make this point is if you put money in a tax-advantaged retirement plan like a 401(k) and want to take it out for a purpose other than retirement, you might have to pay a 10% early distribution penalty plus the income tax that's due. Further, some retirement plans, like 457(b)s, make it difficult or even impossible to take out money for one of these purposes.

That being said, it's generally a bad idea to jeopardize your retirement by raiding your retirement savings for some other purpose, penalties or not. It's also a bad idea to confuse life insurance with a savings account. What's more, when you borrow money from your permanent insurance policy, it will accrue interest until you repay it, and if you die before repaying the loan, your heirs will receive a smaller death benefit.

4. Permanent life insurance can provide accelerated benefits if you become critically or terminally ill.

You may be able to receive anywhere from 25% to 100% of your permanent life insurance policy's death benefit before you die if you develop a specified condition such as heart attack, stroke, invasive cancer or end-stage renal failure. The upside of accelerated benefits, as they're called, is you can use them to pay your medical bills and possibly enjoy a better quality of life in your final months. The drawback is your beneficiaries won't receive the full benefit you intended when you took out the policy. Also, your health insurance might already provide sufficient coverage for your medical bills.

In addition, some term policies offer this feature; it isn't unique to permanent life insurance. Some policies charge extra for accelerated benefits, too—as if permanent life insurance premiums weren't already high enough.

Arguments in Favor of Buying Term Insurance and Investing the Difference

When you buy a term policy, all of your premiums go toward securing a death benefit for your beneficiaries. Term life insurance, unlike permanent life insurance, does not have any cash value and therefore does not have any investment component. However, you can think of term life insurance as an investment in the sense you are paying relatively little in premiums in exchange for a relatively large death benefit.

For example, a nonsmoking 30-year-old woman in excellent health might be able to get a 20-year term policy with a death benefit of $1 million for $480 per year. If this woman dies at age 49 after paying premiums for 19 years, her beneficiaries will receive $1 million tax-free when she paid in just $9,120. Term life insurance provides an incomparable return on investment should your beneficiaries ever have to use it. That being said, it provides a negative return on investment if you are among the majority of policyholders whose beneficiaries never file a claim. In that case, you will have paid a relatively low price for peace of mind, and you can celebrate the fact you're still alive.

Do you really hate the idea of potentially "throwing away" almost $10,000 over the next 20 years? What would happen if you invested $480 per year in the stock market instead? If you earned an average annual return of 8%, you'd have $25,960 after 20 years, before taxes and inflation. Considering the opportunity cost of putting that $480 per year into term life insurance premiums instead of investing it, you're really "throwing away" $25,960. But if you die without life insurance during those 20 years, you'll leave your heirs with almost nothing instead of $1 million.

What if you bought permanent life insurance instead? The same woman described above who purchased a whole life insurance policy from the same insurance company could expect to pay $9,370 annually. The whole life policy's cost for a single year is just slightly less than the term life policy's cost for 20 years. So how much cash value are you building up for that extra cost?

– After five years, the policy's guaranteed cash value is $19,880, and you will have paid $46,850 in premiums.

– After 10 years, the policy's guaranteed cash value is $65,630, and you will have paid $93,700 in premiums.

– After 20 years, the policy's guaranteed cash value is $181,630, and you will have paid $187,400 in premiums.

But after 20 years, if you had bought term for $480 a year and invested the $8,890 difference, you'd have $480,806 before taxes and inflation at an average annual return of 8%.

"Sure," you say, "but the permanent life insurance policy guarantees that return. I'm not guaranteed an 8% return in the market." That's true. If you have no tolerance for risk, you can put the extra $8,890 a year in a savings account. You'll earn 1% annually, assuming interest rates never go up from today's historic lows. After 20 years, you'll have $208,671. That's still more than the permanent policy's guaranteed cash value of $181,630.

The Bottom Line

Using permanent life insurance as an investment might make sense for some people in some situations—usually high net-worth individuals looking for a way to minimize estate taxes. For the average person, the odds are poor that permanent life insurance will be a good investment compared with buying term and investing the difference.

Amy Fontinelle is a writer, editor, and personal finance expert. Her clients include personal finance websites, financial institutions, public policy organizations, academic journals and professional economists. She has written hundreds of articles on budgeting, credit cards, mortgages, real estate, investing and other topics. In addition to Investopedia, her articles have been featured on the homepage of Yahoo! and on Yahoo! Finance, Forbes.com, SFGate.com, Bankrate and other websites.

IRAs (48%)

We have combined the positions in your IRAs into a single portfolio for analysis. The following table lists the Funds you are invested in with the last column showing the percentage of the combined portfolio:

Name	Symbol	Type	Asset Class	Category	Yield	Exp.	Load	M*	Acc.
Oppenheimer International Growth Y	OIGYX	OEF	Equity	Foreign Large Growth	0.9%	0.85%		4	7.1%
Fidelity® 500 Index Premium	FUSVX	OEF	Equity	Domestic Large Blend	1.8%	0.04%		4	7.0%
MFS® International Value I	MINIX	OEF	Equity	Foreign Large Blend	1.6%	0.76%		5	6.9%
PIMCO Income Instl	PIMIX	OEF	Bonds	Multisector Bond	5.5%	0.50%			5.4%
Southwest Airlines Co	LUV	Stock	Equity	Domestic Large Blend	0.8%				4.8%
Victory Sycamore Established Value A	VETAX	OEF	Equity	Domestic Mid Value	0.6%	0.90%	5.75	5	4.6%
Buffalo Discovery	BUFTX	OEF	Equity	Domestic Mid Growth		1.03%		5	4.6%
AllianzGI International Small-Cap P	ALOPX	OEF	Equity	Foreign Mid Growth	1.1%	1.10%		3	3.9%
Artisan Developing World Investor	ARTYX	OEF	Equity	Emerging Mkt	0.1%	1.40%			3.9%
T. Rowe Price QM US Small-Cap Gr Eq	PRDSX	OEF	Equity	Domestic Small Growth		0.81%		5	3.8%
Artisan Global Opportunities Inv	ARTRX	OEF	Equity	World Large Growth		1.15%		5	3.7%
Alger Capital Appreciation Instl I	ALARX	OEF	Equity	Domestic Large Growth		1.14%		4	3.6%
PRIMECAP Odyssey Growth	POGRX	OEF	Equity	Domestic Large Growth		0.67%		5	3.6%
Nuveen Small Cap Value I	FSCCX	OEF	Equity	Domestic Small Value	0.7%	0.95%		5	3.6%
AllianzGI Structured Return A	AZIAX	OEF	Options	Large Blend	0.6%	1.07%	5.50	2	3.4%
AllianzGI Short Duration High Inc Instl	ASHIX	OEF	Bonds	High Yield Bond	5.0%	0.59%		3	3.3%
Vanguard Equity-Income Adm	VEIRX	OEF	Equity	Domestic Large Value	2.5%	0.17%		5	3.1%
American Beacon Bridgeway Lg Cp Val Inst	BRLVX	OEF	Equity	Domestic Large Value	1.3%	0.73%		5	3.1%
Wasatch International Opps Inv	WAIOX	OEF	Equity	Foreign Small Growth		2.23%		4	3.1%
Eaton Vance Income Fund of Boston I	EIBIX	OEF	Bonds	High Yield Bond	5.8%	0.75%		4	3.0%
PIMCO Foreign Bond (USD-Hedged) Instl	PFORX	OEF	Bonds	World Bond	1.5%	0.50%		5	2.9%
Hartford World Bond A	HWDAX	OEF	Bonds	World Bond		1.04%	4.50	3	2.8%
Permanent Portfolio Permanent I	PRPFX	OEF	Mix	Large Blend	0.8%	0.82%		2	2.8%
REMS Real Estate Value Opportunity Instl	HLRRX	OEF	Real Estate	Small Value	2.4%	1.25%		3	1.7%
Vanguard Real Estate ETF	VNQ	ETF	Real Estate		4.8%	0.12%		3	1.6%
Fidelity® Government MMkt Dly Mny			Cash						1.1%
First Eagle Global C	FESGX	OEF	Equity	World Large Blend		1.85%		4	0.4%
Eaton Vance Global Income Builder C	EDICX	OEF	Mix	World Large Blend	2.9%	2.03%	1.00	3	0.4%
PIMCO Income C	PONCX	OEF	Bonds	Multisector Bond	4.3%	1.65%	1.00	5	0.3%
American Funds Capital Income Bldr C	CIBCX	OEF	Mix	World Large Blend	2.6%	1.39%	1.00	3	0.3%
MFS® Global Total Return C	MFWCX	OEF	Mix	World Large Blend	0.6%	1.84%	1.00	3	0.3%
Fidelity® Treasury Money Market CptlRvs			Cash						0.0%

Registered Investment Advisors, like SFA and HCM, have a fiduciary obligation to their clients. None of your Open-end Funds (OEF) should have a **Load**, yet 7 of them do, totaling 12.2% of your portfolio. As I have written (https://medium.com/@DevinLHughes/when-is-it-time-to-shop-for-a-new-investment-advisor-f39776dbd729):

"In order to entice investment advisors and brokers to offer their vehicles to clients, mutual funds often offer a variety of share classes, many of which have Load fees. The idea behind the Load fee is for it to serve as a sort of sales charge, compensating the advisor and his firm for their expertise in assisting you in purchasing the fund shares. In practice however, the sole purpose of Load fees are to further enrich the advisor at the expense of the client."

There is never a good reason to be in shares with a load fee, as most Funds offer share classes with no Load. Most of these OEFs also have relatively high **Exp**enses, and two of them have a Morningstar (**M***) performance rating of 2, including AZIAX for which you paid a 5.5% load. Morningstar's performance rating system:

"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.

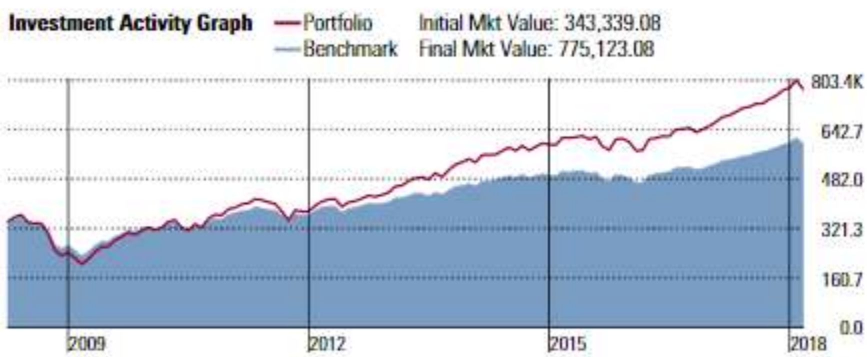
Within each Morningstar Category, the top 10% of funds and ETFs receive 5 stars and the bottom 10% receive 1 star. Funds and ETFs are rated for up to three time periods-three-, five-, and 10-years and these ratings are combined to produce an overall rating. Funds and ETFs with less than three years of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

Morningstar's **Category** for each Fund is provided. As investing legend John Templeton once observed, **"The only investors who shouldn't diversify are those who are right 100% of the time."** However, diversifying among categories, as though they were Asset Classes, often gives the illusion of lower risk while merely increasing the cost and lowering the performance. As detailed on our website, there is strong academic evidence that Value beats Growth over time. However, there is absolutely no justification for buying a bunch of Value (you have 4), Growth (7) and Blend (2) Funds, when you can effectively buy the market with a single index Fund at much less **Exp**. In legendary investor Peter Lynch's first book, 'One Up On Wall Street', he coined the term "diworsification". While yours isn't the worse case we've seen, underperformance is usually the result: (http://www.hughescapitalmanagement.com/2017/11/18/fidelitys-turn-diworsification-111817/) Since most actively managed Funds fail to even match their benchmark, the client pays the price.

As we also note on our website under Factors: "Size is one of the three original factors when Fama and French published their three-factor model in 1992 to explain stock returns. Over the long run, small capitalization stocks tend to beat their large counterparts." The S&P 500, Large and Mega (>$100 Billion) Caps, is a subset of the S&P 1500, which is also comprised of the S&P MidCap 400 and S&P SmallCap 600. The S&P 1500 covers approximately 90% of the U.S. market capitalization. The Size Factor is clearly demonstrated by the relative performance of the S&P 600 and 400 to that of the S&P 500. Small (IJR, blue line) beats Mid (IJH, orange line), and both clobber Large (SPY, green line) as shown by Morningstar's chart above.

So how, given our concerns, can you be outperforming your Benchmark as shown by SFA on p. 14? The answer is their Benchmark. In the table below, we show Morningstar's Target Risk Allocations for a Moderately Aggressive portfolio, SFA's allocations for your "Moderate Growth" Benchmark, and the actual allocations for your portfolio. Note your significantly higher allocation to Equity then that recommended by SFA's Benchmark. If you manufacture a Benchmark, then over weight Stocks relative to that Benchmark during a Bull Market, relative outperformance naturally follows.

Performance (Return as of date 2/28/2018)



Trailing Returns	3 Mo	1 Yr	3 Yr	5 Yr	10 Yr
Portfolio Return	0.69	13.40	7.94	10.94	8.43
Benchmark Return	0.82	10.28	5.67	7.28	5.62
+/- Benchmark Return	-0.13	3.12	2.27	3.67	2.81

Our negative view on Bonds, both cyclical and secular, can be found under Asset Allocation on the HCM website:

"Over long periods of time, the returns on equities not only surpassed those on all other financial assets, but were far safer and more predictable than bond returns when inflation was taken into account." – Princeton professor Jeremy Siegel from the 2014 preface to his classic book, Stocks for the Long Run."

	Morningstar's Benchmark (1)	Your Benchmark (2)	Your Portfolio
U.S. Stocks	50.50%	42.75%	46.50%
Non-U.S. Stocks	29.50%	19.22%	28.87%
Bonds	20.00%	20.80%	13.46%
Other	0%	13.04%	7.63%
Cash	0%	4.91%	3.54%
1 Morningstar's Moderately Aggressive Tarket Risk Allocation			
2 SFA's Moderate Growth Allocation			

At their current yields, government bonds, as Jim Grant of *Grant's Weekly Interest Rate Observer has noted*, now offer "**return-free risk**." As Gary Antonacci, the author of Dual Momentum Investing: An Innovative Strategy for Higher Returns with Lower Risk, has written:

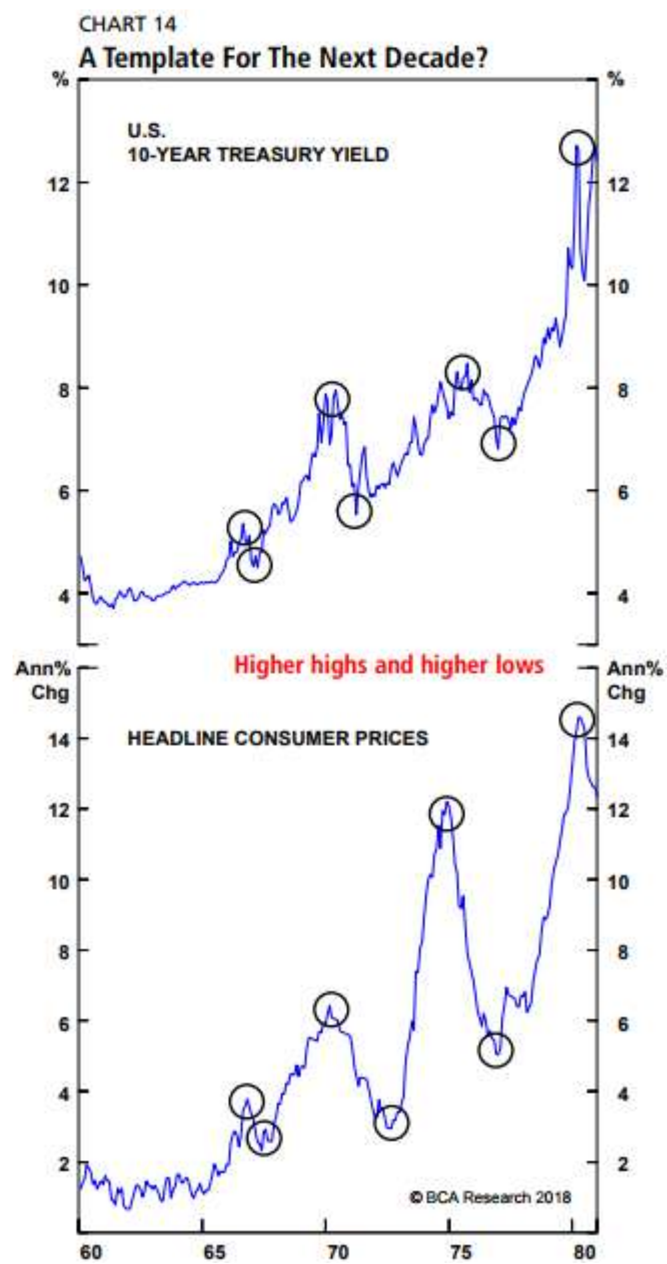
“The average annualized real return after inflation on U.S. long-term government bonds from 1900 through 2013 was just 1.9%, considerably less than the 6.5% average annualized real return from U.S. equities during this same period. Bonds had negative real returns from 1940 all the way through 1981. Purchasers of long-term government bonds in 1941 had to wait until 1991 before breaking even.”

And:

“Given the way that bond prices move inversely to interest rate changes, intermediate-term bonds could lose half their value if their annual yield rises to their long-run average rate of 6.75%. One should keep in mind that real Treasury bond returns were negative for the next 45 years following similar valuation levels as exist today.

Here is what Warren Buffett wrote about fixed-income investing in his 2012 annual letter to Berkshire Hathaway, Inc., shareholders: ‘They are among the most dangerous of assets. Over the past century these instruments have destroyed the purchasing power of investors in many countries, even as these holders continued to receive timely payments of interest and principal… Right now, bonds should come with a warning label.’”

While there may come a time in the future when long-term Bonds once again make sense as a part of a diversified portfolio, currently it is an asset class best avoided."



Our cyclical concerns have increased. From BCA Research's February 16, 2018 Global Investment Strategy:

"While bond yields are due for a pause, the long-term trend remains firmly to the upside. BCA declared “The End Of The 35-Year Bond Bull Market” on July 5, 2016.2 As luck would have it, this was the same day that the 10-year U.S. Treasury yield hit a record closing low of 1.37%. We argued at the time that both cyclical and structural forces would conspire to put in a bottom for yields.

Since then, the global economy has continued to grow at an above-trend pace. This has caused output gaps to shrink in every major economy. The U.S. has now reached full employment. Wage growth tends to accelerate once the unemployment rate falls below NAIRU. Faster wage growth will give households the wherewithal to spend more. With little spare capacity left, this will fuel inflation. The shift from fiscal austerity to largesse across much of the world is adding to the inflationary pressures. The Trump tax cuts are starting to look like chump change compared to the massive amount of spending coming down the pike. The Senate agreed last week to raise the caps on spending by $153 billion in FY2018 and an additional $143 billion in FY2019. This does not even include the $80 billion that has already been allocated to disaster relief, the still-to-be-negotiated sum for infrastructure spending ....

Globalization, which historically has been a highly deflationary force, is on the back foot. Global trade nearly doubled as a share of GDP from the early 1980s to 2008, but has been stagnant ever since. Donald Trump pulled the U.S. out of the Trans-Pacific Partnership and he may very well pull it out of NAFTA. Opposition towards open-border immigration policies is rising. More Mexicans left the U.S. over the past eight years than entered it.

On the demographic front, the three decade long increase in the global ratio of workers-to-consumers has finally reversed. As baby boomers leave the labor force, the amount of GDP they produce will plummet. However, their spending on goods and services will continue to rise once health care expenditures are included in the tally. The combination of more consumption and less production is inflationary. Against a backdrop of slow potential GDP growth, policymakers will welcome rising inflation as the only viable tool left to deflate away high debt levels. ...

Global bond yields are on a structural upward trajectory, however the progression will be a choppy one. The rapid rise in bond yields will flatten out, but the 10-year Treasury yield (it closed last week at over 2.8%) will nevertheless finish the year at about 3.25% – around 25 basis points above the forwards. Yields will continue to rise into next year. ...

The next downturn will see inflation and bond yields dip again. However, they will do so from higher levels than today. As in the 1970s, bond yields and inflation will trend higher over the coming years, reaching “higher highs” and “higher lows” with every passing business cycle (Chart 14).

Assuming your IRA portfolios accurately reflect your family's Risk Profile and taking a Funds only approach, which would reduce the 1% annual management fee to 0.5% after the first year:

Our Recommended Portfolio

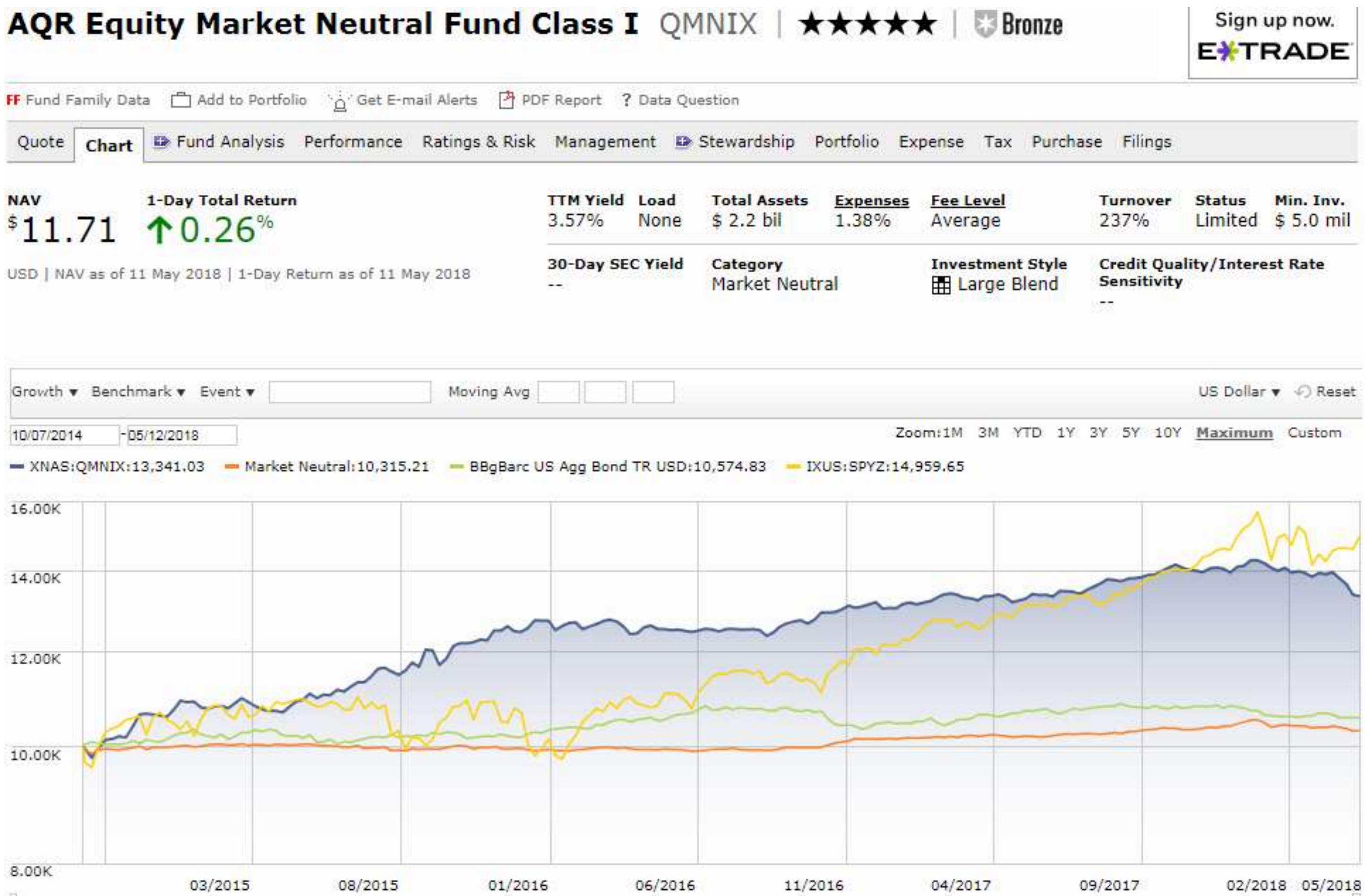
%	Symbol	Type	Description	Factors (1)	Yield	(2)	Exp.	M*	Risk (3)
20	QMNIX	OEF	Global Long/Short Equity-Large Blend	V, M, Q	3.4%	A	1.39%	5	0.2
10	SFREX	OEF	Global Real Estate-Large Blend		3.5%	Q	0.39%	5	1.0
10	MTUM	ETF	US Large Growth	M	1.0%	Q	0.15%	5	1.0
15	SMLF	ETF	US Small Blend	S, V, M, Q	1.0%	Q	0.30%	5	1.1
15	SMMV	ETF	US Small Blend	S, LV	1.7%	Q	0.20%		0.7
15	ISCF	ETF	Foreign Small/Mid Blend	S, V, M, Q	2.0%	S	0.40%	5	1.1
15	GPIIX	OEF	Foreign Small/Mid Growth	S, V, Q	0.3%	A	1.37%	4	1.3
								Weighted Average:	**0.9**

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 greater than 10% since 2007

In the above table, we have added columns for **Factors,** which are fully explained on our website, **Yield,** Distribution Frequency (**Note** 2), and **Risk** (**Note** 3).

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 are shown in **Note** 1.

QMNIX - We have added the S&P 500 (yellow 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 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.

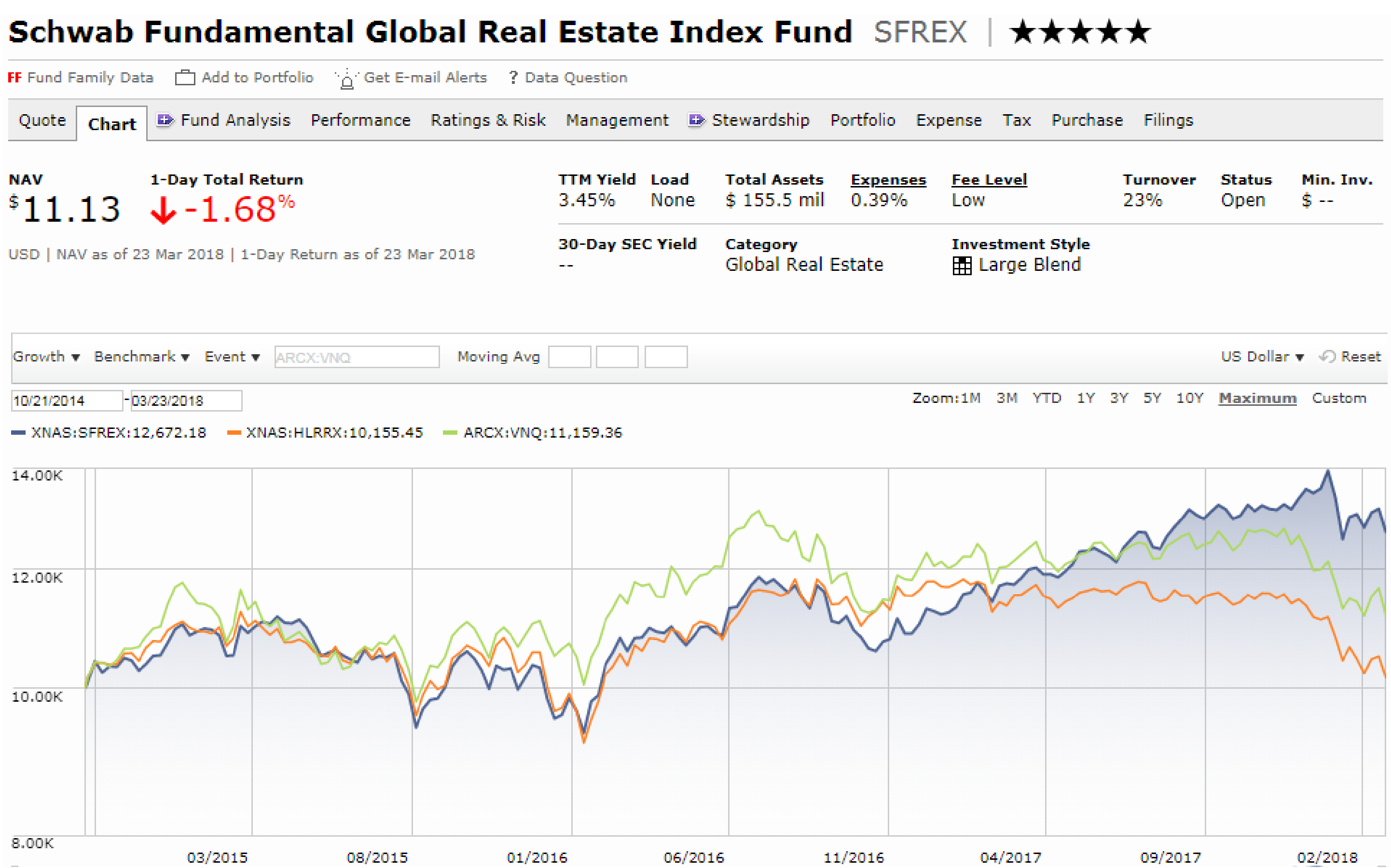
Price Pillar: Neutral

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.

SFREX - This passively managed OEF primarily invests in stocks that are included in the Russell RAFI Global Select Real Estate Index developed by Rob Arnott's Research Affiliates. The index measures the performance of real estate companies, including real estate investment trusts (REITs), in U.S. and non-U.S. markets, including both developed and emerging. It ranks and weights global real estate securities by three fundamental measures of company size, adjusted sales, retained operating cash flow, and dividends plus buybacks rather than by



market capitalization. We have added your 2 existing Real Estate Funds, HLRRX (orange line) and VNQ (green line) to Morningstar's chart for comparison.

MTUM - In an interview, Eugene Fama (the father of the Efficient Market Hypothesis) 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." We have added your 5 Domestic Large-cap Funds to Morningstar's chart for comparison: FUSVX (orange line), ALARX (green line), POGRX (yellow line), VEIRX (maroon line), and BRLYX (turquoise line).

This is a cost-efficient momentum strategy.

by Alex Bryan, CFA
4/18/2018

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 its 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 may struggle when the market changes direction. Stocks that make the cut are weighted according to both their market capitalization and 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 allows the managers to transfer holdings out of the portfolio through a nontaxable in-kind transaction with the fund's authorized participants.

The fund's approach has worked well so far. From its inception in April 2013 through March 2018, it outpaced the Russell 1000 Growth Index by 140 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. One plausible explanation is that investors under-react 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 percentage points 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.

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 the fund will likely still struggle during periods of high market volatility. 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 Microsoft MSFT, Netflix NFLX, 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 technology and healthcare stocks. There are no limits on the fund's sector tilts.

Portfolio Construction

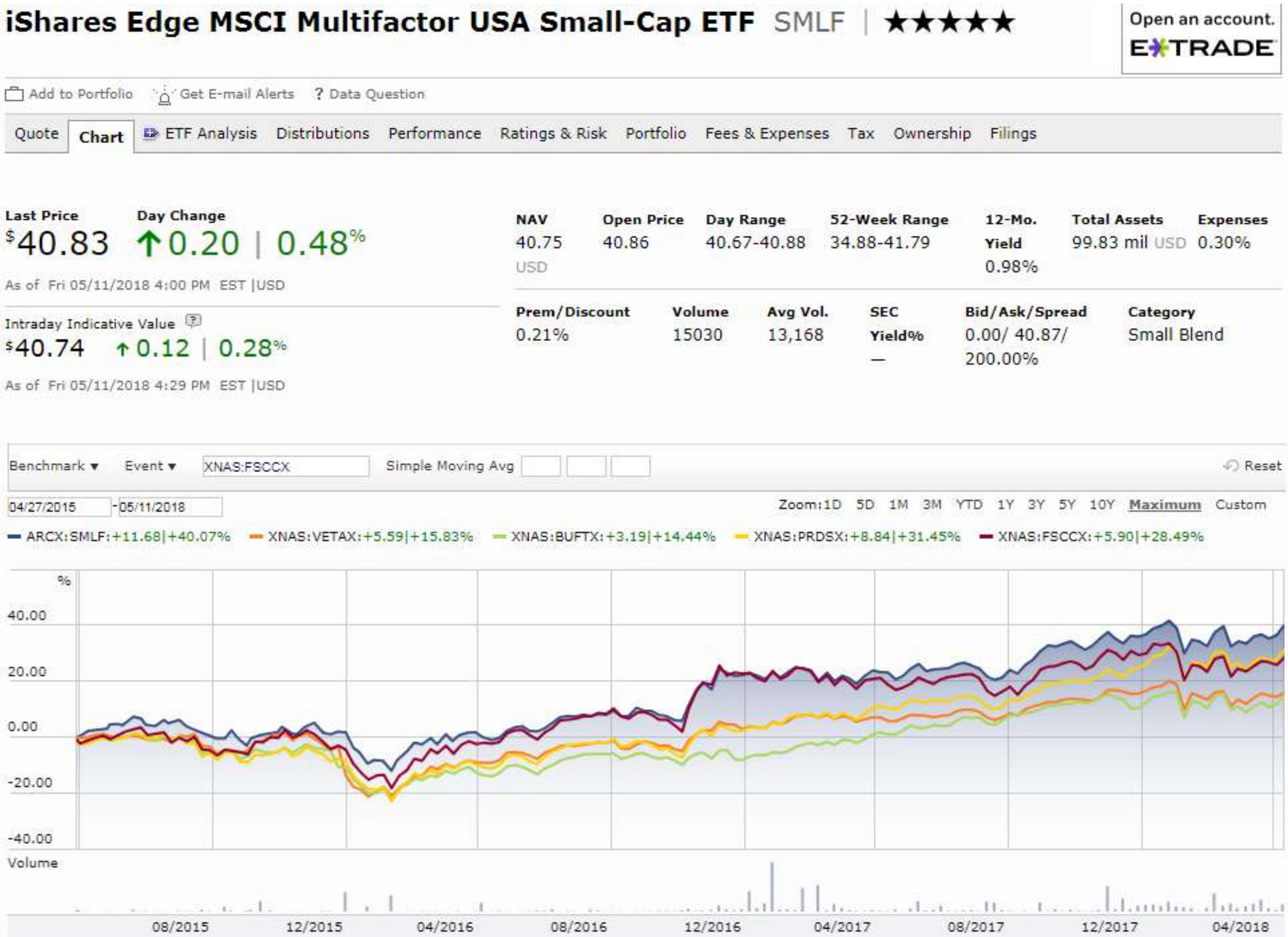
The fund tracks the MSCI USA Momentum Index, which draws stocks from the large- and mid-cap-oriented MSCI USA Index. This strategy captures momentum in a cost-efficient way, supporting the Positive Process Pillar rating. In May and November, MSCI calculates the ratio of each stock's price returns over 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. 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 cap, subject to a 5% cap. In addition to the scheduled semiannual reconstitution, MSCI may do an off-cycle rebalance of 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 March 2018, the fund 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."

We have added your 4 Domestic Small-Cap Funds to Morningstar's chart for comparison: VETAX (orange line), BUFTX (green line), PRDSX (yellow line), and FSCCX (maroon line).



SMMV - captures the Low Volatility Factor among Domestic Small-Cap Stocks. We have again added your 4 Domestic Small-Cap Funds to Morningstar's chart for comparison: VETAX (orange line), BUFTX (green line), PRDSX (yellow line), and FXCCX (maroon line). While PRDSX, an excellent Quantitative OEF which we track on our Buy/Watch list for clients, has outperformed SMMV, it does so with a **Risk** ratio of 1.3 compared to SMMV's 0.7.

iShares Edge MSCI Min Vol USA Small-Cap ETF SMMV

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Quote | **Chart** | ETF Analysis | Distributions | Performance | Ratings & Risk | Portfolio | Fees & Expenses | Tax | Ownership | Filings

Last Price
$28.44

Day Change
-0.31 | -1.09%

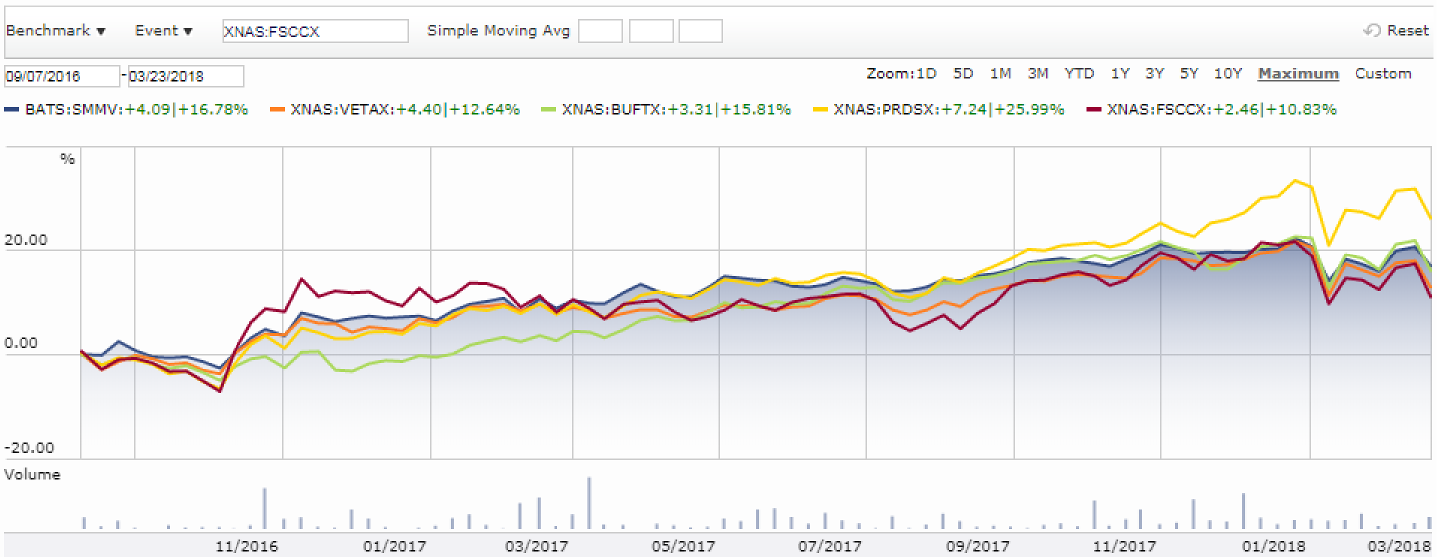
As of Fri 03/23/2018 4:10 PM EST |USD

Intraday Indicative Value
$28.33 -0.40 | -1.40%

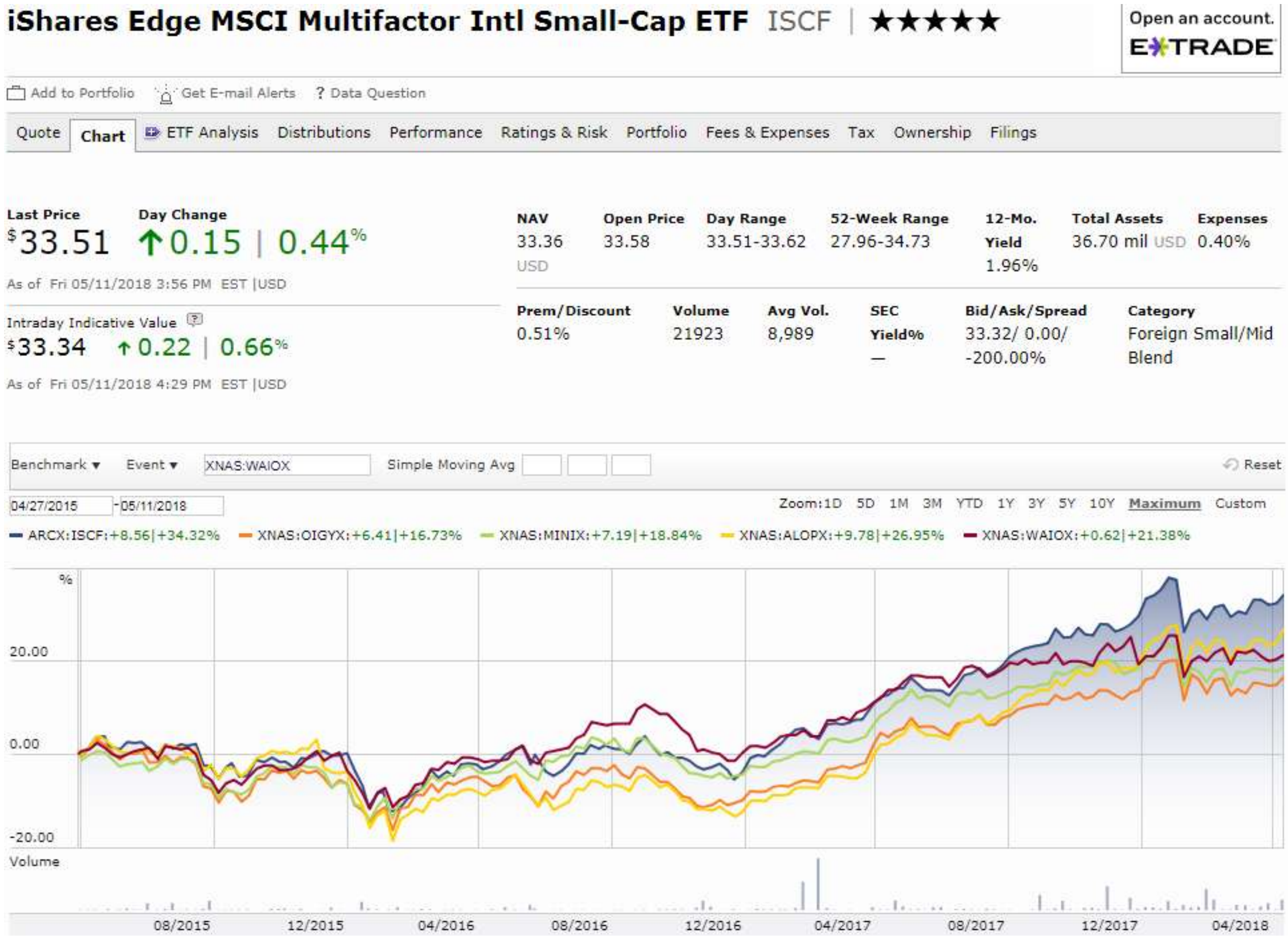
As of Fri 03/23/2018 4:29 PM EST |USD

NAV	Open Price	Day Range	52-Week Range	12-Mo. Yield	Total Assets	Expenses
28.32 USD	28.64	28.44-28.64	26.26-30.51	1.67%	25.49 mil USD	0.20%

Prem/Discount	Volume	Avg Vol.	SEC Yield%	Bid/Ask/Spread	Category
0.37%	2989	5,556	—	28.21/ 0.00/ -200.00%	Small Blend



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 your 4 Foreign Funds to Morningstar's chart for comparison: OIGYX (orange line), MINIX (green line), ALOPX (yellow line), and WAIOX (maroon line).



GPIIX - We have been using Grandeur Peak's International Opportunities Fund for International Small-Cap exposure almost since its inception in 2011, and were responsible for getting E*Trade to offer this OEF. They (blue line) use a similar Quantitative approach to our own. While it is hard Closed to all investors, HCM has been granted a waiver. We have again added your 4 Foreign Funds to Morningstar's chart for comparison: OIGYX (orange line), MINIX (green line), ALOPX (yellow line), and WAIOX (maroon line). Grandeur Peak's founders came from Wasatch where GPIIX current lead manager was WAIOX's lead manager until his departure.

Grandeur Peak International Opportunities Fund Institutional Class GPIIX | ★★★★

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

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

NAV	1-Day Total Return
$4.09	↓ -1.45%

USD | NAV as of 23 Mar 2018 | 1-Day Return as of 23 Mar 2018

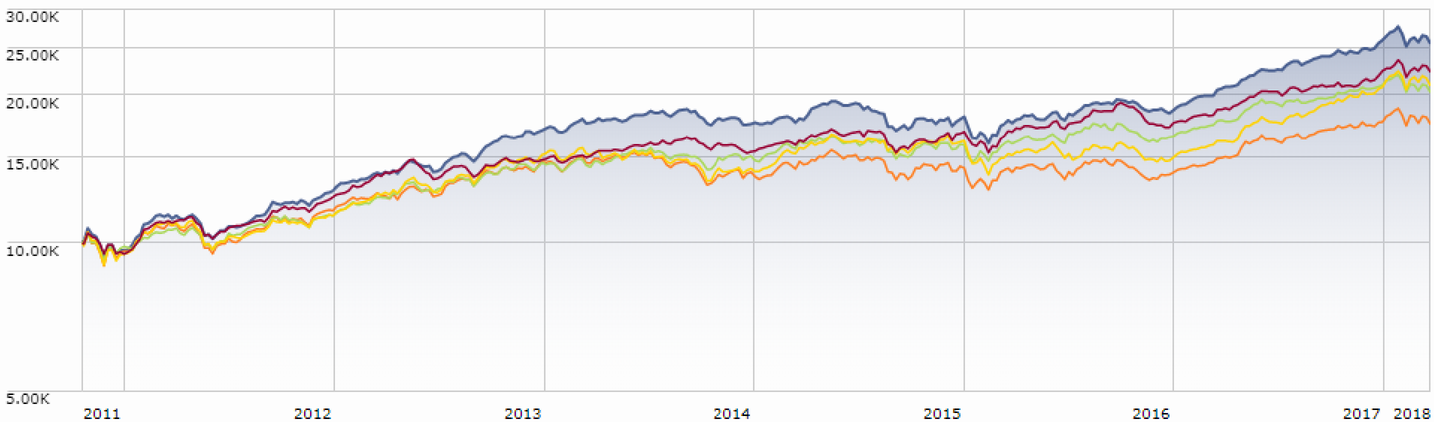
TTM Yield	Load	Total Assets	Expenses	Fee Level	Turnover	Status	Min. Inv.
0.29%	None	$ 886.8 mil	1.37%	High	30%	Closed	$ 2,000

30-Day SEC Yield	Category	Investment Style
--	Foreign Small/Mid Growth	Small Growth

Growth ▾ Benchmark ▾ Event ▾ XNAS:WAIOX Moving Avg US Dollar ▾ Reset

10/17/2011 - 03/23/2018 Zoom: 1M 3M YTD 1Y 3Y 5Y 10Y **Maximum** Custom

XNAS:GPIIX:25,396.00 XNAS:OIGYX:17,437.63 XNAS:MINIX:20,225.99 XNAS:ALOPX:20,857.09 XNAS:WAIOX:22,237.79



I hope this helps, and urge you to call if you have any questions.

Our Best,
Devin