



**F R A N C I S**  
Investment Counsel LLC

**TIDI PRODUCTS, LLC  
INCENTIVE SAVINGS PLAN**

**4<sup>th</sup> QUARTER 2018  
PERFORMANCE REVIEW**

**Prepared by: Clifford H. Dunteman, CFA  
Francis Investment Counsel LLC  
Vice President  
Principal  
Investment Consulting Service**

**Edward McIlveen, CFA  
Director of Research  
Principal  
Investment Consulting Services**

## March 21, 2019 – Tidi Products, LLC

### Action Items – Require Committee Discussion/Vote

- 2018 Annual Fiduciary Review
- Hartford International Small Company – Watch List II due to recent underperformance, but with qualitative concerns absent, we maintain a favorable outlook for this offering (p. 68).

### Items Recommended for Discussion

- Vanguard Total Bond Market Index, Vanguard Total Stock Market Index - Cheaper alternatives available at Fidelity. Given the recency of Fidelity's price cuts, and the administrative cost and burden to make a change, we recommend waiting until April of 2019, when Vanguard reprints and distributes all prospectuses, to see if they lower their fee on this Fund before the Committee considers making a change (p. 15 & p. 57).
- Fiduciary Advice @ Work (p. 3)
- Executive Summary (pp. 11-12)
- Independent View (pp. 4-10)

### Items of Note

- SITE VISIT – New York, NY. Met with Justin Leverenz and other members of Oppenheimer's Developing Markets team (p. 71).  
*Additional information about our investment manager due diligence visits is available upon request.*
- Morgan Stanley Frontier Markets Fund – Watch List II due to relative underperformance. Fund removed from menu on 3/15/2019 (p. 74).

## ***How Protected Is Your 401(k) Plan***

If any of your employees have ever applied for a credit card, shopped at Target, or stayed at a Marriott there is a very real possibility that, due to some recent large data breaches, their personal information is now available to anyone motivated enough to go on the dark web and buy it.

To a cybercriminal, the 401(k) industry looks like a big candy store with over five trillion dollars in liquid assets protected by largely automated systems. Armed with an employee's name, social security number, date of birth, address, and any personal information available on social media, a motivated criminal may be able to pose as an employee and "hack" your 401(k) plan. Not surprisingly, since these large-scale data breaches occurred, industry insiders report a sharp increase in the number of attempts to steal 401(k) assets.

Sophisticated criminals, with little fear of being caught, use stolen personal data to gain access to participant accounts. Relying on participant inattentiveness, they change the contact information on file, then sometimes pose as an employee to your Plan's Help Desk asking to withdraw or borrow money for some imaginary emergency or just withdraw funds using the automated systems. They request the money be wired to a domestic bank account and then quickly move the money offshore never to be seen again.

Here are some action steps you should take to protect your 401(k) plan.

### **Steps to protect participants**

- If you have not done so recently, inquire with your 401(k) service provider about the availability of advanced security measures. Dual factor authentication is now standard on most 401(k) platforms with additional security available from certain service providers such as account lock features and biometric/voice recognition software. The best safety measure may be for you to "de-automate" the distribution process until you are confident in your plan's security measures.
- Communicate with participants. Inattentiveness is a huge problem. Suggest they check their account regularly and make sure they are properly connected with your 401(k) service provider. Advise them to keep a look out for any unauthorized activity. All 401(k) recordkeeping platforms attempt to notify the account holder when changes are made to their account. Participants need to confirm they will receive any such notification.

### **Understand the protections offered by your service provider**

Unlike money deposited with a bank, there is no Federal regulation or insurance standing behind 401(k) deposits. Generally speaking, 401(k) recordkeepers, whose systems you rely on to protect your assets, say they will cover 100% of any losses due to unauthorized access. But caveats abound regarding what conditions must be satisfied to demonstrate the theft was not the result of user carelessness or inattentiveness.

Some of the 401(k) service agreements we have reviewed make statements like, "We will reimburse you for 100% of the assets taken." Then in the fine print state, "Our obligation to reimburse applies only in the event such unauthorized activity is due to our failure to implement our contractually agreed upon security protocols."

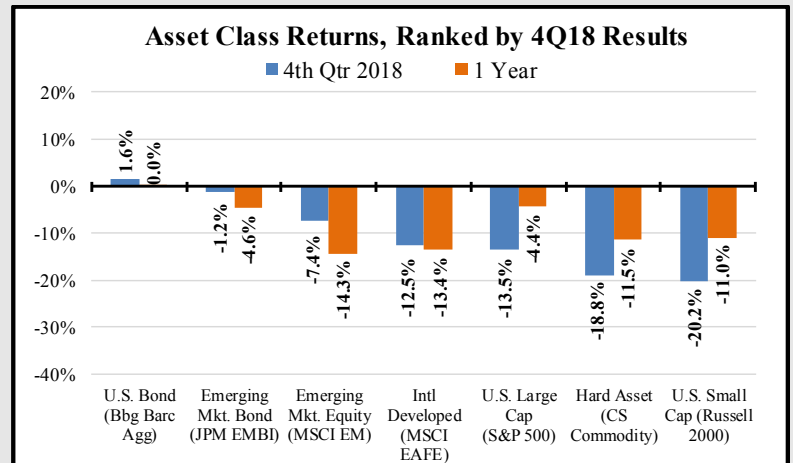
For this reason, if you haven't done so recently, ask your 401(k) service provider about their policies for account reimbursement. It may also be a good idea to inquire with your current insurance providers about the availability of any protections that would make participants whole in case of a successful breach of your plan.

## Looking Back...

### No Place to Hide – Coordinated Correction Cuts Asset Prices in 2018

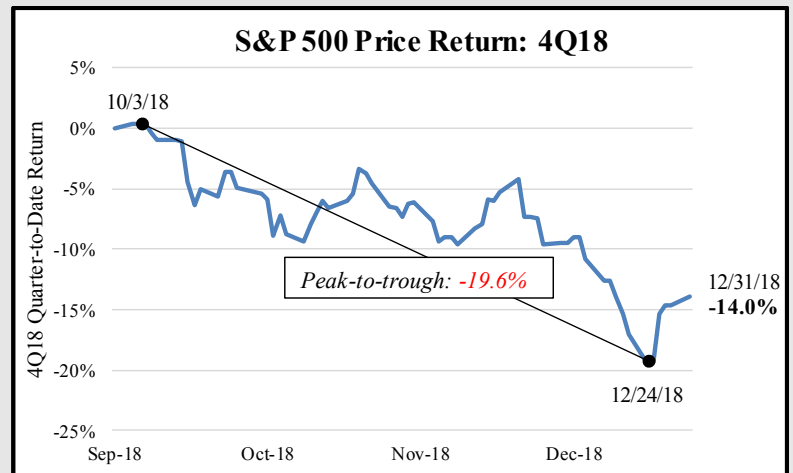
- Global risk appetite subsided in a major way in the fourth quarter, as investors grappled with the potential impact of a continued global trade conflict and tightening U.S. monetary policy on overall economic growth.
- This sell-off hammered calendar year results for stocks, bonds, and commodities, creating an environment where not a single major asset class outpaced inflation. This served as a complete reversal of 2017, in which all asset classes accomplished this feat.
- The most pronounced losses for U.S. equities came during the fourth quarter, and on an intraday peak-to-trough basis the asset class experienced its first bear market period (down 20%) since early 2009.
- Quarterly returns were even more troublesome for U.S. small-caps, which lost more than 20% and erased the double-digit gains (+11.51%) accrued in 2018's first three quarters.

~Exhibit 1~



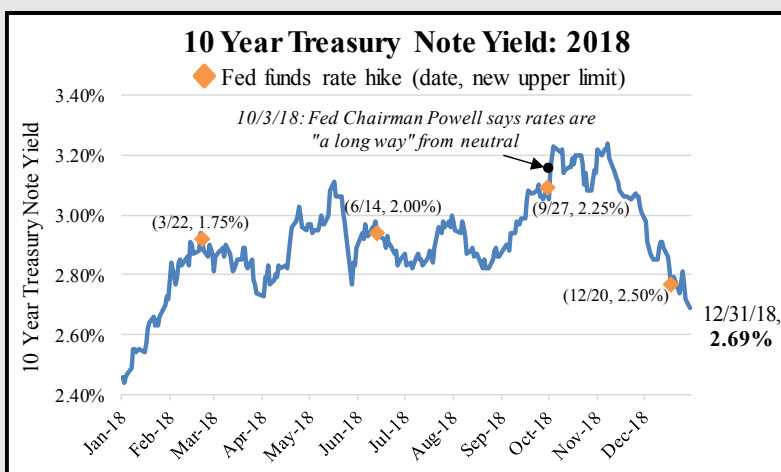
Source: Morningstar

~Exhibit 2~



Source: Morningstar

~Exhibit 3~



Source: Federal Reserve, U.S. Treasury

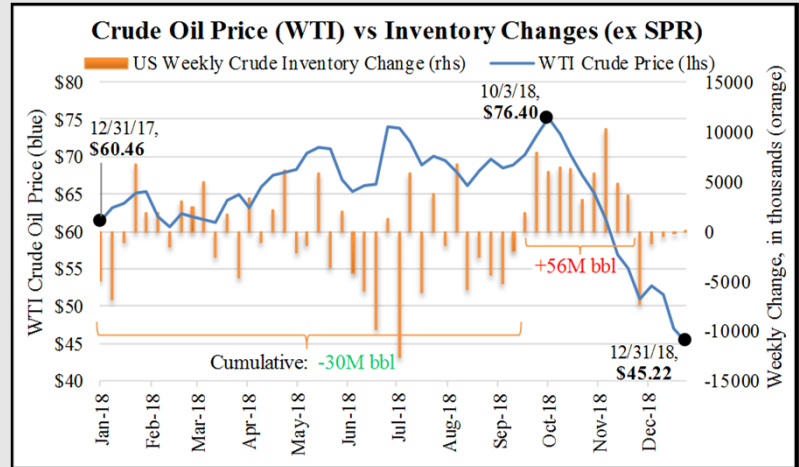
### A Turn in Tone – Fed Softens Stance on Future Rate Hikes

- Since assuming the position of Fed Chairman, Jay Powell had been very consistent in his messaging that the U.S. economy was healthy and further rate hikes were needed to normalize monetary policy. This stance pushed long-term yields higher throughout 2018's first 10 months.
- However, this rhetoric changed markedly in late November, as Powell indicated rates were "just below" neutral, helping to fuel a bond market rally in December.

## Oil Overload! Crude Crashes as Inventories Build

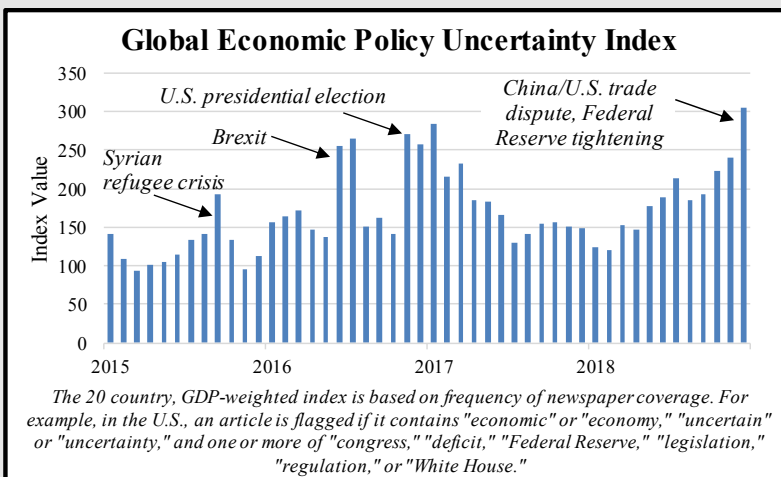
- Crude oil prices hit their highest level since the commodity's 2014 collapse in early October, after years of declining E&P cap-ex finally alleviated a massive inventory overhang.
- Producers promptly responded to higher prices with increased drilling activity, rebuilding reserves and causing contracts on WTI crude oil to collapse by 38% during the fourth quarter. In addition to the supply surprise, price declines were worsened by questions about demand in an environment of softening global fundamentals.

~Exhibit 4~



Source: U.S. EIA

~Exhibit 5~



Source: Economic Policy Uncertainty; Baker, Bloom, & Davis

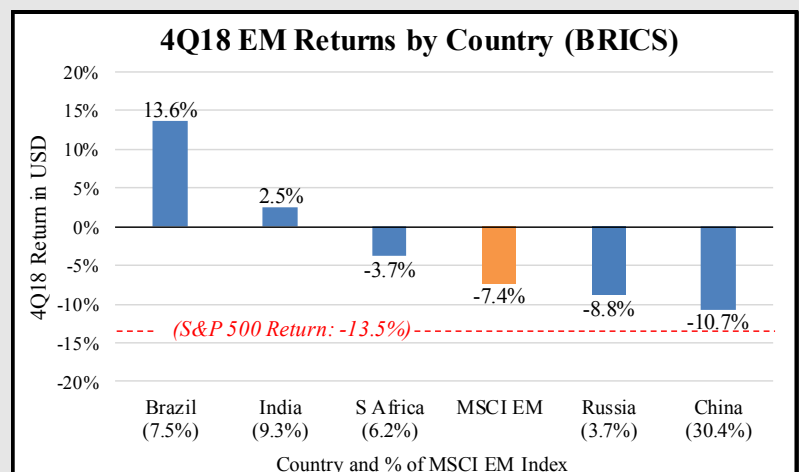
## Sell-Off Stoked by Crisis of Confidence

- Although the impact of trade conflicts has unquestionably caused global growth to slow from peak cyclical levels, the overall economy appears healthy, with little chance of recession in the coming months.
- That said, uncertainty surrounding future economic growth and the policy decisions that impact it stand at near-term highs. With so little clarity surrounding trade and the path of monetary policy in the U.S., investors were reluctant to buy into falling markets.

## Low Valuations Mute Downturn in Developing World

- Despite losing value in absolute terms, less demanding valuations on emerging market equities helped soften the blow on a relative basis during a difficult fourth quarter for risk assets.
- Five of the index's largest constituent countries outperformed the S&P 500, with both Brazil and India chalking up quarterly gains. These near-term results provide a reminder of the broad economic diversity found in the emerging world and the positive impact diversification can provide to a long-term portfolio.

~Exhibit 6~

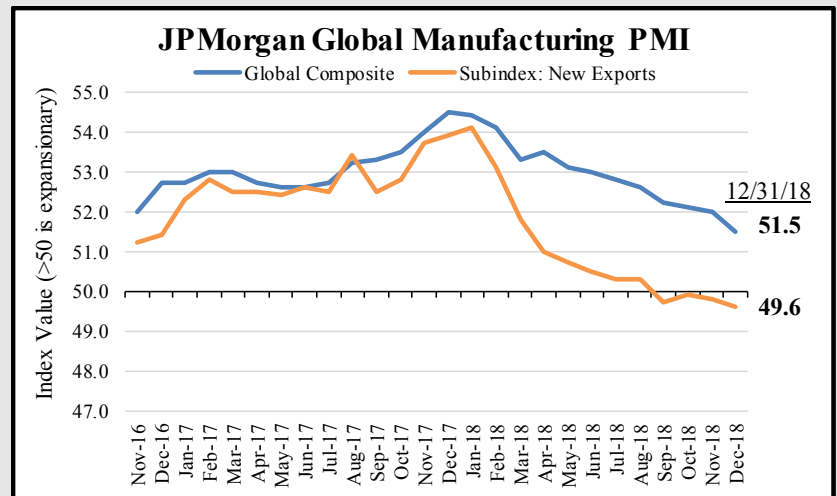


Source: MSCI via Morningstar5

## Looking Forward ...

### Coordinated Expansion Ends, but Recession Remains Unlikely *~Exhibit 7~*

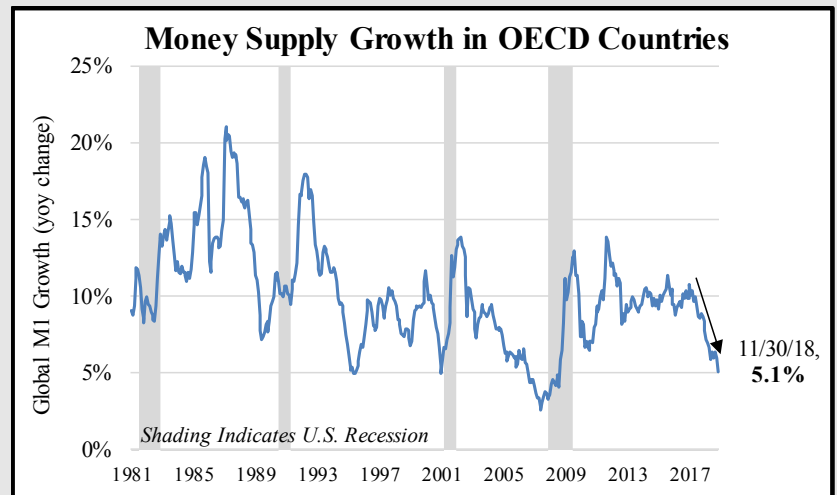
- Trade conflicts continue to serve as a dark cloud over the global economy, as both direct costs (tariffs) and indirect costs (dampened demand) have weighed heavily on the manufacturing sector.
- While the slowdown in growth has been palpable, we believe that a trade deal between the U.S. and China could quickly revive momentum, providing significant incentive for the two administrations to come to terms before the self-imposed March 1<sup>st</sup> deadline.



Source: JPMorgan

### *~Exhibit 8~*

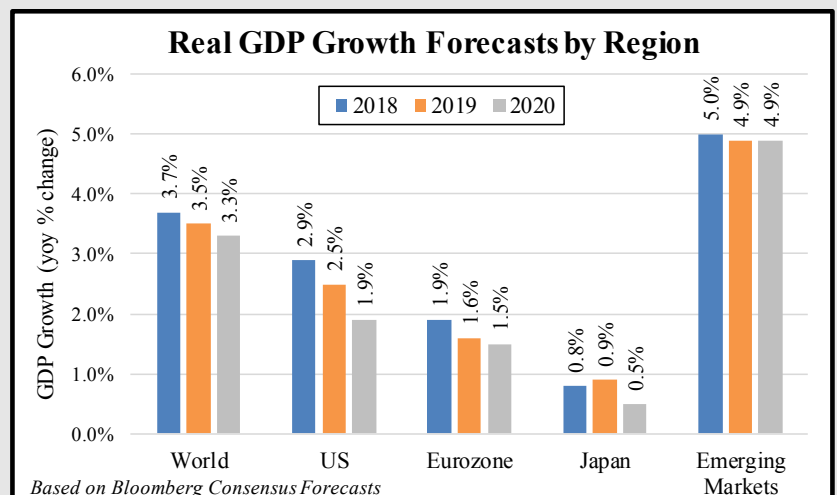
- In addition to declining export activity, markets must also contend with tighter monetary conditions across the developed world.
- The ECB formally ended its more than 3.5-year quantitative easing program in December, compounding the tightening already being experienced in the U.S. and U.K. Less accommodative conditions have caused developed market money supply growth to fall to levels not experienced since 2009.



Source: OECD

### *~Exhibit 9~*

- Although these headwinds are likely to weigh on short-term growth, we believe recent activity represents a deceleration from cyclical peaks rather than an impending recession for the world's largest economies.
- Economists' expectations point to only a modest slowdown for the global economy through 2020, an environment that would likely favor risk assets following the steep price declines experienced in calendar 2018.

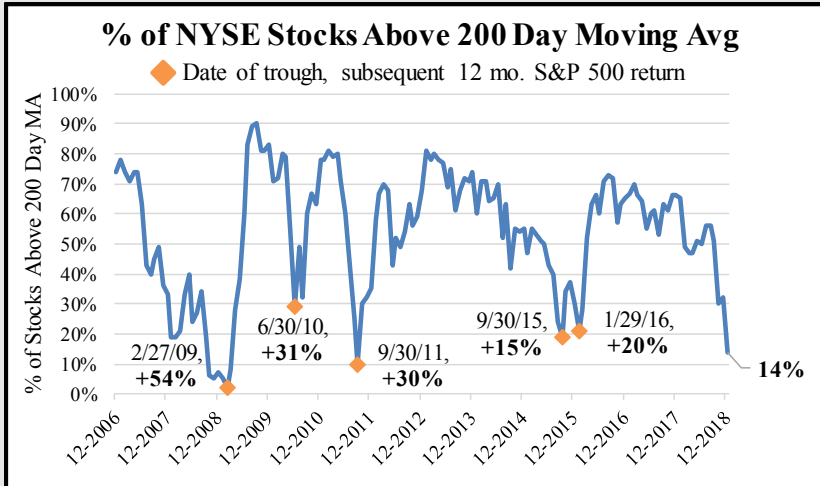


Based on Bloomberg Consensus Forecasts

Source: Bloomberg

## Stocks on Sale – U.S. Equities Ripe for a Rebound

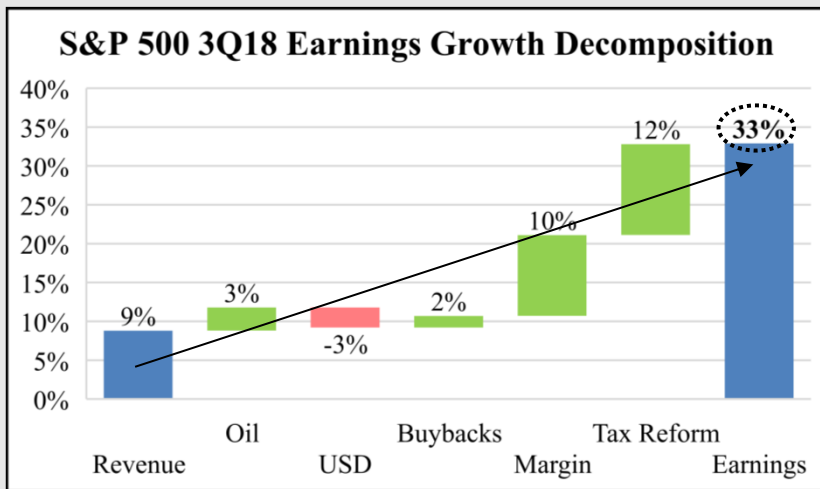
~Exhibit 10~



Source: Bloomberg

- U.S. equities have been a dominant force in capital markets for the better part of 6-years, a time frame in which trailing 12-month S&P 500 P/E ratios have expanded by 48%.
- The fourth quarter sell-off presents a rare buying opportunity for the asset class, with less than 15% of NYSE stocks now trading above their 200 day moving averages. Historically, investors willing to buy into these coordinated selloffs are rewarded over the next 12-months.

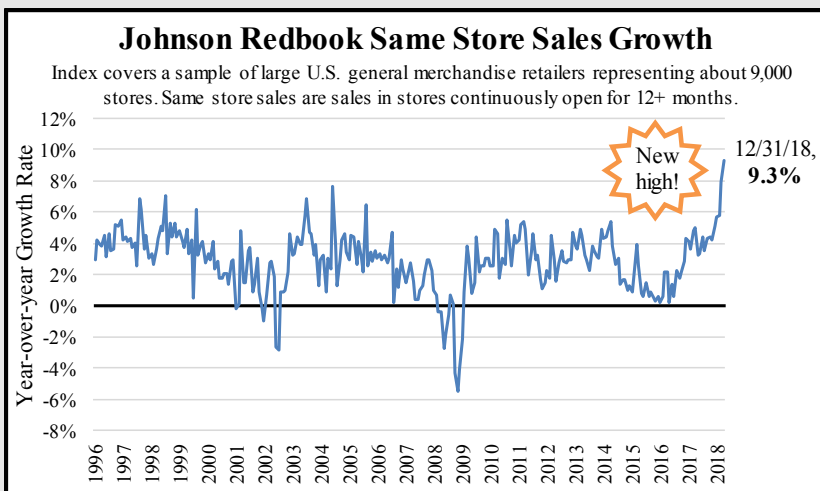
~Exhibit 11~



Source: JPMorgan Weekly Market Recap; November 19, 2018

- Rumbblings of an impending recession have started to garner headlines, but this sentiment hasn't impacted performance in corporate America. U.S. operating earnings continue to expand at a breakneck pace, up 27%, 27%, and 33% over the past 3 quarters.
- While we concede that gains from tax reform and margin expansion are likely to slow in 2019, revenue growth at 9% suggests healthy demand across economic sectors.

~Exhibit 12~



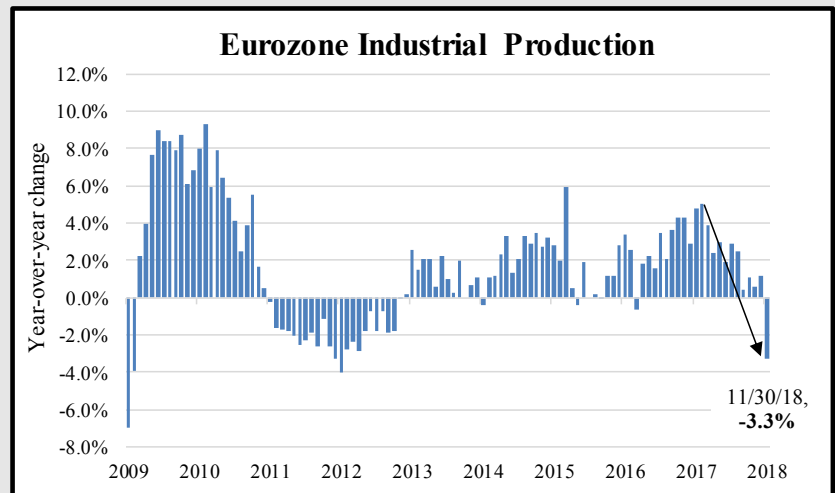
Source: Redbook Research via Bloomberg

- One sector where this is particularly evident is retail. Year-over-year same store sales growth hit a record high during December, an indicator that U.S. consumers are both healthy and confident.
- We expect this trend to persist through 2019 as consumers benefit from widespread employment, accelerating wage growth, falling commodity prices, and manageable levels of household debt.

## Shaken to the Core – Eurozone’s Struggles Starting to Spread

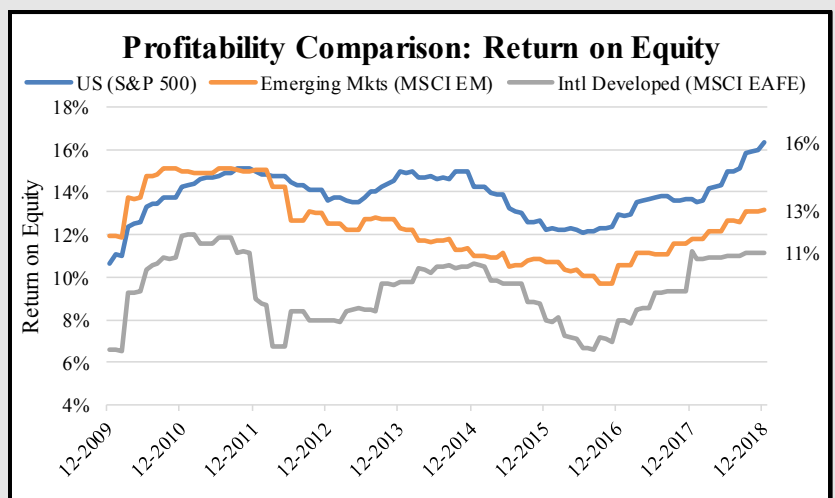
~Exhibit 13~

- Economic concern in Europe is no longer confined to peripheral countries, as global trade conflicts and continued political dysfunction in both Italy and the U.K. have started to weigh on economic output in Germany and France.
- Deteriorating business conditions are most evident in recent industrial production figures, which in November experienced their steepest decline since the 2012 European debt crisis.



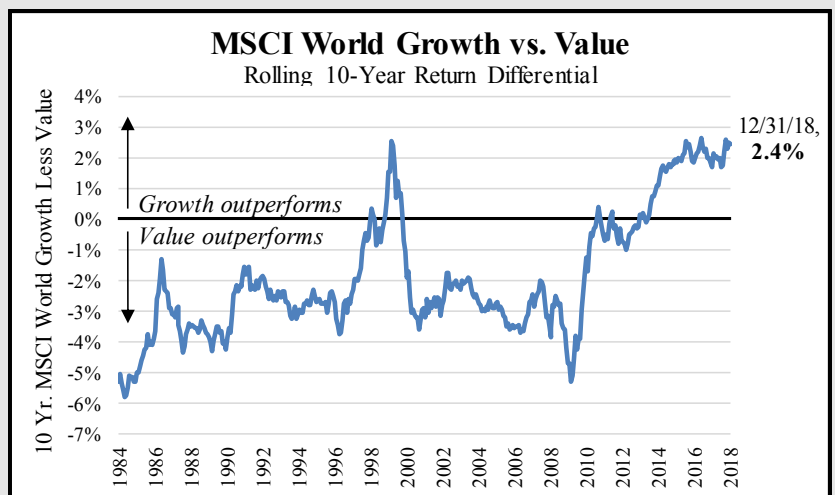
- In addition to shaky fundamentals and marginally tighter monetary conditions, foreign developed companies don't offer the same level of earnings quality found in other regions, causing us to downgrade the asset class to a neutral weight.
- Emerging market equities offer a more compelling value proposition in our eyes, with cheaper valuations than the U.S. and better earnings quality than Europe and Japan. This dynamic coupled with a more dovish U.S. Federal Reserve Bank should support an EM rebound in 2019.

~Exhibit 14~



- Much like the extended stretch of dominance for U.S. equities over foreign equities, developed market growth securities have persistently outpaced developed market value securities over the past 15-years.
- We believe that rising interest rates are likely to be a catalyst for a rotation back into value stocks in the coming years, and advocate that participants not concentrate portfolios too heavily toward areas of recent market leadership.

~Exhibit 15~

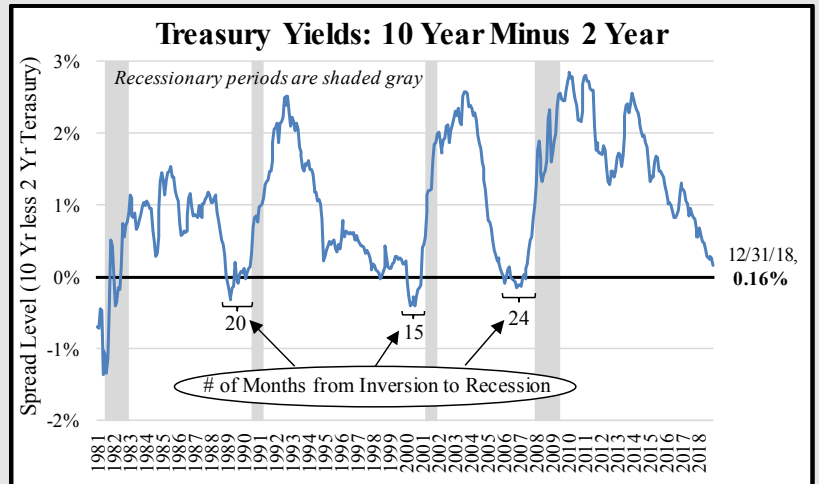




## Rising Risks Increase Appeal for Bonds

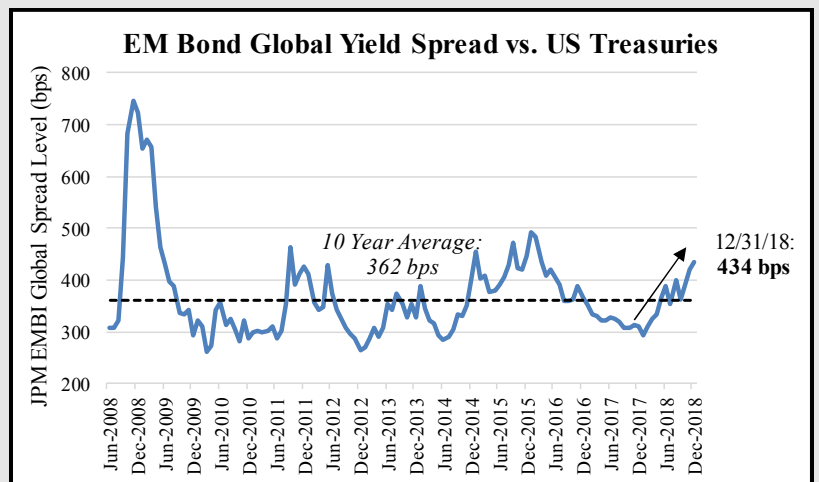
- While we expect the U.S. economy to continue its expansion throughout the coming year, a continued flattening of the U.S. yield curve increases the risk surrounding our outlook. Historically, an inverted yield curve (short-term yields higher than long-term yields) has been an excellent indicator of looming recession.
- Rising economic risks, along with widening credit spreads across U.S. bond markets has us less pessimistic in our view of U.S. fixed income.
- Concerns surrounding an economic slowdown in China and country-specific incidents in Turkey, Argentina, and Venezuela caused spreads on emerging market fixed income to climb above historical average levels during a tumultuous 2018.
- We continue to favor the risk profile of EM equities, but believe a combination of higher yields, depressed currency values, and less demanding valuations make EMD an attractive complement to U.S. bonds.

~Exhibit 16~



Source: Federal Reserve

~Exhibit 17~

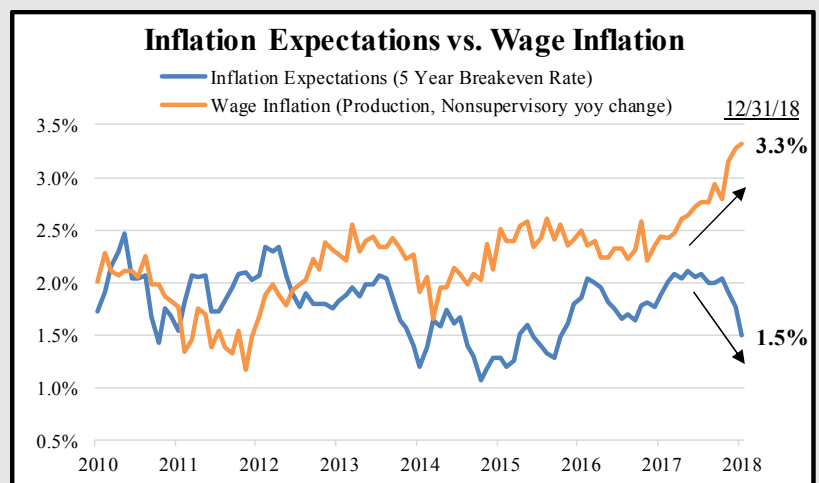


Source: JPMorgan via Bloomberg

## Commodities Primed for a Move to the Upside

- The recent swoon in energy prices has not only weighed on overall commodity returns, it's contributed to a sharp deterioration in investor expectations regarding future inflation.
- We believe both price declines and reset inflation expectations are overcorrections fueled by misguided fears about global growth. Continued wage growth keeps us confident that inflationary pressures haven't disappeared, which should support commodities prices in 2019.

~Exhibit 18~



Source: Bloomberg & U.S. BLS 9

Francis Investment  
Counsel Investment  
Committee

Michael J.  
Francis

President  
Chief Investment Officer

Clifford H. Dunteman  
Jr., CFA

Principal  
VP, Investment Consulting  
Services

Edward C.  
McIlveen, CFA

Principal  
Director of  
Research

Kevin J.  
Roloff, CFA

Senior Research  
Analyst

Jonathan N.  
Nolan, CFA

Senior Research  
Analyst

## Francis Investment Counsel's Global Economic Outlook and Recommendations

### Global Economy – Pace of Expansion Slowing Down but Not Falling Down

- United States – Economic growth should approach 2.5% for 2019, a decrease from the robust average of about 3.0% for most of 2018. Leading economic indicators point to expansion while the risk of a recession in 2019 is remote. Declines in oil prices and mortgage rates should stoke consumer spending as well as buoy the housing market. We see the recent pull back in PMI data off of strong levels being indicative of the short-term uncertainties associated with the trade spat with China and the Government shut down. However, the slowdown in the money supply is noteworthy; we believe aggressive Fed tightening, though no longer expected, represents among the largest risks to derailing the global expansion.
- Developed International – The economic trajectory for both the European and Japanese economies is more uncertain than at home and is quite sensitive to the deceleration in world trade volume. Though consumers are benefiting from higher wages in these two parts of the World, credit demand is leveling-off and geopolitical issues associated with Brexit, Germany, and Italy have clearly had a negative impact.
- Emerging Markets – The GDP forecast for the group remains at an impressive 4.9% for 2019-2020. India and China profit from the downward move in oil prices while harming the fiscal balances for energy exporters like Russia, Saudi Arabia, and Nigeria. Rather astonishing to grasp in our view, India and China are forecast to see their middle classes expand from 14% and 34% to 79% and 72% respectively by 2030.

### Domestic Equities – Neutral/Overweight (No Change)

- The fourth quarter selloff resulted in very pessimistic sentiment readings and only 14% of NYSE stocks are trading above their 200 day moving averages. Historically, this combination of factors has been a fine contrary indicator for investors and as such, we maintain our rating which advocates for buying. Valuations are attractive at 15x forward earnings.

### International Equities – Developed Neutral (Downgrade from Neutral Overweight) / Emerging Overweight (No Change)

- On the margin, developed international equities look slightly less appealing in the face of heightened geopolitical and economic uncertainty resulting in us downgrading the category. The U.S. dollar looks 'tired' to us as it has enjoyed a very long period of strength so any future weakness is helpful to U.S. investors. And, emerging markets trade at an attractive discount to U.S. equities of 11x vs. 15x forward earnings not to mention the unusual persistence in the cheapness of EM currencies versus the dollar. In our view, while the lingering trade issues remain a barrier to higher prices, the environment is ripe for some upside surprise.

### Fixed Income – Neutral/Underweight (Upgrade from Underweight) / EMD Neutral (No Change)

- Our upgrade in U.S. fixed income is principally based on the Fed's change in tone suggesting the Fed Funds rate is approaching its target. Recent widening credit spreads across the U.S. bond market, and the slowing down of the developed international countries is also part of our thesis for an upgrade. Emerging market debt spreads relative to U.S. Treasuries are more attractive of late, but we remain neutral as the fiscal balances for commodity-sensitive nations with meaningful debt exposure look vulnerable.

### Hard Assets – Neutral/Overweight (No Change)

- Inflation expectations have moved sharply lower in concert with the unforeseen selloff in oil prices as well as fears of a zealous Fed eager to keep raising short-term interest rates. The case for remaining neutral/overweight remains focused on an anticipation for a weaker U.S. dollar and increasing wage pressure along with total costs of employment moving higher.<sup>10</sup>

# Executive Summary

TIDI Products, LLC

As of December 31, 2018								Active WL Criteria		Passive		
								Quantitative			Qualitative	
								Peer Gr. <50%	Peer Gr. <75%		Downside Risk	5 yr Ret. v. Mkt
Ticker	Qtr	YTD	1 Yr	3 Yr	5 Yr	Since Inc*	▲ / ▼ Indicates Positive/Negative Change From Previous Quarter					
Stable Value												
Morley Stable Value Net 25bps	N/A	0.5%	1.9%	1.9%	1.7%	1.4%	1.4%	NONE				
FTSE 3-month T-bill		0.6%	1.9%	1.9%	1.0%	0.6%	0.5%					
Intermediate Bond Index												
Vanguard Total Bond Market Index Adm	VBTLX	1.6%	0.0%	0.0%	2.0%	2.5%	1.6%	NONE				
Bloomberg Barclays U.S. Aggregate		1.6%	0.0%	0.0%	2.1%	2.5%	1.7%					
Inflation-Protected Bond												
DFA Inflation-Protected Securities I	DIPSX	0.0%	-1.3%	-1.3%	2.2%	1.7%	0.0%	NONE				
Bloomberg Barclays U.S. Treasury: U.S. TIPS		-0.4%	-1.3%	-1.3%	2.1%	1.7%	0.0%					
Emerging Market Bond												
MFS Emerging Markets Debt R6	MEDHX	-1.1%	-4.9%	-4.9%	4.6%	3.6%	2.8%	NONE				
JPM EMBI Global		-1.2%	-4.6%	-4.6%	4.7%	4.2%	3.1%					
Target Retirement Date Trusts												
T. Rowe Price Retirement Balanced Trust A	N/A	-5.1%	-3.3%	-3.3%	4.3%	3.2%	4.6%	NONE				
T. Rowe Price Retirement 2010 Trust A	N/A	-5.2%	-3.5%	-3.5%	4.9%	3.8%	5.6%					
T. Rowe Price Retirement 2015 Trust A	N/A	-6.1%	-4.1%	-4.1%	5.3%	4.1%	6.4%					
T. Rowe Price Retirement 2020 Trust A	N/A	-7.3%	-4.8%	-4.8%	5.8%	4.5%	7.3%					
T. Rowe Price Retirement 2025 Trust A	N/A	-8.4%	-5.6%	-5.6%	6.2%	4.8%	7.9%					
T. Rowe Price Retirement 2030 Trust A	N/A	-9.3%	-6.1%	-6.1%	6.6%	5.2%	8.6%					
T. Rowe Price Retirement 2035 Trust A	N/A	-10.1%	-6.7%	-6.7%	6.8%	5.3%	9.0%					
T. Rowe Price Retirement 2040 Trust A	N/A	-10.7%	-7.0%	-7.0%	7.0%	5.5%	9.3%					
T. Rowe Price Retirement 2045 Trust A	N/A	-11.1%	-7.3%	-7.3%	7.0%	5.5%	9.3%					
T. Rowe Price Retirement 2050 Trust A	N/A	-11.2%	-7.4%	-7.4%	7.0%	5.5%	9.3%					
T. Rowe Price Retirement 2055 Trust A	N/A	-11.2%	-7.4%	-7.4%	7.0%	5.5%	9.3%					
T. Rowe Price Retirement 2060 Trust A	N/A	-11.2%	-7.4%	-7.4%	7.0%	N/A	4.8%					
Large Value												
FMI Large Cap	FMIHX	-9.6%	-3.9%	-3.9%	9.2%	7.4%	10.9%	NONE				
Russell 1000 Value		-11.7%	-8.3%	-8.3%	7.0%	6.0%	10.5%					
Large Growth												
Fidelity Contrafund	FCNTX	-16.2%	-2.1%	-2.1%	10.2%	9.3%	9.7%	NONE				
Russell 1000 Growth		-15.9%	-1.5%	-1.5%	11.2%	10.4%	9.4%					
Multi Blend Index												
Vanguard Total Stock Mkt Idx Adm	VTSAX	-14.3%	-5.2%	-5.2%	9.0%	7.9%	11.9%	NONE				
CRSP US Total Market Index		-14.3%	-5.2%	-5.2%	9.0%	7.9%	11.9%					
International												
American Funds Europacific Growth R6	RERGX	-12.6%	-14.9%	-14.9%	4.1%	1.8%	-15.4%	NONE				
MSCI ACWI ex USA		-11.4%	-13.8%	-13.8%	5.0%	1.1%	-12.3%					
Small Value												
DFA US Targeted Value I	DFVFX	-20.0%	-15.8%	-15.8%	5.4%	2.6%	9.9%	NONE				
Russell 2000 Value		-18.7%	-12.9%	-12.9%	7.4%	3.6%	9.3%					
Small Growth												
Loomis Sayles Small Cap Growth Instl	LSSIX	-19.1%	0.4%	0.4%	10.4%	6.6%	9.8%	NONE				
Russell 2000 Growth		-21.6%	-9.3%	-9.3%	7.2%	5.1%	8.8%					
International Small Cap												
Hartford International Small Company Y	HNSYX	-21.9%	-26.2%	-26.2%	-2.1%	-1.2%	-11.2%	Watch List II (3Q18-1Q19)				
MSCI EAFE Small Cap		-16.0%	-17.6%	-17.6%	4.1%	3.4%	-3.8%					

Returns shaded in red indicate underperformance by active managers relative to their passive benchmarks.

PERFORMANCE NET OF INVESTMENT MANAGEMENT FEES, TRUST, INVESTMENT CONSULTING, AND/OR ADMINISTRATION FEES HAVE NOT BEEN DEDUCTED. The summary/prices/quotes/statistics contained herein have been obtained from sources believed reliable but are not necessarily complete and cannot be guaranteed. Total return includes change in share price, reinvestment of dividends, and capital gains. Past performance results are not a guarantee of future results. Actual performance will be affected by flows in and out of the Fund. Source: Morningstar Direct, Zephyr Associates, or Investment Company

\*Since inclusion performance represents average annualized returns generated by the investment manager since being added to the Plan or since Francis Investment Counsel started monitoring the Plan. Actual inception dates can be found on the first fund-specific page behind each tab throughout this report (in the footer).

~ Continued on Following Page ~

# Executive Summary

TIDI Products, LLC

As of December 31, 2018								Active WL Criteria			Passive		
								Quantitative		Qualitative		Tracking Error	
								Peer Gr. <50%	Peer Gr. <75%	Downside Risk			5 yr Ret. v. Mkt
Ticker	Qtr	YTD	1 Yr	3 Yr	5 Yr	Since Inc*	▲ / ▼ Indicates Positive/Negative Change From Previous Quarter						
Emerging Market Equity													
<b>Oppenheimer Developing Markets I</b>	<b>ODVIX</b>	<b>-7.8%</b>	<b>-11.8%</b>	<b>-11.8%</b>	<b>8.6%</b>	<b>1.1%</b>	<b>4.0%</b>						
<i>MSCI Emerging Markets</i>		-7.4%	-14.2%	-14.2%	9.6%	2.0%	3.0%						
Frontier Market													
<b>Morgan Stanley Inst Frontier Mkts I</b>	<b>MFMIX</b>	<b>-5.6%</b>	<b>-22.6%</b>	<b>-22.6%</b>	<b>-1.0%</b>	<b>-2.3%</b>	<b>-11.5%</b>						
<i>MSCI Frontier Markets</i>		-4.3%	-16.2%	-16.2%	4.6%	1.0%	-2.4%						
Hard Asset													
<b>PIMCO CommoditiesPLUS Strategy Instl</b>	<b>PCLIX</b>	<b>-20.1%</b>	<b>-12.1%</b>	<b>-12.1%</b>	<b>5.1%</b>	<b>-8.9%</b>	<b>-6.4%</b>						
<i>Credit Suisse Commodity Benchmark</i>		-18.8%	-11.4%	-11.4%	3.3%	-10.5%	-8.1%						
<b>Batting Average</b>		<b>4 of 12</b>	<b>5 of 12</b>	<b>5 of 12</b>	<b>5 of 12</b>	<b>6 of 12</b>	<b>8 of 12</b>						
(Includes active managers and excludes target date funds)		33%	42%	42%	42%	50%	67%						

Returns shaded in red indicate underperformance by active managers relative to their passive benchmarks.

PERFORMANCE NET OF INVESTMENT MANAGEMENT FEES, TRUST, INVESTMENT CONSULTING, AND/OR ADMINISTRATION FEES HAVE NOT BEEN DEDUCTED. The summary/prices/quotes/statistics contained herein have been obtained from sources believed reliable but are not necessarily complete and cannot be guaranteed. Total return includes change in share price, reinvestment of dividends, and capital gains. Past performance results are not a guarantee of future results. Actual performance will be affected by flows in and out of the Fund. Source: Morningstar Direct, Zephyr Associates, or Investment Company

\*Since inclusion performance represents average annualized returns generated by the investment manager since being added to the Plan or since Francis Investment Counsel started monitoring the Plan. Actual inception dates can be found on the first fund-specific page behind each tab throughout this report (in the footer).

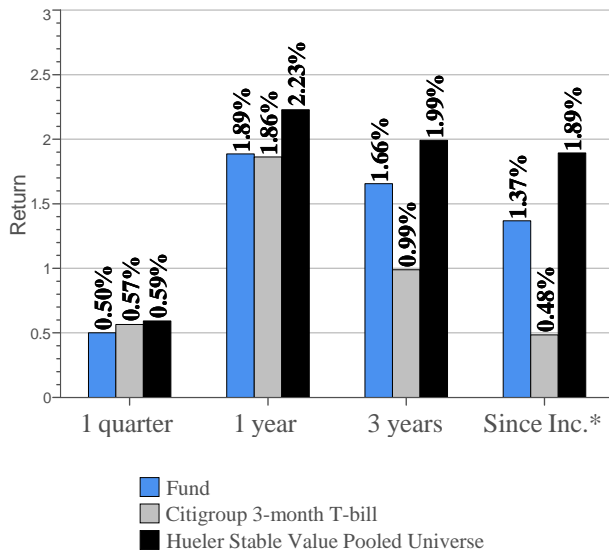
# Morley Stable Value

Fund Type: Stable Value

## Fund Performance:

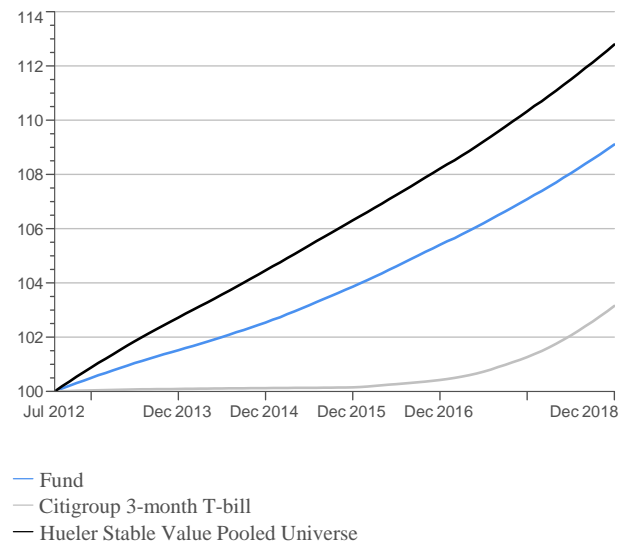
### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your stable value fund, the Morley Stable Value Fund, gained 0.50% in the fourth quarter. The Fund provides the Plan with a conservative, high quality investment vehicle aiding participants by building wealth through income accumulation and compounding. Risk management at Morley is indispensable to the strategy as they use stress testing and optimization in combination with their fundamental credit research in the portfolio construction process. In general, the Fund has the leeway to hold cash in a range of 5-15%, short-term bonds (duration of 0.25-3 years) at 35-80%, and intermediate (3-5 years) bonds in a band of 15-50%. The team is well versed - as we've witnessed on multiple occasions during our visits to the Portland, OR headquarters - and they are innovative as evidenced by their recently developed proprietary optimization strategy targeting mortgage-backed securities. Essentially, the model is combing through the investable universe and solving for a yield target by identifying the most attractively priced and liquid securities that fit their risk parameters. Whether basis points are incrementally added through savings in renegotiating wrap contracts or by means of proprietary technology to assess the opportunities in 'real time,' Morley remains energetically engaged to add value while not foregoing prudent risk management procedures. The trade-off for the team's approach carries with it an opportunity cost as can be seen in the lagging total returns versus the Hueler peer group. However, the crediting rate improved throughout 2018 as the Fed incrementally raised the Fed Funds rate and that has indeed helped narrow the gap in returns versus other peers. In our opinion, Morley has successfully deployed a repeatable and transparent investment process and we readily endorse the conservative strategy as the Plan's stable value mandate.

### Management & Expenses

Team managed. The Fund's expense ratio is 0.50%.

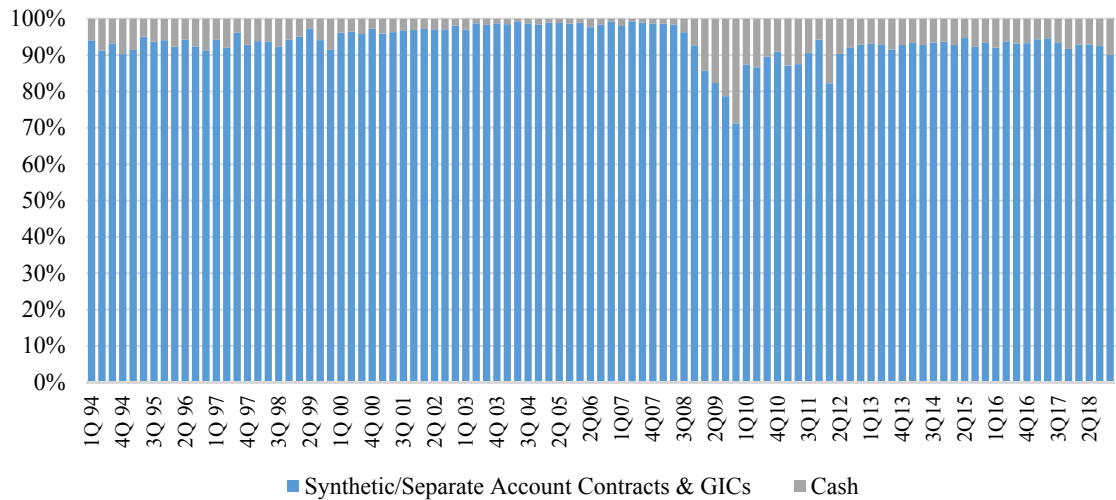
Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

# Morley Stable Value

Fund Type: Stable Value

## Historical Asset Allocation Analysis



### Portfolio Characteristics

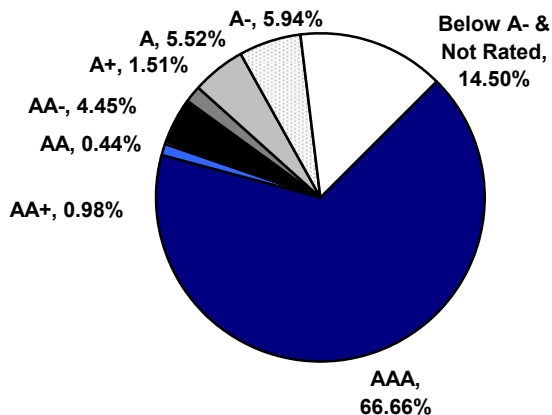
	9/30/18	12/31/18
Number of Issuers	10	10
Average Quality	AA (S&P)	AA (S&P)
Average Duration	2.69 Years	2.52 Years
Total Fund Assets	\$7,698 M	\$7,971 M
Crediting Rate	2.24%	2.31%
Total Fund Operating Expenses	0.51%	0.50%
Market Value/Book Value	98.10%	98.73%

### Top Holdings

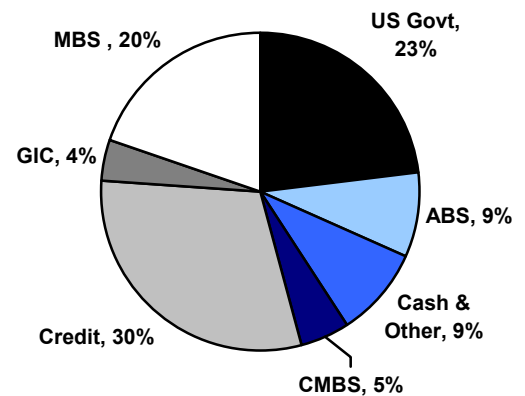
Issue	% of Portfolio
Prudential	16.80%
MetLife	13.83%
Transamerica Life	11.60%
MassMutual Life	10.11%
TIAA-CREF Life	10.11%
New York Life	6.60%
RGA Reinsurance	3.98%
American General Life	7.62%
State Street Bank	5.48%
Pacific Life	3.98%

Represents 90.10% of portfolio

### Credit Quality (S&P Ratings)



### Sector Diversification



The above summary/prices/quotes/statistics have been obtained from sources we believe to be reliable, but we do not guarantee its accuracy or completeness. Past performance is no guarantee of future results.

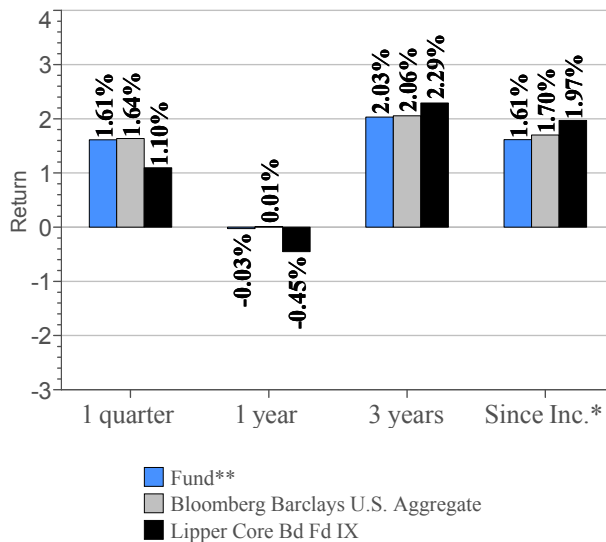
# Vanguard Total Bond Market Index Adm

Fund Type: Intermediate Bond Index

## Fund Performance:

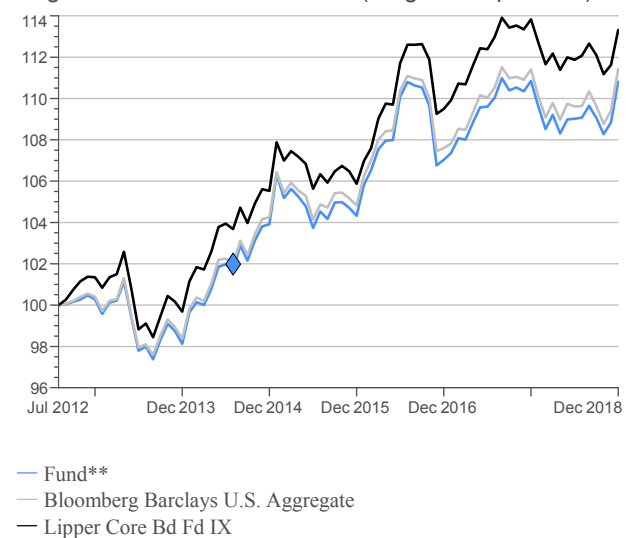
### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your intermediate bond fund, the Vanguard Total Bond Market Index Fund, gained 1.61% during the fourth quarter, outperforming the average actively managed core bond fund. Given Vanguard's expertise in passive management and the low costs afforded to investors, we hold this Fund out as a solid option for gaining exposure to the broad U.S. bond market. This Fund's goal is to replicate the performance of the Barclays U.S. Aggregate Float-Adjusted Bond Index, and its passive investment style uses a sampling technique to closely match key benchmark characteristics, including sector weight, coupon, maturity, effective duration, convexity, and credit quality. Because it doesn't hold all 9,000+ issues in the index, there are some quarters when the Fund's results are slightly out of step with those of the benchmark, but over the past 5-years the Fund's tracking error has proven quite low. The Fund invests in investment-grade corporate, U.S. Treasury, mortgage-backed, and asset-backed securities with short, intermediate, and long maturities in excess of one year, resulting in a portfolio of intermediate duration. Since the Fund tracks an investment-grade only index, it doesn't have the option to boost exposure to higher yielding, below-investment grade securities like many of its actively managed peers, an attribute that often causes it to lag in bull-market environments. All things considered, we continue to view this Fund as a strong passive fixed income option.

### Tracking Error, Management, and Expenses

The Fund's tracking error is 0.30% over the past 5-years and remains highly competitive for an intermediate bond index fund. Joshua Barrickman (since 2013) is the Fund's lead manager, and the Fund is competitively priced at 0.05%. The Plan does not currently qualify for the Institutional share class of this offering (0.04%) which requires a minimum investment of \$5M.

### Index Fund Competitive Landscape

Effective August 1st, Fidelity Investments has made sweeping changes to its index fund pricing structure, eliminating the tiered pricing model and offering all institutional investors access to fee points formerly available only to allocations of \$100M and above. The Plan could now utilize the Fidelity U.S. Bond Index Fund, which also tracks the Bloomberg Barclays U.S. Aggregate Index, at a price of 0.025%. Given the recency of this pricing adjustment, we believe it is prudent to give Vanguard until April of 2019 (the timing of this Fund's prospectus restatement) to regain fee competitiveness with Fidelity before potentially making a change.

### Performance Commentary

The yield curve continued to flatten during the quarter, with Fed rate hikes causing short-term rates to rise while longer-term yields moved slightly lower. This environment resulted in relatively favorable returns for bondholders, with better results in higher-credit quality issues. On a relative basis, government bonds outpaced both investment grade and high yield corporate bonds.

### Performance vs. Active Management

The Fund currently ranks outside the top half of the Morningstar Intermediate Bond peer group on a rolling 3-year basis. While passive management in this category has been a reasonable strategy over the past 3 years, actively managed intermediate bond funds performed much better on average from 2011 to mid-2015.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

\*\*Represents spliced performance of the Vanguard Total Bond Market Index Signal (8/12-7/14) and Vanguard Total Bond Market Index Adm (8/14-present).

◆ Fund change from Vanguard Total Bond Market Index Signal to Vanguard Total Bond Market Index Adm on 8/15/14, expenses remained unchanged.

TIDI PRODUCTS, LLC

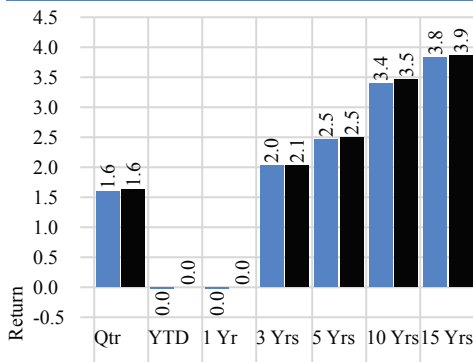
FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper

**Operations**

Inception Date	11/12/2001
Total Net Assets (\$)	203,988,914,048
12b-1 Fee	—
Redemption Fee	—

**Annualized Returns**



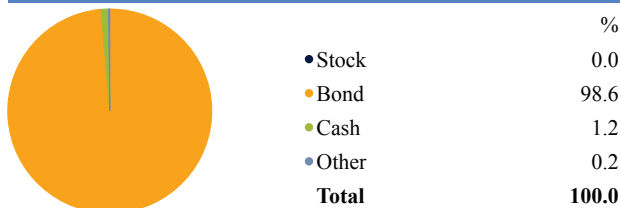
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	-0.05	-0.12	-0.13
Beta	1.03	1.03	1.03
R-squared	99.11	99.03	99.05
Tracking Error	0.29	0.30	0.30
Information Ratio	-0.08	-0.19	-0.17
Excess Return	-0.03	-0.06	-0.05
Standard Deviation	2.97	2.90	2.93
Sharpe Ratio	0.32	0.61	1.02
Sortino Ratio	0.45	0.98	1.75

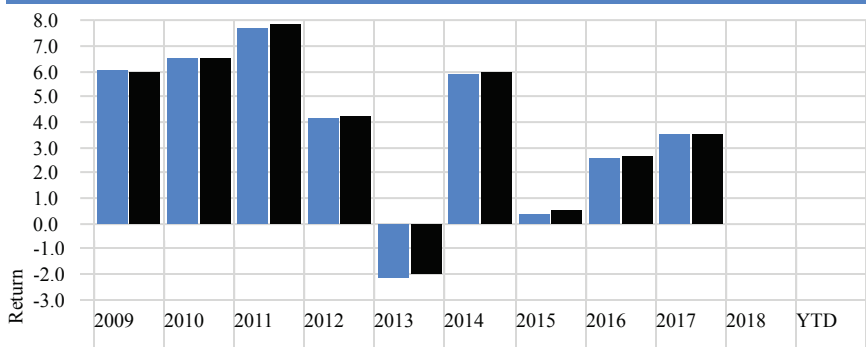
**Fund Characteristics**

SEC Yield	3.17
# of Holdings	17,316
Turnover Ratio %	55.00

**Asset Allocation**

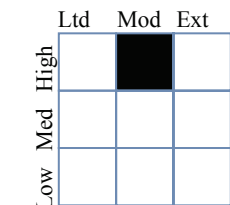


**Calendar Year Returns**



**Fixed Income Style Exposures**

Morningstar Fixed Income Style Box™

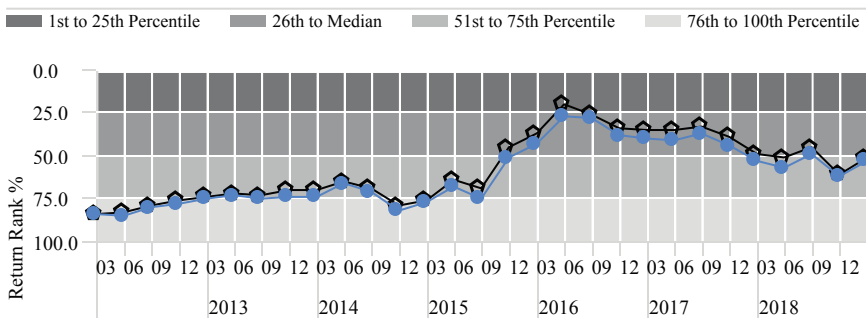


**Fixed-Income Stats**

Average Eff Duration	5.9
Average Eff Maturity	8.3
Average Coupon	3.2
Average Price	100.3

**Rolling 3 Year Return Morningstar Peer Group Rankings**

Time Period: 1/1/2009 to 12/31/2018



**Credit Quality**

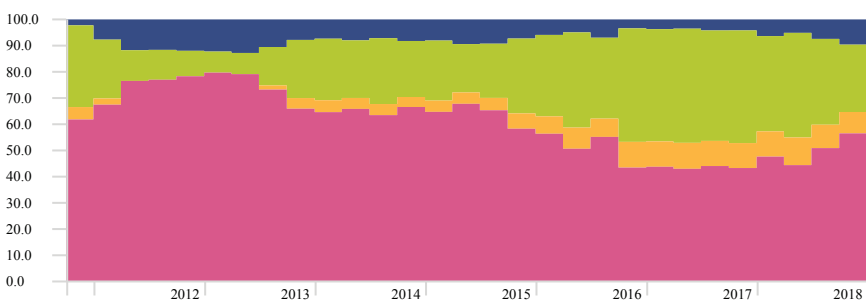
Credit Qual AAA %	70.91
Credit Qual AA %	3.40
Credit Qual A %	10.74
Credit Qual BBB %	14.93
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.02
Credit Qual Not Rated %	0.00

**Sector Exposure**

Sector - Government %	42.29
Sector - Corporate Bond %	26.06
Sector - Asset-Backed %	0.64
Sector - Agency Mortgage-Backed %	22.95
Sector - Non-Agency Residential Mortgage-Backed %	0.04
Sector - Commercial Mortgage-Backed %	1.18
Sector - Municipal Taxable %	0.65
Sector - Municipal Tax-Exempt %	0.00
Sector - Cash & Equivalents %	1.19

**Historical Returns-Based Style Analysis**

Time Period: 1/1/2009 to 12/31/2018



**Regional Exposure**

Country - United States %	90.72
Country - Non-US %	8.08

**Return Date: 12/31/2018**  
**Portfolio Date: 12/31/2018**



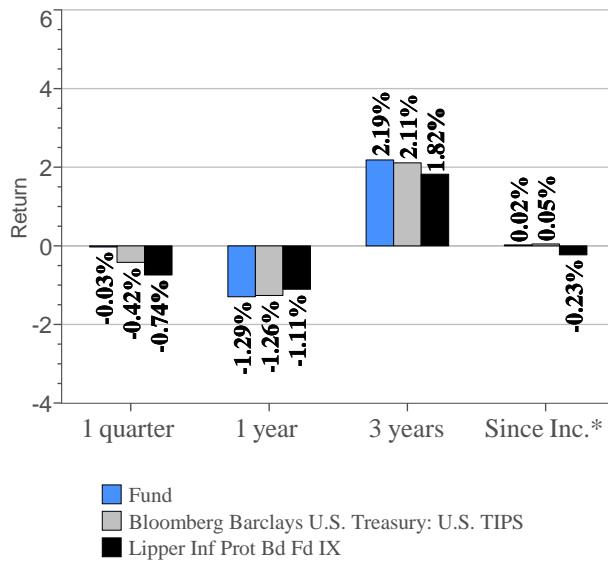
# DFA Inflation Protected Securities I

Fund Type: Inflation-Protected Bond

## Fund Performance:

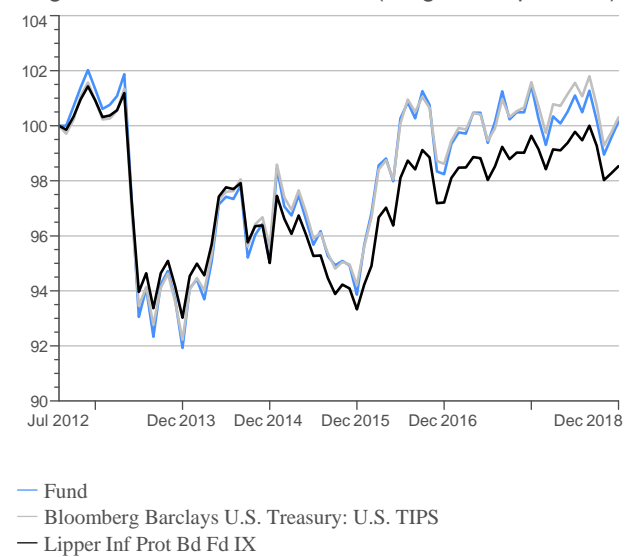
### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your inflation-protected bond fund, the DFA Inflation Protected Securities Fund, lost 0.03% in the fourth quarter but in doing so outperformed its benchmarks. The value proposition offered to investors here is straight forward: charge an ultra-competitive fee for active management of 0.12% and use a targeted maturity approach to keep the Fund's assets in the most productive areas of the yield curve as possible. On the former, the economical expense structure is aided by both DFA's efficient trading systems as well as the Fund's low turnover. As for the latter point, keeping the Fund focused on the 5-20 year segment of the yield curve is most favorable from a risk-adjusted performance standpoint, in management's opinion. Though the Fund will try to own a portion of each issue in the investable TIPS universe with maturities between 5- and 20-years, the managers sometimes choose to exclude on-the-run (most recently issued) securities given they are characteristically overvalued. Additionally, interest rate forecasting has no part in the portfolio management process and the Fund's mandate calls for matching the duration of the passive benchmark which is about 7-years. On the Watch List, the Fund passes 5 out of 7 metrics and its three year peer group ranking made some progress in a big way this quarter by moving into the first quartile. Based on the Fund's successful long-term results and the transparency and sustainability of the investment process, we believe this is an effective strategy for TIPS investors.

### Management & Expenses

David Plecha (since 2006), Joe Kolerich (2012), and Alan Hutchison (2016) of Dimensional Fund Advisors (Austin, TX). At 0.12%, the Fund's expense ratio is competitive but is still slightly higher versus the average of 0.10% for funds in the inflation-protected bond category used by client of Francis Investment Counsel.

### Quarterly Performance Commentary

Real yields rose much more so on the front-end of the yield curve in the quarter relative to the longer duration component where most of the Fund's assets reside. For instance, the yield on the 3-year TIPS moved sharply higher from 0.94% to 1.34% while the yield on the 10-Year TIPS started the quarter at 0.92% and finished at just 0.98%. In this kind of environment, the Fund's underweight position to the shorter-end added nicely to relative results.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

# DFA Inflation-Protected Securities I DIPSX

Benchmark: BBgBarc US Treasury US TIPS TR USD  
Morningstar Category: US Fund Inflation-Protected Bond



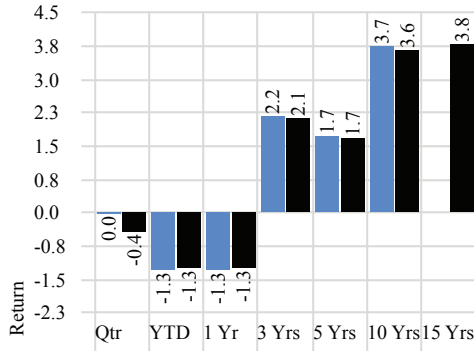
## Operations

Inception Date	9/18/2006
Total Net Assets (\$)	4,508,510,403
12b-1 Fee	—
Redemption Fee	—

## Fund Characteristics

SEC Yield	0.80
# of Holdings	17
Turnover Ratio %	24.00

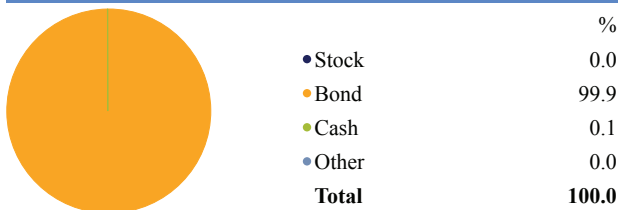
## Annualized Returns



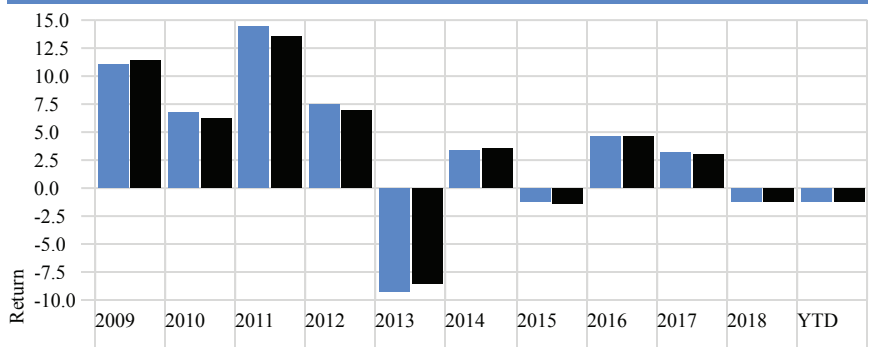
## Risk/Return Statistics

	3 years	5 years	10 years
Alpha	-0.04	-0.07	-0.12
Beta	1.12	1.12	1.07
R-squared	97.14	97.99	97.88
Tracking Error	0.71	0.72	0.85
Information Ratio	0.10	0.05	0.10
Excess Return	0.07	0.03	0.09
Standard Deviation	3.53	4.04	5.29
Sharpe Ratio	0.31	0.27	0.64
Sortino Ratio	0.47	0.43	1.06

## Asset Allocation

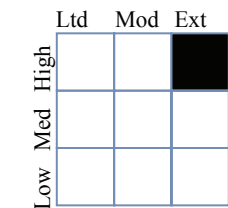


## Calendar Year Returns



## Fixed Income Style Exposures

Morningstar Fixed Income Style Box™

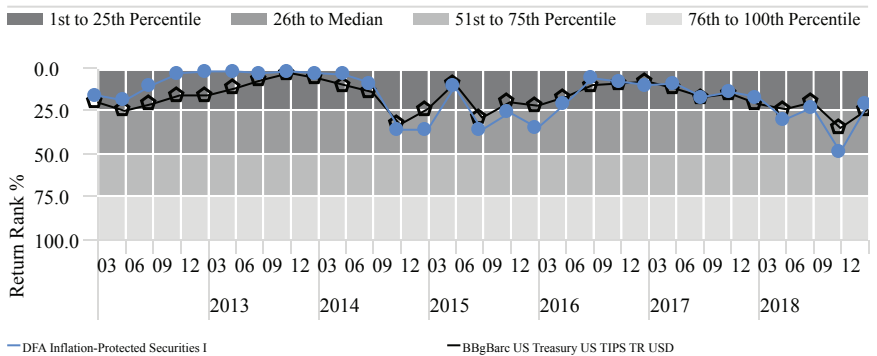


### Fixed-Income Stats

Average Eff Duration	7.8
Average Eff Maturity	8.3
Average Coupon	1.4
Average Price	103.6

## Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 1/1/2009 to 12/31/2018



## Credit Quality

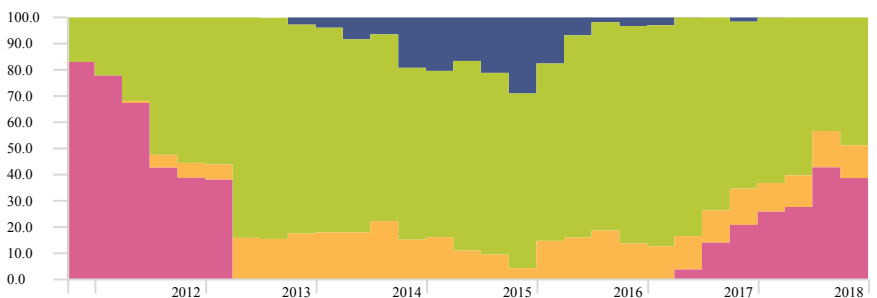
Credit Qual AAA %	100.00
Credit Qual AA %	0.00
Credit Qual A %	0.00
Credit Qual BBB %	0.00
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00
Credit Qual Not Rated %	0.00

## Sector Exposure

Sector - Government %	99.95
Sector - Corporate Bond %	0.00
Sector - Asset-Backed %	0.00
Sector - Agency Mortgage-Backed %	0.00
Sector - Non-Agency Residential Mortgage-Backed %	0.00
Sector - Commercial Mortgage-Backed %	0.00
Sector - Municipal Taxable %	0.00
Sector - Municipal Tax-Exempt %	0.00
Sector - Cash & Equivalents %	0.05

## Historical Returns-Based Style Analysis

Time Period: 1/1/2009 to 12/31/2018



## Regional Exposure

Country - United States %	99.95
Country - Non-US %	0.00

Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# DFA Inflation-Protected Securities I

Fund Type: Inflation-Protected Bond

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade	
<b>Trailing 36-Months vs. Peer Group:</b>	<b>23%</b>	<b>50%</b>	<b>20%</b>		
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>
Downside Risk	Jun 2018	Sep 2018	Dec 2018		
<b>Trailing 36-Months vs. Passive Target:</b>	<b>121.9%</b>	<b>123.5%</b>	<b>116.4%</b>		
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-0.3%</b>	<b>0.2%</b>	<b>-0.0%</b>	<b>0.3%</b>	<b>-0.0%</b>
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	PASS	FAIL	PASS	FAIL
					<b>2 of 5</b>
					<b>FAIL</b>
Qualitative Issues					
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>97.11%</b>				<b>PASS</b>
<b>Investment Firm:</b>	Dimensional Fund Advisors LP				<b>PASS</b>
<b>Investment Personnel:</b>	David Plecha, since 2006 Joe Kolerich, since 2012 Alan Hutchison, since 2016				<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Inflation Protected Bond Funds

**Passive Target:** Bloomberg Barclays U.S. Treasury: U.S. TIPS

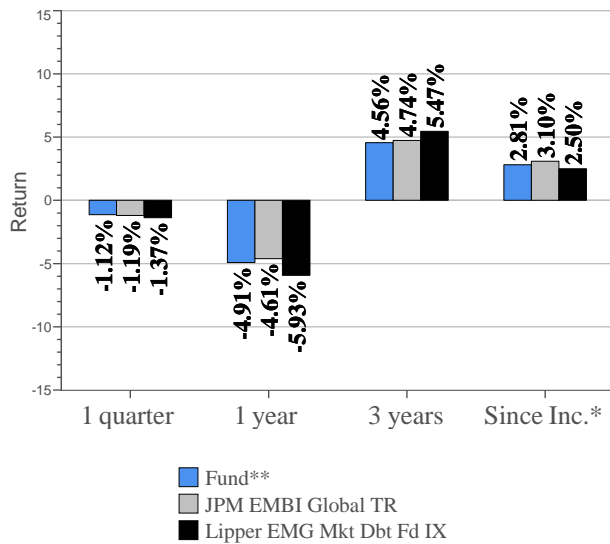
# MFS Emerging Markets Debt R6

Fund Type: Emerging Market Bond

## Fund Performance:

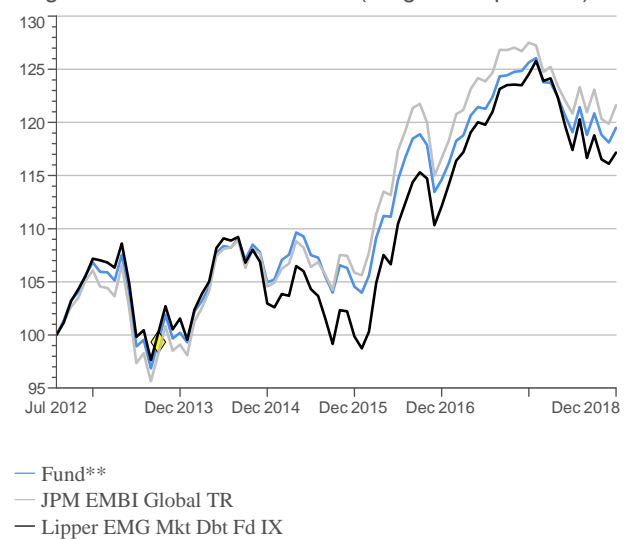
### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your emerging market bond fund, the MFS Emerging Markets Debt Fund, declined 1.12% in the fourth quarter but in doing so outperformed its benchmarks. This Fund's mandate is devoted to providing investors a relatively higher amount of current income while seeking to preserve capital. The higher yield available to investors in emerging market debt versus conservative domestic fixed income alternatives results from the credit, currency, and liquidity risks associated with this asset class. Principally, the portfolio management team believes that favorable risk-adjusted returns are best achieved by identifying market inefficiencies via fundamental analysis. To best meet the current income objective and manage the aforementioned risks, the strategy is driven by a top-down, country allocation model. The Fund also maintains a diversified structure intended to reduce volatility and emphasizes securities with above average trading liquidity. In terms of portfolio construction, this Fund is characteristically invested in cash bonds versus synthetic securities, meaning that management's use of derivatives to hedge currency, gain exposure to obscure markets, and manage duration is very limited. During our October 2018 site visit with MFS in Boston, we learned the team recently reduced exposure to corporate EMD and increased exposure to sovereign debt as spreads widened out. The team sometimes exhibits contrarian maneuvers and the decision to add to the Turkish lira was certainly one of them. In the case of Turkey, the selloff looked overdone to the group as they believed the geopolitical issues could eventually be smoothed out. The team also currently likes the relatively stable fundamentals in Peru, Chile, and India which has resulted in overweights to these countries and they contend South Africa is a good "turnaround story." While China carries one of the highest investment grade ratings in EMD at A+, the low spread of 121 basis points over Treasuries vs. the benchmark near 350bps over, slowing GDP growth profile, and unresolved trade war makes for an unattractive risk/reward tradeoff. Turning to performance, the product is still failing 2 out of 4 quantitative Watch List metrics, but we are not recommending placing the Fund onto the Watch List as the rolling 3-year peer group ranking is hovering just below median. The combination of favorable near-term trends, outperforming its peers in declining markets, in addition to the magnitude of failure being quite small, we believe it would be premature to put this offering onto a 9-month probationary period. While the Fund's more defensive posture weighs on its three year return, its ability to offer some downside protection has come in handy of late. For now, we recommend patience.

### Management & Expenses

Matthew Ryan (since 1998) and Ward Brown (since 2008) of Massachusetts Financial Services Company. The Fund's expense ratio of 0.74% is below the average of 0.81% for emerging market debt funds utilized by Francis Investment Counsel clients.

### Quarterly Performance Commentary

Key detractors during the quarter included overweight positioning and security selection within Argentina, an overweight to India, and a 4.6% allocation to cash. On the other hand, an underweight to China, Zambia, and Venezuela added value.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

\*\*Represents spliced performance for MFS Emerging Markets Debt R4 (8/12-9/13) and MFS Emerging Markets Debt R6 (10/13-present).

◆ Fund change from MFS Emerging Markets Debt R4 to MFS Emerging Markets Debt R6 on 9/17/13. Expenses were reduced from 0.86% to 0.78%, a savings of 9%.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper

**MFS Emerging Markets Debt R6  
MEDHX**

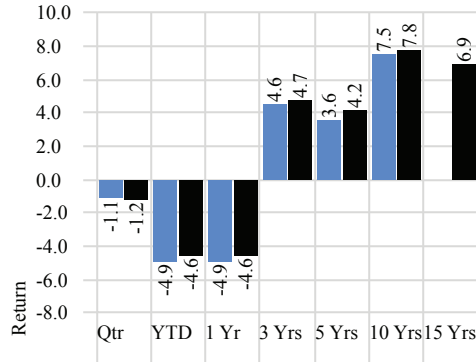
Benchmark: JPM EMBI Global TR USD  
Morningstar Category: US Fund Emerging Markets Bond



**Operations**

Inception Date	5/1/2006
Total Net Assets (\$)	5,961,371,809
12b-1 Fee	—
Redemption Fee	—

**Annualized Returns**



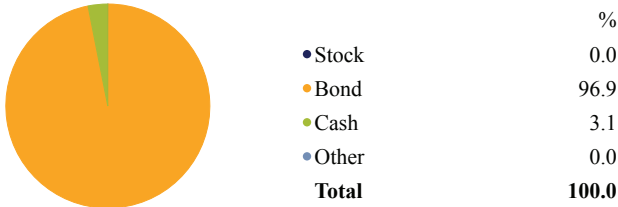
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.15	-0.29	-0.09
Beta	0.91	0.91	0.98
R-squared	97.13	96.90	96.38
Tracking Error	1.05	1.07	1.30
Information Ratio	-0.17	-0.54	-0.19
Excess Return	-0.18	-0.60	-0.27
Standard Deviation	5.24	5.30	6.78
Sharpe Ratio	0.66	0.56	1.04
Sortino Ratio	1.02	0.88	1.81

**Fund Characteristics**

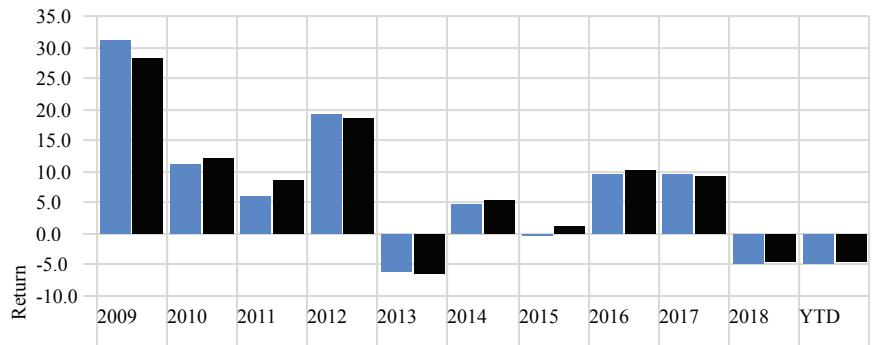
SEC Yield	5.78
# of Holdings	428
Turnover Ratio %	100.00

**Asset Allocation**



■ MFS Emerging Markets Debt R6 ■ JPM EMBI Global TR USD

**Calendar Year Returns**



**Fixed Income Style Exposures**

Morningstar Fixed Income Style Box™



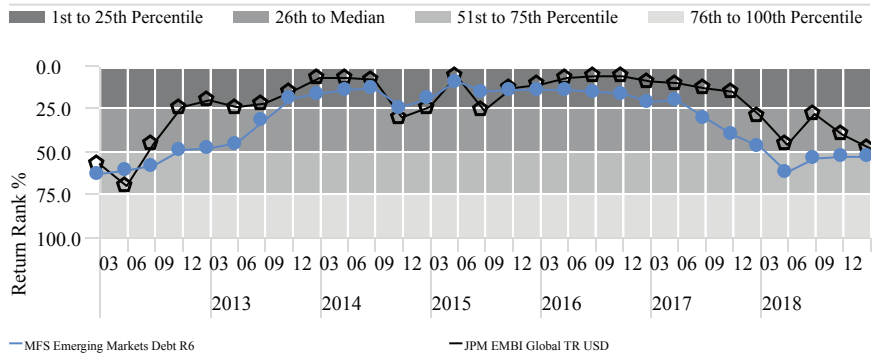
**Fixed-Income Stats**

Average Eff Duration	6.6
Average Eff Maturity	9.9
Average Coupon	5.7
Average Price	-

■ MFS Emerging Markets Debt R6 ■ JPM EMBI Global TR USD

**Rolling 3 Year Return Morningstar Peer Group Rankings**

Time Period: 1/1/2009 to 12/31/2018

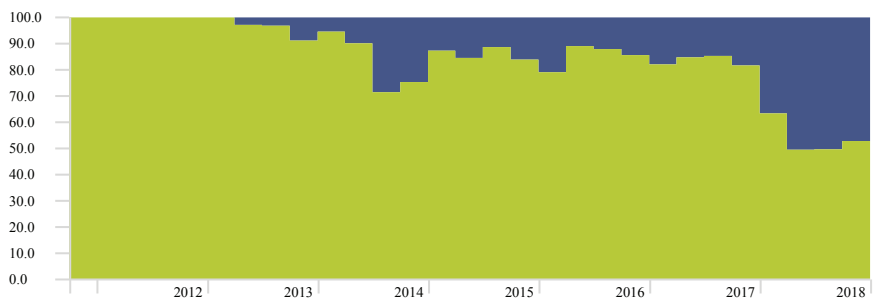


**Credit Quality**

Credit Qual AAA %	6.20
Credit Qual AA %	2.22
Credit Qual A %	5.06
Credit Qual BBB %	36.53
Credit Qual BB %	25.74
Credit Qual B %	25.29
Credit Qual Below B %	1.92
Credit Qual Not Rated %	-2.96

**Historical Returns-Based Style Analysis**

Time Period: 1/1/2009 to 12/31/2018



**Sector Exposure**

Sector - Government %	53.49
Sector - Corporate Bond %	34.28
Sector - Asset-Backed %	0.00
Sector - Agency Mortgage-Backed %	0.00
Sector - Non-Agency Residential Mortgage-Backed %	0.00
Sector - Commercial Mortgage-Backed %	0.00
Sector - Municipal Taxable %	0.00
Sector - Municipal Tax-Exempt %	0.00
Sector - Cash & Equivalents %	1.98

**Regional Exposure**

Country - United States %	7.21
Country - Non-US %	90.78

Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# MFS Emerging Markets Debt R6

Fund Type: Emerging Market Bond

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade			
<b>Trailing 36-Months vs. Peer Group:</b>	<b>56%</b>	<b>56%</b>	<b>55%</b>				
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>		
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Downside Risk	Jun 2018	Sep 2018	Dec 2018				
<b>Trailing 36-Months vs. Passive Target:</b>	<b>95.0%</b>	<b>92.4%</b>	<b>88.9%</b>				
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018		
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-0.8%</b>	<b>-1.6%</b>	<b>-0.5%</b>	<b>0.3%</b>	<b>-0.3%</b>		
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	FAIL	FAIL	PASS	FAIL	<b>1 of 5</b>	<b>FAIL</b>
Qualitative Issues							
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>97.07%</b>						<b>PASS</b>
<b>Investment Firm:</b>	Massachusetts Financial Services Company						<b>PASS</b>
<b>Investment Personnel:</b>	Matthew Ryan, since 1998 Ward Brown, since 2008						<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Emerging Mrkts Hard Currency Debt Funds

**Passive Target:** JPM EMBI Global TR USD (MS)

# T. Rowe Price Retirement Trust A

Fund Type: Target Retirement Date

	Quarter	YTD	1-Year	3-Year	Since Inclusion (8/12, 12/14)*	Expense Ratio
<b>T. Rowe Price Ret. Balanced Tr A**</b>	<b>-5.07%</b>	<b>-3.25%</b>	<b>-3.25%</b>	<b>4.43%</b>	<b>4.58%</b>	<b>0.46%</b>
Fidelity Freedom Income	-2.09%	-1.88%	-1.88%	3.75%	3.30%	0.47%
Vanguard Target Retirement Income	-3.20%	-1.99%	-1.99%	3.82%	3.92%	0.13%
<i>S&amp;P Target Date Income TR Index</i>	<i>-3.92%</i>	<i>-2.54%</i>	<i>-2.54%</i>	<i>3.56%</i>	<i>3.80%</i>	
<b>T. Rowe Price Retirement 2010 Tr A**</b>	<b>-5.17%</b>	<b>-3.53%</b>	<b>-3.53%</b>	<b>4.96%</b>	<b>5.55%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2010 R6	-3.64%	-2.49%	-2.49%	4.97%	5.69%	0.33%
Fidelity Freedom 2010	-4.70%	-3.56%	-3.56%	4.90%	5.25%	0.53%
<i>S&amp;P Target Date 2010 TR Index</i>	<i>-4.80%</i>	<i>-3.10%</i>	<i>-3.10%</i>	<i>4.08%</i>	<i>4.68%</i>	
<b>T. Rowe Price Retirement 2015 Tr A**</b>	<b>-6.09%</b>	<b>-4.10%</b>	<b>-4.10%</b>	<b>5.35%</b>	<b>6.42%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2015 R6	-4.21%	-2.72%	-2.72%	5.17%	6.37%	0.33%
Fidelity Freedom 2015	-6.10%	-4.42%	-4.42%	5.35%	5.63%	0.58%
Vanguard Target Retirement 2015	-4.65%	-2.97%	-2.97%	4.72%	5.82%	0.13%
<i>S&amp;P Target Date 2015 TR Index</i>	<i>-5.72%</i>	<i>-3.67%</i>	<i>-3.67%</i>	<i>4.57%</i>	<i>5.52%</i>	
<b>T. Rowe Price Retirement 2020 Tr A**</b>	<b>-7.32%</b>	<b>-4.82%</b>	<b>-4.82%</b>	<b>5.87%</b>	<b>7.26%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2020 R6	-4.88%	-2.69%	-2.69%	5.55%	7.23%	0.34%
Fidelity Freedom 2020	-7.18%	-5.20%	-5.20%	5.55%	6.02%	0.62%
Vanguard Target Retirement 2020	-6.50%	-4.24%	-4.24%	5.32%	6.66%	0.13%
<i>S&amp;P Target Date 2020 TR Index</i>	<i>-6.49%</i>	<i>-4.16%</i>	<i>-4.16%</i>	<i>5.03%</i>	<i>6.24%</i>	
<b>T. Rowe Price Retirement 2025 Tr A**</b>	<b>-8.35%</b>	<b>-5.55%</b>	<b>-5.55%</b>	<b>6.19%</b>	<b>7.94%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2025 R6	-6.32%	-3.47%	-3.47%	6.12%	8.40%	0.36%
Fidelity Freedom 2025	-8.19%	-5.87%	-5.87%	5.72%	6.74%	0.66%
Vanguard Target Retirement 2025	-7.74%	-5.15%	-5.15%	5.73%	7.24%	0.14%
<i>S&amp;P Target Date 2025 TR Index</i>	<i>-7.81%</i>	<i>-5.02%</i>	<i>-5.02%</i>	<i>5.47%</i>	<i>6.85%</i>	
<b>T. Rowe Price Retirement 2030 Tr A**</b>	<b>-9.30%</b>	<b>-6.09%</b>	<b>-6.09%</b>	<b>6.56%</b>	<b>8.57%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2030 R6	-7.86%	-4.16%	-4.16%	6.92%	9.22%	0.38%
Fidelity Freedom 2030	-9.89%	-7.03%	-7.03%	6.40%	7.31%	0.70%
Vanguard Target Retirement 2030	-8.86%	-5.86%	-5.86%	6.07%	7.79%	0.14%
<i>S&amp;P Target Date 2030 TR Index</i>	<i>-9.26%</i>	<i>-5.99%</i>	<i>-5.99%</i>	<i>5.77%</i>	<i>7.39%</i>	
<b>T. Rowe Price Retirement 2035 Tr A**</b>	<b>-10.09%</b>	<b>-6.70%</b>	<b>-6.70%</b>	<b>6.74%</b>	<b>8.98%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2035 R6	-9.75%	-5.14%	-5.14%	7.43%	9.57%	0.39%
Fidelity Freedom 2035	-11.91%	-8.42%	-8.42%	6.67%	7.90%	0.75%
Vanguard Target Retirement 2035	-9.93%	-6.58%	-6.58%	6.41%	8.33%	0.14%
<i>S&amp;P Target Date 2035 TR Index</i>	<i>-10.55%</i>	<i>-6.88%</i>	<i>-6.88%</i>	<i>6.08%</i>	<i>7.84%</i>	
<b>T. Rowe Price Retirement 2040 Tr A**</b>	<b>-10.69%</b>	<b>-7.10%</b>	<b>-7.10%</b>	<b>6.94%</b>	<b>9.27%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2040 R6	-10.40%	-5.52%	-5.52%	7.62%	9.75%	0.40%
Fidelity Freedom 2040	-12.62%	-8.96%	-8.96%	6.52%	7.89%	0.75%
Vanguard Target Retirement 2040	-11.03%	-7.32%	-7.32%	6.75%	8.68%	0.15%
<i>S&amp;P Target Date 2040 TR Index</i>	<i>-11.33%</i>	<i>-7.41%</i>	<i>-7.41%</i>	<i>6.33%</i>	<i>8.18%</i>	
<b>T. Rowe Price Retirement 2045 Tr A**</b>	<b>-11.10%</b>	<b>-7.42%</b>	<b>-7.42%</b>	<b>6.93%</b>	<b>9.26%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2045 R6	-10.66%	-5.58%	-5.58%	7.77%	9.84%	0.40%
Fidelity Freedom 2045	-12.64%	-8.91%	-8.91%	6.52%	8.00%	0.75%
Vanguard Target Retirement 2045	-11.78%	-7.90%	-7.90%	6.78%	8.70%	0.15%
<i>S&amp;P Target Date 2045 TR Index</i>	<i>-11.75%</i>	<i>-7.74%</i>	<i>-7.74%</i>	<i>6.50%</i>	<i>8.44%</i>	

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

**T. Rowe Price Retirement Trust A**

Fund Type: Target Retirement Date

	Quarter	YTD	1-Year	3-Year	Since Inclusion (8/12, 12/14)*	Expense Ratio
<b>T. Rowe Price Retirement 2050 Tr A**</b>	<b>-11.15%</b>	<b>-7.47%</b>	<b>-7.47%</b>	<b>6.90%</b>	<b>9.26%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2050 R6	-10.84%	-5.61%	-5.61%	7.83%	9.85%	0.41%
Fidelity Freedom 2050	-12.61%	-8.92%	-8.92%	6.56%	8.06%	0.75%
Vanguard Target Retirement 2050	-11.79%	-7.90%	-7.90%	6.77%	8.69%	0.15%
<i>S&amp;P Target Date 2050 TR Index</i>	<i>-12.05%</i>	<i>-7.94%</i>	<i>-7.94%</i>	<i>N/A</i>	<i>8.70%</i>	
<b>T. Rowe Price Retirement 2055 Tr A**</b>	<b>-11.16%</b>	<b>-7.41%</b>	<b>-7.41%</b>	<b>6.94%</b>	<b>9.27%</b>	<b>0.46%</b>
American Funds Trgt Date Ret 2055 R6	-10.88%	-5.65%	-5.65%	7.81%	9.84%	0.42%
Fidelity Freedom 2055	-12.59%	-8.94%	-8.94%	6.54%	8.20%	0.75%
Vanguard Target Retirement 2055	-11.76%	-7.89%	-7.89%	6.77%	8.67%	0.15%
<i>S&amp;P Target Date 2055 TR Index</i>	<i>-12.10%</i>	<i>-7.97%</i>	<i>-7.97%</i>	<i>N/A</i>	<i>8.90%</i>	
<b>T. Rowe Price Retirement 2060 Tr A**</b>	<b>-11.19%</b>	<b>-7.37%</b>	<b>-7.37%</b>	<b>6.94%</b>	<b>4.78%</b>	<b>0.46%</b>
Fidelity Freedom 2060	-12.62%	-8.92%	-8.92%	6.50%	4.38%	0.75%
Vanguard Target Retirement 2060	-11.77%	-7.87%	-7.87%	6.76%	4.24%	0.15%
<i>S&amp;P Target Date 2060+ TR Index</i>	<i>-12.22%</i>	<i>-7.95%</i>	<i>-7.95%</i>	<i>N/A</i>	<i>4.60%</i>	

\*Since inclusion performance is intended to represent results since an investment was added to the Plan. For the vintages Retirement Balanced through 2055, the date of inclusion was 8/1/12. The inclusion date for the 2060 fund is 12/1/14 (actual date of addition was 12/8/14).

\*\*Represents spliced performance of the T. Rowe Price Retirement retail funds (prior to 6/1/16), T. Rowe Price Retirement I funds (6/1/16-8/31/18), and T. Rowe Price Retirement Collective Trusts A (9/18-present).



# T. Rowe Price Retirement Trust A

Fund Type: Target Retirement Date

## Francis Investment Counsel LLC Review:

**Summary & Opinion:** During the fourth quarter, performance versus the S&P Target Date Indexes was mixed. The shorter-dated vintages (2030 and sooner) underperformed because they are overweight to equities (see following page for glidepath). On the other hand, the longer-dated strategies (2035 and after) outperformed due to strong underlying manager performance; since these vintages contain mostly stocks, it's significant that 10 of the suite's 13 underlying equity funds (77%) outperformed. Inclusive of bond funds, 13 of 20 (65%) outperformed. Quarterly performance ebbs and flows, but on a three year basis, each vintage outperforms its S&P Target Date Index and ranks in the top 15% of its respective peer group. Additionally, we visited with co-portfolio manager Wyatt Lee in September 2018 at T. Rowe's Baltimore headquarters and walked away satisfied with the suite's qualitative attributes. Overall, with a long history of competitive performance, a steady approach, strong underlying investment managers, and a well-equipped management team, these Trusts earn our endorsement.

Since the T. Rowe Price Retirement Trusts were launched in 2002, strong performance has been driven by a combination of effective strategic asset allocation decisions, competitive performance from underlying managers, and skillful tactical asset allocation. Given the history of successful implementation, target retirement assets under management at T. Rowe have ballooned to \$240B. Importantly, two things have remained constant over the years: 1) portfolio manager Jerome Clark has managed the suite since day one, and 2) the equity glide path (which has a major influence on performance) has not materially changed. The glide path is structured so that investors with the longest time horizons have 90% in equities while investors at retirement have 55% in equities. The Trusts continue to get more conservative for a 30-year period following the retirement year towards a final landing point of 20%. Overall, with an emphasis on combatting longevity risk, it's a more aggressive glide path compared to most competing products. Also part of the suite is the T. Rowe Price Retirement Balanced Trust, which maintains a static strategic allocation of 40% equity/60% fixed-income. This offering is designed for retirees who prefer not to de-risk throughout retirement in order to pursue higher expected returns (albeit with more market risk). For the sake of comparison, the 2010 vintage currently has an equity exposure of 38.3% compared to 36.4% for the Retirement Balanced Trust.

The firm's Asset Allocation Committee is responsible for approving all asset allocation adjustments in the Trusts. Adjustments can fall into one of two categories—strategic or tactical. A strategic change is the result of a fundamental shift in how the Asset Allocation Committee views the world and is made to reflect updated long-term expectations. These changes naturally require a lot of debate and discussion, which is fueled by input from a 22-person research and development team (10 have PhDs). Importantly, T. Rowe continues to reinvest in the franchise. According to Lee, the team's headcount increased by three in September alone, and they are leveraging the firm's new technology center (in New York City) to improve their cash flow models. The most recent strategic asset allocation change (announced 2Q17) modified how the Trusts allocate to fixed income, adding asset classes like non-USD hedged, unconstrained, long duration Treasuries, and bank loans. According to Lee, implementation began in 4Q17 and was completed ahead of schedule in 2Q18. Looking forward, Lee noted two areas that are garnering the team's attention from a strategic asset allocation perspective. First, equity exposure in the Retirement Trusts is split 70%/30% to U.S./Non-U.S. With a constructive view on non-U.S. equities and a realization that its peers and benchmarks lean more heavily towards international stocks, the team is discussing the merits of shifting more assets abroad. Second, a number of the suite's underlying active managers are increasingly short on capacity, particularly its small- and mid-cap managers. Accordingly, Lee thinks we're "getting closer" to using passive vehicles to get exposure to these areas.

In contrast to strategic asset allocation changes, tactical changes are made with a shorter time frame in mind, typically 6 to 18 months. These adjustments arise from a combination of somewhat fluid inputs, including macroeconomic outlook, valuations, supply/demand dynamics, and input from the firm's army of analysts and portfolio managers. Tactical calls are generally inspired by a belief that valuation levels tend to revert to the mean. During the fourth quarter, the Trusts moved from an equity underweight (vs. bonds) to a neutral weight. In the team's view, after the Q4 sell-off, valuations better reflect geopolitical risks and concerns about an aging economic cycle. They also pared back an overweight exposure to non-U.S. equities while shifting assets from international developed markets (moderating growth expectations, political uncertainty like Brexit) to emerging markets (more attractive valuations, lessened headwinds from Fed). As for fixed-income exposure, the team is overweighting emerging market bonds after a weak period for the asset class sparked by concerns around trade, politics, and currencies. While visiting T. Rowe, we also sat down with the portfolio manager of the Emerging Market Bond Fund, Michael Conelius. Conelius believes recent disruptions in the asset class are temporary, and he's taking advantage of attractive valuations to pick issues that are poised to benefit from supportive long-term trends in the asset class like stronger economic growth, more balanced government budgets, healthier current account balances, and significant political reforms. Leveraging perspectives from underlying managers is just one more tool in this suite's toolbox. Overall, we maintain a high opinion of this offering.

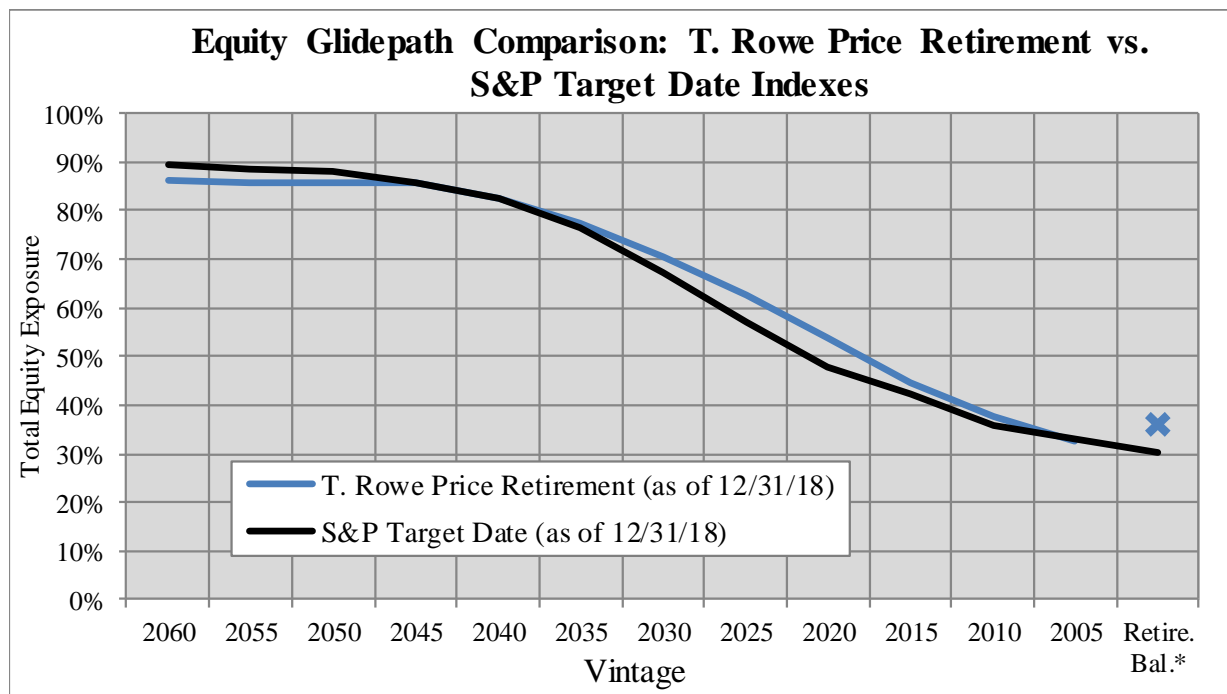
Performance results are taken from Fund company and are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above summary/prices/quotes/statistics have been obtained from sources we believe to be reliable, but we do not guarantee its accuracy or completeness. Past performance is no guarantee of future results.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

## Equity Glidepath Comparison

### T. Rowe Price Retirement Funds vs. S&P Target Date Indexes



\*The T. Rowe Price Retirement Balanced Fund maintains a static 40% equity/60% fixed-income allocation and does not reside on the equity glidepath. All other vintages in the suite are set to follow a glidepath that will cause them to become increasingly conservative for 30 years following the retirement year. At the end of those 30 years, equity exposure will stand at just 20%.

#### Equity Glidepath Comparison

# T. Rowe Price Retirement I

## Component Performance

As of December 31, 2018	Quarter	YTD	1 Year	3 Years	5 Years
<b>T. Rowe Price New Income I</b>	<b>1.17%</b>	<b>-0.50%</b>	<b>-0.50%</b>	<b>2.13%</b>	<b>2.46%</b>
BBgBarc US Agg Bond TR USD	1.64%	0.01%	0.01%	2.06%	2.52%
<b>T. Rowe Price Ltd Dur Infl Focus Bd I</b>	<b>-0.36%</b>	<b>0.39%</b>	<b>0.39%</b>	<b>1.17%</b>	<b>0.38%</b>
BBgBarc U.S. Treasury TIPS 1-5Y TR USD	-0.20%	0.41%	0.41%	1.44%	0.60%
<b>T. Rowe Price Intl Bd (USD Hdgd) I</b>	<b>1.68%</b>	<b>1.70%</b>	<b>1.70%</b>	<b>N/A</b>	<b>N/A</b>
BBgBarc Gbl Agg Ex USD TR Hdg USD	1.89%	3.17%	3.17%	3.51%	4.11%
<b>T. Rowe Price Dynamic Global Bond I</b>	<b>1.32%</b>	<b>0.98%</b>	<b>0.98%</b>	<b>1.26%</b>	<b>N/A</b>
ICE LIBOR 3 Month USD	0.58%	2.08%	2.08%	1.28%	0.86%
<b>T. Rowe Price US Treasury Long-Term I</b>	<b>4.24%</b>	<b>-1.72%</b>	<b>-1.72%</b>	<b>2.34%</b>	<b>5.38%</b>
BBgBarc Long Term US Treasury TR USD	4.19%	-1.84%	-1.84%	2.58%	5.93%
<b>T. Rowe Price Floating Rate I</b>	<b>-2.91%</b>	<b>0.03%</b>	<b>0.03%</b>	<b>3.68%</b>	<b>2.71%</b>
S&P/LSTA Performing Loan TR	-3.48%	0.60%	0.60%	5.02%	3.37%
<b>T. Rowe Price High Yield I</b>	<b>-4.13%</b>	<b>-3.22%</b>	<b>-3.22%</b>	<b>6.05%</b>	<b>3.33%</b>
Credit Suisse HY USD	-4.77%	-2.37%	-2.37%	7.31%	3.65%
<b>T. Rowe Price Emerging Markets Bond I</b>	<b>-2.39%</b>	<b>-7.04%</b>	<b>-7.04%</b>	<b>5.21%</b>	<b>3.87%</b>
JPM EMBI Global TR USD	-1.19%	-4.61%	-4.61%	4.74%	4.18%
<b>T. Rowe Price Value I</b>	<b>-10.45%</b>	<b>-9.32%</b>	<b>-9.32%</b>	<b>6.29%</b>	<b>6.00%</b>
Russell 1000 Value TR USD	-11.72%	-8.27%	-8.27%	6.95%	5.95%
<b>T. Rowe Price Equity Index 500 I</b>	<b>-13.53%</b>	<b>-4.44%</b>	<b>-4.44%</b>	<b>9.18%</b>	<b>8.34%</b>
S&P 500 TR USD	-13.52%	-4.38%	-4.38%	9.26%	8.49%
<b>T. Rowe Price Growth Stock I</b>	<b>-14.10%</b>	<b>-0.89%</b>	<b>-0.89%</b>	<b>10.45%</b>	<b>10.22%</b>
Russell 1000 Growth TR USD	-15.89%	-1.51%	-1.51%	11.15%	10.40%
<b>T. Rowe Price Mid-Cap Value I</b>	<b>-14.48%</b>	<b>-10.48%</b>	<b>-10.48%</b>	<b>7.61%</b>	<b>5.89%</b>
Russell Mid Cap Value TR USD	-14.95%	-12.29%	-12.29%	6.06%	5.44%
<b>T. Rowe Price Mid-Cap Growth I</b>	<b>-13.11%</b>	<b>-1.91%</b>	<b>-1.91%</b>	<b>9.29%</b>	<b>9.51%</b>
Russell Mid Cap Growth TR USD	-15.99%	-4.75%	-4.75%	8.59%	7.42%
<b>T. Rowe Price International Value Eq I</b>	<b>-13.88%</b>	<b>-18.04%</b>	<b>-18.04%</b>	<b>-0.03%</b>	<b>-1.70%</b>
MSCI EAFE Value GR USD	-11.65%	-14.26%	-14.26%	3.43%	-0.06%
<b>T. Rowe Price International Stock I</b>	<b>-12.16%</b>	<b>-13.81%</b>	<b>-13.81%</b>	<b>4.29%</b>	<b>2.24%</b>
MSCI EAFE Growth GR USD	-13.30%	-12.48%	-12.48%	3.28%	2.00%
<b>T. Rowe Price Overseas Stock I</b>	<b>-13.60%</b>	<b>-14.83%</b>	<b>-14.83%</b>	<b>3.73%</b>	<b>0.79%</b>
MSCI EAFE GR USD	-12.50%	-13.36%	-13.36%	3.38%	1.00%
<b>T. Rowe Price Small-Cap Value I</b>	<b>-18.86%</b>	<b>-11.40%</b>	<b>-11.40%</b>	<b>9.11%</b>	<b>4.40%</b>
Russell 2000 Value TR USD	-18.67%	-12.86%	-12.86%	7.37%	3.61%
<b>T. Rowe Price Small-Cap Stock I</b>	<b>-16.16%</b>	<b>-3.10%</b>	<b>-3.10%</b>	<b>9.92%</b>	<b>6.58%</b>
Russell 2000 TR USD	-20.20%	-11.01%	-11.01%	7.36%	4.41%
<b>T. Rowe Price New Horizons I</b>	<b>-17.01%</b>	<b>4.17%</b>	<b>4.17%</b>	<b>13.98%</b>	<b>10.43%</b>
Russell 2000 Growth TR USD	-21.65%	-9.31%	-9.31%	7.24%	5.13%
<b>T. Rowe Price Emerging Markets Stock I</b>	<b>-6.71%</b>	<b>-15.96%</b>	<b>-15.96%</b>	<b>10.46%</b>	<b>3.89%</b>
MSCI EM GR USD	-7.40%	-14.25%	-14.25%	9.65%	2.03%
<b>T. Rowe Price Real Assets I</b>	<b>-10.29%</b>	<b>-11.36%</b>	<b>-11.36%</b>	<b>5.92%</b>	<b>0.58%</b>
S&P North American Natural Resources TR	-23.47%	-21.07%	-21.07%	1.50%	-6.50%
<b>BATTING AVERAGE (active funds only)</b>	<b>13 of 20</b>	<b>8 of 20</b>	<b>8 of 20</b>	<b>11 of 19</b>	<b>9 of 18</b>
	<b>65%</b>	<b>40%</b>	<b>40%</b>	<b>58%</b>	<b>50%</b>

Returns in **RED** are active managers that underperformed for the period.

PERFORMANCE NET OF INVESTMENT MANAGEMENT FEES. TRUST, INVESTMENT CONSULTING, AND/OR ADMINISTRATION FEES HAVE NOT BEEN DEDUCTED.

The summary/prices/quotes/statistics contained herein have been obtained from sources believed reliable but are not necessarily complete and cannot be guaranteed. Total return includes change in share price, reinvestment of dividends, and capital gains. Past performance results are not a guarantee of future results. Actual performance will be affected by flows in and out of the Fund.

Source: Morningstar Inc. / Zephyr Associates, Inc.

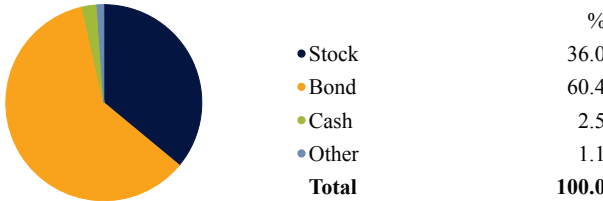
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	14.85	15.85
Average Market Cap (mil)	39,427.91	32,934.09
# of Holdings	20	9
Turnover Ratio %	31.40	—
% Asset in Top 10 Holdings	87.91	100.00
US Equity %	23.80	22.00
Non-US Equity %	12.17	11.80
Emerging Market Equity %	2.22	1.88

**Asset Allocation**



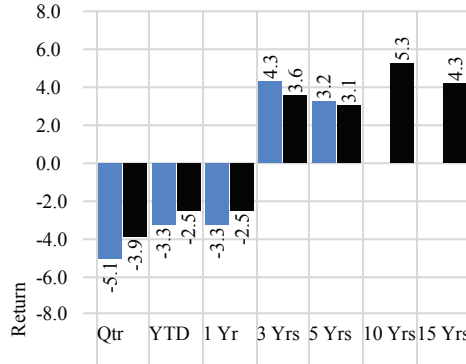
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	24.6	25.0	26.4	Market Cap Giant %	44.2
Mid	6.6	6.1	6.6	Market Cap Large %	31.0
Small	1.4	1.6	1.9	Market Cap Mid %	19.6
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	30.51	-0.10
T. Rowe Price Equity Index Tr-Z	17.97	-13.52
T. Rowe Price Bond Tr I	14.88	1.17
T. Rowe Price International Bond Tr-Z	4.46	1.88
T. Rowe Price Emerging Markets Bd Tr-Z	4.00	-1.95
T. Rowe Price International Core Eq Tr-Z	3.46	-13.37
T. Rowe Price International Val Eq Tr-Z	3.33	-13.73
T. Rowe Price Dynamic Global Bond Tr-Z	3.27	1.41
T. Rowe Price International Gr Eq Tr-Z	3.08	-11.99
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	2.94	4.29
T. Rowe Price High Yield Tr-Z	1.95	-4.01
T. Rowe Price Emerging Markets Eq Tr-Z	1.93	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	1.61	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	1.45	-14.32
T. Rowe Price Floating Rate Tr-Z	1.11	-3.01
T. Rowe Price New Horizons Tr-Z	1.09	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	0.98	-16.06
T. Rowe Price U.S. SC Value Eq Tr-Z	0.90	-18.78
T. Rowe Price Real Assets Tr I-Z	0.77	-10.12
Stif (Short Term Investment Funds)	0.29	—

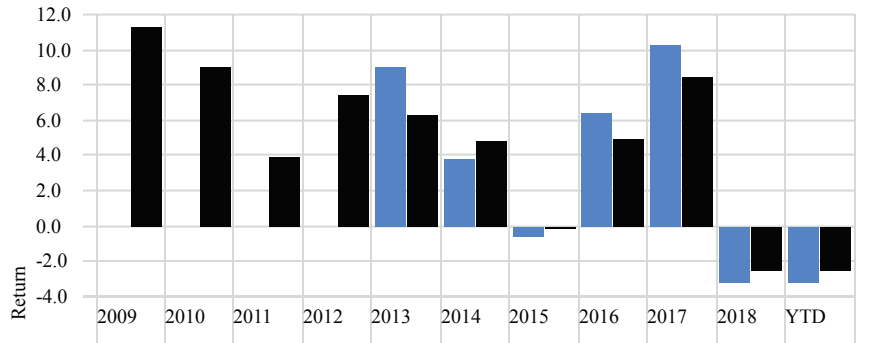
**Annualized Returns**



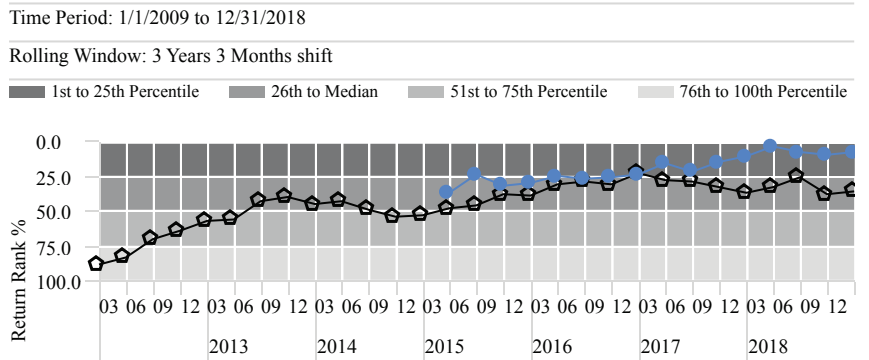
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.21	-0.42	—
Beta	1.23	1.25	—
R-squared	95.40	94.08	—
Tracking Error	1.29	1.47	—
Information Ratio	0.58	0.10	—
Excess Return	0.77	0.15	—
Standard Deviation	4.47	4.65	—
Sharpe Ratio	0.71	0.55	—
Sortino Ratio	1.05	0.83	—

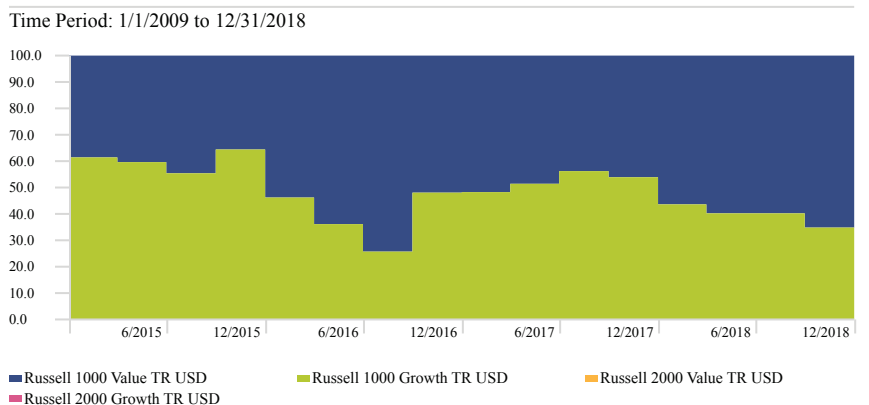
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement Balanced Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade			
<b>Trailing 36-Months vs. Peer Group:</b>	<b>9%</b>	<b>12%</b>	<b>10%</b>				
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Downside Risk	Jun 2018	Sep 2018	Dec 2018				
<b>Trailing 36-Months vs. Passive Target:</b>	<b>125.0%</b>	<b>112.6%</b>	<b>115.9%</b>				
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018		
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-1.1%</b>	<b>-0.5%</b>	<b>1.5%</b>	<b>1.8%</b>	<b>-0.8%</b>		
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	FAIL	PASS	PASS	FAIL	<b>2 of 5</b>	<b>FAIL</b>
Qualitative Issues							
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>95.22%</b>						<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price						<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2002 Wyatt Lee, since 2015						<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target Today Funds

**Passive Target:** S&P Target Date Retirement Income Index

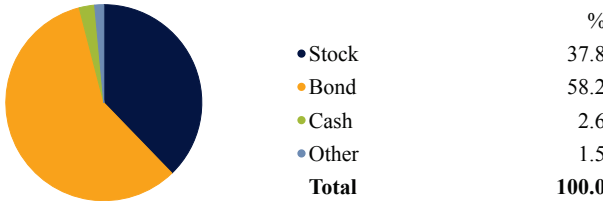
Operations

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

Fund Characteristics

	Fund	Benchmark
P/E Ratio (TTM)	14.82	15.92
Average Market Cap (mil)	39,122.15	34,412.93
# of Holdings	20	9
Turnover Ratio %	34.90	—
% Asset in Top 10 Holdings	86.46	100.00
US Equity %	24.87	26.23
Non-US Equity %	12.86	13.51
Emerging Market Equity %	2.34	1.76

Asset Allocation



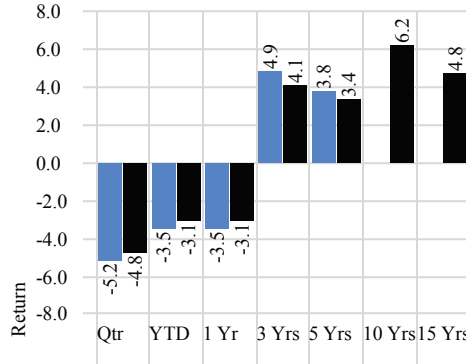
Equity Style Exposures

	Value	Blend	Growth	Market Cap	%
Large	24.5	24.9	26.3	Market Cap Giant %	44.1
Mid	6.6	6.2	6.6	Market Cap Large %	31.0
Small	1.4	1.6	1.9	Market Cap Mid %	19.7
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

Top 20 Holdings

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Bond Tr I	20.62	1.17
T. Rowe Price Equity Index Tr-Z	18.69	-13.52
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	16.74	-0.10
T. Rowe Price International Bond Tr-Z	6.10	1.88
T. Rowe Price Emerging Markets Bd Tr-Z	5.29	-1.95
T. Rowe Price Dynamic Global Bond Tr-Z	4.42	1.41
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	4.17	4.29
T. Rowe Price International Core Eq Tr-Z	3.66	-13.37
T. Rowe Price International Val Eq Tr-Z	3.51	-13.73
T. Rowe Price International Gr Eq Tr-Z	3.26	-11.99
T. Rowe Price High Yield Tr-Z	2.54	-4.01
T. Rowe Price Emerging Markets Eq Tr-Z	2.04	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	1.70	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	1.55	-14.32
T. Rowe Price Floating Rate Tr-Z	1.53	-3.01
T. Rowe Price New Horizons Tr-Z	1.12	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	1.05	-16.06
T. Rowe Price U.S. SC Value Eq Tr-Z	0.95	-18.78
T. Rowe Price Real Assets Tr I-Z	0.85	-10.12
Stif (Short Term Investment Funds)	0.22	—

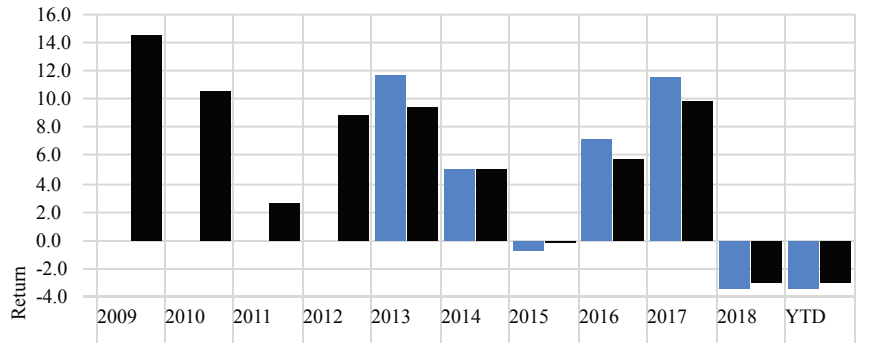
Annualized Returns



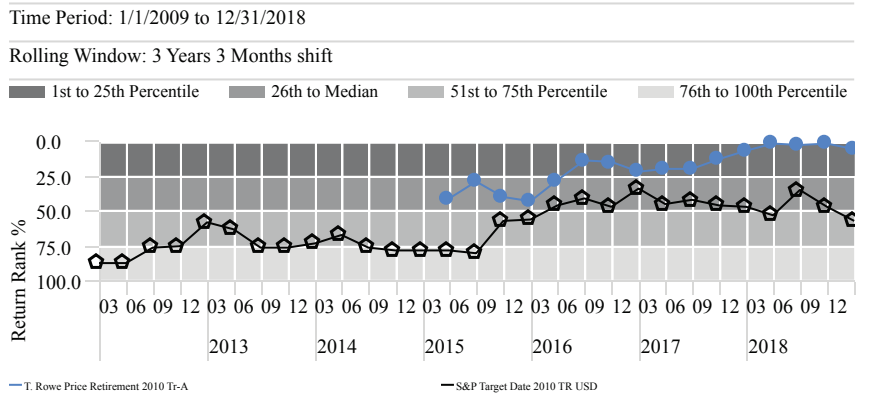
Risk/Return Statistics

	3 years	5 years	10 years
Alpha	0.38	-0.10	—
Beta	1.14	1.17	—
R-squared	97.41	97.23	—
Tracking Error	1.00	1.16	—
Information Ratio	0.77	0.29	—
Excess Return	0.80	0.35	—
Standard Deviation	4.87	5.22	—
Sharpe Ratio	0.77	0.60	—
Sortino Ratio	1.16	0.93	—

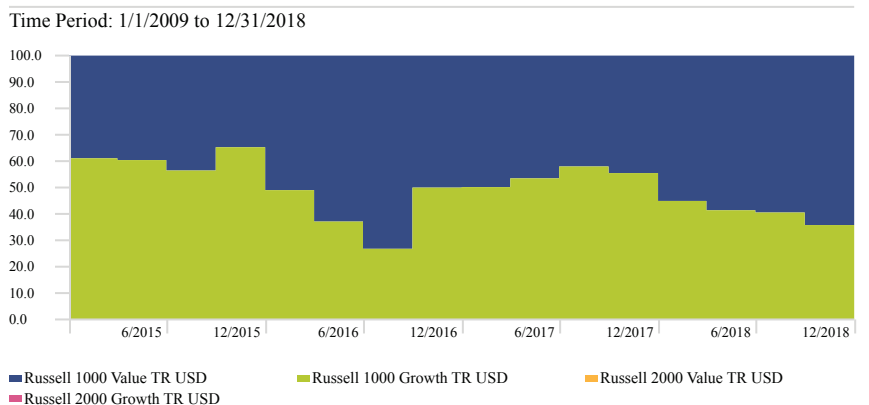
Calendar Year Returns



Rolling 3 Year Return Morningstar Peer Group Rankings



Historical Returns-Based Style Analysis



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement 2010 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>2%</b>	<b>2%</b>	<b>5%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>119.0%</b>	<b>114.7%</b>	<b>108.3%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-0.0%</b>	<b>-0.6%</b>	<b>1.3%</b>	<b>1.7%</b>	<b>-0.4%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	FAIL	PASS	PASS	FAIL	<b>2 of 5</b>
Qualitative Issues						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>97.30%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2002 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2010 Funds

**Passive Target:** S&P Target Date 2010 Index

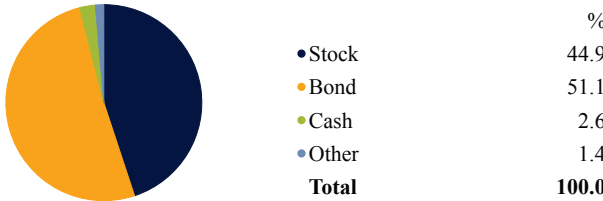
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	14.94	16.07
Average Market Cap (mil)	38,728.91	31,454.60
# of Holdings	22	10
Turnover Ratio %	26.40	—
% Asset in Top 10 Holdings	79.33	100.00
US Equity %	29.33	31.04
Non-US Equity %	15.55	15.33
Emerging Market Equity %	2.91	2.06

**Asset Allocation**



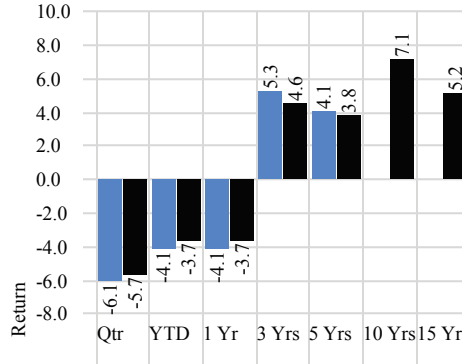
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	23.9	24.2	27.9	Market Cap Giant %	43.5
Mid	6.3	6.1	6.7	Market Cap Large %	31.9
Small	1.4	1.6	1.9	Market Cap Mid %	19.4
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Bond Tr I	18.81	1.17
T. Rowe Price Equity Index Tr-Z	16.69	-13.52
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	13.17	-0.10
T. Rowe Price International Bond Tr-Z	5.55	1.88
T. Rowe Price Emerging Markets Bd Tr-Z	4.76	-1.95
T. Rowe Price International Core Eq Tr-Z	4.28	-13.37
T. Rowe Price International Val Eq Tr-Z	4.14	-13.73
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	4.10	4.29
T. Rowe Price Dynamic Global Bond Tr-Z	4.00	1.41
T. Rowe Price International Gr Eq Tr-Z	3.85	-11.99
T. Rowe Price Growth Stock Tr-Z	2.87	-14.00
T. Rowe Price U.S. Value Equity T-Z	2.79	-10.29
T. Rowe Price Emerging Markets Eq Tr-Z	2.43	-6.57
T. Rowe Price High Yield Tr-Z	2.22	-4.01
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	2.06	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	1.88	-14.32
T. Rowe Price Floating Rate Tr-Z	1.39	-3.01
T. Rowe Price New Horizons Tr-Z	1.32	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	1.25	-16.06
T. Rowe Price U.S. SC Value Eq Tr-Z	1.15	-18.78

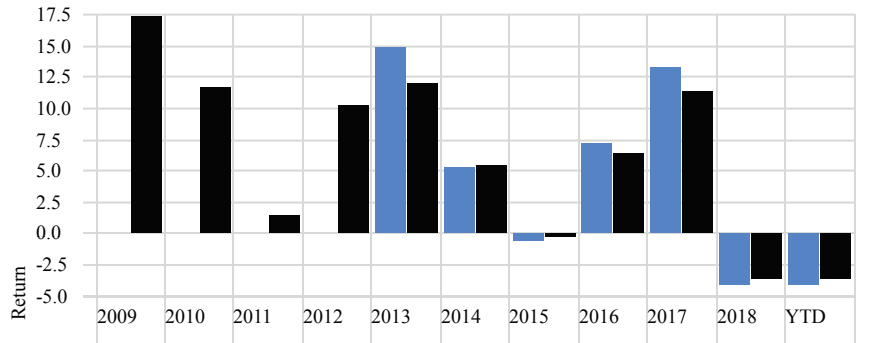
**Annualized Returns**



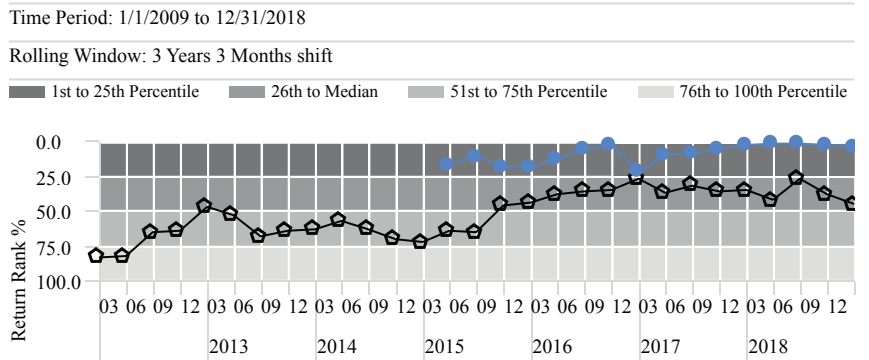
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.33	-0.08	—
Beta	1.12	1.14	—
R-squared	97.70	97.88	—
Tracking Error	1.05	1.15	—
Information Ratio	0.67	0.28	—
Excess Return	0.73	0.34	—
Standard Deviation	5.63	6.02	—
Sharpe Ratio	0.74	0.59	—
Sortino Ratio	1.10	0.90	—

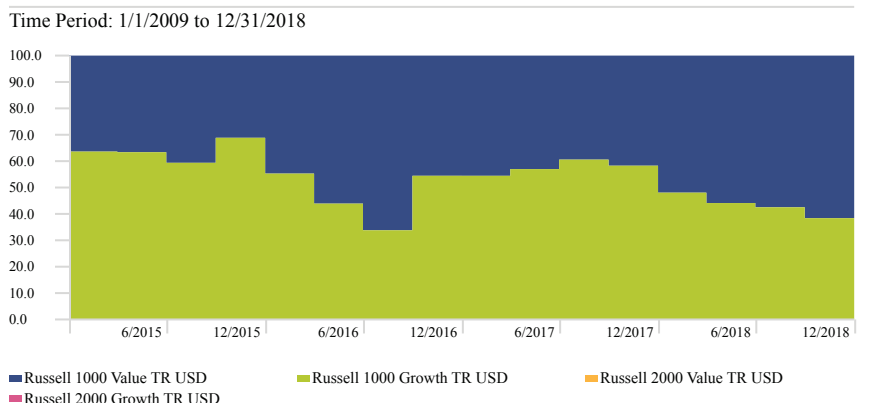
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018



# T. Rowe Price Retirement 2015 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade			
<b>Trailing 36-Months vs. Peer Group:</b>	<b>1%</b>	<b>2%</b>	<b>3%</b>				
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Downside Risk	Jun 2018	Sep 2018	Dec 2018				
<b>Trailing 36-Months vs. Passive Target:</b>	<b>115%</b>	<b>110%</b>	<b>106%</b>				
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018		
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-0.1%</b>	<b>-0.4%</b>	<b>0.8%</b>	<b>2.0%</b>	<b>-0.4%</b>		
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	FAIL	PASS	PASS	FAIL	<b>2 of 5</b>	<b>FAIL</b>
Qualitative Issues							
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>97.63%</b>				<b>PASS</b>		
<b>Investment Firm:</b>	T. Rowe Price				<b>PASS</b>		
<b>Investment Personnel:</b>	Jerome Clark, since 2004 Wyatt Lee, since 2015				<b>PASS</b>		

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2015 Funds

**Passive Target:** S&P Target Date 2015 Index

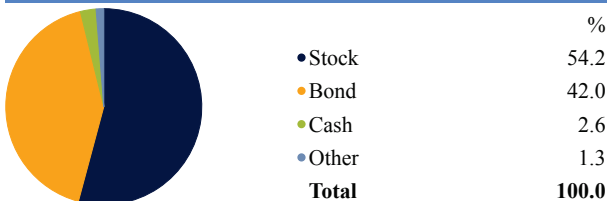
Operations

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

Fund Characteristics

	Fund	Benchmark
P/E Ratio (TTM)	14.99	15.99
Average Market Cap (mil)	38,461.38	31,405.37
# of Holdings	22	10
Turnover Ratio %	19.10	—
% Asset in Top 10 Holdings	75.70	100.00
US Equity %	35.05	34.13
Non-US Equity %	19.07	17.60
Emerging Market Equity %	3.59	2.44

Asset Allocation



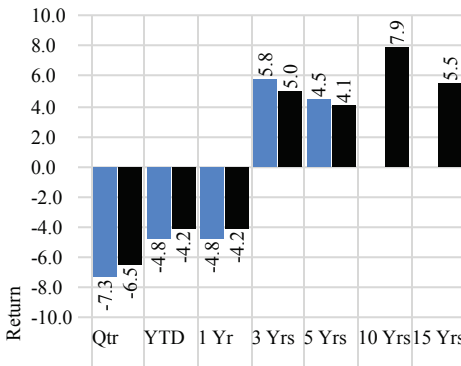
Equity Style Exposures

Market Cap	Value	Blend	Growth	%
Large	23.7	23.8	28.7	43.1
Mid	6.1	6.0	6.8	32.4
Small	1.4	1.6	1.9	19.2
Market Cap Micro %				4.6
				0.6

Top 20 Holdings

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Bond Tr I	16.71	1.17
T. Rowe Price Equity Index Tr-Z	16.16	-13.52
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	8.17	-0.10
T. Rowe Price Growth Stock Tr-Z	5.40	-14.00
T. Rowe Price U.S. Value Equity T-Z	5.40	-10.29
T. Rowe Price International Core Eq Tr-Z	5.19	-13.37
T. Rowe Price International Val Eq Tr-Z	5.00	-13.73
T. Rowe Price International Bond Tr-Z	4.92	1.88
T. Rowe Price International Gr Eq Tr-Z	4.68	-11.99
T. Rowe Price Emerging Markets Bd Tr-Z	4.08	-1.95
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	3.98	4.29
T. Rowe Price Dynamic Global Bond Tr-Z	3.52	1.41
T. Rowe Price Emerging Markets Eq Tr-Z	2.90	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	2.46	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	2.24	-14.32
T. Rowe Price High Yield Tr-Z	1.87	-4.01
T. Rowe Price New Horizons Tr-Z	1.61	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	1.51	-16.06
T. Rowe Price U.S. SC Value Eq Tr-Z	1.39	-18.78
T. Rowe Price Real Assets Tr I-Z	1.23	-10.12

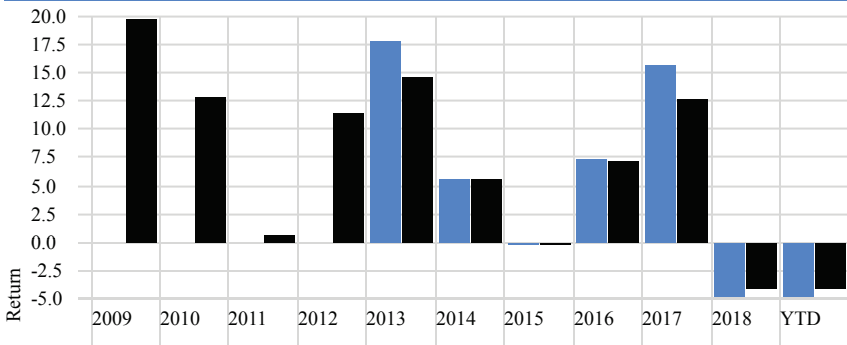
Annualized Returns



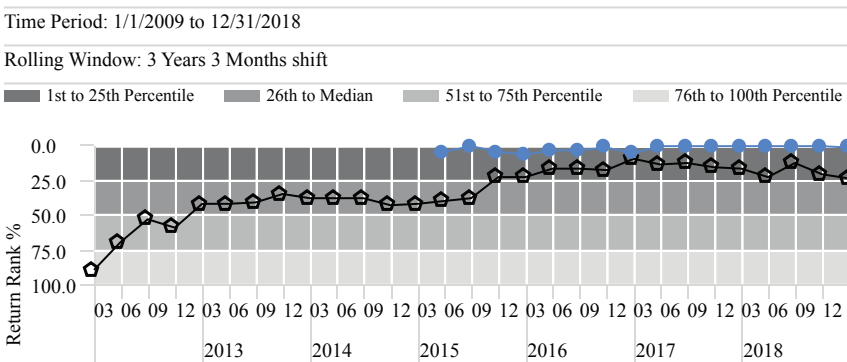
Risk/Return Statistics

	3 years	5 years	10 years
Alpha	0.16	-0.05	—
Beta	1.15	1.15	—
R-squared	97.66	97.97	—
Tracking Error	1.35	1.35	—
Information Ratio	0.53	0.31	—
Excess Return	0.75	0.44	—
Standard Deviation	6.61	6.95	—
Sharpe Ratio	0.71	0.57	—
Sortino Ratio	1.03	0.87	—

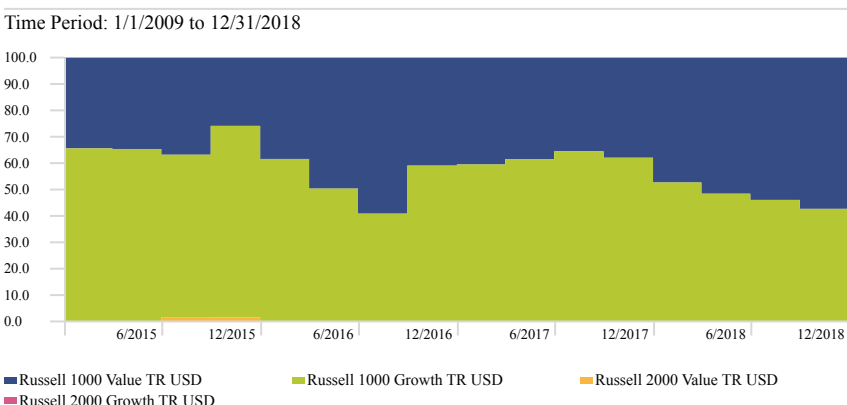
Calendar Year Returns



Rolling 3 Year Return Morningstar Peer Group Rankings



Historical Returns-Based Style Analysis



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement 2020 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>114.2%</b>	<b>111.2%</b>	<b>111.4%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-0.0%</b>	<b>-0.0%</b>	<b>0.3%</b>	<b>2.9%</b>	<b>-0.7%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	FAIL	PASS	PASS	FAIL	<b>2 of 5</b>
Qualitative Issues						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>97.61%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price Associates, Inc.					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2002 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2020 Funds

**Passive Target:** S&P Target Date 2020 Index

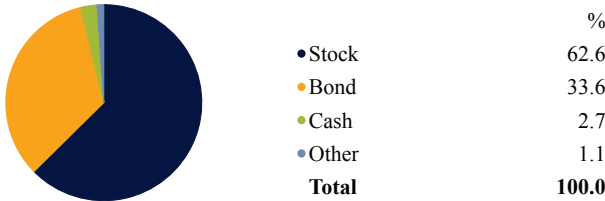
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.05	15.96
Average Market Cap (mil)	38,245.87	31,257.77
# of Holdings	22	10
Turnover Ratio %	16.10	—
% Asset in Top 10 Holdings	75.19	100.00
US Equity %	40.15	39.88
Non-US Equity %	22.40	21.01
Emerging Market Equity %	4.28	3.03

**Asset Allocation**



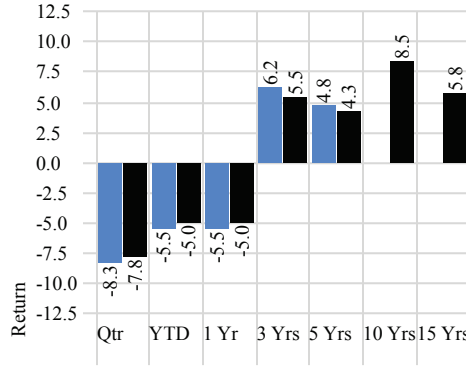
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	23.4	23.3	29.6	Market Cap Giant %	42.8
Mid	6.0	5.9	6.8	Market Cap Large %	33.0
Small	1.4	1.6	1.9	Market Cap Mid %	19.0
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Bond Tr I	14.24	1.17
T. Rowe Price Equity Index Tr-Z	13.84	-13.52
T. Rowe Price U.S. Value Equity T-Z	8.68	-10.29
T. Rowe Price Growth Stock Tr-Z	8.65	-14.00
T. Rowe Price International Core Eq Tr-Z	6.00	-13.37
T. Rowe Price International Val Eq Tr-Z	5.78	-13.73
T. Rowe Price International Gr Eq Tr-Z	5.41	-11.99
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	4.53	-0.10
T. Rowe Price International Bond Tr-Z	4.23	1.88
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	3.83	4.29
T. Rowe Price Emerging Markets Eq Tr-Z	3.37	-6.57
T. Rowe Price Emerging Markets Bd Tr-Z	3.34	-1.95
T. Rowe Price Dynamic Global Bond Tr-Z	2.98	1.41
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	2.85	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	2.61	-14.32
T. Rowe Price New Horizons Tr-Z	1.83	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	1.74	-16.06
T. Rowe Price U.S. SC Value Eq Tr-Z	1.60	-18.78
T. Rowe Price High Yield Tr-Z	1.46	-4.01
T. Rowe Price Real Assets Tr I-Z	1.42	-10.12

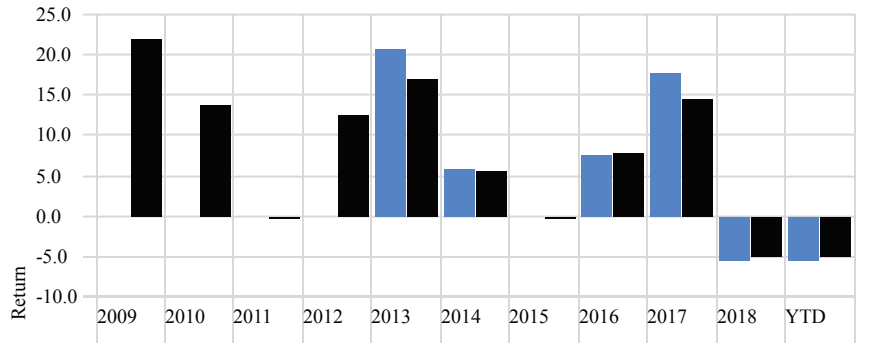
**Annualized Returns**



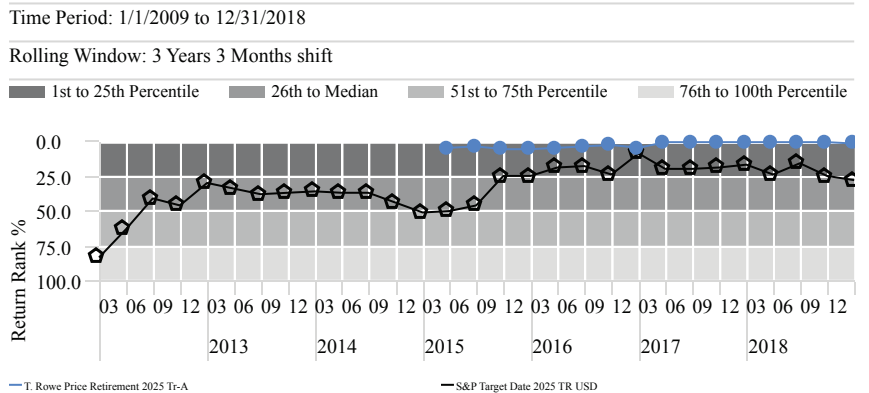
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.22	0.11	—
Beta	1.12	1.12	—
R-squared	97.21	97.71	—
Tracking Error	1.48	1.45	—
Information Ratio	0.46	0.35	—
Excess Return	0.72	0.53	—
Standard Deviation	7.43	7.75	—
Sharpe Ratio	0.69	0.56	—
Sortino Ratio	0.99	0.85	—

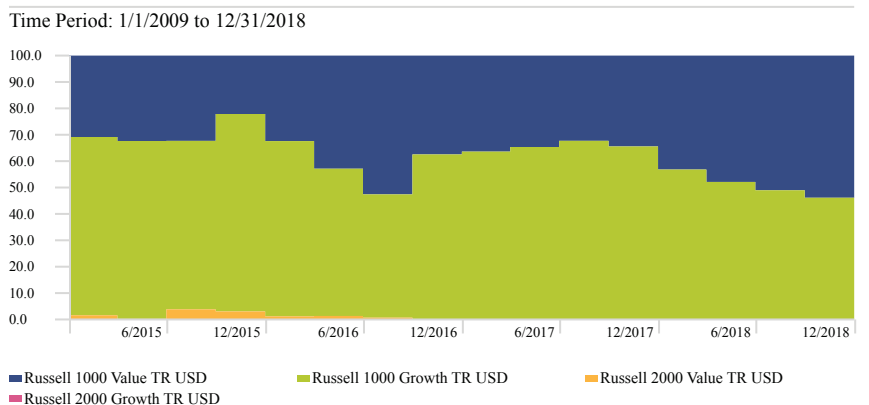
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement 2025 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>0%</b>	<b>0%</b>	<b>1%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>112%</b>	<b>108%</b>	<b>108%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>0.4%</b>	<b>0.1%</b>	<b>-0.2%</b>	<b>3.2%</b>	<b>-0.5%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	FAIL	<b>3 of 5</b>
<b>3 of 5</b>						<b>PASS</b>
Qualitative Issues						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>97.15%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2004 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2025 Funds

**Passive Target:** S&P Target Date 2025 Index

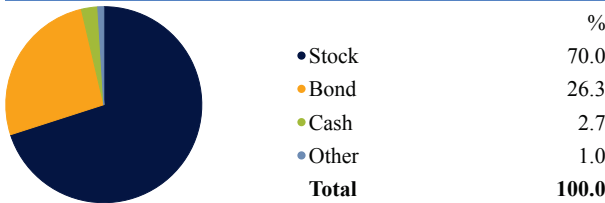
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.11	15.93
Average Market Cap (mil)	38,130.86	31,333.34
# of Holdings	22	10
Turnover Ratio %	14.30	—
% Asset in Top 10 Holdings	76.90	100.00
US Equity %	44.64	46.02
Non-US Equity %	25.34	24.71
Emerging Market Equity %	4.90	3.57

**Asset Allocation**



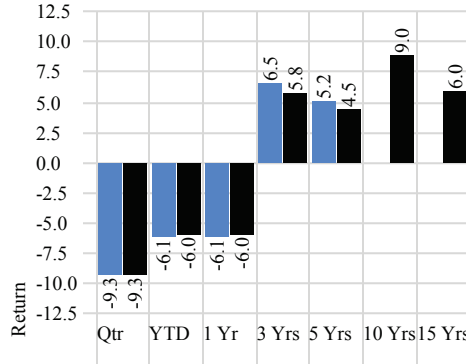
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	23.1	23.0	30.4	Market Cap Giant %	42.5
Mid	5.8	5.9	6.9	Market Cap Large %	33.5
Small	1.4	1.6	1.9	Market Cap Mid %	18.9
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Bond Tr I	11.94	1.17
T. Rowe Price Growth Stock Tr-Z	11.85	-14.00
T. Rowe Price U.S. Value Equity T-Z	11.72	-10.29
T. Rowe Price Equity Index Tr-Z	11.36	-13.52
T. Rowe Price International Core Eq Tr-Z	6.72	-13.37
T. Rowe Price International Val Eq Tr-Z	6.45	-13.73
T. Rowe Price International Gr Eq Tr-Z	6.04	-11.99
T. Rowe Price Emerging Markets Eq Tr-Z	3.79	-6.57
T. Rowe Price International Bond Tr-Z	3.52	1.88
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	3.51	4.29
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	3.20	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	2.92	-14.32
T. Rowe Price Emerging Markets Bd Tr-Z	2.56	-1.95
T. Rowe Price Dynamic Global Bond Tr-Z	2.53	1.41
T. Rowe Price New Horizons Tr-Z	2.05	-16.98
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	2.02	-0.10
T. Rowe Price U.S. SC Core Eq Tr-Z	1.91	-16.06
T. Rowe Price U.S. SC Value Eq Tr-Z	1.81	-18.78
T. Rowe Price Real Assets Tr I-Z	1.60	-10.12
T. Rowe Price High Yield Tr-Z	1.07	-4.01

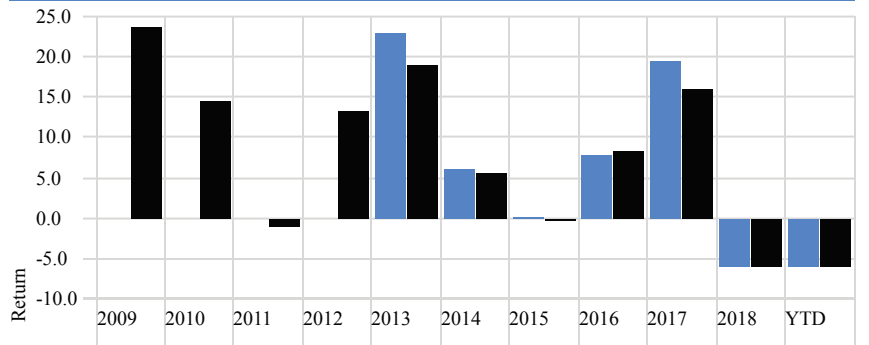
**Annualized Returns**



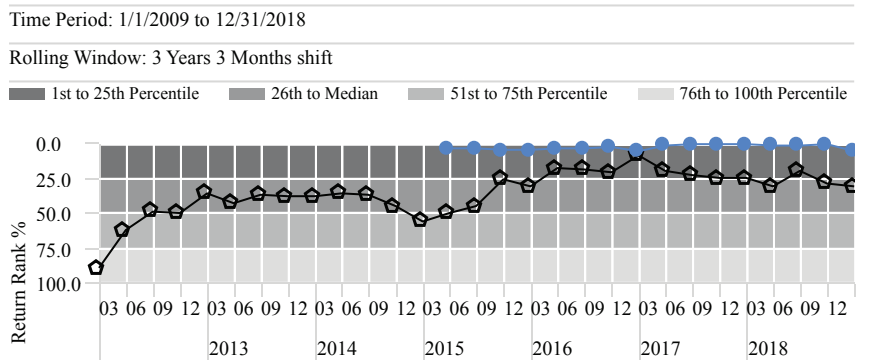
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.41	0.32	—
Beta	1.08	1.09	—
R-squared	96.70	97.30	—
Tracking Error	1.62	1.57	—
Information Ratio	0.45	0.40	—
Excess Return	0.78	0.66	—
Standard Deviation	8.18	8.44	—
Sharpe Ratio	0.68	0.56	—
Sortino Ratio	0.96	0.83	—

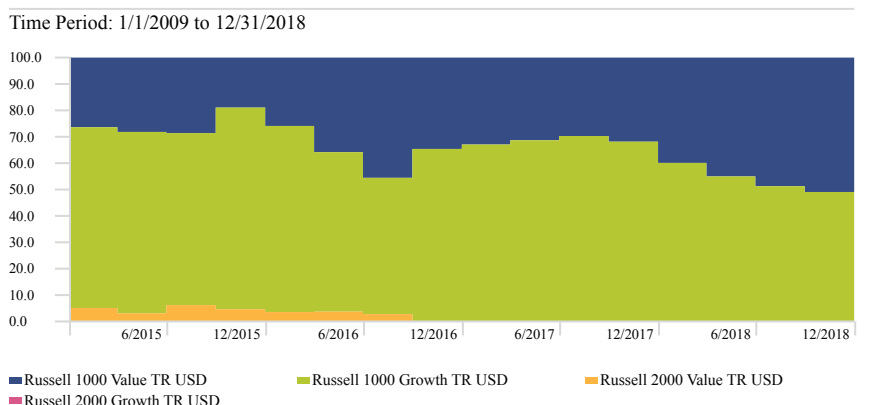
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement 2030 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>1%</b>	<b>0%</b>	<b>5%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>107.9%</b>	<b>102.8%</b>	<b>103.9%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>0.6%</b>	<b>0.4%</b>	<b>-0.6%</b>	<b>3.4%</b>	<b>-0.1%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	FAIL	<b>3 of 5</b>
<b>3 of 5</b>						<b>PASS</b>
Qualitative Issues						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>96.65%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2002 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2030 Funds

**Passive Target:** S&P Target Date 2030 Index

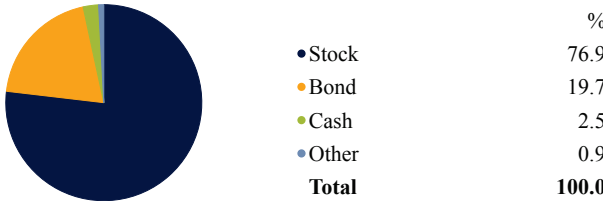
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.15	15.90
Average Market Cap (mil)	38,106.92	30,996.99
# of Holdings	21	9
Turnover Ratio %	12.50	—
% Asset in Top 10 Holdings	80.04	100.00
US Equity %	48.82	51.30
Non-US Equity %	27.98	28.07
Emerging Market Equity %	5.44	4.12

**Asset Allocation**



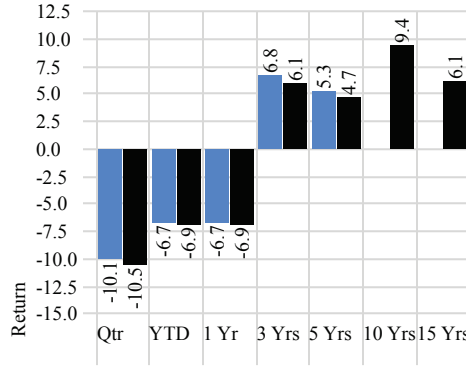
**Equity Style Exposures**

Market Cap	Value	Blend	Growth	%
Large	23.0	22.8	30.9	42.3
Mid	5.7	5.8	6.9	33.8
Small	1.4	1.6	1.9	18.7
Market Cap Micro %				4.6
Market Cap Small %				0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	14.60	-14.00
T. Rowe Price U.S. Value Equity T-Z	14.42	-10.29
T. Rowe Price Bond Tr I	9.69	1.17
T. Rowe Price Equity Index Tr-Z	9.44	-13.52
T. Rowe Price International Core Eq Tr-Z	7.37	-13.37
T. Rowe Price International Val Eq Tr-Z	7.08	-13.73
T. Rowe Price International Gr Eq Tr-Z	6.61	-11.99
T. Rowe Price Emerging Markets Eq Tr-Z	4.15	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	3.48	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	3.21	-14.32
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	3.16	4.29
T. Rowe Price International Bond Tr-Z	2.87	1.88
T. Rowe Price New Horizons Tr-Z	2.24	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	2.07	-16.06
T. Rowe Price Dynamic Global Bond Tr-Z	2.06	1.41
T. Rowe Price U.S. SC Value Eq Tr-Z	1.99	-18.78
T. Rowe Price Emerging Markets Bd Tr-Z	1.91	-1.95
T. Rowe Price Real Assets Tr I-Z	1.76	-10.12
T. Rowe Price High Yield Tr-Z	0.75	-4.01
T. Rowe Price Floating Rate Tr-Z	0.60	-3.01

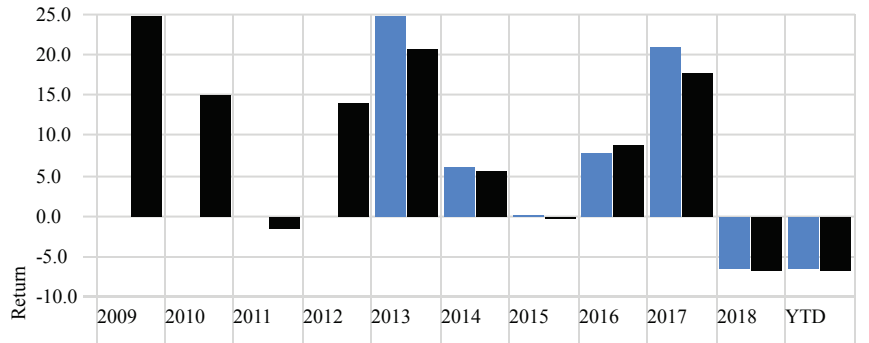
**Annualized Returns**



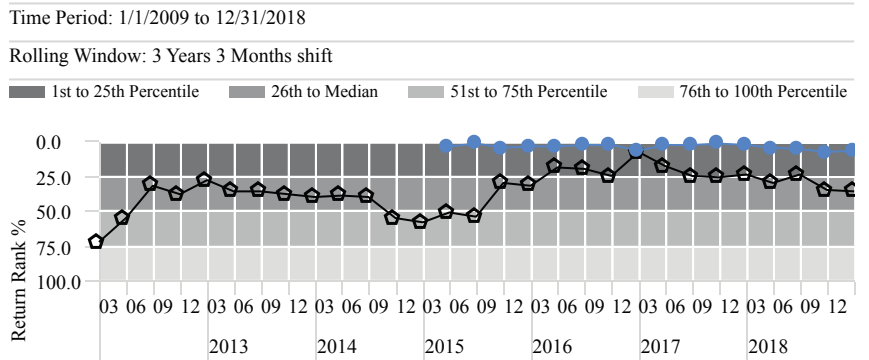
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.45	0.38	—
Beta	1.05	1.07	—
R-squared	96.33	96.95	—
Tracking Error	1.76	1.69	—
Information Ratio	0.37	0.36	—
Excess Return	0.69	0.64	—
Standard Deviation	8.85	9.08	—
Sharpe Ratio	0.66	0.54	—
Sortino Ratio	0.92	0.81	—

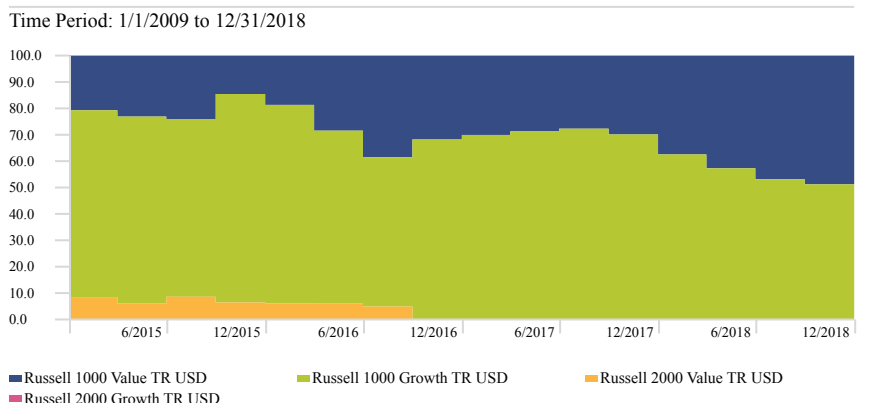
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018



# T. Rowe Price Retirement 2035 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>6%</b>	<b>8%</b>	<b>7%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>106.3%</b>	<b>101.9%</b>	<b>101.6%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>0.5%</b>	<b>0.6%</b>	<b>-1.1%</b>	<b>3.2%</b>	<b>0.2%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	PASS	<b>4 of 5</b>
<b>4 of 5</b>						<b>PASS</b>
Qualitative Issues						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>96.28%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2004 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2035 Funds

**Passive Target:** S&P Target Date 2035 Index

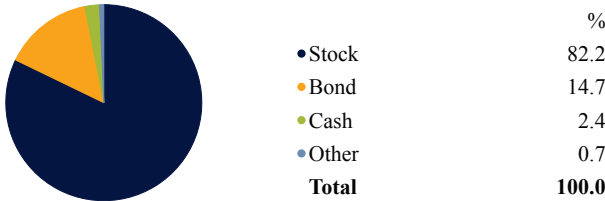
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.20	15.87
Average Market Cap (mil)	38,091.05	30,922.78
# of Holdings	21	9
Turnover Ratio %	14.70	—
% Asset in Top 10 Holdings	82.44	100.00
US Equity %	52.14	54.27
Non-US Equity %	29.97	30.42
Emerging Market Equity %	5.87	4.54

**Asset Allocation**



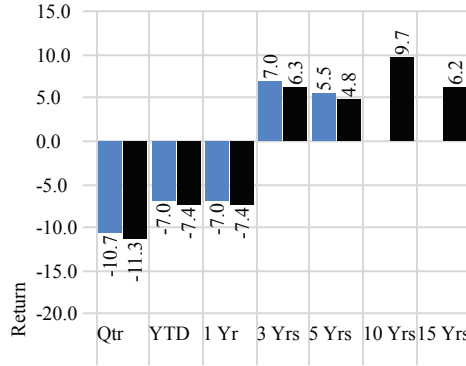
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	22.8	22.6	31.4	Market Cap Giant %	42.2
Mid	5.7	5.8	6.9	Market Cap Large %	34.0
Small	1.4	1.6	1.9	Market Cap Mid %	18.6
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	17.17	-14.00
T. Rowe Price U.S. Value Equity T-Z	16.78	-10.29
T. Rowe Price International Core Eq Tr-Z	7.84	-13.37
T. Rowe Price International Val Eq Tr-Z	7.51	-13.73
T. Rowe Price Equity Index Tr-Z	7.34	-13.52
T. Rowe Price Bond Tr I	7.20	1.17
T. Rowe Price International Gr Eq Tr-Z	7.03	-11.99
T. Rowe Price Emerging Markets Eq Tr-Z	4.43	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	3.72	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	3.43	-14.32
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	2.78	4.29
T. Rowe Price New Horizons Tr-Z	2.38	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	2.24	-16.06
T. Rowe Price International Bond Tr-Z	2.14	1.88
T. Rowe Price U.S. SC Value Eq Tr-Z	2.13	-18.78
T. Rowe Price Real Assets Tr I-Z	1.87	-10.12
T. Rowe Price Dynamic Global Bond Tr-Z	1.56	1.41
T. Rowe Price Emerging Markets Bd Tr-Z	1.19	-1.95
Stif (Short Term Investment Funds)	0.48	—
T. Rowe Price Floating Rate Tr-Z	0.42	-3.01

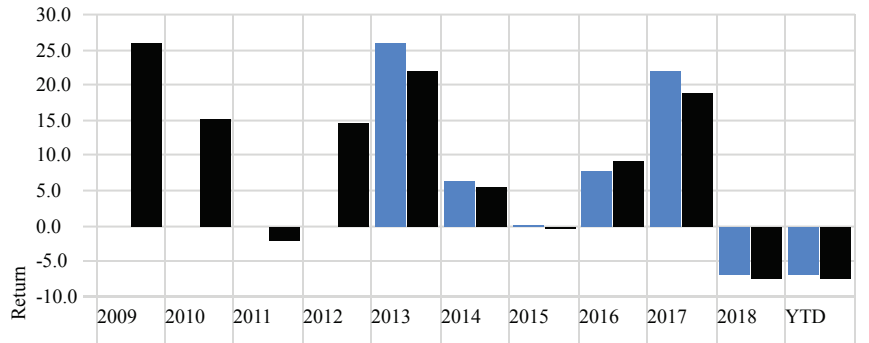
**Annualized Returns**



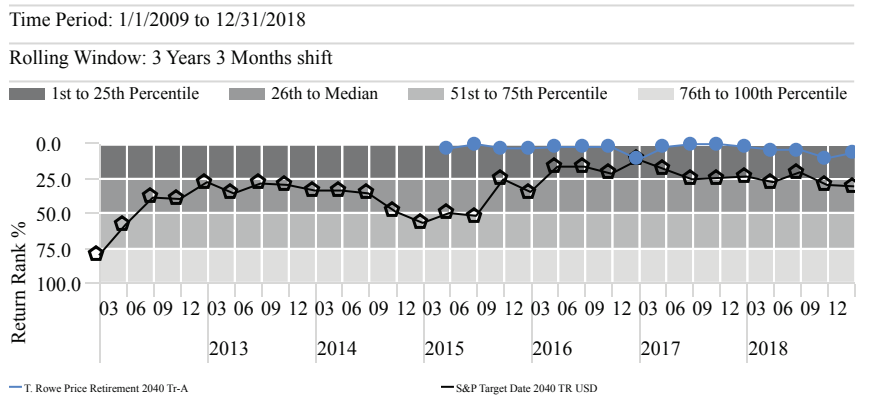
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.45	0.43	—
Beta	1.04	1.06	—
R-squared	96.01	96.77	—
Tracking Error	1.92	1.80	—
Information Ratio	0.32	0.35	—
Excess Return	0.65	0.66	—
Standard Deviation	9.36	9.56	—
Sharpe Ratio	0.65	0.53	—
Sortino Ratio	0.90	0.79	—

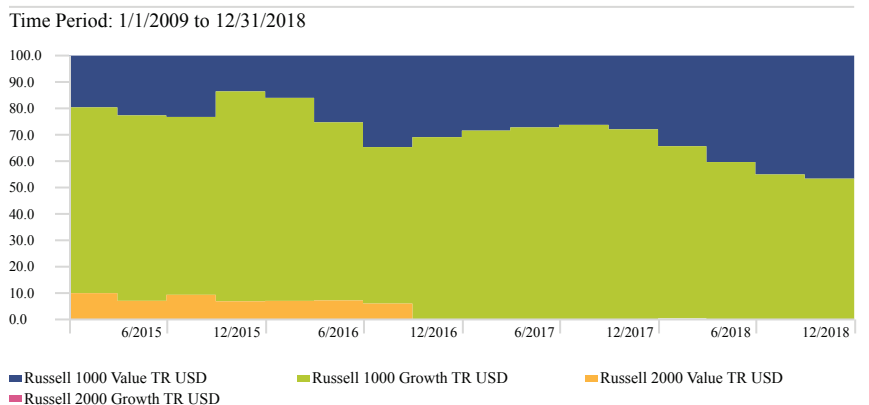
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement 2040 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>5%</b>	<b>10%</b>	<b>7%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3 PASS</b>		
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3 PASS</b>		
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>106.1%</b>	<b>100.2%</b>	<b>100.3%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	FAIL	FAIL	<b>0 of 3 FAIL</b>		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>0.7%</b>	<b>0.7%</b>	<b>-1.4%</b>	<b>3.2%</b>	<b>0.4%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	PASS	<b>4 of 5 PASS</b>
Qualitative Issues						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>95.94%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2002 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2040 Funds

**Passive Target:** S&P Target Date 2040 Index

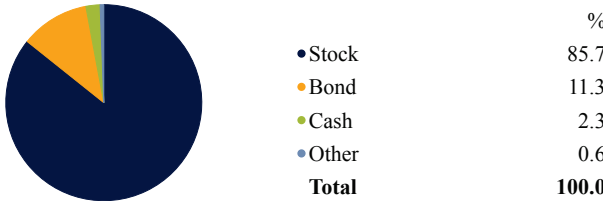
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.22	15.84
Average Market Cap (mil)	38,208.63	30,587.14
# of Holdings	21	9
Turnover Ratio %	11.30	—
% Asset in Top 10 Holdings	84.13	100.00
US Equity %	54.32	55.69
Non-US Equity %	31.33	31.84
Emerging Market Equity %	6.16	4.83

**Asset Allocation**



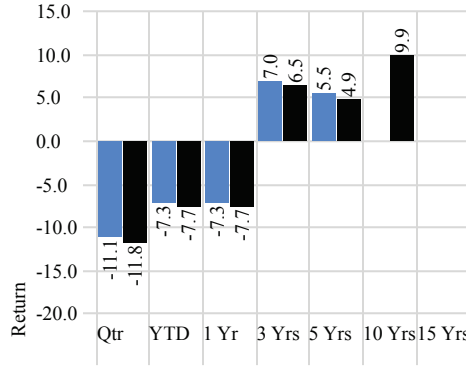
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	22.7	22.5	31.7	Market Cap Giant %	42.2
Mid	5.6	5.8	6.9	Market Cap Large %	34.1
Small	1.4	1.6	1.9	Market Cap Mid %	18.5
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	18.69	-14.00
T. Rowe Price U.S. Value Equity T-Z	18.16	-10.29
T. Rowe Price International Core Eq Tr-Z	8.15	-13.37
T. Rowe Price International Val Eq Tr-Z	7.84	-13.73
T. Rowe Price International Gr Eq Tr-Z	7.35	-11.99
T. Rowe Price Equity Index Tr-Z	6.35	-13.52
T. Rowe Price Bond Tr I	5.56	1.17
T. Rowe Price Emerging Markets Eq Tr-Z	4.62	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	3.83	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	3.58	-14.32
T. Rowe Price New Horizons Tr-Z	2.45	-16.98
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	2.34	4.29
T. Rowe Price U.S. SC Core Eq Tr-Z	2.30	-16.06
T. Rowe Price U.S. SC Value Eq Tr-Z	2.22	-18.78
T. Rowe Price Real Assets Tr I-Z	1.93	-10.12
T. Rowe Price International Bond Tr-Z	1.67	1.88
T. Rowe Price Dynamic Global Bond Tr-Z	1.21	1.41
T. Rowe Price Emerging Markets Bd Tr-Z	0.79	-1.95
Stif (Short Term Investment Funds)	0.46	—
T. Rowe Price Floating Rate Tr-Z	0.31	-3.01

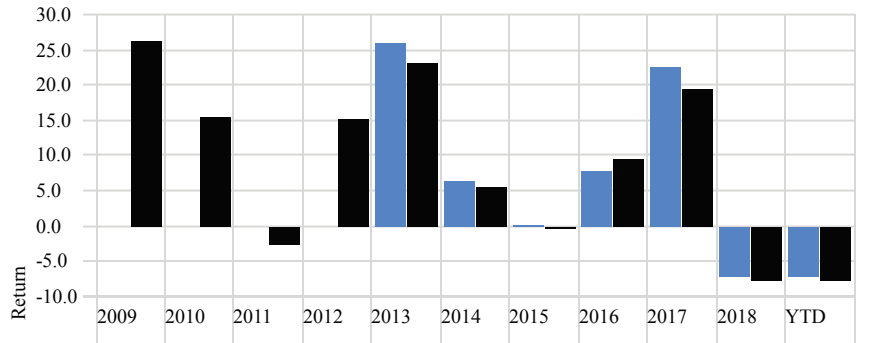
**Annualized Returns**



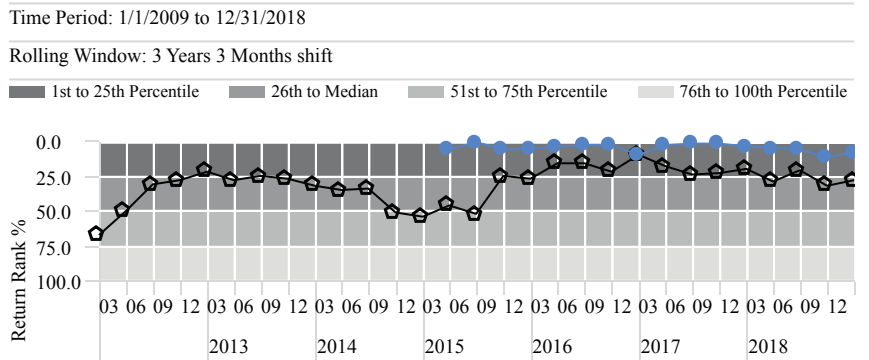
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.41	0.50	—
Beta	1.02	1.03	—
R-squared	96.31	96.91	—
Tracking Error	1.86	1.72	—
Information Ratio	0.27	0.34	—
Excess Return	0.53	0.62	—
Standard Deviation	9.55	9.65	—
Sharpe Ratio	0.64	0.53	—
Sortino Ratio	0.89	0.79	—

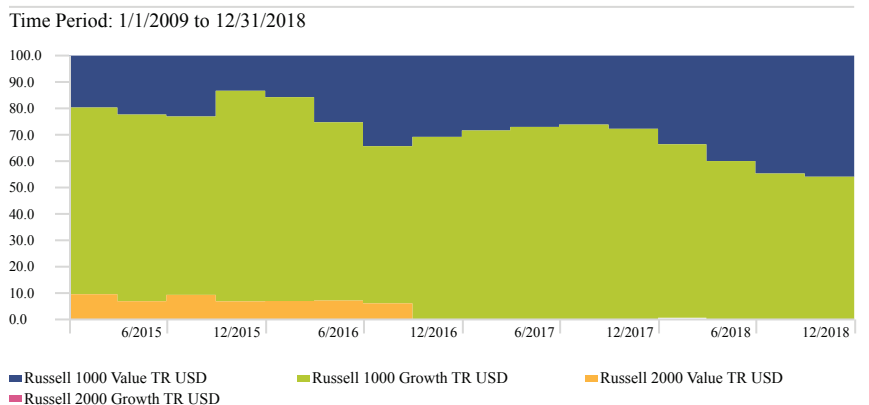
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement 2045 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>6%</b>	<b>12%</b>	<b>8%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>102.1%</b>	<b>96.9%</b>	<b>98.8%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	FAIL	PASS	PASS	<b>2 of 3</b>	<b>PASS</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>0.8%</b>	<b>0.7%</b>	<b>-1.6%</b>	<b>3.0%</b>	<b>0.5%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	PASS	<b>4 of 5</b>
<b>Qualitative Issues</b>						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>96.26%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2005 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2045 Funds

**Passive Target:** S&P Target Date 2045 Index

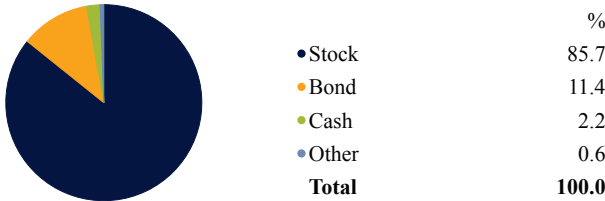
**Operations**

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.22	15.83
Average Market Cap (mil)	37,998.67	30,508.85
# of Holdings	21	8
Turnover Ratio %	10.80	—
% Asset in Top 10 Holdings	84.05	100.00
US Equity %	54.25	56.96
Non-US Equity %	31.43	32.85
Emerging Market Equity %	6.18	5.03

**Asset Allocation**



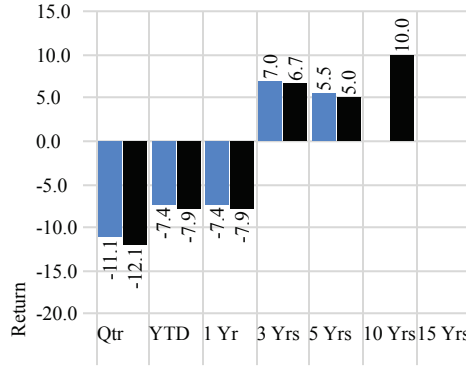
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	22.7	22.4	31.7	Market Cap Giant %	42.1
Mid	5.6	5.8	7.0	Market Cap Large %	34.1
Small	1.4	1.6	1.9	Market Cap Mid %	18.6
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	18.63	-14.00
T. Rowe Price U.S. Value Equity T-Z	18.06	-10.29
T. Rowe Price International Core Eq Tr-Z	8.17	-13.37
T. Rowe Price International Val Eq Tr-Z	7.87	-13.73
T. Rowe Price International Gr Eq Tr-Z	7.37	-11.99
T. Rowe Price Equity Index Tr-Z	6.30	-13.52
T. Rowe Price Bond Tr I	5.57	1.17
T. Rowe Price Emerging Markets Eq Tr-Z	4.63	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	3.88	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	3.57	-14.32
T. Rowe Price New Horizons Tr-Z	2.48	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	2.37	-16.06
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	2.35	4.29
T. Rowe Price U.S. SC Value Eq Tr-Z	2.22	-18.78
T. Rowe Price Real Assets Tr I-Z	1.96	-10.12
T. Rowe Price International Bond Tr-Z	1.67	1.88
T. Rowe Price Dynamic Global Bond Tr-Z	1.25	1.41
T. Rowe Price Emerging Markets Bd Tr-Z	0.80	-1.95
Stif (Short Term Investment Funds)	0.35	—
T. Rowe Price Floating Rate Tr-Z	0.31	-3.01

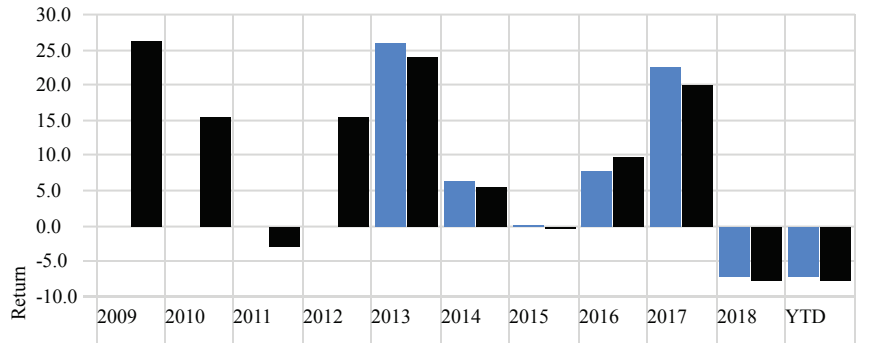
**Annualized Returns**



**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.34	0.48	—
Beta	1.00	1.00	—
R-squared	96.45	96.96	—
Tracking Error	1.82	1.69	—
Information Ratio	0.16	0.27	—
Excess Return	0.32	0.48	—
Standard Deviation	9.59	9.68	—
Sharpe Ratio	0.64	0.53	—
Sortino Ratio	0.88	0.78	—

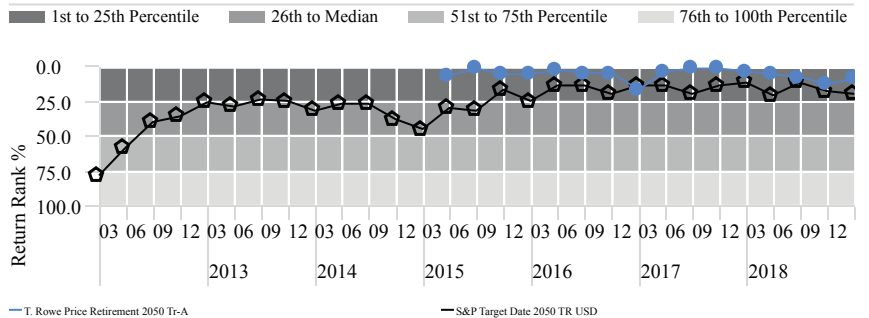
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**

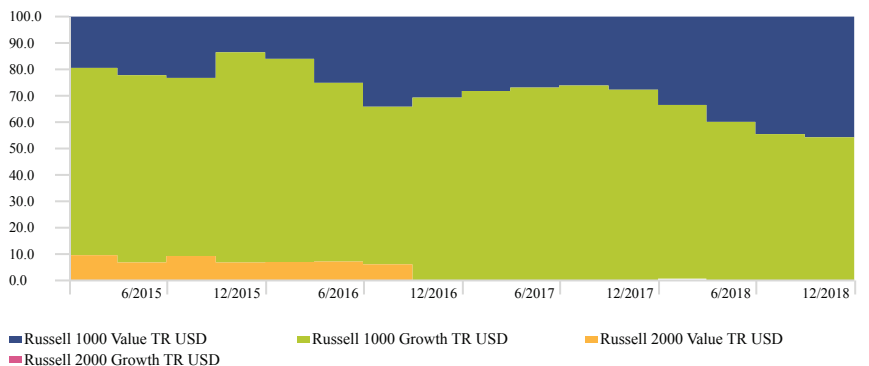
Time Period: 1/1/2009 to 12/31/2018

Rolling Window: 3 Years 3 Months shift



**Historical Returns-Based Style Analysis**

Time Period: 1/1/2009 to 12/31/2018



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# T. Rowe Price Retirement 2050 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>8%</b>	<b>13%</b>	<b>9%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>98.8%</b>	<b>93.8%</b>	<b>96.5%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>0.7%</b>	<b>0.7%</b>	<b>-1.8%</b>	<b>2.4%</b>	<b>0.6%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	PASS	<b>4 of 5</b>
<b>Qualitative Issues</b>						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>96.40%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2006 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2050 Funds

**Passive Target:** S&P Target Date 2050 Index

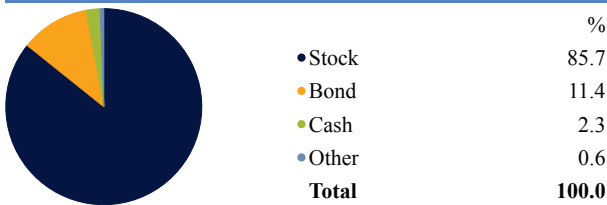
Operations

Inception Date	1/13/2012
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

Fund Characteristics

	Fund	Benchmark
P/E Ratio (TTM)	15.22	15.82
Average Market Cap (mil)	37,969.10	30,382.39
# of Holdings	21	8
Turnover Ratio %	11.50	—
% Asset in Top 10 Holdings	84.02	100.00
US Equity %	54.24	57.02
Non-US Equity %	31.43	33.08
Emerging Market Equity %	6.18	5.13

Asset Allocation



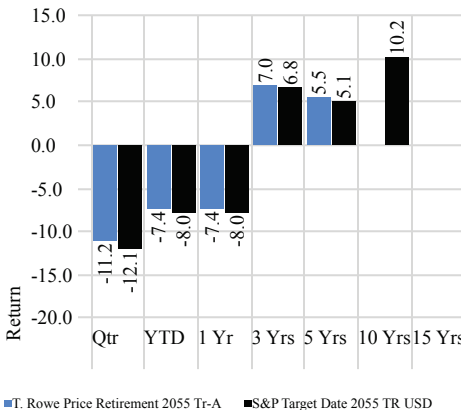
Equity Style Exposures

	Value	Blend	Growth	Market Cap	%
Large	22.7	22.4	31.6	Market Cap Giant %	42.1
Mid	5.6	5.8	7.0	Market Cap Large %	34.1
Small	1.4	1.6	1.9	Market Cap Mid %	18.6
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

Top 20 Holdings

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	18.63	-14.00
T. Rowe Price U.S. Value Equity T-Z	18.05	-10.29
T. Rowe Price International Core Eq Tr-Z	8.18	-13.37
T. Rowe Price International Val Eq Tr-Z	7.87	-13.73
T. Rowe Price International Gr Eq Tr-Z	7.37	-11.99
T. Rowe Price Equity Index Tr-Z	6.30	-13.52
T. Rowe Price Bond Tr I	5.55	1.17
T. Rowe Price Emerging Markets Eq Tr-Z	4.63	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	3.88	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	3.57	-14.32
T. Rowe Price New Horizons Tr-Z	2.48	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	2.38	-16.06
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	2.33	4.29
T. Rowe Price U.S. SC Value Eq Tr-Z	2.22	-18.78
T. Rowe Price Real Assets Tr I-Z	1.96	-10.12
T. Rowe Price International Bond Tr-Z	1.69	1.88
T. Rowe Price Dynamic Global Bond Tr-Z	1.23	1.41
T. Rowe Price Emerging Markets Bd Tr-Z	0.80	-1.95
Stif (Short Term Investment Funds)	0.38	—
T. Rowe Price Floating Rate Tr-Z	0.33	-3.01

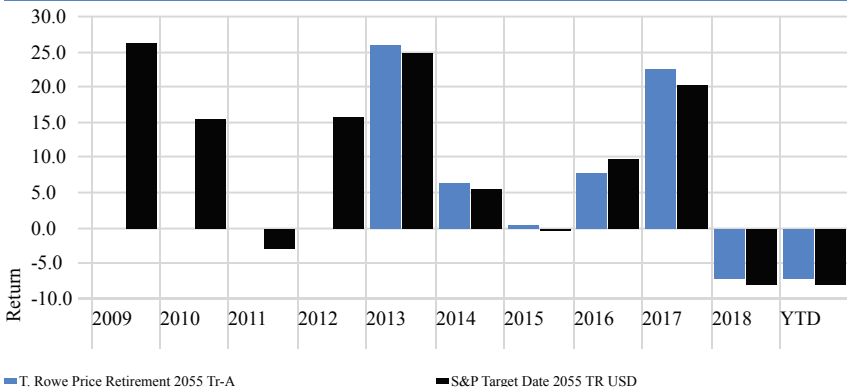
Annualized Returns



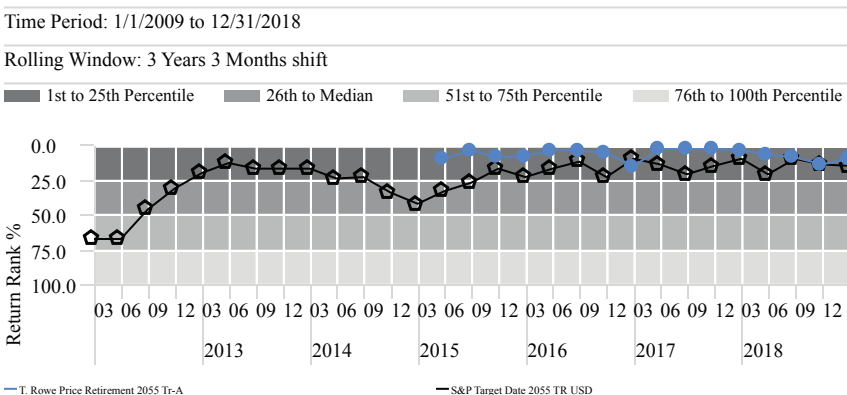
Risk/Return Statistics

	3 years	5 years	10 years
Alpha	0.28	0.50	—
Beta	0.98	0.98	—
R-squared	96.63	97.01	—
Tracking Error	1.78	1.69	—
Information Ratio	0.10	0.25	—
Excess Return	0.19	0.44	—
Standard Deviation	9.58	9.69	—
Sharpe Ratio	0.64	0.53	—
Sortino Ratio	0.89	0.78	—

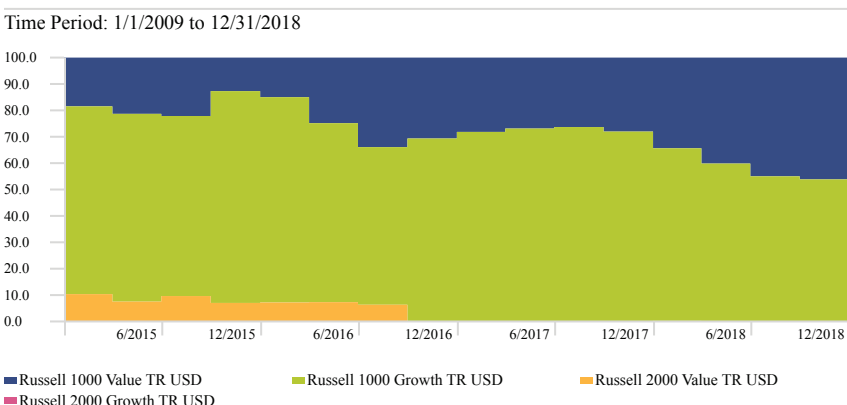
Calendar Year Returns



Rolling 3 Year Return Morningstar Peer Group Rankings



Historical Returns-Based Style Analysis



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018



# T. Rowe Price Retirement 2055 Tr A

Fund Type: Target Retirement

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade		
<b>Trailing 36-Months vs. Peer Group:</b>	<b>13%</b>	<b>18%</b>	<b>12%</b>			
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Downside Risk	Jun 2018	Sep 2018	Dec 2018			
<b>Trailing 36-Months vs. Passive Target:</b>	<b>97.3%</b>	<b>92.3%</b>	<b>95.7%</b>			
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>	
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	
<b>Trailing 12-Months vs. Passive Target:</b>	<b>0.7%</b>	<b>0.9%</b>	<b>-2.1%</b>	<b>2.2%</b>	<b>0.6%</b>	
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	PASS	<b>4 of 5</b>
<b>Qualitative Issues</b>						
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>96.59%</b>					<b>PASS</b>
<b>Investment Firm:</b>	T. Rowe Price					<b>PASS</b>
<b>Investment Personnel:</b>	Jerome Clark, since 2006 Wyatt Lee, since 2015					<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Mixed-Asset Target 2055+ Funds

**Passive Target:** S&P Target Date 2055 Index

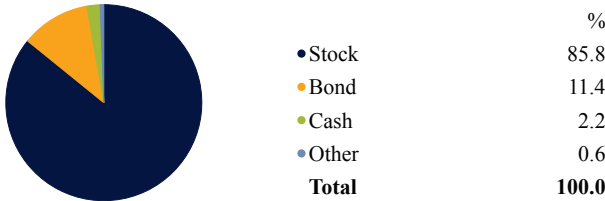
**Operations**

Inception Date	12/30/2014
Total Net Assets (\$)	—
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.22	15.87
Average Market Cap (mil)	37,979.82	31,220.04
# of Holdings	21	8
Turnover Ratio %	31.40	—
% Asset in Top 10 Holdings	84.10	100.00
US Equity %	54.29	58.17
Non-US Equity %	31.47	32.72
Emerging Market Equity %	6.19	4.89

**Asset Allocation**



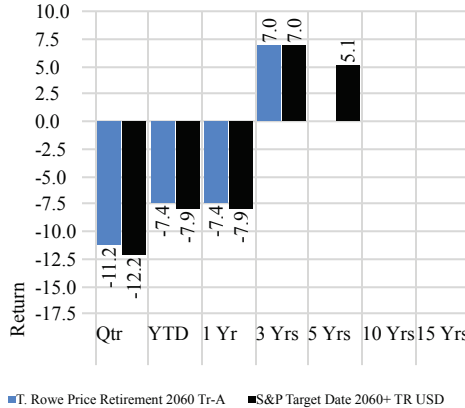
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	22.7	22.5	31.6	Market Cap Giant %	42.1
Mid	5.6	5.8	6.9	Market Cap Large %	34.1
Small	1.4	1.6	1.9	Market Cap Mid %	18.6
				Market Cap Small %	4.6
				Market Cap Micro %	0.6

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	18.61	-14.00
T. Rowe Price U.S. Value Equity T-Z	18.07	-10.29
T. Rowe Price International Core Eq Tr-Z	8.19	-13.37
T. Rowe Price International Val Eq Tr-Z	7.88	-13.73
T. Rowe Price International Gr Eq Tr-Z	7.37	-11.99
T. Rowe Price Equity Index Tr-Z	6.33	-13.52
T. Rowe Price Bond Tr I	5.53	1.17
T. Rowe Price Emerging Markets Eq Tr-Z	4.65	-6.57
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	3.88	-12.95
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	3.59	-14.32
T. Rowe Price New Horizons Tr-Z	2.47	-16.98
T. Rowe Price U.S. SC Core Eq Tr-Z	2.36	-16.06
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	2.34	4.29
T. Rowe Price U.S. SC Value Eq Tr-Z	2.23	-18.78
T. Rowe Price Real Assets Tr I-Z	1.96	-10.12
T. Rowe Price International Bond Tr-Z	1.68	1.88
T. Rowe Price Dynamic Global Bond Tr-Z	1.23	1.41
T. Rowe Price Emerging Markets Bd Tr-Z	0.80	-1.95
T. Rowe Price Floating Rate Tr-Z	0.34	-3.01
Stif (Short Term Investment Funds)	0.29	—

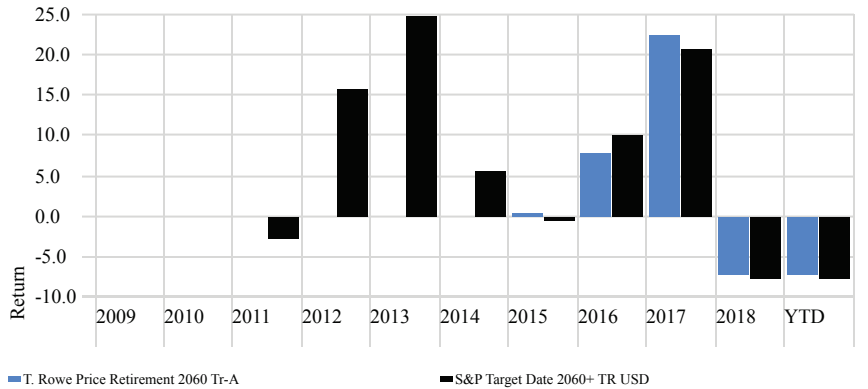
**Annualized Returns**



**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	0.21	—	—
Beta	0.97	—	—
R-squared	96.53	—	—
Tracking Error	1.82	—	—
Information Ratio	0.02	—	—
Excess Return	0.05	—	—
Standard Deviation	9.59	—	—
Sharpe Ratio	0.64	—	—
Sortino Ratio	0.88	—	—

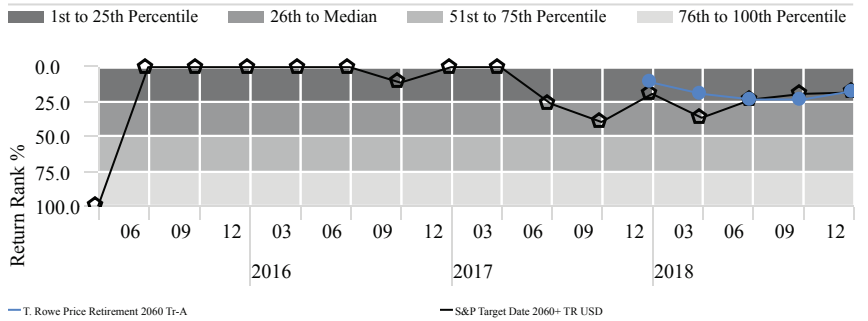
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**

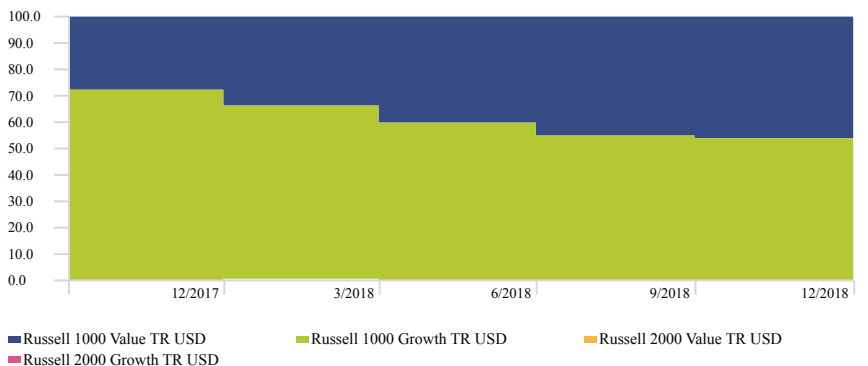
Time Period: 4/1/2012 to 12/31/2018

Rolling Window: 3 Years 3 Months shift



**Historical Returns-Based Style Analysis**

Time Period: 1/1/2009 to 12/31/2018



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

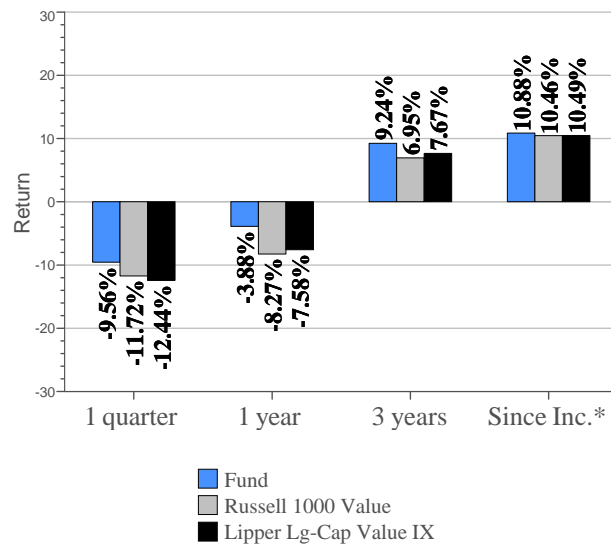
# FMI Large-Cap

Fund Type: Large Value

## Fund Performance:

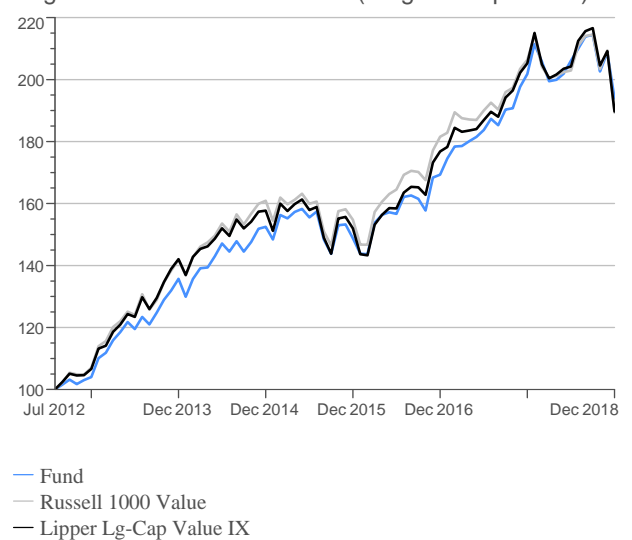
### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your large-cap value fund, the FMI Large-Cap Fund, declined 9.56% in the fourth quarter but in doing so outperformed its benchmarks. In our opinion, shareholders have been the beneficiaries of a consistently applied process bringing portfolio concentration and diversification together for a compelling risk/reward profile. Portfolio concentration (about 30 stocks) is favored by management as they contend that investors can achieve the most beneficial risk/reward profile in large-caps by focusing on best ideas and diversifying among industries, especially since this is an area of the market that is already efficiently priced. The focused nature of the Fund is one hallmark here, but so is management's dire outlook on the markets, no matter the macroeconomic environment or performance of stocks. Even in the midst of the market rebound in 2009, management thought that the sharp upward moves in the S&P 500 from March 2009 to September 2009 were "disconnected from fundamentals" and today, they hold the same views whether markets swing one way or another. In our view, the skeptical approach serves as an excellent risk management tool for their fundamental company analysis and certainly came in handy this year. For instance, markets were down in 2018 but this Fund managed to protect capital far better than the passive benchmark and versus the average Lipper peer by declining -3.88% vs. -8.27% and -7.58% respectively. Relative to the passive benchmark, the Fund's stock selection results in the Consumer Discretionary (+9.59% vs. -15.23%) and Financials (+2.36% vs. -13.94%) sectors explained the bulk of the outperformance for the year. Stocks like TJ Companies (+18.95%) and Dollar General (+17.55%) offset losses in other areas like Energy and Industrials. In summing-up, we have been following this team for over two decades and during that time we've witnessed the investment strategy withstand numerous market environments. Based on the Fund's successful long-term track record, passing 7 out of 7 of our Watch List criteria, and having a rolling 3-year peer group ranking in the first decile, we have no problem issuing a very favorable opinion for this product.

### Management & Expenses

Pat English (since 2000) and a team of co-managers (see Watch List for details). The Fund's expense ratio is 0.80% which is much higher than our institutional average in this category at 0.51%. FMI launched (at the end of 2016), an institutional share class for this offering priced at 0.66%. Under the current arrangement, however, the existing share class pays 0.40% of revenue sharing which is rebated back to participants, bringing the net cost to shareholders to 0.40%. Given that the net arrangement is better for participants, the Committee decided to maintain the Plan's allocation to the existing share class.

### Performance Commentary

Strong stock selection helped the Fund outperform its benchmark during the quarter, particularly within the Financials (-6.7% vs. -13.4%) and Consumer Discretionary (-8.0% vs. -12.8%) sectors. Several top individual contributors included Dollar Tree (+10.8%), Omnicom Group (+8.6%), and Twenty-First Century Fox (+4.3%).

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper, Morningstar, Inc.

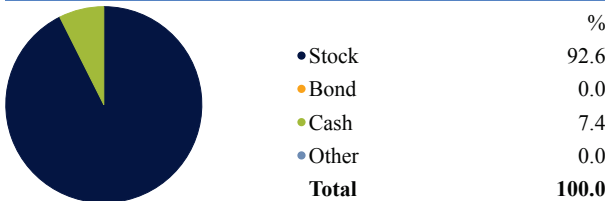
**Operations**

Inception Date	12/31/2001
Total Net Assets (\$)	5,005,606,595
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	19.29	13.44
Average Market Cap (mil)	63,425.66	56,844.52
# of Holdings	34	725
Turnover Ratio %	25.00	—
% Asset in Top 10 Holdings	42.42	22.08
US Equity %	78.40	98.70
Non-US Equity %	14.19	1.30
Emerging Market Equity %	0.00	0.42

**Asset Allocation**



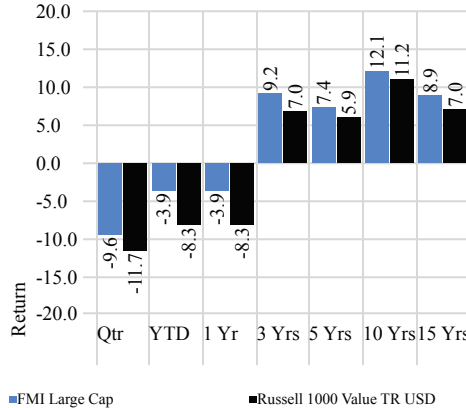
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	22.3	38.3	27.0	Market Cap Giant %	39.0
Mid	7.3	5.0	0.0	Market Cap Large %	48.7
Small	0.0	0.0	0.0	Market Cap Mid %	12.4
				Market Cap Small %	0.0
				Market Cap Micro %	0.0

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
Berkshire Hathaway Inc B	BRK.B	5.20 -4.64
Dollar General Corp	DG	4.93 -0.85
UnitedHealth Group Inc	UNH	4.73 -6.02
Honeywell International Inc	HON	4.70 -17.12
TJX Companies Inc	TJX	4.33 -19.77
Twenty-First Century Fox Inc Class B	FOX	4.14 4.28
JPMorgan Chase & Co	JPM	4.03 -12.78
Accenture PLC A	ACN	3.59 -16.29
Quest Diagnostics Inc	DGX	3.39 -22.37
Nutrien Ltd	NTR	3.38 -17.89
eBay Inc	EBAY	3.27 -14.99
Stanley Black & Decker Inc	SWK	3.03 -17.78
Nestle SA ADR	NSRGY	3.03 -2.69
Cerner Corp	CERN	3.01 -18.58
Unilever PLC ADR	UL	2.82 -4.13
Bank of New York Mellon Corp	BK	2.82 -7.14
Oracle Corp	ORCL	2.75 -12.06
Expeditors International of Washington Inc	EXPD	2.75 -6.79
CenturyLink Inc	CTL	2.71 -25.99
PepsiCo Inc	PEP	2.70 -0.35

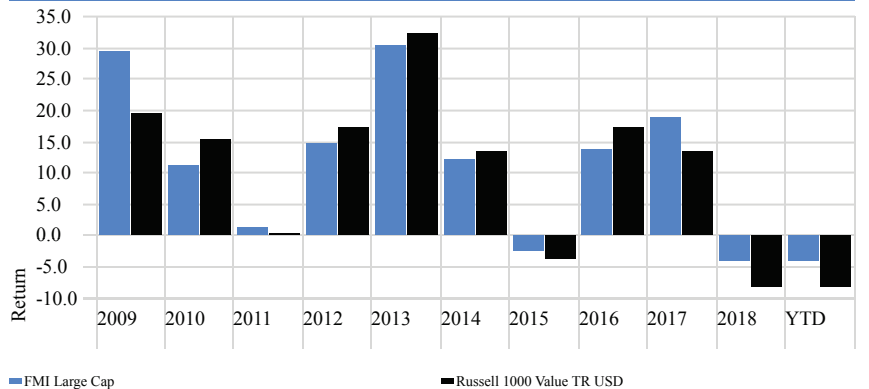
**Annualized Returns**



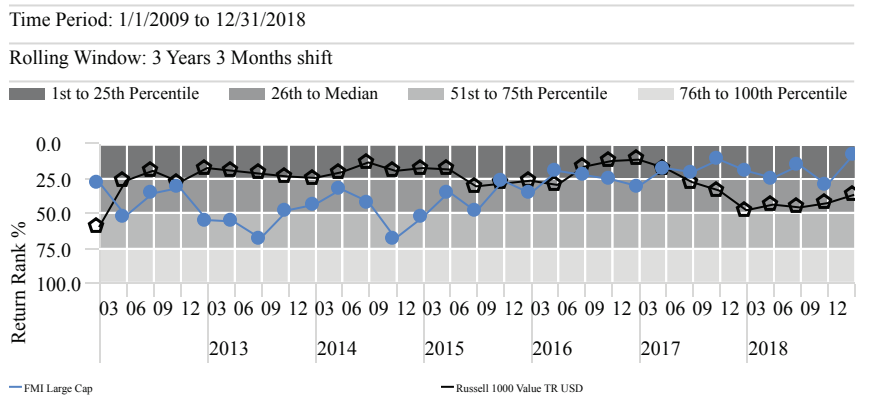
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	2.92	1.90	2.23
Beta	0.86	0.89	0.86
R-squared	87.32	90.35	91.77
Tracking Error	3.94	3.38	4.26
Information Ratio	0.54	0.41	0.20
Excess Return	2.29	1.45	0.95
Standard Deviation	10.06	10.22	12.99
Sharpe Ratio	0.82	0.68	0.92
Sortino Ratio	1.29	1.08	1.53

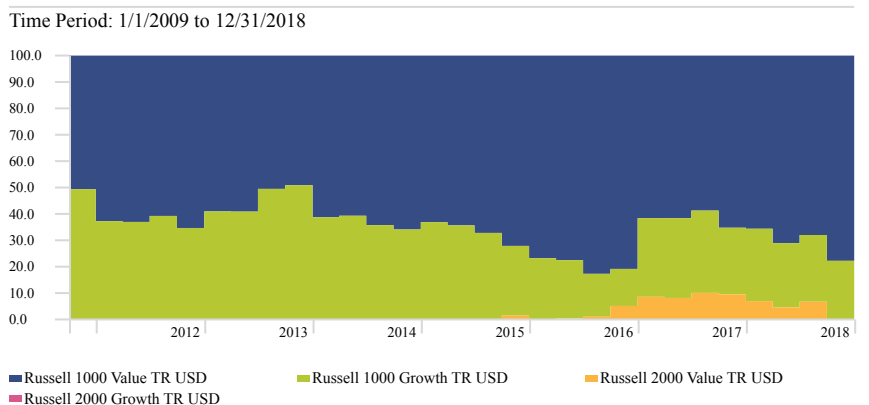
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



**Return Date: 12/31/2018**  
**Portfolio Date: 9/30/2018**

# FMI Large Cap

Fund Type: Large Value

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade	
<b>Trailing 36-Months vs. Peer Group:</b>	<b>13%</b>	<b>32%</b>	<b>7%</b>		
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>
Downside Risk	Jun 2018	Sep 2018	Dec 2018		
<b>Trailing 36-Months vs. Passive Target:</b>	<b>87.7%</b>	<b>81.6%</b>	<b>80.9%</b>		
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-1.1%</b>	<b>1.4%</b>	<b>-3.5%</b>	<b>5.5%</b>	<b>4.4%</b>
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	PASS	FAIL	PASS	PASS
					<b>3 of 5</b>
					<b>PASS</b>
Qualitative Issues					
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>87.17%</b>				<b>PASS</b>
<b>Investment Firm:</b>	Fiduciary Management, Inc. of Milwaukee				<b>PASS</b>
<b>Investment Personnel:</b>	Pat English, since 2001 John Brandser, since 2009 Matthew Goetzinger, since 2009 Robert Helf, since 2009 Andy Ramer, since 2009 Daniel Sievers, since 2010 Jonathan Bloom, since 2011 Matthew Sullivan, since 2014 Jordan Teschendorf, since 2016 Benjamin Karek, since 2018				<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Large-Cap Value Funds

**Passive Target:** Russell 1000 Value

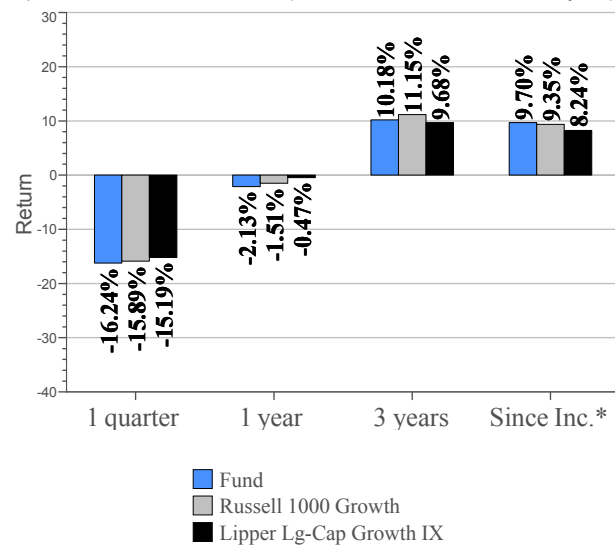
# Fidelity Contrafund

Fund Type: Large Growth

## Fund Performance:

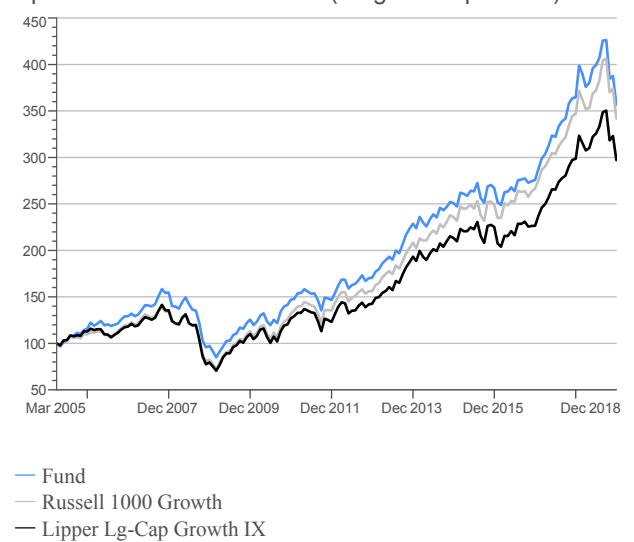
### Manager vs Benchmark: Return

April 2005 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

April 2005 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your large-cap growth fund, the Fidelity Contrafund, lost 16.24% during a tumultuous quarter for U.S. equities, underperforming its benchmarks. In his years as an investor, lead-PM Will Danoff has hung his hat on one simple premise – stocks follow earnings. Find companies with the ability to consistently grow earnings and you’ll find stock prices that grow alongside of them. The key factor in Danoff’s simplistic mantra is consistency of earnings growth. Most companies can drive earnings growth over short stretches; however, in Danoff’s opinion only a shrewd management team can keep earnings growth alive over the long-term. To this end, Danoff has met with the company management for every stock he owns. In addition to a motivated management team, Danoff’s top holdings tend to boast high returns on capital and strong free cash flow generation. Contrafund typically has a higher aggregate earnings growth rate (+15.62%) than either the Russell 1000 Growth Index (+9.93%) or S&P 500 (+9.41%) and Danoff tends to be more patient with his winners than his large-cap growth peers, allowing stocks to compound earnings growth over time. This is easily evident when looking at the Fund’s top-20 holdings, 19 of which have been in the portfolio for at least 5-years. The Fund’s active share (54.08%) has slipped as assets have ballooned (\$108B as of 11/30/18), with former small- and mid-cap positions being substituted for larger concentration in Danoff’s top ideas (40.55% of assets in top-10 holdings). That said, the Fund still looks different than the Russell 1000 Growth Index in several ways. The most meaningful divergence in the portfolio right now is an overweight to financials (15.07% vs. 4.33%), with out-of-benchmark positions in JPMorgan, Bank of America, Citigroup, and Wells Fargo. While these large U.S. banks are not in the Russell 1000 Growth Index, they are in the S&P 500, the Fund’s primary prospectus benchmark. Although 2018’s results were lackluster, we continue to believe in Will Danoff and his ability to add value over the long-term. Even when including 2018’s underperformance, the Fund ranks just outside the top third of its peer group on a 3-year basis, passing 5 of our 7 Watch List criteria.

### Management & Expenses

Will Danoff (Since 1990). At 0.74%, the Fund's expense ratio is higher than the average expense ratio of 0.64% for active large-cap growth funds used by Francis Investment Counsel clients. The Plan does qualify for the cheaper K6 share class (0.45%) of the mutual fund, but the Committee has opted to remain in the retail share class of this Fund, given that it is cheaper net of its 0.35% in revenue credit.

### Performance Commentary

Both stock selection and sector allocation put a drag on relative results for the quarter. For example, stock selection results lagged within the Communication Services (-21.9% vs. -17.3%) and Consumer Discretionary (-20.4% vs. -17.1%) sectors. As for sector allocation, an overweight to the worst performing sector, Energy (-30.9%), proved detrimental. Individually, Amazon (-25.0%), Facebook (-20.3%), and Activision Blizzard (-44.0%) were the biggest detractors.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 165 months beginning 4/1/05 (inception date provided by JD Young at Fidelity). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper, Morningstar, Inc.

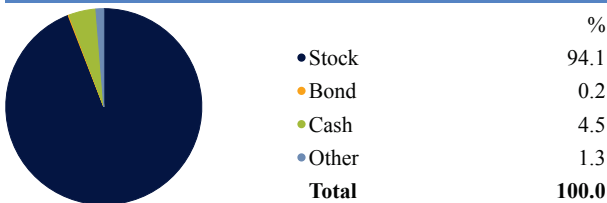
**Operations**

Inception Date	5/17/1967
Total Net Assets (\$)	108,262,835,390
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	23.91	22.41
Average Market Cap (mil)	136,800.30	93,287.60
# of Holdings	318	546
Turnover Ratio %	34.00	—
% Asset in Top 10 Holdings	40.55	33.47
US Equity %	89.35	99.41
Non-US Equity %	4.74	0.59
Emerging Market Equity %	1.06	0.07

**Asset Allocation**



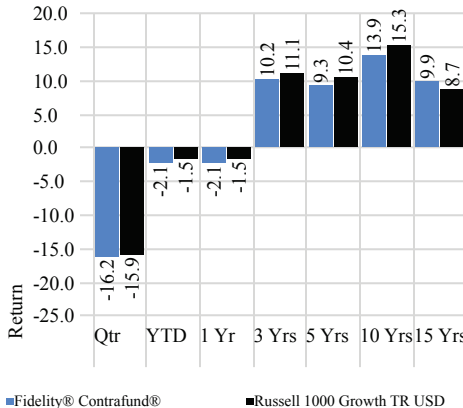
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	10.9	12.7	69.0	Market Cap Giant %	68.3
Mid	0.6	0.9	5.4	Market Cap Large %	22.8
Small	0.0	0.3	0.3	Market Cap Mid %	8.1
				Market Cap Small %	0.8
				Market Cap Micro %	0.0

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
Amazon.com Inc	AMZN 6.86	-25.01
Berkshire Hathaway Inc A	BRK.A 5.58	-4.38
Facebook Inc A	FB 5.38	-20.29
Fidelity Revere Str Tr	— 4.46	—
Microsoft Corp	MSFT 4.24	-11.19
UnitedHealth Group Inc	UNH 3.83	-6.02
Salesforce.com Inc	CRM 3.19	-13.87
Visa Inc Class A	V 3.14	-11.93
Alphabet Inc A	GOOGL 3.03	-13.43
Alphabet Inc Class C	GOOG 2.71	-13.23
Adobe Inc	ADBE 2.58	-16.19
Netflix Inc	NFLX 2.22	-28.46
Apple Inc	AAPL 2.22	-29.80
JPMorgan Chase & Co	JPM 1.99	-12.78
Mastercard Inc A	MA 1.92	-15.14
PayPal Holdings Inc	PYPL 1.81	-4.27
Bank of America Corporation	BAC 1.80	-15.85
Citigroup Inc	C 1.73	-26.81
Amphenol Corp Class A	APH 1.66	-13.58
Activision Blizzard Inc	ATVI 1.14	-44.02

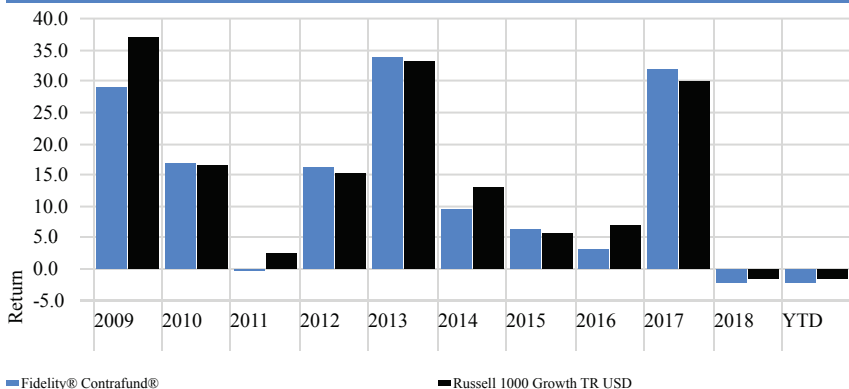
**Annualized Returns**



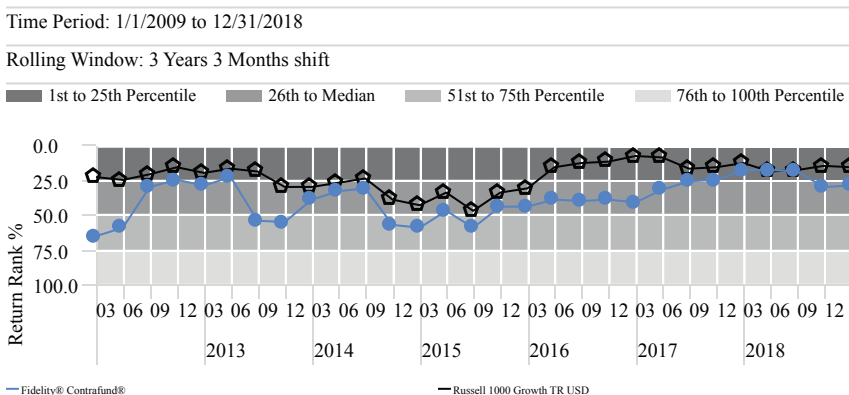
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	-0.86	-0.68	-0.19
Beta	1.00	0.97	0.92
R-squared	94.54	93.98	94.84
Tracking Error	2.97	2.96	3.14
Information Ratio	-0.29	-0.34	-0.39
Excess Return	-0.97	-1.10	-1.40
Standard Deviation	12.68	11.92	12.99
Sharpe Ratio	0.74	0.75	1.04
Sortino Ratio	1.09	1.18	1.76

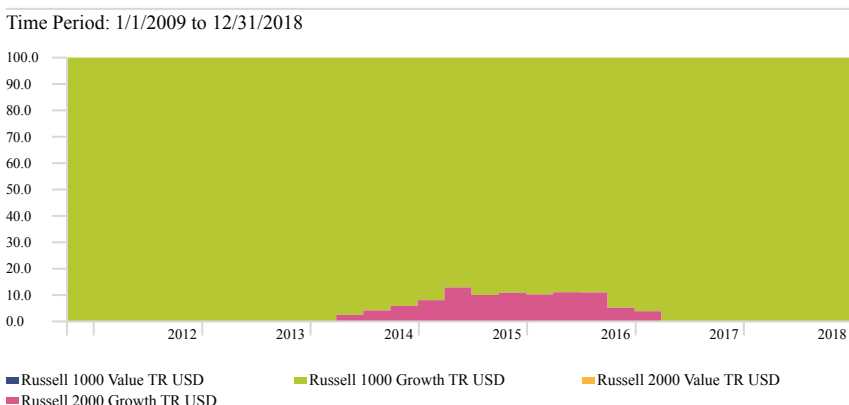
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



**Return Date: 12/31/2018**  
**Portfolio Date: 11/30/2018**

# Fidelity Contrafund

Fund Type: Large Growth

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade			
<b>Trailing 36-Months vs. Peer Group:</b>	<b>24%</b>	<b>35%</b>	<b>34%</b>				
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Downside Risk	Jun 2018	Sep 2018	Dec 2018				
<b>Trailing 36-Months vs. Passive Target:</b>	<b>99.0%</b>	<b>101.3%</b>	<b>101.1%</b>				
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	FAIL	FAIL	<b>1 of 3</b>	<b>FAIL</b>		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018		
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-3.5%</b>	<b>0.8%</b>	<b>-3.7%</b>	<b>2.0%</b>	<b>-0.6%</b>		
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	PASS	FAIL	PASS	FAIL	<b>2 of 5</b>	<b>FAIL</b>
Qualitative Issues							
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>94.50%</b>						<b>PASS</b>
<b>Investment Firm:</b>	Fidelity Management & Research Company						<b>PASS</b>
<b>Investment Personnel:</b>	William Danoff, since 1990						<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Large-Cap Growth Funds

**Passive Target:** Russell 1000 Growth



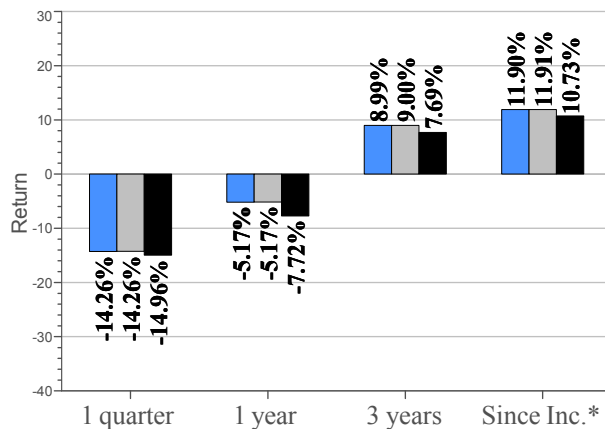
# Vanguard Total Stock Market Index Adm

Fund Type: Multi Blend Index

## Fund Performance:

### Manager vs Benchmark: Return

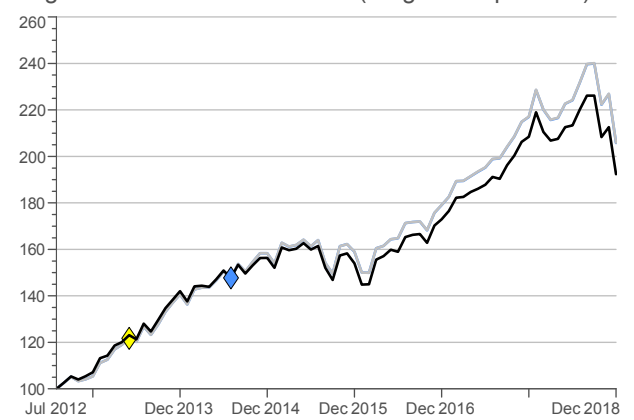
August 2012 - December 2018 (not annualized if less than 1 year)



■ Fund\*\*  
■ Passive Index\*\*\*  
■ Lipper Mlt-Cap Core IX

### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



— Fund\*\*  
— Passive Index\*\*\*  
— Lipper Mlt-Cap Core IX

## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your multi-cap blend fund, the Vanguard Total Stock Market Index Fund, lost 14.26% during the fourth quarter, performing in-line with its primary benchmark and outperforming its average actively-managed Lipper peer in a difficult environment for U.S. equities. The Fund's objective is to replicate the performance of the CRSP US Total Market Index, which contains exposure to mostly large-cap stocks, but some mid- (16%) and small-cap (11%) stocks as well. Vanguard's Quantitative Equity Group attempts to mimic the index by sampling several thousand holdings and optimizing the holdings to replicate performance. Since founding the first index mutual fund available to individual investors in 1976, Vanguard's Quantitative Equity Group has developed some sophisticated portfolio construction methodologies and efficient trading strategies to deliver returns that are highly correlated with the benchmark. We also note that the Fund's limited participation in securities lending and prudent practices with respect to the program (low volume, investing in high quality collateral) gives us confidence that management isn't taking on unnecessary risks to add value. All things considered, we continue to believe this Fund is a highly competitive option for passive exposure to U.S. equities.

### Tracking Error, Management, and Expenses

The Fund's tracking error is only 0.03% over the past 5-years and remains highly competitive for a multi-cap blend index fund. Gerard O'Reilly (1994) and Walter Nejman (2016) manage this offering. The Fund carries an expense ratio of 0.04%. The Plan does not currently qualify for the Institutional share class of the Fund (0.035%) which requires a minimum investment of \$5M.

### Index Fund Competitive Landscape

Effective August 1<sup>st</sup>, Fidelity Investments made sweeping changes to its index fund pricing structure, eliminating the tiered pricing model and offering all institutional investors access to fee points formerly available only to allocations of \$100M and above. The Plans could now utilize the Fidelity Total Market Index, which tracks the Dow Jones Total Stock Market Index, at a price of 0.015%. Given the recency of this pricing adjustment, we believe it is prudent to give Vanguard until April of 2019 (the timing of this Fund's prospectus restatement) to regain fee competitiveness with Fidelity before potentially making a change.

### Performance Commentary

Every one of the Index's sectors posted a negative return during the quarter, as the Index moved lower. Among the biggest falls included the Information Technology (-17.2%), Industrials (-18.1%), and Financials (-13.5%) sectors. Individually, Apple (-29.9%), Amazon (-25.0%), and Microsoft (-11.2%) were among the biggest detractors.

### Performance vs. Active Management

The Fund has held up exceptionally well relative to active managers in the Morningstar large-cap core category, ranking within the top quartile on a rolling 3-year basis. Please reference page 2 of this tab for a longer-term analysis of the Fund's performance relative to active management.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

\*\*Represents spliced performance of the Vanguard Total Stock Market Index Signal (8/12-7/14) and Vanguard Total Stock Market Index Adm (8/14-present).

\*\*\*Represents spliced performance for the MSCI US Broad Market Index (prior to 6/13) and the CRSP US Total Market Index (6/13-present).

◆ The primary benchmark for the Vanguard Total Stock Market Index Fund, the performance of which the Fund seeks to replicate, changed from the MSCI US Broad Market Index to the CRSP US Total Market Index on 6/3/13.

◆ Fund change from Vanguard Total Stock Market Index Signal to Vanguard Total Stock Market Index Adm on 8/15/14, expenses remained unchanged.

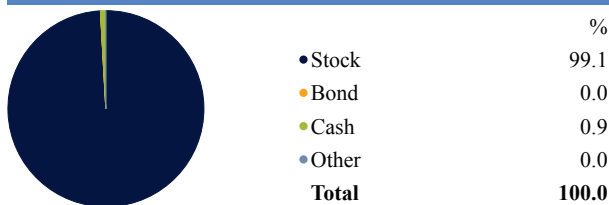
**Operations**

Inception Date	11/13/2000
Total Net Assets (\$)	671,889,951,059
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	16.69	16.65
Average Market Cap (mil)	55,108.73	54,371.01
# of Holdings	3,512	3,607
Turnover Ratio %	3.00	—
% Asset in Top 10 Holdings	17.29	16.91
US Equity %	98.03	99.12
Non-US Equity %	0.87	0.88
Emerging Market Equity %	0.10	0.10

**Asset Allocation**



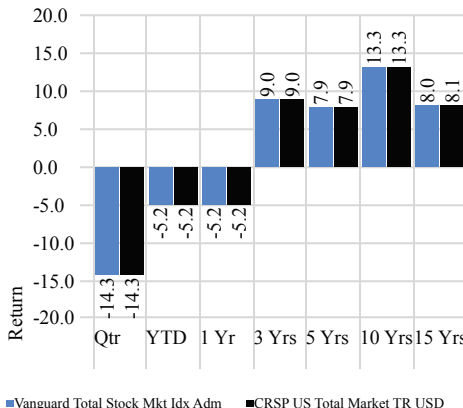
**Equity Style Exposures**

Market Cap	Value	Blend	Growth	%
Market Cap Giant	24.2	24.6	28.3	46.6
Market Cap Large	5.5	5.7	5.7	29.6
Market Cap Mid	1.9	2.1	2.0	17.4
Market Cap Small				5.6
Market Cap Micro				0.8

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
Microsoft Corp	MSFT 3.11	-11.19
Apple Inc	AAPL 2.67	-29.80
Amazon.com Inc	AMZN 2.47	-25.01
Berkshire Hathaway Inc B	BRK.B 1.53	-4.64
Johnson & Johnson	JNJ 1.37	-5.95
JPMorgan Chase & Co	JPM 1.29	-12.78
Facebook Inc A	FB 1.25	-20.29
Alphabet Inc A	GOOGL 1.24	-13.43
Alphabet Inc Class C	GOOG 1.22	-13.23
Exxon Mobil Corp	XOM 1.14	-18.83
Pfizer Inc	PFE 1.00	-0.18
UnitedHealth Group Inc	UNH 0.95	-6.02
Verizon Communications Inc	VZ 0.92	6.43
Visa Inc Class A	V 0.92	-11.93
Procter & Gamble Co	PG 0.91	11.30
Bank of America Corporation	BAC 0.86	-15.85
Intel Corp	INTC 0.85	-0.13
Cmt Market Liquidity Rate	— 0.84	—
Chevron Corp	CVX 0.82	-10.12
AT&T Inc	T 0.82	-13.52

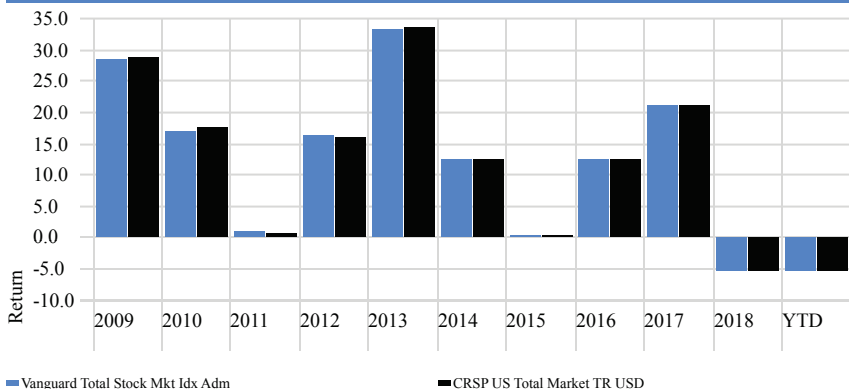
**Annualized Returns**



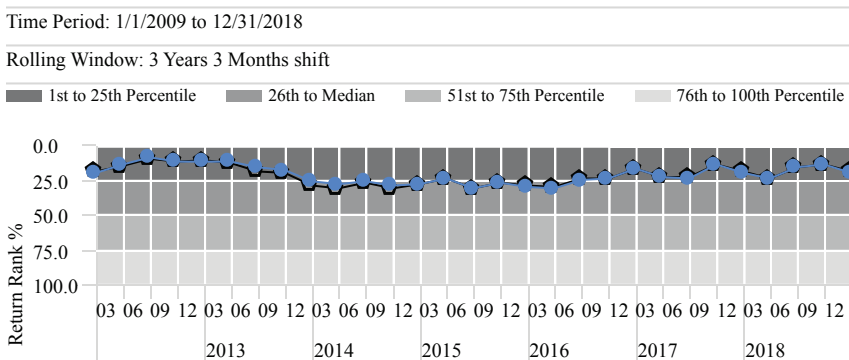
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	-0.01	-0.02	-0.07
Beta	1.00	1.00	1.00
R-squared	100.00	100.00	99.98
Tracking Error	0.03	0.03	0.18
Information Ratio	-0.38	-0.43	-0.11
Excess Return	-0.01	-0.01	-0.02
Standard Deviation	11.35	11.16	14.02
Sharpe Ratio	0.72	0.68	0.93
Sortino Ratio	0.99	1.01	1.50

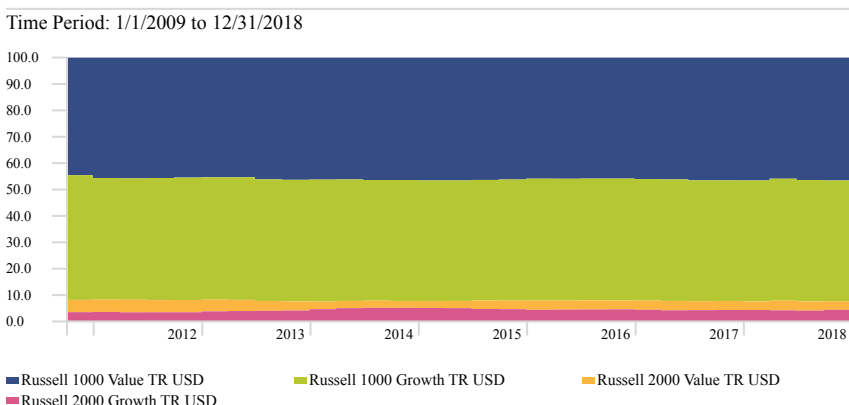
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



**Return Date: 12/31/2018**  
**Portfolio Date: 12/31/2018**

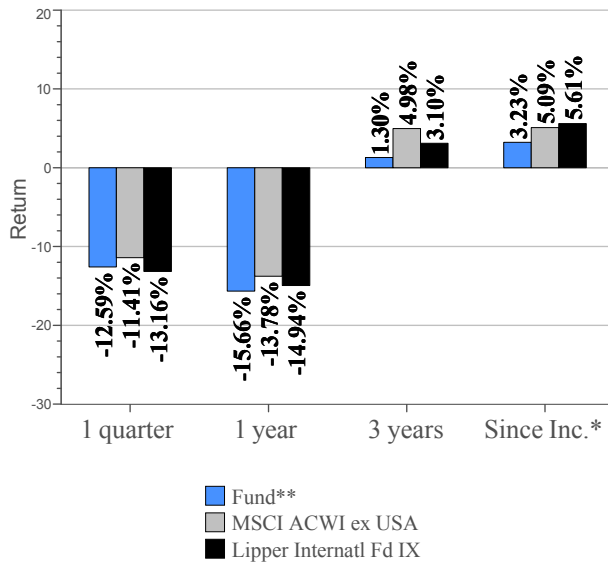
# American Funds Europacific Growth R6

Fund Type: International

## Fund Performance:

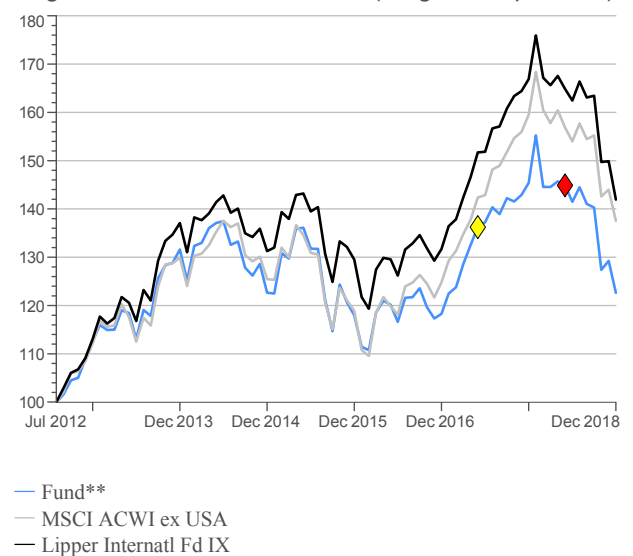
### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your international equity fund, the American Funds EuroPacific Growth Fund, lost 12.59% during a difficult fourth quarter for risk assets, underperforming its passive benchmark but outpacing its average Lipper peer. The Fund's outsized bet on emerging market equities (33.4% of assets) caused it to trail the MSCI ACWI ex USA index during 2018, although long-term results remain very competitive. As a fresher, EuroPacific Growth utilizes Capital Group's "Portfolio Counselor System," leveraging the talents of 9 of the organization's most experienced portfolio counselors, numerous global equity analysts, and vast technological resources to seek out opportunity across Europe and the Pacific Basin. Each of the Fund's 9 portfolio counselors brings a different background and investment style to the team and each is granted complete autonomy in running their sleeve of assets. In our opinion, the independence and accountability offered by Capital Group to portfolio counselors are among the organization's strongest tools. This was on full display during our September 2018 meeting with PM Lawrence Kymisis in Capital Group's London office. Kymisis is directly responsible for 7% of the Fund's assets (roughly \$10.3B), a 7% sleeve that looks meaningfully different from that of his cohorts. Kymisis' background is in small- and mid-cap companies, and he continues to serve in an analyst capacity for the firm covering the global gaming and business services industries. To this end, Kymisis' sleeve tends to lean smaller (\$30B average market cap vs. the overall Funds at \$38B) and 7 of his top 10 holdings are not shared by the team's eight remaining managers. He also noted that 47% of his less than 40-stock portfolio is not currently owned within the Fund's research portfolio. Take for example Kymisis' high conviction in U.K.-based sports gambling companies. Kymisis owns William Hill, Paddy Power Betfair, and GVC, each of which he believes could drive huge volume growth as sports gambling approaches legalization in the United States. These businesses have margins persistently above 30%, and with relative weakness in stock prices each looks ripe for a takeout as their online footprints grow. Kymisis is both highly intelligent and not afraid to position against market opinion, making him the perfect fit for the "Capital System." Alone, he runs a concentrated, high tracking error portfolio, but this risk is meaningfully watered down when positioned alongside eight managers with differing views. It is this balance of conviction and diversification that has made the Fund one of the most successful in this asset class over the years. Despite some near-term weakness, this strength shines through onto our Watch List, where the Fund passes each of our 7 criteria and ranks within the top 20% of its peer group. All things considered, we view this as one of the best options in the international equity category.

### Management & Expenses

An experienced team of portfolio counselors manages the Fund (see Watch List for details). The expense ratio for the R6 shares is currently 0.49%, which is very competitive versus an average of 0.69% for Francis Investment Counsel clients in this category.

### Performance Commentary

Stock selection results put a drag on fourth quarter performance, as the Fund underperformed its benchmark. In particular, stock picking was most challenged within the Communication Services sector (-18.4% vs. -8.1%) and regions Japan (-19.8% vs. -14.3%) and the UK (-17.7% vs. -12.4%). On a positive note, overweight allocations to Brazil and India was favorable. Individually, Nintendo (-19.8%), Airbus (-23.6%), and SoftBank (-34.1%) were the biggest detractors.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

\*\*Represents spliced performance for Harbor International Instl (8/12-5/17), Harbor International Retirement (6/17-5/18), and American Funds Europacific Growth R6 (6/18-present).

◆ Fund change from Harbor International Instl to Harbor International Retirement on 6/1/17 reducing expenses from 0.79% to 0.71%, a savings of 10%.

◆ Fund change from Harbor International Retirement Ret to American Funds Europacific Growth R6 on 6/1/18. Since 6/1/18, the Fund has returned -15.36% versus -12.34% for the MSCI ACWI ex USA and -13.91% for the Lipper Internatl Fd IX.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper

# American Funds Europacific Growth R6 RERGX

Benchmark: MSCI ACWI Ex USA GR USD  
Morningstar Category: US Fund Foreign Large Blend



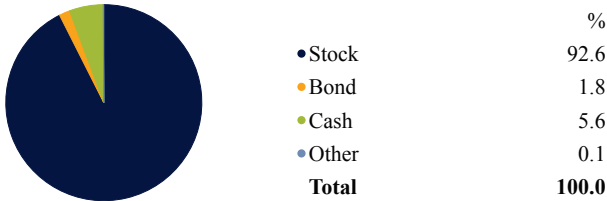
## Operations

Inception Date	5/1/2009
Total Net Assets (\$)	146,812,278,996
12b-1 Fee	—
Redemption Fee	—

## Fund Characteristics

	Fund	Benchmark
P/E Ratio (TTM)	12.40	12.13
Average Market Cap (mil)	37,546.03	30,571.68
# of Holdings	425	2,136
Turnover Ratio %	29.00	—
% Asset in Top 10 Holdings	19.55	9.70
US Equity %	2.06	0.79
Non-US Equity %	90.49	99.13
Emerging Market Equity %	25.57	18.94

## Asset Allocation



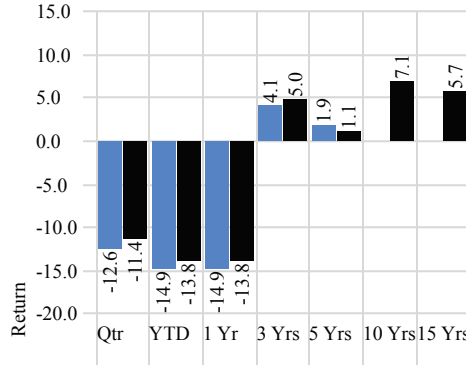
## Equity Style Exposures

	Value	Blend	Growth	Market Cap	%
Large	20.1	17.6	53.3	Market Cap Giant %	59.0
Mid	1.9	2.4	4.4	Market Cap Large %	31.5
Small	0.2	0.0	0.1	Market Cap Mid %	9.2
				Market Cap Small %	0.3
				Market Cap Micro %	0.0

## Top 20 Holdings

Ticker	Portfolio Weighting %	Qtr Return
AIA Group Ltd	01299	2.68 -7.06
HDFC Bank Ltd	HDFCBANK	2.44 9.82
Reliance Industries Ltd	RELIANCE	2.27 -7.45
Airbus SE	AIR	2.10 -23.61
Samsung Electronics Co Ltd	005930	1.93 -17.17
Nintendo Co Ltd	7974	1.91 -26.87
Alibaba Group Holding Ltd ADR	BABA	1.66 -16.81
Tencent Holdings Ltd	00700	1.64 -2.90
Taiwan Semiconductor Manufacturing Co Ltd	2330	1.47 -14.67
ASML Holding NV	ASML	1.45 -16.10
Sony Corp	6758	1.29 -20.85
Kotak Mahindra Bank Ltd	KOTAKBANK	1.20 14.28
Vale SA ADR	VALE	1.06 -11.12
Galaxy Entertainment Group Ltd	00027	1.03 0.25
LVMH Moet Hennessy Louis Vuitton SE	MC	1.03 -15.93
British American Tobacco PLC	BATS	1.02 -29.23
Novartis AG	NOVN	1.00 -1.34
SK Hynix Inc	000660	0.99 -17.72
Prudential PLC	PRU	0.97 -22.18
Orsted A/S	ORSTED	0.96 -1.78

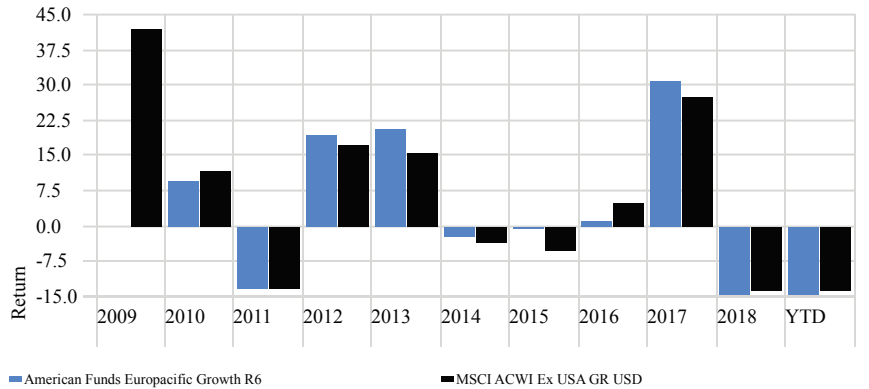
## Annualized Returns



## Risk/Return Statistics

	3 years	5 years	10 years
Alpha	-0.77	0.75	—
Beta	0.99	0.91	—
R-squared	92.22	90.26	—
Tracking Error	3.34	3.73	—
Information Ratio	-0.26	0.19	—
Excess Return	-0.90	0.71	—
Standard Deviation	11.90	11.36	—
Sharpe Ratio	0.30	0.16	—
Sortino Ratio	0.43	0.22	—

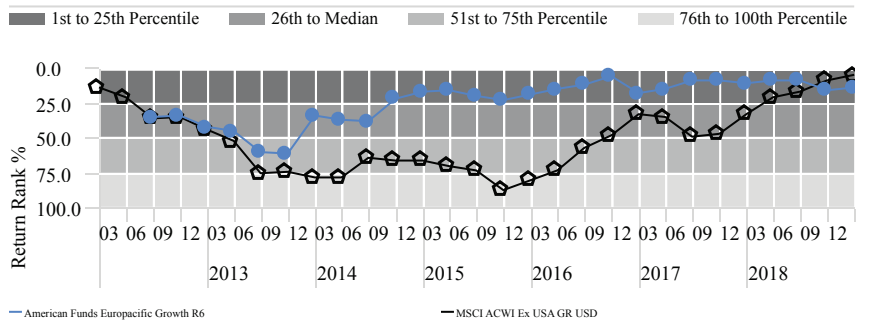
## Calendar Year Returns



## Rolling 3 Year Return Morningstar Peer Group Rankings

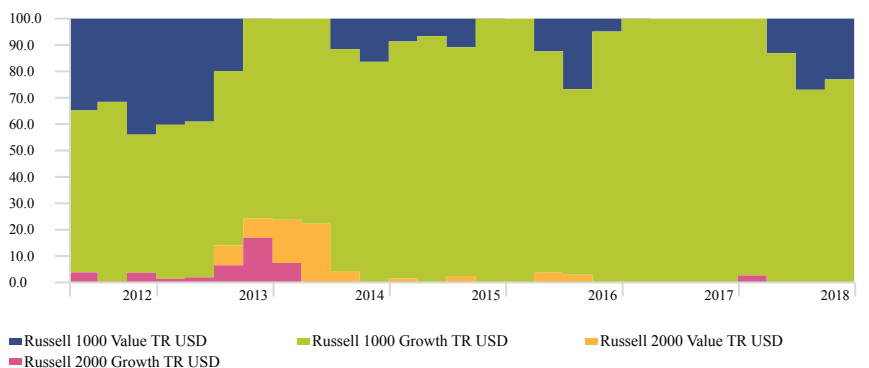
Time Period: 1/1/2009 to 12/31/2018

Rolling Window: 3 Years 3 Months shift



## Historical Returns-Based Style Analysis

Time Period: 1/1/2009 to 12/31/2018



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018

# American Funds EuroPacific Gr R6

Fund Type: International

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade	
<b>Trailing 36-Months vs. Peer Group:</b>	<b>11%</b>	<b>17%</b>	<b>18%</b>		
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>
Downside Risk	Jun 2018	Sep 2018	Dec 2018		
<b>Trailing 36-Months vs. Passive Target:</b>	<b>88.2%</b>	<b>91.9%</b>	<b>100.3%</b>		
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	PASS	FAIL	<b>2 of 3</b>	<b>PASS</b>
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018
<b>Trailing 12-Months vs. Passive Target:</b>	<b>1.1%</b>	<b>4.8%</b>	<b>-4.0%</b>	<b>3.4%</b>	<b>-1.1%</b>
<i>3 of 5 outperforming the passive target needed to pass</i>	PASS	PASS	FAIL	PASS	FAIL
				<b>3 of 5</b>	<b>PASS</b>
Qualitative Issues					
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>92.13%</b>				<b>PASS</b>
<b>Investment Firm:</b>	Capital Research and Management Company				<b>PASS</b>
<b>Investment Personnel:</b>	Mark Denning, since 1991 Carl Kawaja, since 2001 Sung Lee, since 2002 Nick Grace, since 2002 Jesper Lyckeus, since 2004 Jonathan Knowles, since 2006 Andrew Suzman, since 2007 Christopher Thomsen, since 2007 Lawrence Kymisis, since 2014				<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper International

**Passive Target:** MSCI ACWI ex USA

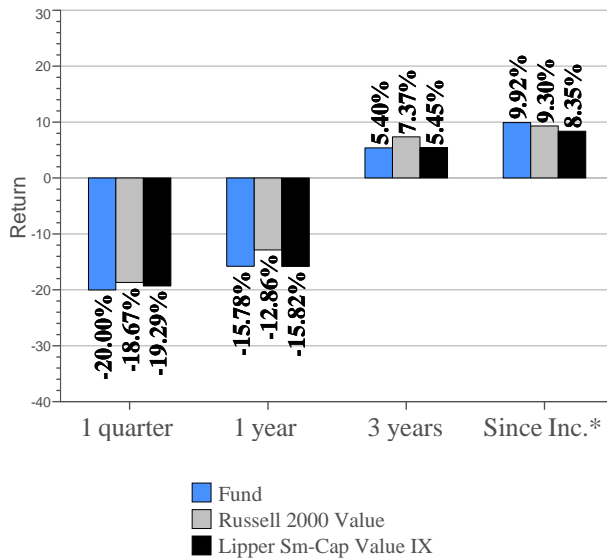
# DFA US Targeted Value I

Fund Type: Small Value

## Fund Performance:

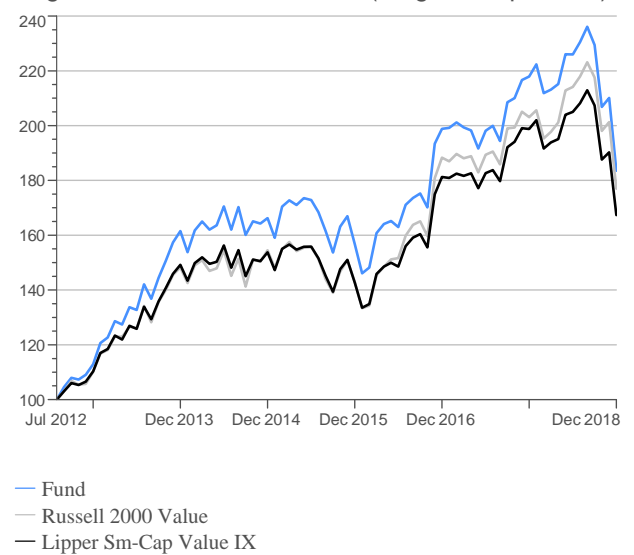
### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your small-cap value fund, the DFA US Targeted Value Fund, fell 20.00% in the fourth quarter and lagged its passive and active benchmarks. For the year, the Fund fell further than the passive benchmark, primarily because it maintains a structural underweight to the defensive REIT and Utilities sectors. However, it's stayed competitive with its peers on both a one and three year basis, which keeps it passing three of the four quantitative Watch List criteria. Longer-term, the Fund has beaten the passive benchmark by a wide margin, +10.2% versus +8.7%, since its 2000 inception. The investment strategy in place has clearly been effective over time, and our forecast is for continued success given the repeatability inherent in the Fund's rigid investment process and its cheap price tag (0.37%). DFA has made a name for itself by taking academic principles and incorporating them into asset management to deliver competitive performance. Simply put, the firm tries to add value by capturing premiums persistently shown to be associated with three key factors: company size (favoring small), relative price (favoring value), and profitability (favoring higher profitability). In terms of portfolio construction, there is no company-specific or macroeconomic research impacting buy or sell decisions. Instead, portfolio managers at DFA rely on data feeds to provide the necessary inputs to a process dependent on qualitative and quantitative stock selection rules and momentum screens. That process filters out REITs, Utilities, companies in bankruptcy, firms with less than \$10M in market capitalizations, and stocks with negative price momentum. From there, it's simply a matter of building a portfolio that skews towards small-cap, value-oriented, and highly profitable companies. But there is one important nuance. This Fund also maintains a structural mid-cap bias in order to broaden the opportunity set and allow for increased diversification, and this bias has been a substantial tailwind for historical performance. Since the Fund's 2000 inception, mid-cap value stocks (Russell MCV Index) have outperformed small-cap value stocks (Russell 2000 Value Index) 9.8% vs. 8.7%. Roughly 35% of the Fund's holdings are classified as mid-cap compared to 18% for the Russell 2000 Value Index. Overall, the Fund earns our endorsement.

### Management & Expenses

Jed Fogdall (2012), Joseph Chi (2012), and Joel Schneider (2015) of Dimensional Fund Advisors (Austin, TX). The Fund's expense ratio of 0.37% is less than half the average of 0.83% for active small-cap value funds used by Francis Investment Counsel clients.

### Quarterly Performance Commentary

The Fund experienced positive stock selection results, but headwinds from sector positioning were too strong to overcome. Between underweights in REITs (0% vs. 12%, -15% return) and Utilities (0% vs. 6%, -2%) and an overweight to Energy (9% vs. 7%, -41%), the Fund lost about 200 bps versus the benchmark. Stock selection results provided a boost of roughly 100 bps and was most impactful in the Health Care sector (-23% return vs. -30% benchmark return).

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper, Morningstar, Inc.

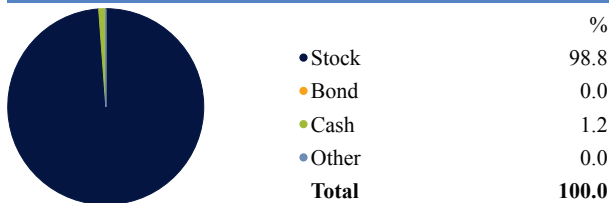
**Operations**

Inception Date	2/23/2000
Total Net Assets (\$)	10,703,204,188
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	10.94	12.65
Average Market Cap (mil)	1,962.28	1,607.93
# of Holdings	1,520	1,378
Turnover Ratio %	23.00	—
% Asset in Top 10 Holdings	6.13	4.67
US Equity %	96.68	98.84
Non-US Equity %	1.40	1.16
Emerging Market Equity %	0.27	0.16

**Asset Allocation**



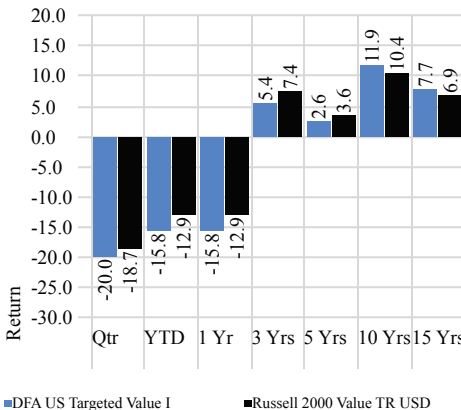
**Equity Style Exposures**

Value	Blend	Growth	Market Cap	%
Large	0.1	0.0	Market Cap Giant %	0.0
Mid	21.9	10.0	Market Cap Large %	0.1
Small	29.1	11.3	Market Cap Mid %	34.7
			Market Cap Small %	54.8
			Market Cap Micro %	10.4

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
Arrow Electronics Inc	ARW 0.74	-6.47
S+p500 Emini Fut Mar19 Xcme 20190315	— 0.74	—
Toll Brothers Inc	TOL 0.62	0.03
People's United Financial Inc	PBCT 0.61	-14.69
Reliance Steel & Aluminum Co	RS 0.58	-15.97
Post Holdings Inc	POST 0.58	-9.09
Assured Guaranty Ltd	AGO 0.58	-8.97
Avnet Inc	AVT 0.57	-18.92
Assurant Inc	AIZ 0.57	-16.59
Quanta Services Inc	PWR 0.53	-9.71
JetBlue Airways Corp	JBLU 0.48	-17.05
Genesee & Wyoming Inc Class A	GWR 0.46	-18.65
PacWest Bancorp	PACW 0.46	-28.90
Old Republic International Corp	ORI 0.46	-7.22
US Foods Holding Corp	USFD 0.45	2.66
AGCO Corp	AGCO 0.45	-8.18
Murphy Oil Corp	MUR 0.45	-29.09
ARRIS International PLC	ARRS 0.44	17.62
PBF Energy Inc Class A	PBF 0.44	-33.94
Prosperity Bancshares Inc	PB 0.44	-9.57

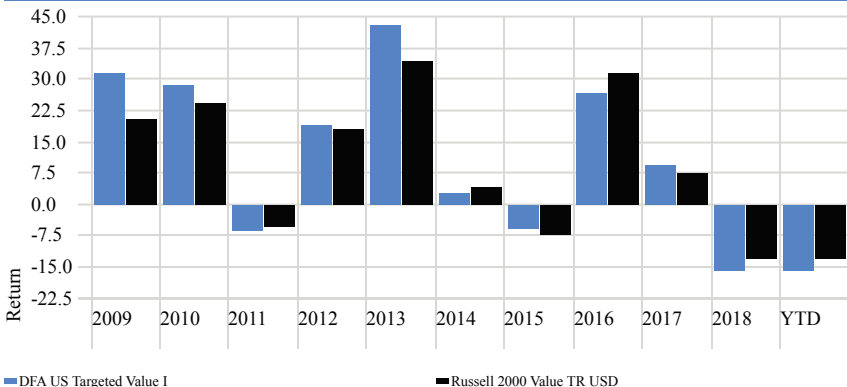
**Annualized Returns**



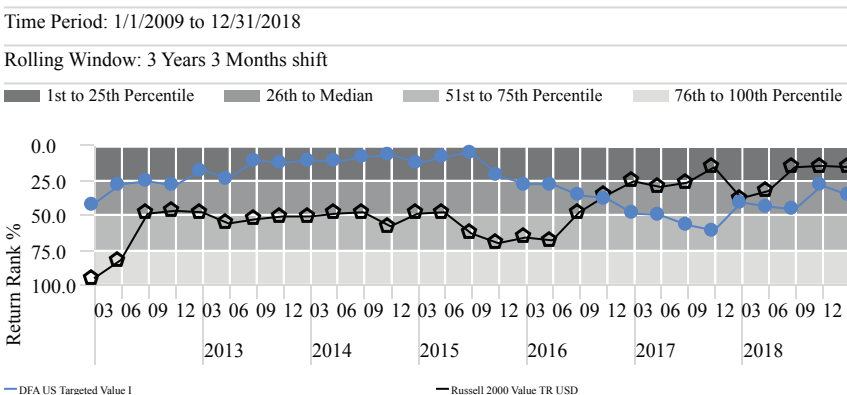
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	-1.88	-0.92	1.06
Beta	1.01	0.99	1.05
R-squared	97.96	95.64	97.42
Tracking Error	2.34	3.22	3.32
Information Ratio	-0.78	-0.30	0.42
Excess Return	-1.97	-1.02	1.54
Standard Deviation	16.30	15.34	19.86
Sharpe Ratio	0.33	0.20	0.65
Sortino Ratio	0.49	0.29	1.03

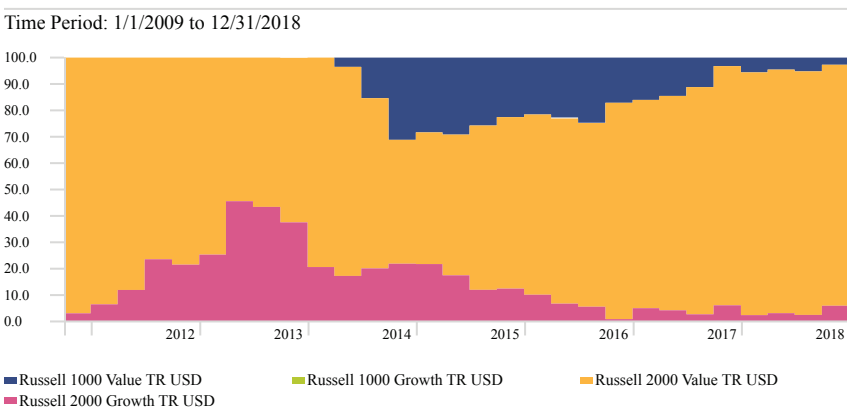
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



**Return Date: 12/31/2018**  
**Portfolio Date: 12/31/2018**

# DFA US Targeted Value I

Fund Type: Small Value

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade			
<b>Trailing 36-Months vs. Peer Group:</b>	<b>44%</b>	<b>35%</b>	<b>39%</b>				
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Downside Risk	Jun 2018	Sep 2018	Dec 2018				
<b>Trailing 36-Months vs. Passive Target:</b>	<b>97.8%</b>	<b>97.0%</b>	<b>99.4%</b>				
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018		
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-1.3%</b>	<b>1.7%</b>	<b>-4.9%</b>	<b>1.8%</b>	<b>-2.9%</b>		
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	PASS	FAIL	PASS	FAIL	<b>2 of 5</b>	<b>FAIL</b>
Qualitative Issues							
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>97.94%</b>						<b>PASS</b>
<b>Investment Firm:</b>	Dimensional Fund Advisors LP						<b>PASS</b>
<b>Investment Personnel:</b>	Jed Fogdall, since 2012 Joseph Chi, since 2012 Joel Schneider, since 2015						<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Small-Cap Value Funds**Passive Target:** Russell 2000 Value



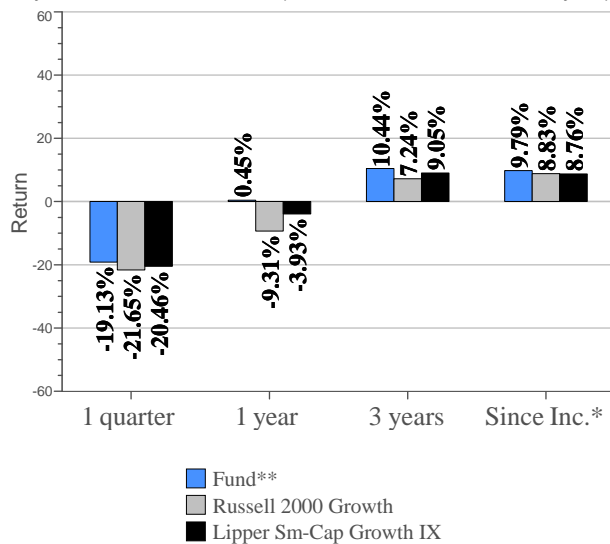
# Loomis Sayles Small-Cap Growth Instl

Fund Type: Small Growth

## Fund Performance:

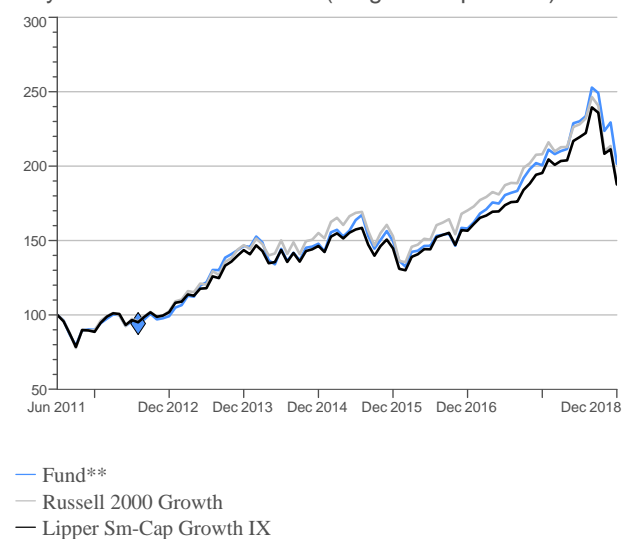
### Manager vs Benchmark: Return

July 2011 - December 2018 (not annualized if less than 1 year)



### Manager Performance: "Mountain" Chart

July 2011 - December 2018 (Single Computation)



## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your small-cap growth fund, the Loomis Sayles Small-Cap Growth Fund, fell 19.13% in the fourth quarter but in doing so outperformed its benchmarks. In our opinion, this remains a top offering for small-cap growth investing. In October 2018, we sat down with several members of the investment team including co-portfolio manager Mark Burns as well as two dedicated analysts, James Lamb and Nate Roberts. While onsite at the team's Boston offices, we received an update on portfolio performance and investment strategy, discussed a process enhancement, and reviewed the investment thesis for stocks such as MarketAxess Holdings. Overall, not much has changed in terms of investment strategy as turnover is running at 41% which is mostly in-line with the 5-year average and implies a time horizon of around 2-years. Diversification is the name of the game here and the Fund has about 100 stocks with top holding Planet Fitness accounting for 1.6% of assets. This kind of diversification, along with the Fund's sell discipline which incorporates stop-losses, serves to keep downside volatility in check as evidenced by the Fund regularly capturing about 10% less of the 'bad volatility.' One item noted by the team was an enhancement to the investment process by introducing a more formalized "Thesis Review" for stocks that are stagnant or just not working as originally intended. They look to answer the question, given the original thesis, what has evolved or changed? Burns argues that by going through this process, it keeps the portfolio fresh and provides more options for the team to incrementally add and trim to positions. Turning to the discussion about stocks, analyst Roberts discussed the Fund's position in MarketAxess, a multi-dealer to client e-platform for U.S. and European high-grade corporate and emerging markets bond trading. Roberts noted the key economic driver is driven by the bond market's need for liquidity, transparency, and anonymity in executing trades. Users are growing 10% each year and the 'network effect' is gaining traction. This is one of the Fund's bigger market cap stocks at well over \$7B so it is likely to be eliminated as it is clearly a mid-cap (and in fact was removed per the 12/31/18 holdings information). Turning to appraise performance on the Watch List, we note the Fund is passing all of our criteria and the rolling 3-year peer group ranking is now in the first quartile. Given this encouraging backdrop and our productive site visit with the team, our opinion about this strategy is very favorable.

### Management & Expenses

Mark Burns and John Slavik (both since 2005). The Fund's expense ratio of 0.95% is slightly higher than that of the average small-cap growth fund we follow at 0.89%. However, the revenue credit is 0.15% bringing the net cost to 0.80%. There is a share class of this fund (N shares) which does not pay revenue sharing, but is more expensive than the current arrangement at 0.82%. Our recommendation is to stay the course with the current share class (I shares) until the cost advantage of utilizing the N shares is the same as or better than the non-rev share option.

### Performance Commentary

Favorable stock selection results within the Health Care (-20.9% vs. -25.2%) and Consumer Discretionary (-15.1% vs. -21.0%) sectors helped the Fund outperform its passive benchmark during the quarter. Within those sectors, several notable performers included Crocs (+22.0%), Argenx SE (+26.7%), and Vocera Communications (+7.6%).

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 90 months beginning 7/1/11 (actual inception 7/15/11). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance has been obtained from sources we believe to be reliable, but we do not guarantee its accuracy or completeness. Past performance is no guarantee of future results.

\*\*Represents spliced performance for Loomis Sayles Small-Cap Growth Retail (7/11-7/12) and Loomis Sayles Small-Cap Growth Instl (8/12-present).

◆ Fund change from Loomis Sayles Small-Cap Growth Retail to Loomis Sayles Small-Cap Growth Instl on 8/15/12 reducing the expense ratio from 1.25% to 0.98% a savings of 22%.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper

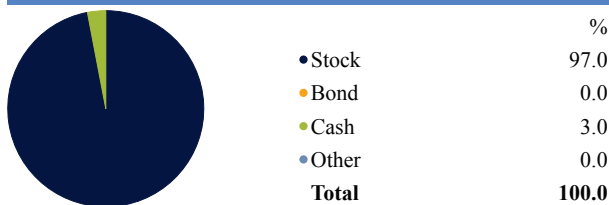
**Operations**

Inception Date	12/31/1996
Total Net Assets (\$)	1,446,886,107
12b-1 Fee	0.00
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	28.11	20.03
Average Market Cap (mil)	2,453.29	2,025.71
# of Holdings	99	1,249
Turnover Ratio %	41.00	—
% Asset in Top 10 Holdings	15.22	5.55
US Equity %	94.13	99.44
Non-US Equity %	2.86	0.56
Emerging Market Equity %	0.00	0.11

**Asset Allocation**



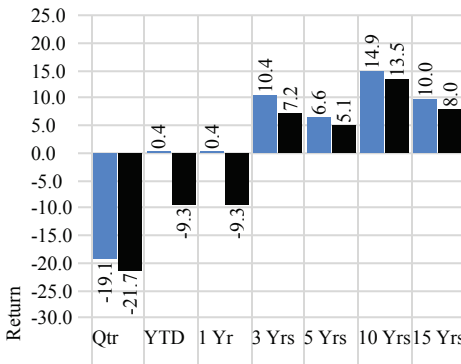
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	0.0	0.0	0.0	Market Cap Giant %	0.0
Mid	0.0	5.5	35.5	Market Cap Large %	0.0
Small	2.6	10.7	45.7	Market Cap Mid %	39.5
				Market Cap Small %	60.5
				Market Cap Micro %	0.0

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
Planet Fitness Inc A	PLNT 1.64	-0.76
PRA Health Sciences Inc	PRAH 1.62	-16.54
Five9 Inc	FIVN 1.60	0.07
Vocera Communications Inc	VCRA 1.55	7.57
Grand Canyon Education Inc	LOPE 1.52	-14.77
Pool Corp	POOL 1.50	-10.65
Wingstop Inc	WING 1.48	-1.38
Wright Medical Group NV	WMGI 1.47	-6.20
Q2 Holdings Inc	QTWO 1.43	-18.17
Kinsale Capital Group Inc	KNSL 1.41	-12.89
Crocs Inc	CROX 1.40	22.03
RingCentral Inc Class A	RNG 1.40	-11.40
Medidata Solutions Inc	MDSO 1.37	-8.03
Green Dot Corp	GDOT 1.35	-10.47
Insulet Corp	PODD 1.34	-25.13
Laureate Education Inc A	LAUR 1.32	-1.30
Albany International Corp	AIN 1.32	-21.25
Columbia Sportswear Co	COLM 1.31	-9.39
InterXion Holding NV	INXN 1.31	-19.52
RBC Bearings Inc	ROLL 1.30	-12.81

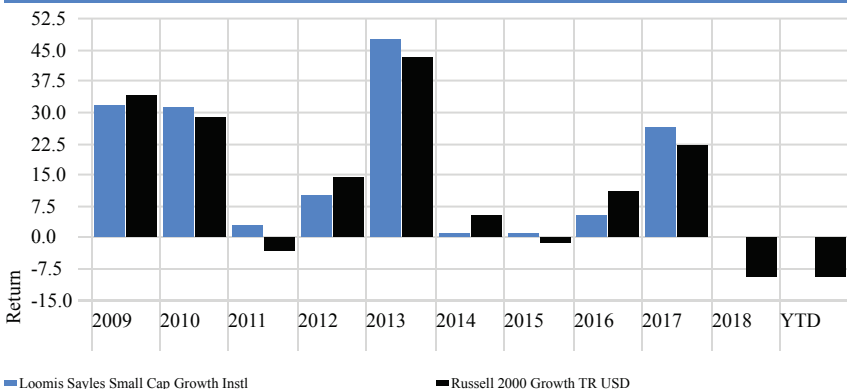
**Annualized Returns**



**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	3.36	1.61	2.56
Beta	0.93	0.96	0.89
R-squared	94.54	92.54	93.65
Tracking Error	3.93	4.49	4.81
Information Ratio	0.76	0.31	0.25
Excess Return	3.20	1.47	1.38
Standard Deviation	15.92	16.25	17.06
Sharpe Ratio	0.64	0.43	0.88
Sortino Ratio	0.90	0.62	1.41

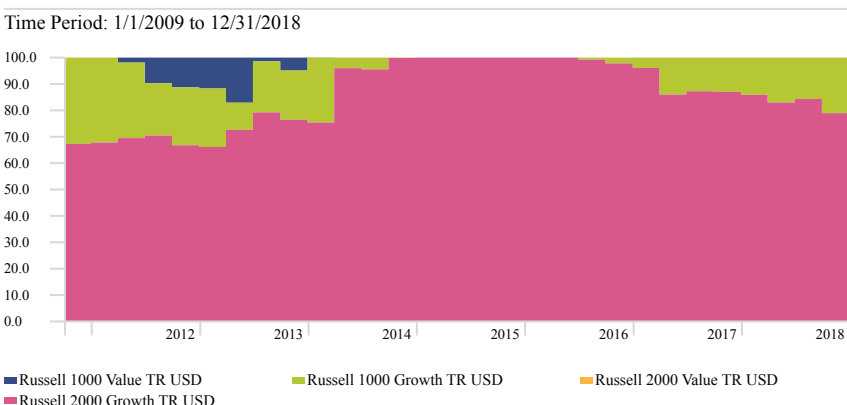
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



**Return Date: 12/31/2018  
Portfolio Date: 12/31/2018**

# Loomis Sayles Small Cap Growth Instl

Fund Type: Small Growth

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade			
<b>Trailing 36-Months vs. Peer Group:</b>	<b>35%</b>	<b>31%</b>	<b>25%</b>				
<i>2 of 3 better than median (&lt;50%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
<i>3 of 3 better than median (&lt;75%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Downside Risk	Jun 2018	Sep 2018	Dec 2018				
<b>Trailing 36-Months vs. Passive Target:</b>	<b>90.9%</b>	<b>83.3%</b>	<b>88.3%</b>				
<i>2 of 3 better than median (&lt;100%) needed to pass</i>	PASS	PASS	PASS	<b>3 of 3</b>	<b>PASS</b>		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018		
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-4.5%</b>	<b>2.5%</b>	<b>-5.6%</b>	<b>4.7%</b>	<b>9.8%</b>		
<i>3 of 5 outperforming the passive target needed to pass</i>	FAIL	PASS	FAIL	PASS	PASS	<b>3 of 5</b>	<b>PASS</b>
Qualitative Issues							
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>94.50%</b>						<b>PASS</b>
<b>Investment Firm:</b>	Loomis Sayles & Company LP						<b>PASS</b>
<b>Investment Personnel:</b>	Mark Burns, since 2005 John Slavik, since 2005						<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Small-Cap Growth Funds

**Passive Target:** Russell 2000 Growth

# Hartford International Small Company Y

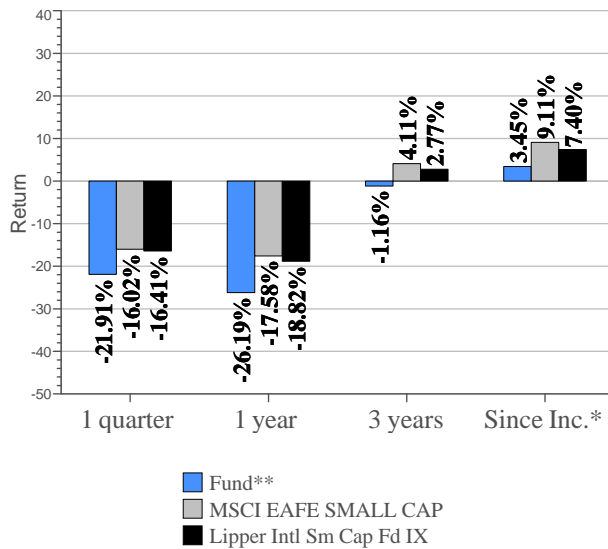
Fund Type: International Small

## Watch List II (3Q18-1Q19)

### Fund Performance:

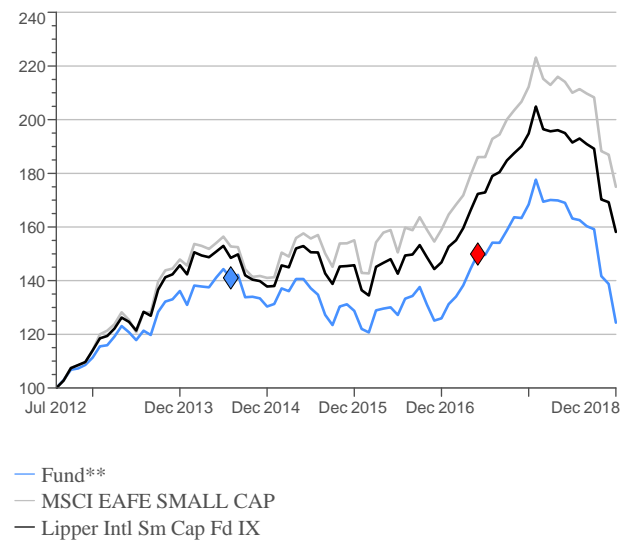
#### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



#### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



### Francis Investment Counsel LLC Review:

#### Summary & Opinion

Your international small-cap fund, the Hartford International Small Company Y Fund, fell 21.91% in the fourth quarter and underperformed its passive and active benchmarks by a wide margin. With poor stock selection results weighing on three year performance and causing its Watch List metrics to deteriorate, the Committee placed the Fund on the Watch List two quarters ago. Since then, the Fund has lagged its benchmarks -23.8% vs. -16.7% (passive) and -17.4% (active), and it's still failing all four quantitative Watch List criteria. On a positive note, the Fund is outperforming the passive benchmark +11.1% vs. +10.8% so far in 2019 (as of 2/27/19). At this point, we recommend keeping the Fund on the Watch List until the end of the 9-month probationary period. Importantly, we don't have any qualitative concerns about the people, process, or philosophy at this point. We just spoke with one of the team's investment analysts while visiting their London office (October 2018), but with performance improvements lacking, we intend to visit the team's Boston office in March 2019 to further scrutinize their stock selection efforts. During our London visit, we attended the firm's daily morning meeting for European and Asian investment personnel, and then we visited with one of the Fund's dedicated analysts, Russell Stuart. With \$1T in assets and 500+ analysts/portfolio managers, Wellington is an industry titan, and its prowess was on full display in the morning meeting. The discussion that day focused on secular changes in Japan, where a greater focus on generating value for shareholders is leading to stronger profitability. Two of the Fund's Japanese holdings were highlighted (Persol and Shiseido), and it warrants mentioning that the Fund is overweight to Japan (33.2% vs. 31.6%). While the Fund is run by a relatively compact team of two co-managers and three dedicated analysts, they clearly get a lot of support from the broader resources of the organization. Lead portfolio manager Simon Thomas (Boston office) and co-PM Daniel Maguire (Tokyo office) have both been managing the Fund since 2006. Together, they rely on proprietary research to identify attractively valued, high-quality businesses that are likely to post above-consensus earnings results. Stuart is charged with providing research coverage on transports, business services, logistics, and diversified financials for the team. Teleconferencing in from Japan where he spends 2 to 3 weeks each year, Stuart gave us his positive take on the firm's corporate culture and discussed the research he's done on a couple of the Fund's holdings (M&A Capital Partners, WizzAir). Stuart struck us as a smart and dedicated analyst, but he's a step removed from portfolio management decisions, so his grasp on portfolio construction and performance drivers was less impressive. In his role as an analyst, we believe the latter is of less importance. When it comes to portfolio construction, the Fund is broadly diversified with 100-150 holdings and a slight growth bias (benchmark is also growth-leaning). Emerging market exposure can go as high as 15% but has never been higher than 8% and currently sits at 2%. Overall, we believe the qualitative factors behind the Fund's competitive long-term results are firmly in place: a resource rich organization, a long-tenured portfolio management team, and a sensible investment approach. That said, we recommend patience as the Fund works its way through the 9-month probationary Watch List period.

#### Management & Expenses

Simon Thomas (since 2006), and Daniel Maguire (since 2006) of Wellington Management (Boston, MA). At 1.00%, the Fund's expense ratio is in-line with the average for international small cap products used by Francis Investment Counsel.

#### Quarterly Performance Commentary

Stock selection results were a significant drag on performance during the quarter, particularly within the Consumer Discretionary (-23.9% vs. -15.9%) and Industrials (-23.8% vs. -19.1%) sectors. On a regional basis, weakest results were in Japan (-21.8% vs. -14.8%) and the United Kingdom (-24.2% vs. -17.8%). Individual laggards included B&M European Value Retail (-28.4% due to falling British pound), Persol Holdings (-36.5% on revenue slowdown and fears of looming impairment charges), ASOS (-61.4% on reduced growth and margin guidance), and Kier Group (-55.2% on new share issuance). A 2% vs. 11% underweight to REITs (-4.1%) was an additional 100 bps drag on relative performance.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

\*\*Represents spliced performance of the Columbia Acorn International Z Fund (8/12-7/14) and Columbia Acorn International Y Fund (8/14-present).

◆ Fund change from Columbia Acorn International Z to Columbia Acorn International Y on 8/15/14 reducing the expense ratio from 0.93% to 0.87%, a savings of 6%.

◆ Fund change from Columbia Acorn International Y to Hartford International Small Company Y on 6/1/17. Since 6/1/17, the Fund has returned -11.17% versus -3.82% for the MSCI EAFE SMALL CAP and -5.29% for the Lipper Intl Sm Cap Fd IX.

#### TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper

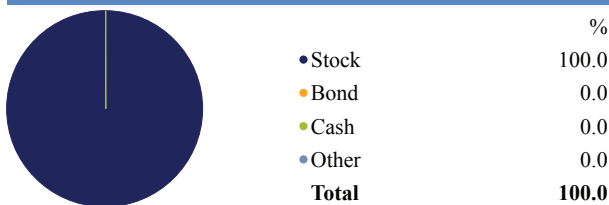
**Operations**

Inception Date	4/30/2001
Total Net Assets (\$)	215,995,505
12b-1 Fee	—
Redemption Fee	—

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	15.60	13.46
Average Market Cap (mil)	1,720.42	1,794.66
# of Holdings	120	2,348
Turnover Ratio %	38.00	—
% Asset in Top 10 Holdings	18.01	2.83
US Equity %	0.00	0.92
Non-US Equity %	100.36	98.63
Emerging Market Equity %	2.14	0.81

**Asset Allocation**



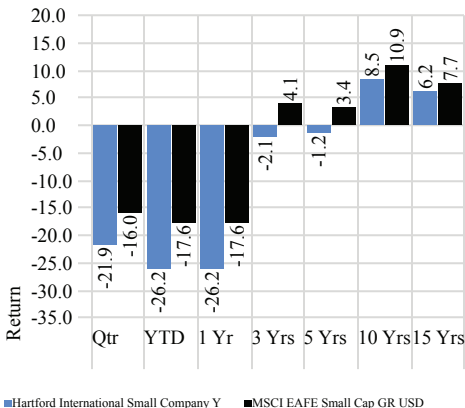
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	2.2	0.0	0.0	Market Cap Giant %	0.0
Mid	10.4	21.4	20.7	Market Cap Large %	2.1
Small	12.8	17.2	15.2	Market Cap Mid %	52.5
				Market Cap Small %	37.6
				Market Cap Micro %	7.8

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
Kongsberg Gruppen ASA	KOG 2.74	-18.81
Nippon Shinyaku Co Ltd	4516 2.12	-2.86
B&M European Value Retail SA	BME 1.92	-28.24
Salvatore Ferragamo SpA	SFER 1.74	-15.77
SCSK Corp	9719 1.70	-25.01
Autogrill SpA	AGL 1.68	-17.73
IHI Corp	7013 1.65	-27.13
Dufry AG	DUFN 1.56	-16.61
ZENKOKU HOSHO Co Ltd	7164 1.47	-21.53
RHI Magnesita NV Ordinary Shares	RHIM 1.41	-20.71
ID Logistics	IDL 1.39	-26.69
Dmg Mori Co Ltd	6141 1.38	-30.95
Cathay Pacific Airways Ltd	00293 1.35	-5.65
Asahi Intecc Co Ltd	7747 1.33	-3.15
Kyudenko Corp	1959 1.32	-4.28
Restaurant Group (The) PLC	RTN 1.30	-36.02
Toyo Tire Corp	5105 1.30	-29.19
Maisons du Monde France SA	MDM 1.29	-34.58
Genus PLC	GNS 1.26	-11.58
Hikma Pharmaceuticals PLC	HIK 1.22	-9.41

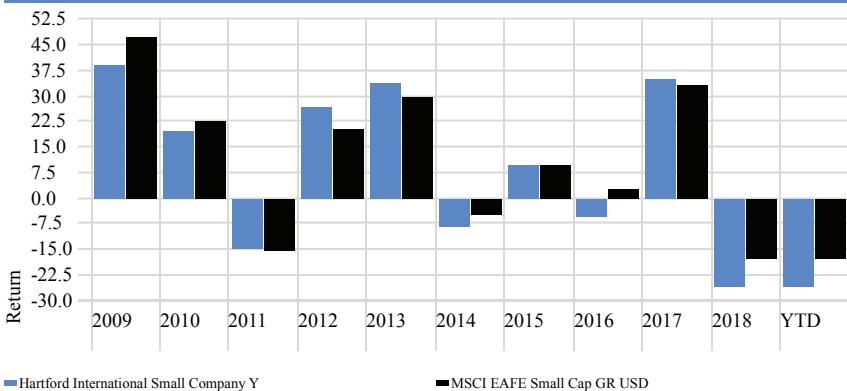
**Annualized Returns**



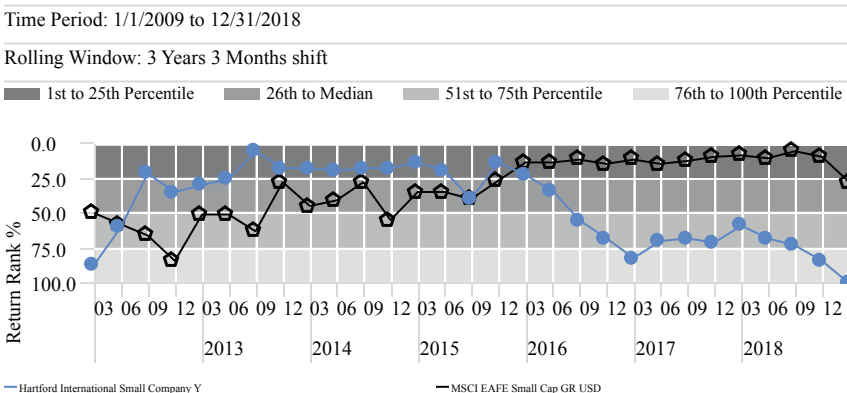
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	-6.22	-4.58	-2.01
Beta	1.09	1.03	0.99
R-squared	92.04	91.67	92.71
Tracking Error	4.38	3.78	4.64
Information Ratio	-1.36	-1.19	-0.47
Excess Return	-6.19	-4.64	-2.43
Standard Deviation	14.86	12.97	17.12
Sharpe Ratio	-0.14	-0.08	0.54
Sortino Ratio	-0.18	-0.11	0.83

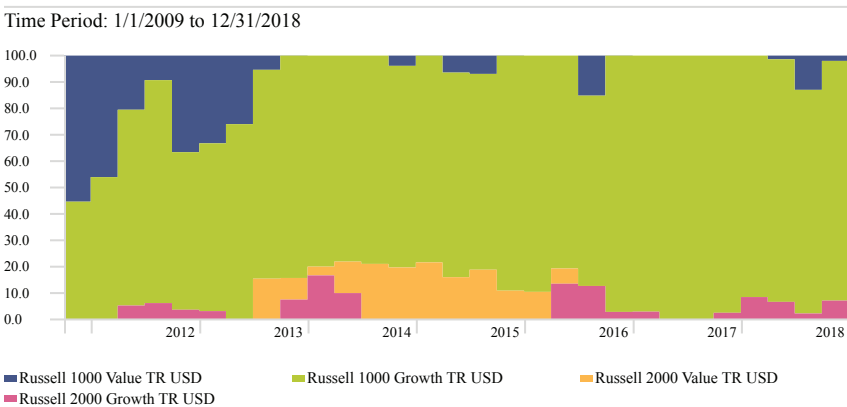
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



**Return Date: 12/31/2018**  
**Portfolio Date: 12/31/2018**

# Hartford International Small Company Y

Fund Type: International Small

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade	
<b>Trailing 36-Months vs. Peer Group:</b>	<b>55%</b>	<b>71%</b>	<b>93%</b>		
2 of 3 better than median (<50%) needed to pass	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>
3 of 3 better than median (<75%) needed to pass	PASS	PASS	FAIL	<b>2 of 3</b>	<b>FAIL</b>
Downside Risk	Jun 2018	Sep 2018	Dec 2018		
<b>Trailing 36-Months vs. Passive Target:</b>	<b>113.3%</b>	<b>122.4%</b>	<b>125.3%</b>		
2 of 3 better than median (<100%) needed to pass	FAIL	FAIL	FAIL	<b>0 of 3</b>	<b>FAIL</b>
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-4.0%</b>	<b>-0.4%</b>	<b>-8.2%</b>	<b>1.3%</b>	<b>-8.6%</b>
3 of 5 outperforming the passive target needed to pass	FAIL	FAIL	FAIL	PASS	FAIL
				<b>1 of 5</b>	<b>FAIL</b>
Qualitative Issues					
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>91.95%</b>				<b>PASS</b>
<b>Investment Firm:</b>	Hartford Funds Management Company, LLC Subadvised by Wellington Management				<b>PASS</b>
	<i>Commentary: Closed to new investors on 4/29/16.</i>				
<b>Investment Personnel:</b>	Simon Thomas, since 2006 Daniel Maguire, since 2006				<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper International Small/Mid-Cap Core

**Passive Target:** MSCI EAFE SMALL CAP

# Oppenheimer Developing Markets I

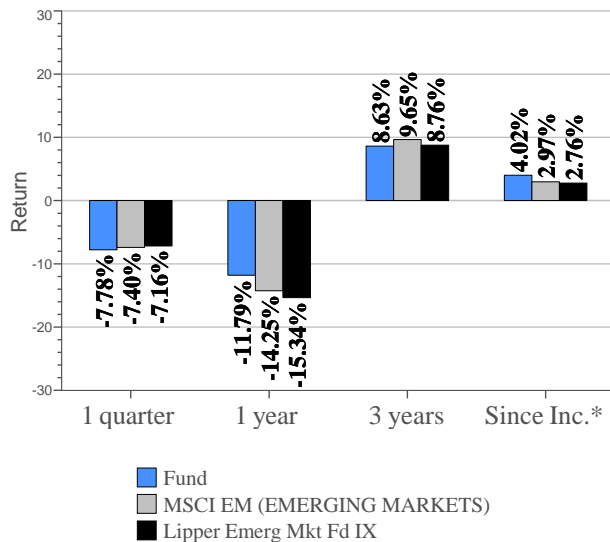
Fund Type: Emerging Market Equity

## SITE VISIT

### Fund Performance:

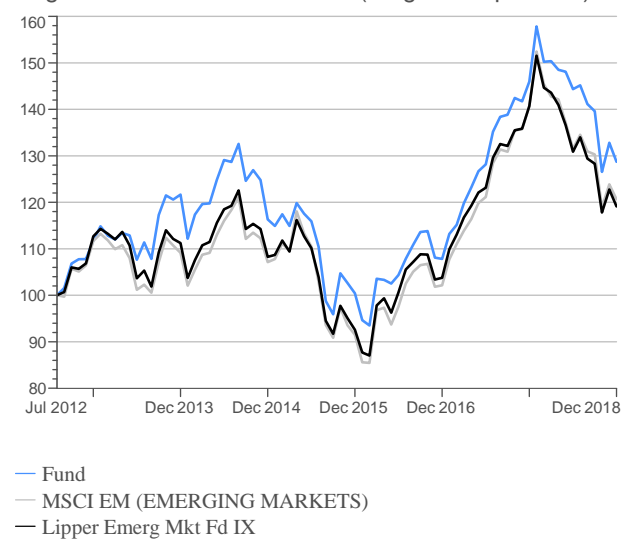
#### Manager vs Benchmark: Return

August 2012 - December 2018 (not annualized if less than 1 year)



#### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



### Francis Investment Counsel LLC Review:

#### Summary & Opinion

Your emerging market equity fund, the Oppenheimer Developing Markets Fund, lost 7.78% in the fourth quarter and underperformed its benchmarks. Portfolio manager Justin Leverenz typically spreads this Fund's bets into approximately 100 holdings and conviction is conveyed with his best ideas as evidenced by the top-10 encompassing 40% of the Fund's assets. Investments are tied to secular themes such as mass affluence, technology, restructuring, and aging and fundamental research carries the day with portfolio turnover that is consistent with a relatively longer-term time horizon (currently 36%). In November 2018, we sat down with Leverenz and several associate members of Oppenheimer's International team where we received a portfolio update and witnessed the research process in action as they interviewed several executives from five of the Fund's holdings, including two of which are private. Although the amount of private assets in the Fund is small (less than 5%), they serve as a key differentiator for this offering as Leverenz is able to access opportunities on behalf of shareholders which are otherwise reserved for the ultra-high net worth crowd. Expected returns for private equity style investments are significantly higher versus their public market brethren so if Leverenz has done his homework well, we'd expect these investments to be meaningful sources of value add. For example, one of the guests was Hooi-Ling Tan, co-founder of Grab holdings, a provider of software application ride-hailing transport services, food delivery, and payment solutions in emerging and frontier Asian countries. During her presentation, Tan shared with us how she went about setting-up an ecosystem to get some momentum for her business model; she stressed the importance of focusing on "driver economics" and using mobile apps to keep all parties responsible. Essentially, she called Grab's business model (akin to Uber and Lyft) the "democratization of distribution." As for the other companies that participated those included Ola (ride-hailing from India) and Chinese firms WuXi Biologics, China MedTech, and Alibaba. Not only did we learn more about the investment thesis for emerging Asia during this nearly 2-day engagement, but it was another way to assess the investment acumen of the team. In our opinion, Leverenz remains as impressive as ever while his junior and more tenured analysts displayed a solid degree of competency in a pressure-packed environment. The long-term thesis for emerging/frontier markets was certainly affirmed as well as our conviction in the Oppenheimer Developing Markets Fund. Lastly, the Fund is passing 6 out of 7 our Watch List criteria and the rolling 3-year peer group ranking remains in the top-quartile.

#### Management & Expenses

Justin Leverenz (since 2007). The Fund's expense ratio is 0.88%, which is competitive compared to an average of 1.06% for emerging market equity funds utilized by Francis Investment Counsel clients.

#### Quarterly Performance Commentary

The Fund narrowly underperformed its benchmark during the quarter, mostly due to unfavorable sector allocation decisions. For example, overweight allocations to two of the benchmark's worst performing sectors, Consumer Discretionary (20.3% vs. 10.4% weight, -11.6%) and Health Care (5.1% vs. 3.0%, -15.9%) proved detrimental. On a positive note, stock selection was strong within the Financials sector, as well as countries India and Brazil. Several individual detractors included Alibaba Group (-16.8%), Taiwan Semiconductor (-14.7%), and Glencore (-14.2%). For 2018, the Fund added value mainly through country allocation with an overweight to Russia (7.8% vs. 3.6%) and an underweight to China (21.4% vs. 26.9%) while favorable stock selection results in India (+0.93% vs. -7.29%) provided another source of value add in a tough year for the asset class.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Lipper, Morningstar, Inc.

# Oppenheimer Developing Markets I ODVIX

Benchmark: MSCI EM GR USD  
Morningstar Category: US Fund Diversified Emerging Mkts



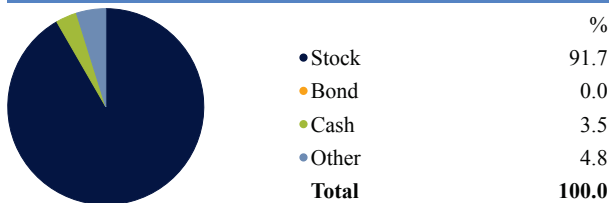
## Operations

Inception Date	12/29/2011
Total Net Assets (\$)	37,026,235,106
12b-1 Fee	—
Redemption Fee	—

## Fund Characteristics

	Fund	Benchmark
P/E Ratio (TTM)	15.82	11.23
Average Market Cap (mil)	35,804.13	27,749.13
# of Holdings	94	1,124
Turnover Ratio %	36.00	—
% Asset in Top 10 Holdings	—	23.35
US Equity %	0.42	0.15
Non-US Equity %	91.25	99.79
Emerging Market Equity %	61.81	71.56

## Asset Allocation



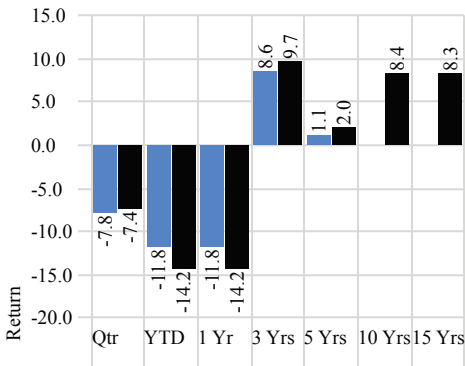
## Equity Style Exposures

Market Cap	%
Market Cap Giant	64.9
Market Cap Large	26.1
Market Cap Mid	8.4
Market Cap Small	0.5
Market Cap Micro	0.0

## Top 20 Holdings

Ticker	Portfolio Weighting %	Qtr Return
Alibaba Group Holding Ltd ADR	BABA 6.45	-16.81
Taiwan Semiconductor Manufacturing Co Ltd	2330 5.09	-14.67
Tencent Holdings Ltd	00700 4.58	-2.90
NOVATEK PJSC GDR	NVTK 4.34	-6.30
Housing Development Finance Corp Ltd	HDFC 3.68	16.49
Glencore PLC	GLEN 3.51	-14.22
Kering SA	KER 3.45	-12.26
Kotak Mahindra Bank Ltd	KOTAKBANK 3.13	14.28
Oppenheimer Institutional Govt MM E	—	2.91
AIA Group Ltd	01299 2.73	-7.06
Master China Series 1	—	2.39
LVMH Moet Hennessy Louis Vuitton SE	MC 2.13	-15.93
Huazhu Group Ltd ADR	HTHT 2.00	-10.31
Sinopharm Group Co Ltd H	01099 1.96	-14.15
B3 SA - Brasil Bolsa Balcao	B3SA3 1.94	18.97
Firstrand Ltd	FSR 1.80	-2.87
Hong Kong Exchanges and Clearing Ltd	00388 1.66	1.10
LG Household & Health Care Ltd	051900 1.60	-14.22
Samsung Electronics Co Ltd	005930 1.58	-17.17
Fomento Economico Mexicano SAB de CV Units (1 Series B, 4 Series D)	FEMSA UBD 1.53	-12.78

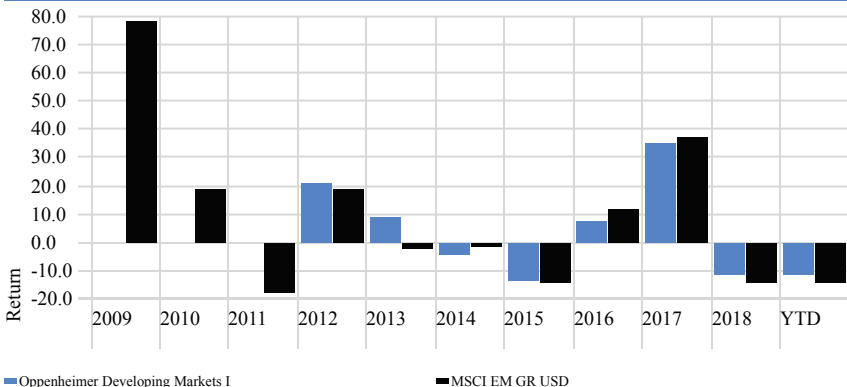
## Annualized Returns



## Risk/Return Statistics

	3 years	5 years	10 years
Alpha	0.11	-0.74	—
Beta	0.87	0.90	—
R-squared	91.53	90.05	—
Tracking Error	4.40	4.80	—
Information Ratio	-0.21	-0.18	—
Excess Return	-1.02	-0.89	—
Standard Deviation	13.41	14.45	—
Sharpe Ratio	0.60	0.10	—
Sortino Ratio	0.97	0.15	—

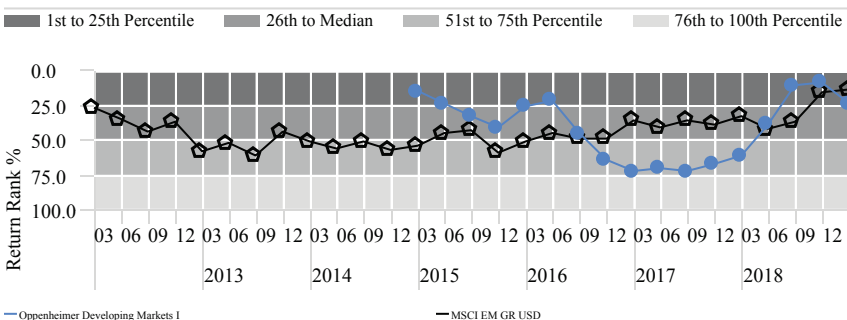
## Calendar Year Returns



## Rolling 3 Year Return Morningstar Peer Group Rankings

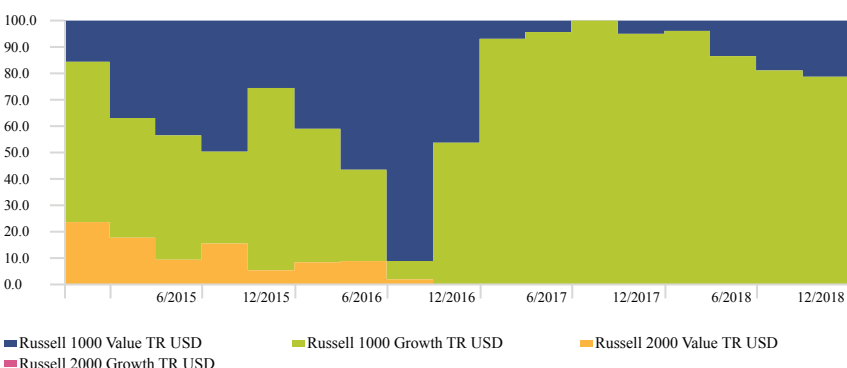
Time Period: 1/1/2009 to 12/31/2018

Rolling Window: 3 Years 3 Months shift



## Historical Returns-Based Style Analysis

Time Period: 1/1/2009 to 12/31/2018



Return Date: 12/31/2018  
Portfolio Date: 12/31/2018



# Oppenheimer Developing Markets I

Fund Type: Emerging Market Equity

## Watch List Criteria

Peer Group Ranking	Jun 2018	Sep 2018	Dec 2018	Grade			
<b>Trailing 36-Months vs. Peer Group:</b>	<b>11%</b>	<b>11%</b>	<b>24%</b>				
2 of 3 better than median (<50%) needed to pass	PASS	PASS	PASS	3 of 3	PASS		
3 of 3 better than median (<75%) needed to pass	PASS	PASS	PASS	3 of 3	PASS		
Downside Risk	Jun 2018	Sep 2018	Dec 2018				
<b>Trailing 36-Months vs. Passive Target:</b>	<b>83.1%</b>	<b>77.8%</b>	<b>87.2%</b>				
2 of 3 better than median (<100%) needed to pass	PASS	PASS	PASS	3 of 3	PASS		
Returns vs. Markets	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018		
<b>Trailing 12-Months vs. Passive Target:</b>	<b>-2.6%</b>	<b>0.9%</b>	<b>-4.2%</b>	<b>-2.4%</b>	<b>2.5%</b>		
3 of 5 outperforming the passive target needed to pass	FAIL	PASS	FAIL	FAIL	PASS	2 of 5	FAIL
Qualitative Issues							
<b>Investment Style:</b>	Trailing 3-Year R-Squared: <b>91.45%</b>						<b>PASS</b>
<b>Investment Firm:</b>	OFI Global Asset Management, Inc.						<b>PASS</b>
	<i>Commentary: Fund closed to new investors on 4/12/13.</i>						
<b>Investment Personnel:</b>	Justin Leverenz, since 2007						<b>PASS</b>

## Benchmarks

**Peer Group:** Lipper Emerging Markets Funds

**Passive Target:** MSCI EM (EMERGING MARKETS)

# Morgan Stanley Inst Frontier Mkts I

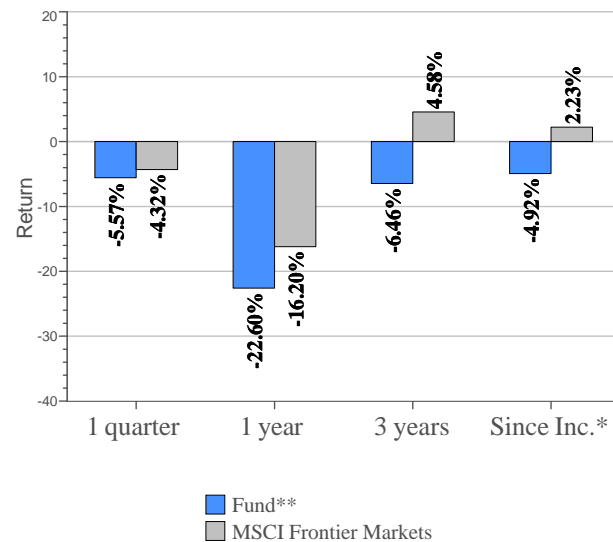
Fund Type: Frontier Market

## Watch List II (3Q18 - 1Q19) - Fund to be Removed on 3/15/19

### Fund Performance:

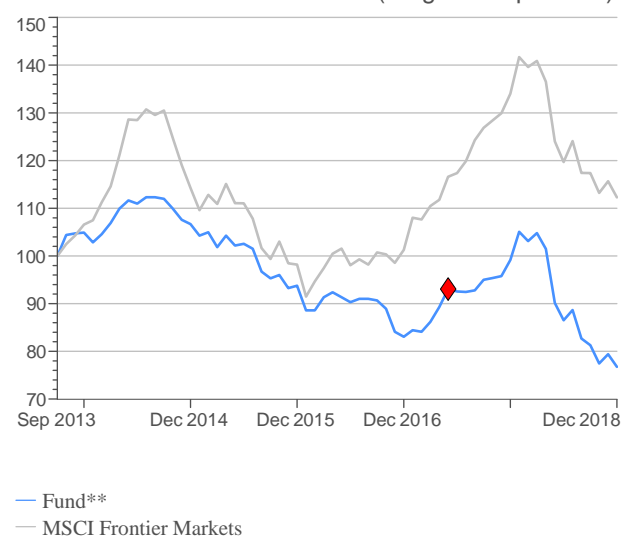
#### Manager vs Benchmark: Return

October 2013 - December 2018 (not annualized if less than 1 year)



#### Manager Performance: "Mountain" Chart

October 2013 - December 2018 (Single Computation)



### Francis Investment Counsel LLC Review:

#### Summary & Opinion

Your frontier markets fund, the Morgan Stanley Instl Frontier Markets Fund, dropped 5.57% and underperformed its benchmark. Last quarter, a summary analysis was provided to the Committee suggesting that major frontier market index restructurings exerted significant non-economic pressures on returns and increased volatility causing the diminished attractiveness of the category. Accordingly, the Committee voted to remove this Fund from the Plan's investment menu and map the assets into the Plan's emerging market fund. The transition is scheduled for 3/15/19.

#### Management & Expenses

Tim Drinkall (since 2008). The Fund's expense ratio is 1.73% which is higher than our institutional average utilized by our clients in Frontier Equity markets at 1.62%.

#### Performance Commentary

Lagging stock selection results were a drag on relative performance during the quarter. Specifically, unfavorable results within the Fund's largest weighed sector, Financials (36.5% weight, -2.8% vs. +11.2% return) was a headwind. On an individual basis, YPF (Argentine energy company, -12.8%), NMC Health (United Arab Emirates healthcare distributor, -21.3%), and Banca Transilva (Romania bank, -14.9%) were the biggest detractors.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are for 63 months beginning 10/1/13 (actual inception date of 9/17/13). Fund performance results are annualized for periods greater than one year and are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance has been obtained from sources we believe to be reliable, but we do not guarantee its accuracy or completeness. Past performance is no guarantee of future results.

\*\*Represents spliced performance of the Wasatch Frontier Emerging Small Countries Inv Fund (10/13-5/17) and the Morgan Stanley Inst Frontier Markets I Fund (6/17-present).

◆ Fund change from Wasatch Frontier Emerg Sm Countrs Inv to Morgan Stanley Inst Frontier Mkts I on 6/1/17. Since 6/1/17, the Fund has returned -11.47% versus for -2.36% the MSCI FM (FRONTIER MARKETS).

TIDI PRODUCTS, LLC

FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR.

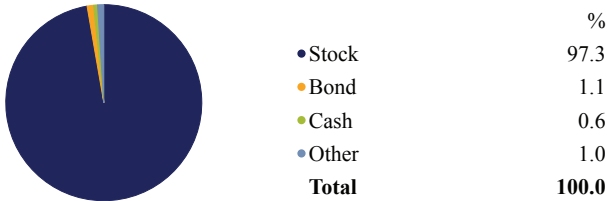
**Operations**

Inception Date	8/25/2008
Total Net Assets (\$)	270,461,926
12b-1 Fee	—
Redemption Fee	2.00

**Fund Characteristics**

	Fund	Benchmark
P/E Ratio (TTM)	11.87	11.90
Average Market Cap (mil)	4,251.79	4,225.64
# of Holdings	63	114
Turnover Ratio %	52.00	—
% Asset in Top 10 Holdings	40.22	35.84
US Equity %	3.26	1.89
Non-US Equity %	96.68	97.74
Emerging Market Equity %	62.84	68.89

**Asset Allocation**



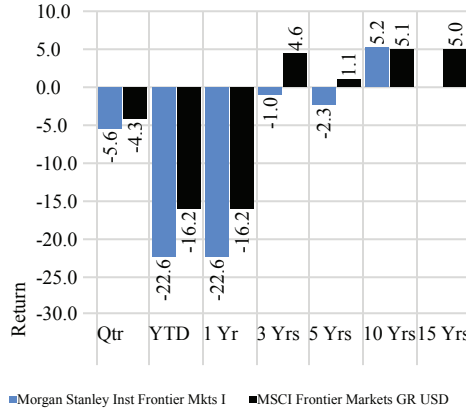
**Equity Style Exposures**

	Value	Blend	Growth	Market Cap	%
Large	1.4	15.0	12.3	Market Cap Giant %	0.0
Mid	12.0	6.8	32.4	Market Cap Large %	28.0
Small	4.6	2.7	12.9	Market Cap Mid %	50.0
				Market Cap Small %	21.2
				Market Cap Micro %	0.8

**Top 20 Holdings**

Ticker	Portfolio Weighting %	Qtr Return
National Bank of Kuwait SAK	NBK 10.51	-0.03
Mobile Telecommunications Co KSC	ZAIN 5.21	-5.81
Attijariwafa Bank SA	ATW 3.68	-0.89
Guaranty Trust Bank PLC	GTB 3.47	-5.45
Grupo Financiero Galicia SA ADR	GGAL 3.37	8.42
YPF SA ADR	YPF 3.04	-12.82
Vietnam Dairy Products JSC	VNM 2.90	-9.02
Banco Macro SA ADR	BMA 2.77	6.89
Globant SA	GLOB 2.64	-4.53
HumanSoft Holding Co KSCC	HUMANSOFT 2.63	2.35
Vinhomes JSC	VHM 2.57	-13.07
Telecom Argentina SA ADR	TEO 2.48	-10.68
Zenith Bank PLC	ZENITH 2.41	7.54
Pampa Energia SA ADR	PAM 2.34	2.45
Masan Group Corp Common Stock Vnd10000.	— 2.32	—
Square Pharmaceuticals Ltd	SQURPHARMA 2.30	1.24
Vincom Retail JSC Ordinary Shares	VRE 2.21	-14.14
Nestle Nigeria PLC	NSTL 2.16	7.83
Banca Transilva SA	TLV 2.10	-14.90
Boubyan Bank KSC	BOUBYAN 2.06	-0.50

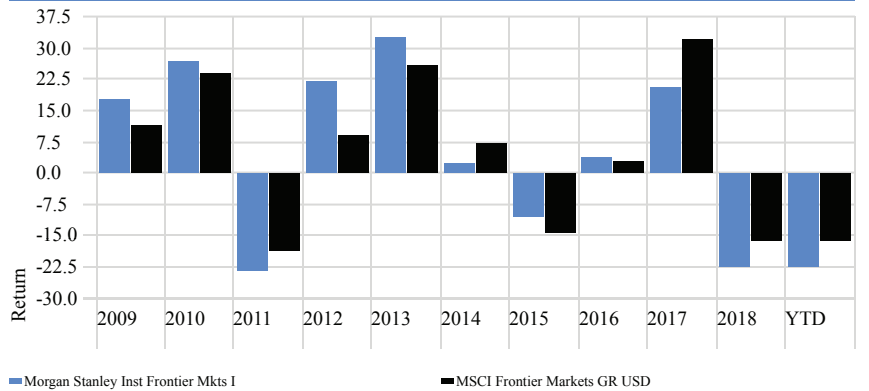
**Annualized Returns**



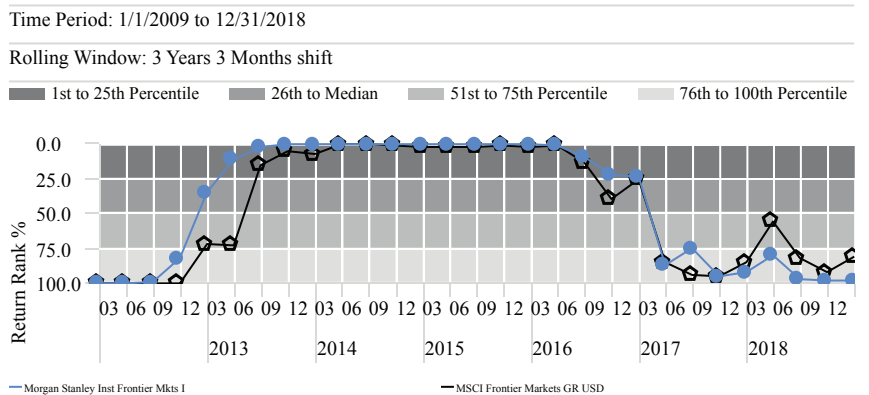
**Risk/Return Statistics**

	3 years	5 years	10 years
Alpha	-5.30	-3.25	0.66
Beta	0.97	0.92	0.88
R-squared	88.09	84.32	86.63
Tracking Error	4.33	4.88	5.71
Information Ratio	-1.23	-0.67	0.02
Excess Return	-5.56	-3.33	0.11
Standard Deviation	12.44	12.01	14.80
Sharpe Ratio	-0.10	-0.19	0.39
Sortino Ratio	-0.13	-0.24	0.56

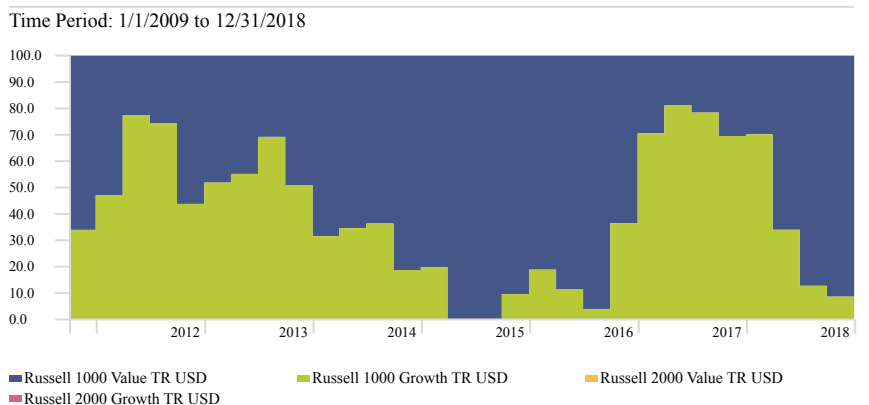
**Calendar Year Returns**



**Rolling 3 Year Return Morningstar Peer Group Rankings**



**Historical Returns-Based Style Analysis**



**Return Date: 12/31/2018**  
**Portfolio Date: 12/31/2018**

# Morgan Stanley Inst Frontier Mkts I

Fund Type: Frontier Markets

## Peer Group Comparison

### Average Annualized Returns (12/31/18)

	4Q18*	1-Year	2-Year	3-Year	4-Year	5-Year
Morgan Stanley Instl Frontier Mkts I	-5.57%	-22.60%	-3.30%	-0.98%	-3.47%	-2.28%
Harding Loevner Frontier Emerg Mkts Inst	-6.30%	-15.44%	2.85%	2.62%	-3.31%	-1.47%
HSBC Frontier Markets I	-4.67%	-19.21%	-0.88%	2.30%	-1.06%	0.15%
T. Rowe Price Instl Frontier Markets Eq.	-6.04%	-19.63%	2.88%	5.23%	0.39%	N/A
Templeton Frontier Markets R6	-7.20%	-20.29%	-0.88%	1.21%	-5.06%	-7.10%
Wasatch Frontier Emerg Sm Countrs Instl	-5.53%	-18.71%	-0.62%	-4.34%	-6.35%	-4.79%
<b>MSCI FM (FRONTIER MARKETS)</b>	<b>-4.32%</b>	<b>-16.20%</b>	<b>5.30%</b>	<b>4.58%</b>	<b>-0.43%</b>	<b>1.05%</b>

\*Returns for periods of less than one year have not been annualized.

### Sharpe Ratios (12/31/18)

	1-Year	2-Year	3-Year	4-Year	5-Year
Morgan Stanley Instl Frontier Mkts I	-1.52	-0.35	-0.16	-0.35	-0.24
Harding Loevner Frontier Emerg Mkts Inst	-1.43	0.14	0.15	-0.36	-0.19
HSBC Frontier Markets I	-1.53	-0.19	0.11	-0.14	-0.04
T. Rowe Price Instl Frontier Markets Eq.	-1.45	0.12	0.37	-0.03	N/A
Templeton Frontier Markets R6	-1.92	-0.15	0.02	-0.40	-0.55
Wasatch Frontier Emerg Sm Countrs Instl	-1.49	-0.17	-0.49	-0.71	-0.58
<b>MSCI FM (FRONTIER MARKETS)</b>	<b>-1.26</b>	<b>0.31</b>	<b>0.30</b>	<b>-0.10</b>	<b>0.04</b>

### Information Ratios (12/31/18) vs. MSCI Frontier Markets Index

	1-Year	2-Year	3-Year	4-Year	5-Year
Morgan Stanley Instl Frontier Mkts I	-2.17	-2.24	-1.28	-0.72	-0.68
Harding Loevner Frontier Emerg Mkts Inst	0.12	-0.44	-0.32	-0.48	-0.44
HSBC Frontier Markets I	-0.64	-1.37	-0.36	-0.10	-0.15
T. Rowe Price Instl Frontier Markets Eq.	-1.06	-0.52	0.13	0.17	N/A
Templeton Frontier Markets R6	-0.59	-0.54	-0.35	-0.50	-0.91
Wasatch Frontier Emerg Sm Countrs Instl	-0.52	-0.96	-1.36	-0.91	-0.86

### Calendar Year Returns & Batting Average vs. MSCI Frontier Markets Index

	2018	2017	2016	2015	2014	2013	2012	Batting Average
Morgan Stanley Frontier Mkts I	-22.60%	20.82%	3.83%	-10.58%	2.66%	32.95%	22.27%	4 of 7
Harding Loevner Frontier EM Inst	-15.44%	25.09%	2.16%	-19.10%	6.22%	17.03%	19.88%	2 of 7
HSBC Frontier Markets I	-19.21%	21.60%	8.96%	-10.46%	5.10%	26.08%	24.38%	3 of 7
T. Rowe Price Instl Frontier Mkts	-19.63%	31.69%	10.10%	-12.83%	N/A	N/A	N/A	2 of 4
Templeton Frontier Markets R6	-20.29%	23.25%	5.54%	-21.63%	-14.86%	17.28%	25.38%	2 of 7
Wasatch Frontier Emerg Sm Cntrs	-18.71%	21.49%	-11.37%	-12.10%	1.69%	18.00%	N/A	1 of 6
<b>MSCI Frontier Markets</b>	<b>-16.20%</b>	<b>32.32%</b>	<b>3.16%</b>	<b>-14.07%</b>	<b>7.21%</b>	<b>26.32%</b>	<b>9.25%</b>	

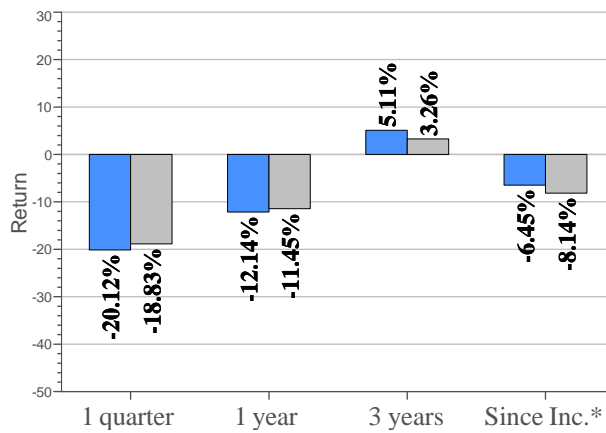
# PIMCO CommoditiesPLUS Strat Instl

Fund Type: Hard Asset

## Fund Performance:

### Manager vs Benchmark: Return

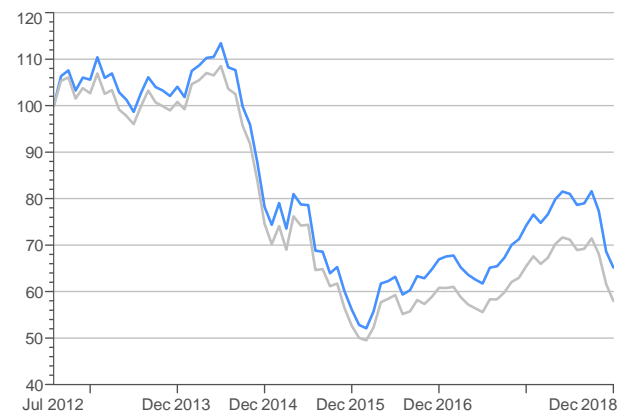
August 2012 - December 2018 (not annualized if less than 1 year)



■ Fund  
■ Credit Suisse Commodity Benchmark

### Manager Performance: "Mountain" Chart

August 2012 - December 2018 (Single Computation)



— Fund  
— Credit Suisse Commodity Benchmark

## Francis Investment Counsel LLC Review:

### Summary & Opinion

Your "hard asset" fund, the PIMCO CommoditiesPlus Fund, dropped 20.12% in the fourth quarter and underperformed its benchmark. The objective of this Fund is to provide investors with exposure to the changes in commodities prices by investing in futures contracts and swap agreements that mimic the Credit Suisse Commodity Benchmark. This Fund is an "enhanced index" strategy as management trades a limited amount of capital in an attempt to incrementally add value over the benchmark. While the trading dials-up the tracking error versus the passive benchmark, we believe PIMCO's capabilities for deploying such tactics is top notch. Although 2018's results didn't materialize to management's expectations in this respect, mainly due to underperforming positions in natural gas, the favorable 3-year results demonstrate management can add value. Clearly, investors have been able to capture the rebound in commodities prices and then some through the value add from trading. While past performance is no guarantee of future results, we believe the Fund is set-up well for the future and is guided by a competent duo armed with significant technological resources which we've seen first-hand on several occasions. The Fund earns our recommendation.

### Management & Expenses

Nic Johnson (since 2010) and Greg Sharenow (since 2015). The Fund's expense ratio is 0.77%.

### Quarterly Performance Commentary

Commodity markets were challenged during the fourth quarter, pushed lower by constituents in Energy (-32.6%) and Industrial Metals (-7.2%). Individually, WTI Crude Oil (-37.3%), Brent Crude Oil (-34.3%), and Nickel Primary (-15.2%) were several of the Fund's worst performing contracts. In contrast, Precious Metal contracts were the best performer, as individual contracts Gold (+7.3%), Silver (+5.4%), and Palladium (+12.9%) moved higher.

Returns are time-weighted rates of return for period ended 12/31/2018.

\*Since Inc. results are average annualized time-weighted rates of return for 77 months beginning 8/1/12 (actual inception 8/15/12). Fund performance results are net of investment management fees. Trust and/or administration fees have not been deducted. Actual performance affected by fees and money flows in and out of the Fund and can vary significantly from published Fund results. The above performance was obtained from sources we believe to be reliable, but we do not guarantee its accuracy. Past performance is no guarantee of future results.

TIDI PRODUCTS, LLC

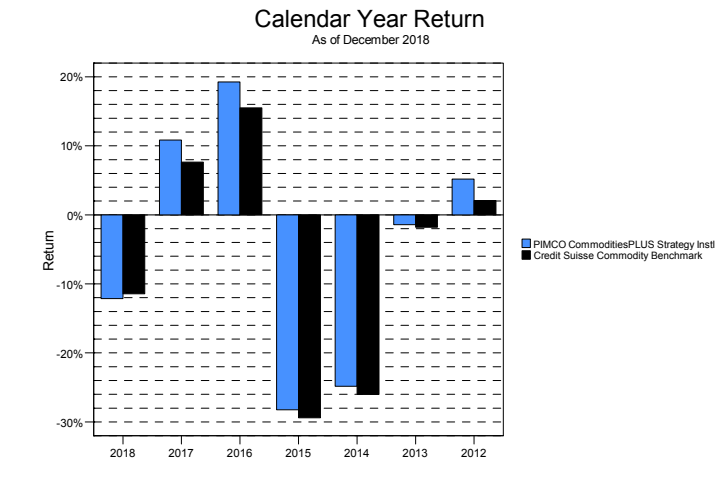
FRANCIS INVESTMENT COUNSEL LLC • 19435 W. CAPITOL DRIVE STE 201 • BROOKFIELD, WI • 53045 • 866-232-6457

ADVISOR. Manager returns supplied by: Morningstar, Inc.

# PIMCO CommoditiesPLUS Strategy I

Fund Type: Hard Asset

## Calendar Year Returns



## Fund Analytics

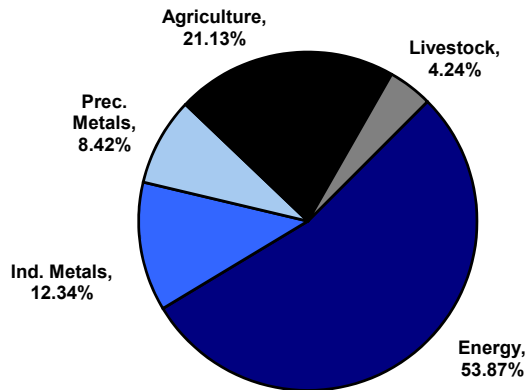
	Fund	Index
Forward P/E Ratio	N/A	N/A
Median Market Cap (Avg.)	N/A	N/A
Number of Holdings	525*	34
Beta (vs. S&P 500 Index)	0.50	0.48
3-year Sharpe Ratio	0.28	0.16
Total Net Assets (Millions)	\$2,678	N/A
3-year Morningstar Rank <sup>†</sup>	1%	N/A
Expense Ratio <sup>††</sup>	0.77% <sup>††</sup>	0.99% <sup>†††</sup>
Effective Duration	0.49 yrs*	N/A

\*as of 9/30/18

## Benchmark Target Commodity Weightings

Component	Exch.	PROMPT
<b>Energy</b>		
WTI Crude Oil	NYMEX	15.1906%
WTI Crude Oil	ICE	3.7706%
Brent Crude Oil	ICE	18.9614%
NY Harbor ULSD	NYMEX	2.8400%
Gasoil	ICE	3.4608%
RBOB Gasoline	NYMEX	6.6816%
Natural Gas	NYMEX	2.9624%
<b>Ind. Metals</b>		
		<b>12.3436%</b>
Copper high grade	COMEX	1.0411%
Copper grade A.	LME	2.5484%
Zinc high grade	LME	1.8805%
Aluminium primary	LME	3.1536%
Nickel primary	LME	2.1307%
Lead standard	LME	1.5893%
<b>Prec. Metals</b>		
		<b>8.4224%</b>
Gold	COMEX	3.6689%
Silver	COMEX	1.7329%
Platinum	NYMEX	1.5374%
Palladium	NYMEX	1.4832%
<b>Agriculture</b>		
		<b>21.1305%</b>
SRW Wheat	CBOT	2.3277%
HRW Wheat	KCBOT	1.4210%
Euro. Milling Wheat	EN	0.5980%
Corn	CBOT	4.9254%
Soybeans	CBOT	2.5039%
Soybean Meal	CBOT	0.8639%
Soybean Oil	CBOT	0.4783%
Sugar #11	ICE	2.1233%
Sugar #5	EN	0.1792%
Cocoa	ICE	0.8883%
Cocoa	EN	0.7289%
Coffee "C" Arabica	ICE	1.6294%
Coffee Robusta	EN	0.3017%
Cotton	ICE	2.1615%
<b>Livestock</b>		
		<b>4.2361%</b>
Live Cattle	CME	1.9917%
Feeder Cattle	CME	0.4416%
Lean Hogs	CME	1.8028%

## Benchmark Sector Weightings



<sup>†</sup>Expressed as a percentage rank of all the funds in the Morningstar category Commodities – Broad Basket. The lower the percentage, the higher the ranking.  
Expense Ratio of Index is average of all mutual funds in Morningstar category Commodities – Broad Basket.

<sup>††</sup>Expense ratio reflects I shares net operating expense ratio.

<sup>†††</sup>Expense ratio of Index is average of all "institutionally priced" mutual funds in the corresponding Morningstar category.

The above summary/prices/quotes/statistics have been obtained from sources we believe to be reliable, but we do not guarantee its accuracy or completeness. Past performance is no guarantee of future results.

Derivatives	Duration (Years)	% of Mkt Value	Characteristics of Derivatives
<b><u>Bond-Equivalent Derivatives:</u></b>			
<b>Government Futures</b>	<b>-0.1</b>	<b>-2.4</b>	Used to adjust interest rate exposures and replicate government bond positions. May offer opportunity to outperform due to active management of the liquid portfolio backing the exposure.
U.S.	0.1	0.4	
Non - U.S.	-0.2	-2.8	
<b>Other Futures:</b>	<b>0.0</b>	<b>0.0</b>	Includes municipal, mortgage-backed and interest rate swap futures.
<b>Interest Rate Swaps</b>	<b>-1.5</b>	<b>-25.4</b>	Includes Swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swap positions ("receive fixed") increase exposure to long-term interest rates; short positions ("pay fixed") decrease exposure.
Receive	0.0	0.8	
Pay	-1.5	-26.2	
<b>Credit Default Swaps</b>	<b>0.0</b>	<b>0.2</b>	Credit default swaps are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure ("selling protection"), obligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing the right to "put" bonds to the counterparty in the event of a default.
Written	0.0	0.2	
Purchased	0.0	0.0	
<b>Option Premiums</b>	<b>0.0</b>	<b>0.0</b>	Purchased options are used to manage interest rate and volatility exposures. Written options generate income in expected interest rate scenarios and may generate capital losses if unexpected interest rate environments are realized. Both written and purchased options will become worthless at expiration if the underlying instrument does not reach the strike price of the option.
Written	0.0	0.0	
Purchased	0.0	0.0	
<b>Mortgage Derivatives</b>	0.0	0.0	Used to manage portfolio duration and/or enhance yield. Includes securities determined by PIMCO to have potentially less stable duration characteristics, such as Interest Only strips (IOs), Principal Only strips (POs), Support Class CMOs and Inverse Floaters. Value will fluctuate as prepayment speeds respond to rising and falling interest rates.
<b>Total Return Swaps</b>	0.0	0.0	
Fixed Income	0.0	0.0	
<b>Total Bond-Equiv. Derivatives:</b>	<b>-1.7</b>	<b>-27.6</b>	
<b><u>Money Market Derivatives:</u></b>			
Futures	0.0	0.0	Used to manage exposures at the front end of the yield curve. Includes Swaps with duration of 1 year or less, and Eurodollar, Euribor and other futures based on short-term interest rates. The notional amount of money market futures is divided by the term of the underlying interest rate to properly reflect the exposure. Eurodollar futures, based on an annualized 3-month interest rate, are divided by 4; Fed funds futures, based on an annualized 1-month rate, are divided by 12.
Interest Rate Swaps	0.0	0.0	
<b>Commodity Exposure</b>	<b>N/A</b>	<b>127.9</b>	
<b><u>Equity Derivatives</u></b>			
Futures	N/A	0.0	
Total Return Swaps	N/A	0.0	

*Investors should consider the investment objectives, risks, charges and expenses of the funds carefully before investing. This and other information are contained in the fund's prospectus and summary prospectus, if available, which may be obtained by contacting your financial advisor or PIMCO representative or by visiting [www.pimco.com/investments](http://www.pimco.com/investments). Please read them carefully before you invest or send money.*

**A word about risk:**

All investments contain risk and may lose value.

Investing in the bond market is subject to certain risks, including market, interest rate, issuer, credit and inflation risk; investments may be worth more or less than the original cost when redeemed.

Investing in foreign-denominated and/or -domiciled securities may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets.

Mortgage- and asset-backed securities may be sensitive to changes in interest rates, subject to early repayment risk, and their value may fluctuate in response to the market's perception of issuer creditworthiness; while generally supported by some form of government or private guarantee, there is no assurance that private guarantors will meet their obligations.

Derivatives may involve certain costs and risks, such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested.

Please refer to the Fund's prospectus for a complete overview of the primary risks associated with the Fund.

The value of most bond strategies and fixed income securities are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and more volatile than securities with shorter durations; bond prices generally fall as interest rates rise.

Additional risk factors can be found in the prospectus.

Holdings are subject to change without notice and may not be representative of current or future allocations.

This material has been distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product.

No part of this material may be reproduced in any form, or referred to in any other publication, without express written permission. PIMCO is a trademark or registered trademark of Allianz Asset Management of America L.P. and Pacific Investment Management Company LLC, respectively, in the United States and throughout the world. ©2019, PIMCO.

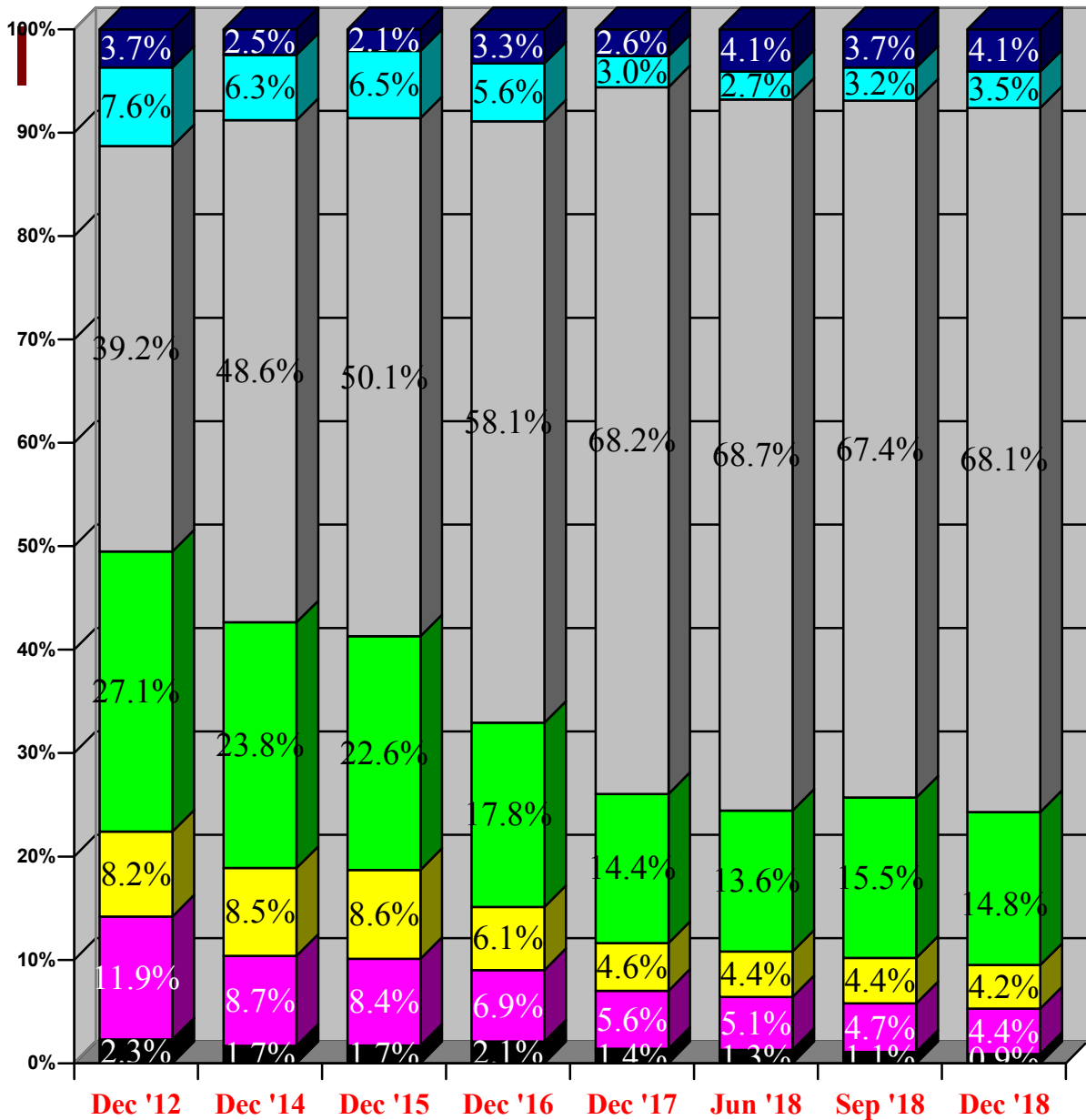
**PIMCO Investments LLC**, distributor, 1633 Broadway, New York, NY, 10019, is a company of PIMCO.



# Plan Asset Allocation

Tidi Products, LLC

- Specialty Fund
- International Funds
- Small-Cap Funds
- Mid-Cap Funds
- Large-Cap Funds
- Target Retirement Funds
- Fixed Income Funds
- Stable Value Fund



Dec '12	Dec '14	Dec '15	Dec '16	Dec '17	Jun '18	Sep '18	Dec '18
\$12,667,815	\$16,695,206	\$16,341,246	\$22,810,558	\$36,366,928	\$37,445,746	\$38,014,701	\$34,389,377

# Plan Asset Allocation

Tidi Products, LLC

	Dec-12	Dec-14	Dec-15	Dec-16	Dec-17	Jun-18	Sep-18	Dec-18	
<b>Stable Value Fund</b>	<b>3.7%</b>	<b>2.5%</b>	<b>2.1%</b>	<b>3.3%</b>	<b>2.6%</b>	<b>4.1%</b>	<b>3.7%</b>	<b>4.1%</b>	<b>\$1,398,956</b>
<i>Morley Stable Value</i>	1.1%	2.5%	2.1%	3.3%	2.6%	4.1%	3.7%	4.1%	\$1,398,956
<i>Fidelity Managed Income</i>	2.6%	-	-	-	-	-	-	-	-
<b>Fixed Income Funds</b>	<b>7.6%</b>	<b>6.3%</b>	<b>6.5%</b>	<b>5.6%</b>	<b>3.0%</b>	<b>2.7%</b>	<b>3.2%</b>	<b>3.5%</b>	<b>\$1,217,141</b>
<b>Bond Fund</b>									
<i>Vanguard Total Bond Market Index</i>	4.7%	3.4%	3.6%	3.2%	1.5%	1.3%	1.6%	1.8%	\$617,028
<b>Inflation Protected Bond</b>									
<i>DFA Inflation Protected Securities</i>	1.7%	1.4%	1.4%	1.3%	0.7%	0.6%	0.9%	0.9%	\$322,359
<b>Emerging Market Debt</b>									
<i>MFS Emerging Market Debt</i>	1.2%	1.4%	1.5%	1.2%	0.7%	0.7%	0.8%	0.8%	\$277,754
<b>Target Retirement Date Funds</b>	<b>39.2%</b>	<b>48.6%</b>	<b>50.1%</b>	<b>58.1%</b>	<b>68.2%</b>	<b>68.7%</b>	<b>67.4%</b>	<b>68.1%</b>	<b>\$23,402,510</b>
<i>T. Rowe Price Retirement Income</i>	1.0%	1.5%	1.2%	1.1%	0.7%	0.6%	2.2%	2.3%	\$786,965
<i>T. Rowe Price Retirement 2005</i>	0.0%	0.0%	0.0%	-	-	-	-	-	-
<i>T. Rowe Price Retirement 2010</i>	1.5%	1.1%	1.1%	1.0%	0.8%	0.7%	0.7%	0.4%	\$121,462
<i>T. Rowe Price Retirement 2015</i>	4.7%	4.2%	4.0%	6.2%	4.0%	3.7%	3.6%	3.8%	\$1,320,201
<i>T. Rowe Price Retirement 2020</i>	11.9%	12.8%	12.7%	9.7%	9.7%	9.3%	7.7%	8.0%	\$2,740,991
<i>T. Rowe Price Retirement 2025</i>	6.0%	6.8%	7.1%	7.6%	11.6%	10.5%	10.3%	10.4%	\$3,566,730
<i>T. Rowe Price Retirement 2030</i>	2.2%	4.1%	3.6%	5.4%	10.3%	11.6%	10.5%	10.9%	\$3,758,420
<i>T. Rowe Price Retirement 2035</i>	4.3%	6.0%	6.6%	8.3%	10.8%	11.3%	11.7%	11.3%	\$3,876,967
<i>T. Rowe Price Retirement 2040</i>	5.3%	8.4%	9.3%	10.9%	10.8%	10.9%	10.2%	10.4%	\$3,575,109
<i>T. Rowe Price Retirement 2045</i>	1.8%	2.6%	3.0%	4.0%	4.3%	4.4%	4.5%	4.7%	\$1,624,739
<i>T. Rowe Price Retirement 2050</i>	0.4%	0.8%	1.0%	1.8%	2.6%	2.8%	2.9%	2.8%	\$956,149
<i>T. Rowe Price Retirement 2055</i>	0.1%	0.4%	0.3%	1.8%	2.1%	2.2%	2.3%	2.4%	\$821,714
<i>T. Rowe Price Retirement 2060</i>	-	0.0%	0.1%	0.4%	0.5%	0.7%	0.7%	0.7%	\$253,063
<b>Large-Cap Funds</b>	<b>27.1%</b>	<b>23.8%</b>	<b>22.6%</b>	<b>17.8%</b>	<b>14.4%</b>	<b>13.6%</b>	<b>15.5%</b>	<b>14.8%</b>	<b>\$5,095,306</b>
<b>Large-Cap Value Fund</b>									
<i>FMI Large Cap</i>	4.8%	4.3%	3.7%	3.5%	2.3%	2.2%	2.1%	2.0%	\$676,444
<b>Large-Cap Blend Fund</b>									
<i>Vanguard Total Stock Market Index</i>	7.7%	8.2%	7.5%	6.7%	5.2%	5.1%	6.0%	5.8%	\$1,990,053
<b>Large-Cap Growth Fund</b>									
<i>Fidelity Contrafund</i>	14.5%	11.3%	11.4%	7.5%	7.0%	6.3%	7.4%	7.1%	\$2,428,808
<b>Small-Cap Funds</b>	<b>8.2%</b>	<b>8.5%</b>	<b>8.6%</b>	<b>6.1%</b>	<b>4.6%</b>	<b>4.4%</b>	<b>4.4%</b>	<b>4.2%</b>	<b>\$1,440,918</b>
<b>Small-Cap Value Fund</b>									
<i>DFA US Targeted Value</i>	2.7%	3.1%	2.9%	2.9%	2.2%	2.0%	1.9%	1.6%	\$552,390
<b>Small-Cap Growth Fund</b>									
<i>Loomis Sayles Small-Cap Growth</i>	5.5%	5.3%	5.7%	3.2%	2.5%	2.4%	2.5%	2.6%	\$888,528
<b>International Funds</b>	<b>11.9%</b>	<b>8.7%</b>	<b>8.4%</b>	<b>6.9%</b>	<b>5.6%</b>	<b>5.1%</b>	<b>4.7%</b>	<b>4.4%</b>	<b>\$1,520,199</b>
<b>Developed International</b>									
<i>American Funds EuroPacific Growth</i>	-	-	-	-	-	2.3%	2.2%	2.0%	\$696,493
<i>Harbor International</i>	8.5%	4.7%	4.5%	3.6%	2.7%	-	-	-	-
<i>Hartford International Small Company</i>	-	-	-	-	0.9%	0.9%	0.8%	0.7%	\$228,087
<i>Columbia Acorn International</i>	1.3%	1.3%	1.4%	1.1%	-	-	-	-	-
<b>Emerging Markets</b>									
<i>Oppenheimer Developing Markets</i>	2.1%	2.1%	2.0%	1.9%	1.7%	1.6%	1.5%	1.4%	\$487,700
<b>Frontier Markets</b>									
<i>Morgan Stanley Instl Frontier Markets</i>	-	-	-	-	0.3%	0.3%	0.3%	0.3%	\$107,920
<i>Wasatch Frontier Emerging Small Countries</i>	-	0.5%	0.4%	0.4%	-	-	-	-	-
<b>Specialty Fund</b>	<b>2.3%</b>	<b>1.7%</b>	<b>1.7%</b>	<b>2.1%</b>	<b>1.4%</b>	<b>1.3%</b>	<b>1.1%</b>	<b>0.9%</b>	<b>\$314,347</b>
<i>PIMCO CommoditiesPLUS</i>	2.3%	1.7%	1.7%	2.1%	1.4%	1.3%	1.1%	0.9%	\$314,347

## Are cybercriminals targeting your 401(k)?

### **401(k) ADVISER**

**MICHAEL J. FRANCIS**



Ever apply for a credit card, shop at Target or stay at a Marriott? If so, it's time to wake up to the very real possibility that, due to some recent large data breaches, your personal information is now available to anyone motivated enough to go on the dark web and buy it.

To a cybercriminal, the 401(k) industry looks like a big candy store with over \$5 trillion in liquid assets and largely automated systems. Armed with your name, social security number, date of birth, address and any personal information available on social media, your 401(k) account is vulnerable. Not surprisingly, since these large-scale data breaches have occurred, industry insiders report a sharp increase in the number of attempts to steal 401(k) assets.

Sophisticated criminals, with little fear of being caught, use stolen personal data to gain access to your account. Once successful, they change your contact information on file, then pose as you to your plan's help desk asking to withdraw or borrow money for some imaginary emergency. They request the money be wired to a domestic bank account and then quickly move the money offshore, never to be seen again.

Here are some steps you should take now to protect your 401(k) assets:

**Check your account regularly.** Make sure your 401(k) service provider can connect with you. You're looking for any unauthorized activity. This includes any changes to your contact information. All current 401(k) record-keeping platforms attempt to notify the account holder when changes are made to their contact information. This is why you want to make sure they have either a phone number or email address to contact you when any changes are made to your account.

If you get a notice of a change you didn't initiate or see any activity in your account that looks suspicious, contact your human resources department immediately. Also make sure your 401(k) provider is set up as an approved email source, so any email it sends you doesn't get caught in your spam folder.

**Use a unique and strong password.** Your 401(k) account is likely one of your largest liquid assets, it deserves its own password. Consider changing your password every year.

**Beware of phishing scams** that ask you to click on a link embedded in an email or open an attachment from someone unknown to you. This is one of the most common tricks cyberthieves use to get you to hand over sensitive personal information or download malware onto your computer that can transmit all your key strokes. Install ant-virus, anti-

malware and firewall software on your computer to prevent thieves from hacking your personal computer.

**Avoid using public computers and public Wi-Fi networks** when logging into your retirement account. You never know who could be tracking your activity. When you've finished looking at your account, immediately log out of your account and close the browser.

**Never share your login username or password** with anyone, including your financial adviser. As soon as you do, you will likely forfeit any protections offered by your plan's online service provider as you will be deemed to have authorized outside access to your account.

**Inquire with your 401(k) service provider** or human resources department about the availability of advanced security measures. Dual factor authentication is now standard on most 401(k) platforms, with additional security available from certain service providers such as account lock features and biometric/voice recognition software. The best safety measure may be for employers to "de-automate" the distribution process.

### **Protections have caveats**

Understand there is no federal insurance standing behind your 401(k) account. Generally speaking, 401(k) record keepers, whose systems you rely on to protect your assets, will cover 100 percent of any losses due to unauthorized access. But caveats abound regarding what conditions you must satisfy to demonstrate the theft was not the result of your or your employer's carelessness or inattentiveness.

Some of the 401(k) service agreements we have reviewed make statements like, "We will reimburse you for 100 percent of the assets taken." Then in the fine print state, "Our obligation to reimburse applies only in the event such unauthorized activity is due to our failure to implement our contractually agreed upon security protocols." If you have not taken any of the precautions described above, there is a very real possibility the service provider will not make you whole.

For this reason, it's a good idea to ask your employer about the existence of any insurance that would make you whole in case of a successful breach of your account. While these steps may seem like a lot, it's well worth it to protect the retirement savings you've worked so hard to accumulate.

The material in this column is provided for informational purposes only. Neither the information nor any opinion expressed constitutes a solicitation for the purchase or sale of any security. Francis Investment Counsel does not offer personal tax or legal advice. Michael J. Francis is president and senior investment consultant of Francis Investment Counsel LLC, a registered investment adviser based in Brookfield. He can be reached at [michael.francis@francisinvco.com](mailto:michael.francis@francisinvco.com)



**FRANCIS**  
Investment Counsel LLC

The information contained within is proprietary and confidential, therefore, we respectfully request that it not be shared with anyone outside the Investment Committee.

The summary/prices/quotes/statistics contained herein have been obtained from sources believed reliable but are not necessarily complete and cannot be guaranteed. Annual, cumulative and annualized total returns are calculated assuming reinvestment of dividends and income plus capital appreciation. Past performance results are not necessarily indicative of future results. Performance presented herein represents that of the mutual fund itself and is, in most instances, independent of the actual return earned by the Plan or its participants, unless otherwise noted. Timing of cash flows into and out of a fund can significantly impact the actual performance experienced by the Plan and its participants. Returns shown are net of investment management fees but before administrative expenses. As expenses are deducted quarterly, the compounding effect will be to increase the impact of the expenses by an amount directly related to the gross account performance. For example, on an account with a 2% fee, if the gross performance is 20%, the compounding effect of the fees will result in a net performance of approximately 17.6%. The cost/dividend/return information is provided to analyze performance, and should not be used for tax purposes.

Francis Investment Counsel does not provide tax or legal advice. Please consult your tax and/or legal advisor for such guidance.