

TIDI PRODUCTS, LLC INCENTIVE SAVINGS PLAN

2nd QUARTER 2019 PERFORMANCE REVIEW

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Investment Consulting Services



Agenda

Second Quarter 2019

September 19, 2019 – Tidi Products, LLC

Action Items – Require Committee Discussion/Vote

• Hartford International Small Company – Watch List IV due to relative underperformance. Fund to be replaced on 10/21/19 by the DFA International Small Company Fund as voted on by the Committee during a special conference call on August 26th (pp. 72-75).

Items Recommended for Discussion

- Fiduciary Advice @ Work (p. 3) and Francis Investment Counsel Update (p. 4)
- Independent View (pp. 5-11)
- Executive Summary (pp. 12-13)

Items of Note

• SITE VISIT – Charlotte, NC. Met with representatives of the DFA Inflation-Protected Securities and DFA US Targeted Value Funds (pp. 19, 66).

Additional information about our investment manager due diligence visits is available upon request.

- Vanguard Total Bond Market Index and Vanguard Total Stock Market Index moving to Fidelity on 10/21/19 (pp. 16, 60).
- Fidelity Contrafund converting to K6 shares on 10/21/19 (p. 56).
- Invesco Oppenheimer Developing Markets R6 Fund name change (p. 76).



Francis Investment Counsel – Fiduciary Advice @ Work

Issues of Data Privacy and Security Reach Retirement Plans

Second Quarter 2019

The list of responsibilities that accompany being an ERISA Fiduciary is extensive, with most duties centered around the protection and stewardship of participant *assets*. If recent trends hold, this list may soon include the protection of participant personal financial *data*.

In an increasingly digital world, personal data is a valuable source of information for companies selling everything from socks to sailboats. Data is used for targeted marketing to potential consumers who fit the right age, interests, and level of income for the product at hand. The same practice is frequently used to sell financial services, and for companies engaged in qualified retirement plan recordkeeping the sources of data at their fingertips are quite valuable.

If a plan participant reaches out to a recordkeeping call center representative, that representative will at minimum have access to the participant's age, home address, plan balance, and deferral percentage, information that can be extremely helpful when cross-selling IRAs, annuities, and other wealth management services. ERISA strictly prohibits plan service providers from utilizing plan assets for their own benefit (prohibited transaction), which brings to light an important question – is participant personal financial data a plan asset?

This question was a consideration in the recent settlement of the class action suit *Cassell v. Vanderbilt University¹*. Although the key component of the suit alleged that the Vanderbilt University Committee failed to appropriately monitor and control fees across the University's two 403(b) Plans, included in the list of complaints was the Committee's allowance of one of the plans' recordkeepers to use participant data to cross-sell services outside of the plan.

As part of a \$14.5M settlement, Vanderbilt agreed to explicitly prohibit all future service providers from using participant personal financial data to promote services and sell products outside of the Plan. However, since the suit was settled out of court, the case did not establish a legal precedent on participant data's status as a plan asset. A similar question is currently being evaluated in the appeal of *Divane v. Northwestern University*², a similar excessive fee case that was dismissed by an Illinois district court judge in early-2018.

In our opinion, increased scrutiny on the use of participant personal financial data, and an ERISA fiduciary's duty to protect it, will not abate any time soon. Conflicted advice from service providers has long been a hot-button issue, and this only adds fuel to that fire. As a matter of best practice, there are several steps plan sponsors can take to protect themselves from accusations of this kind of fiduciary breach:

- 1. Review contracts to determine both the extent to and means by which service-providers or their affiliated companies may use participants' personal financial data;
- 2. Ask service providers for a full description of what participant data is collected, and if any of the data is utilized to offer both guidance and advice inside and outside of the plan;
- 3. Allowing service providers to offer advice is a fiduciary decision, one that plan committee members are duty-bound to monitor. We recommend a trial of these services or a screening of recorded participant calls to verify participants are being advised in a prudent manner.
- 4. If participant data is being used to sell services outside of the plan, re-work contracts to prohibit the practice, or ask the service providers to quantify the value of external services sold and revisit existing fee arrangements.

¹Cassell et al v. Vanderbilt University et al (M.D. Tenn, April 22, 2019)

²Divane et al v. Northwestern University et al (N.D Ill., May 25, 2018)



Team News

Second Quarter 2019



We are pleased to welcome a new member to the Francis Investment Counsel Team!



Kevin Skow

Vice President Retirement Plan Consultant, Regional Director kevin.skow@francisinvco.com

Kevin Skow joined Francis Investment Counsel after more than 15 years with Milliman in the greater Minneapolis-St. Paul area. A native of Southeast Wisconsin and a graduate of Marquette University, Kevin will be joining Francis Investment Counsel's Minneapolis office, specializing in plan design, plan compliance, and relationship management. In addition to a passion for retirement planning, Kevin is deeply involved in the St. Paul, MN community, including his role as President of Friends of FANA Minnesota, an organization that provides support to the FANA orphanage in Bogotá, Colombia.

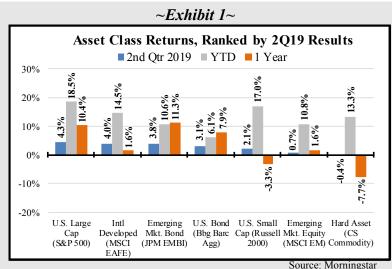


Second Quarter 2019

Looking Back...

Global Capital Markets Advance in a **Correlated Climb**

- Stocks and bonds advanced during a volatile second quarter, extending strong year-to-date gains and prolonging an atypical trend of positive correlation between these asset classes.
- Although economic fundamentals softened in 2019, the S&P 500 hasn't missed a beat, experiencing its best first half of the year since 1997, and leading all major equity asset classes.
- Despite increasing macroeconomic headwinds, U.S. corporations have grown the bottom line. The continued escalation in trade tensions, the dwindling impact of corporate tax reform, and tough year-over-year comparisons are some of the hurdles companies have faced.
- Tallying year-over-year growth of 4% during Q1, S&P 500 companies have now grown operating earnings in 11 consecutive quarters.





~Exhibit 3~ Global Export Volumes (3-month average) 6% 5% Year-over-year change 3% 1% Apr. '19, 0.0% 2012 2013 2014 2016 2018 2019 Source: CPB Netherlands Bureau for Economic Policy Analysis

Tariffs Take Toll on Global Growth

- Although tariffs between the U.S. and China haven't held back risk asset returns to start 2019, they have been the source of a general breakdown in economic fundamentals on a global basis.
- Global manufacturing fell into contractionary territory during the quarter, with manufacturing stalwarts such as Germany seeing PMI shrink to 7-year lows. A steep decline in export volumes was particularly detrimental to China, where equity prices fell 3.92%.

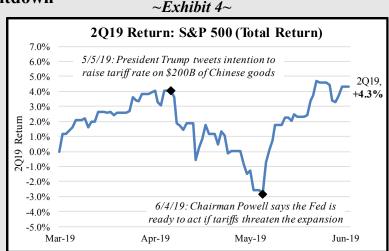


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Powell Puts a Stop to the Market's May Meltdown

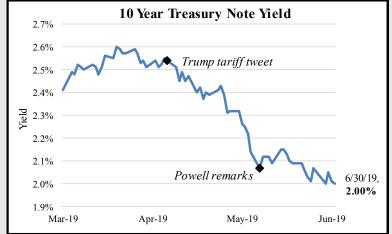
Positive quarterly returns masked considerable intra-quarter volatility, with the S&P 500 falling 6.35% during the month of May. This midquarter meltdown coincided directly with President Trump's comment that the U.S. would raise the tariff rate on \$200B of Chinese goods.

This selloff persisted into early-June, at which point Fed Chairman Powell restored investor confidence by stating the Fed would act decisively to avert a recession should the trade war weigh on the prevailing U.S. expansion.



Source: Morningstar

~Exhibit 5~



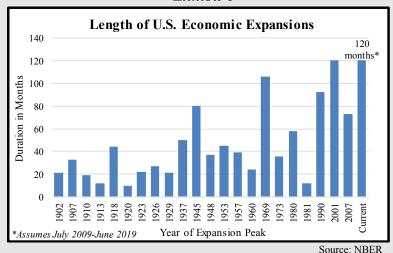
Source: U.S. Treasury

Rates Fall Below 2.00% as Fed Fuels **Fixed Income Rally**

- Just as Powell's foreshadowing of future rate cuts sparked a rally for global equity markets, the promise of falling short-term rates in both the U.S. and Eurozone caused a collapse in long-term yields.
- Ten-year Treasury yields fell more than 0.40% during the quarter, dipping below 2.00% and pushing U.S. bond prices up 3.08%. Falling rates in the long-end caused the U.S. yield curve to invert (10-year minus 3-month) a shape it has held since late-May.

Record Breaking Recovery – Economic Expansion Turns Ten ~Exhibit 6~

- Now 10-years in duration, the prevailing economic expansion has taken advantage of unprecedented levels of liquidity to become the single longest in U.S. history, surpassing the prior record set in 2001.
- Although the magnitude of growth has been underwhelming relative to prior recoveries, the current expansion has been quite resilient, weathering the European debt crisis, a crash in commodity prices, an EM recession, a Chinese currency devaluation, concerns surrounding Brexit, and the ongoing trade war.



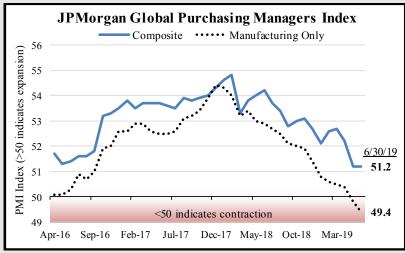


Second Quarter 2019

Looking Forward ...

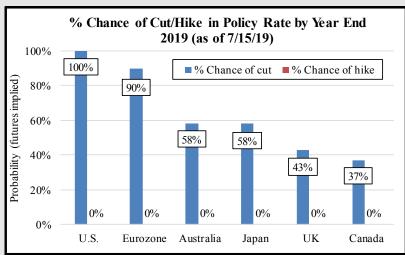
Fundamentals Soften, but Central Bank Support Looms Large ~Exhibit 7~

- After a prolonged stretch of coordinated growth, the global economy has seen fundamentals deteriorate meaningfully. This trend is particularly prominent in exports, trade volumes, and manufacturing activity each of which have been sapped by the trade war between the U.S and China.
- Although the trade conflict remains ongoing, pressures are building on both sides, making us hopeful a resolution can be reached in the near-term.
- While there is no certainty surrounding a resolution on trade, the global economy is very likely to see central bank activity turn from a headwind to a tailwind over 2019's final six months
- Both the U.S. Federal Reserve Bank and European Central Bank have committed to provide support to their respective economies if data remains weak, and markets are expecting short-term interest rate cuts in several key markets around the globe.
- Fed policy easing alone may be enough to extend the already record-breaking U.S. economic expansion, but it is a particularly welcome sign when considered alongside of softening in both leading-economic indicators and U.S. economic surprises.
- We believe the U.S. economy is poised for a cyclical rebound, one that would help foster continued stabilization across both developed and emerging markets. This backdrop keeps us optimistic on risk assets.



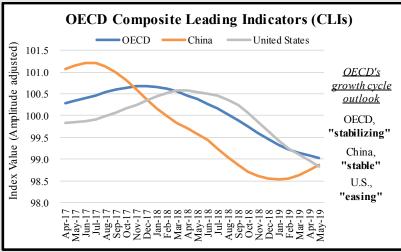
Source: JPMorgan via Bloomberg

~Exhibit 8~



Source: Bloomberg

~Exhibit 9~



Source: OECD

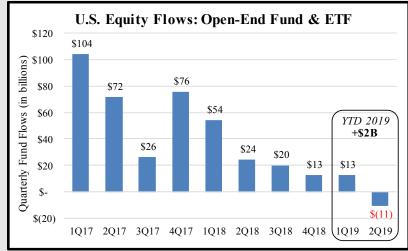
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Easing Expectations Offer Opportunity for U.S. Equities

~Exhibit 10~



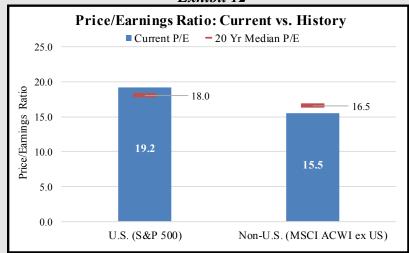
Source: Morningstar

~Exhibit 11~



Source: U.S. BEA

~Exhibit 12~



Source: Bloomberg

- Despite the best start to a year for U.S. equities since 1997, investor sentiment remains lackluster with the vast majority of new asset flows being directed towards fixed income.
- Coupling this disparity in flows with below average retail bullishness and a barrage of negative preannounced earnings gives us hope that stocks may exceed expectations in the coming months
- Although investor sentiment remains poor, consumer sentiment paints a vastly different picture. The average U.S. consumer is confident, employed, and flush with cash, a potent combination.
- While Americans aren't currently buying stocks, they are buying a host of other personal consumption with expenditures growing at a pace faster than overall GDP. This trend should be broadly supportive of corporate earnings, fueling gains for equities.
 - We continue to advocate a slight overweight to U.S. equities, but above average valuations by virtually every measure and rising recession risk keep us from upgrading the category.
 - Not only are U.S. equities pricey relative to their own history, they are expensive relative to both foreign developed and emerging market equities. As of quarterend, the trailing 12-month P/E ratio on the S&P 500 Index exceeded 19x, among the most expensive in the world.



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Stimulus Support a Welcome Sign for Foreign Stocks

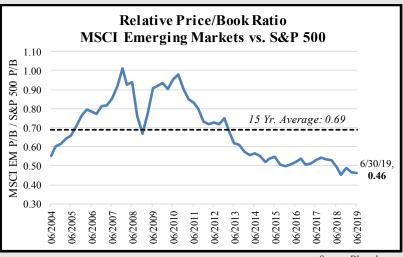
- Tighter trade conditions have served as a major drag on foreign economic growth, particularly for export-heavy nations across the Eurozone. This slowdown has weighed on both consumer and business sentiment, while also causing wage growth to retract.
- Economic softening has set the stage for the ECB to cut interest rates and enact a fresh round of quantitative easing, which when paired with cyclical lows in unemployment keep us at a neutral weight on foreign developed equities.
- Emerging market economies are also feeling the impact of declining trade volumes, with China posting its lowest level of GDP growth in 27-years. However, in our opinion, extreme pessimism is already priced into equity markets, with EM stocks trading at dirt cheap relative valuations.
- Not only are stock valuations exceedingly cheap, currencies across the developing world also trade below historical norms. This provides a margin of safety not currently present for U.S. equities.
- China has been the single biggest headwind for emerging market equities over the past 12-months (-6.55%), but in our view, the country has the potential to lead a turnaround in the near future.
- Most of China's problems stem directly from the ongoing trade war with the U.S., and given Beijing's continuous push to offset the impact through both fiscal and monetary stimulus, the completion of a trade deal could quickly reverse China's fortunes. We remain cautiously optimistic on the asset class

~Exhibit 13~



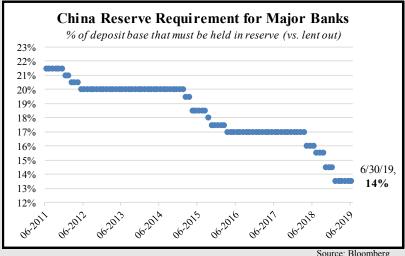
Source: Bloomberg

~Exhibit 14~



Source: Bloomberg

~Exhibit 15~

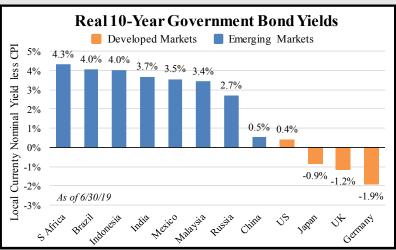




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Real Yields are Really Low, Sapping Appeal for Fixed Income

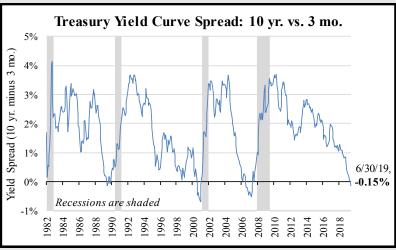
- Following a broad-based compression in interest rates during the second quarter, nearly \$13T worth of global bonds now offer investors a negative *nominal* rate of interest. When accounting for inflation, *real* yields are more than 1.0% negative in both the U.K. and Germany.
- This dynamic weighs on the attractiveness of fixed income across the board. However, it should spur demand for both EM and U.S. issued debt, where yields remain positive.
- With U.S. Treasury yields unattractive and credit spreads trading more expensive than historical average, we'd advocate remaining marginally underweight to U.S. bonds. However, with a decelerating global economy, an inverted yield curve, and little risk of inflation we wouldn't avoid the asset class altogether.
- We are more constructive on emerging market debt, upgrading the sector in front of central bank stimulus, a policy measure that should further widen yield differentials in favor of the developing world.



~Exhibit 16~

Source: Bloomberg

~Exhibit 17~

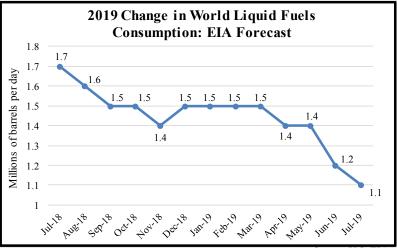


Source: Federal Reserve Bank of St. Louis

Commodity Concerns Turn Toward Demand

- The commodity price swoon experienced over the past 5 years has been a function of increasing petroleum supply, particularly in the U.S. This headwind remains, and now thanks to a trade-fueled slowdown in global growth, energy commodities are also facing a deceleration in demand.
- This unfavorable supply/demand dynamic, along with a pullback in capacity utilization and cooling inflation on a global basis has caused us to downgrade hard assets to neutral/underweight.

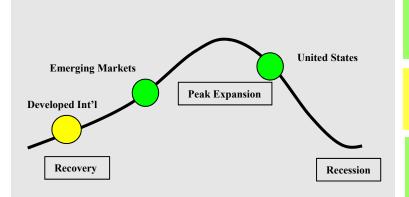
~Exhibit 18~



Source: U.S. EL

Second Quarter 2019

Cyclical Economic Outlook

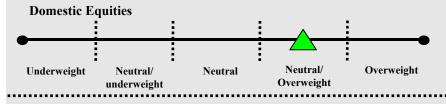


U.S - GDP is on a favorable course for 2019. Leading economic indicators point to growth and the unexpected dovish tone from the Fed means the cost of money is cheaper for longer. Consumer has significant spending capacity thanks to low unemployment as well as gains in income and total wealth.

Developed International - European countries should see some stabilization off of soft PMI readings. While there is no certainty surrounding a resolution on trade, the global economy is very likely to see central bank activity turn from a headwind to a tailwind over 2019's final six months.

Emerging Markets - China is on the upswing as decreased banking reserve requirements and fiscal stimulus have helped reboot the economy. Two items that could help breathe even more life into developing world: resolution of the trade dispute between the U.S. and China and a decline in the strong U.S. dollar.

Asset Class Ratings

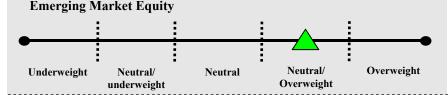


Despite the best start to a year for U.S. equities since 1997, investor sentiment remains lackluster with the vast majority of new asset flows being directed towards fixed income. Coupling this disparity in flows with below average retail bullishness and a barrage of negative preannounced earnings gives us hope that stocks may exceed expectations in the coming months.

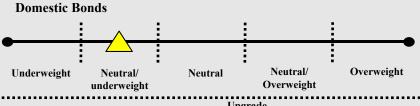
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Underweight Neutral/ Neutral Neutral/ Overweight Neutral Overweight

Tighter trade conditions have served as a major drag on foreign economic growth, particularly for export-heavy nations across the Eurozone. This slowdown has weighed on both consumer and business sentiment, while also causing wage growth to retract. Economic softening has set the stage for the ECB to cut interest rates and enact a fresh round of quantitative easing, which when paired with cyclical lows in unemployment keep us at a neutral weight in this category.



Given Beijing's continuous push to offset the impact of trade tightening through both fiscal and monetary stimulus, the completion of a trade deal could quickly reverse China's fortunes. Not only are stock valuations exceedingly cheap, currencies across the developing world also trade below historical norms. We remain cautiously optimistic on the asset class.



With U.S. Treasury yields unattractive and credit spreads trading more expensive than historical average, we'd advocate remaining marginally underweight to U.S. bonds. However, with a decelerating global economy, an inverted yield curve, and little risk of inflation we wouldn't avoid the asset class altogether.

Underweight Neutral/ Neutral Neutral/ Overweight

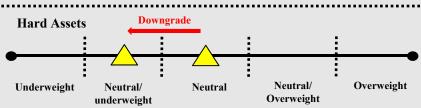
Upgrade

Upgrade

Upgrade

Overweight

We are more constructive on emerging market debt, upgrading the sector in front of central bank stimulus, a policy measure that should further widen yield differentials in favor of the developing world. Though valuations are close to average relative to U.S. Treasuries, we believe this asset class has room to run given the more dovish stance of the big global central banks.



The commodity price swoon experienced over the past 5 years has been a function of increasing petroleum supply, particularly in the U.S. This headwind remains, and now thanks to a trade-fueled slowdown in global growth, energy commodities are also facing a deceleration in demand. This unfavorable supply/demand dynamic, along with a pullback in capacity utilization and cooling inflation on a global basis has caused us to downgrade hard assets to neutral/underweight.

								Active WL Criteria
Errantina Cross	0 100 O 10							Quantitative Qualitative
Executive Sun	omary	y						Inv. J Inv. J R2 > 5 yr J Dow Peer
	~							Inv. Personnel Inv. Firm R2 > 85% 5 yr Ret. v. Mk Downside Risk Peer Gr. <75% Peer Gr. <50%
TIDI Products, LLC								Personnel Firm > 85% Ret. v. Mk vnside Risk vnside Risk r Gr. <75%
								onnel 6 6 v. Mkt v. Mkt 6 <75% <75%
As of June 30, 2019	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%	1.1%	2.1%	1.8%	1.6%	1.4%	NONE
TSE 3-month T-bill		0.6%	1.2%	2.3%	1.4%	0.8%	0.6%	
Intermediate Bond Index								
Vanguard Total Bond Market Index Adm	VBTLX	3.1%	6.1%	7.8%	2.2%	2.9%	2.4%	Moving to Fidelity 10/21/19
Bloomberg Barclays U.S. Aggregate		3.1%	6.1%	7.9%	2.3%	3.0%	2.4%	
Inflation-Protected Bond								▼
OFA Inflation-Protected Securities I	DIPSX	3.1%	6.8%	5.8%	2.2%	1.9%	1.0%	SITE VISIT
Bloomberg Barclays U.S. Treasury: U.S. TIPS		2.9%	6.2%	4.8%	2.1%	1.8%	0.9%	
Emerging Market Bond								
AFS Emerging Markets Debt R6	MEDHX	4.2%	10.6%	11.0%	4.9%	4.0%	4.1%	NONE
PM EMBI Global		3.8%	10.6%	11.3%	4.6%	4.5%	4.4%	
Target Retirement Date Trusts								NONE
C. Rowe Price Retirement Balanced Trust A	N/A	3.0%	10.0%	6.2%	6.2%	4.2%	5.7%	
C. Rowe Price Retirement 2010 Trust A	N/A	3.3%	10.6%	6.8%	6.8%	4.8%	6.7%	
. Rowe Price Retirement 2015 Trust A	N/A	3.4%	11.5%	6.8%	7.7%	5.3%	7.6%	
. Rowe Price Retirement 2020 Trust A	N/A	3.4%	12.7%	6.8%	8.9%	5.9%	8.6%	
. Rowe Price Retirement 2025 Trust A	N/A	3.6%	13.8%	6.8%	9.8%	6.4%	9.4%	
C. Rowe Price Retirement 2030 Trust A	N/A	3.6%	14.7%	6.7%	10.7%	6.8%	10.1%	
C. Rowe Price Retirement 2035 Trust A	N/A	3.7%	15.5%	6.6%	11.3%	7.1%	10.6%	
. Rowe Price Retirement 2040 Trust A	N/A	3.8%	16.2%	6.5%	11.9%	7.4%	11.0%	
7. Rowe Price Retirement 2045 Trust A	N/A	3.8%	16.5%	6.4%	12.1%	7.5%	11.0%	
C. Rowe Price Retirement 2050 Trust A	N/A	3.8%	16.5%	6.3%	12.1%	7.5%	11.0%	
C. Rowe Price Retirement 2055 Trust A	N/A	3.8%	16.5%	6.4%	12.1%	7.5%	11.0%	
7. Rowe Price Retirement 2060 Trust A	N/A	3.7%	16.6%	6.4%	12.1%	N/A	7.8%	
Large Value								
FMI Large Cap	FMIHX	5.3%	16.6%	9.7%	13.0%	9.0%	12.5%	NONE
Pussell 1000 Value		3.8%	16.2%	8.5%	10.2%	7.5%	12.1%	
Large Growth								
idelity Contrafund	FCNTX	5.4%	20.8%	7.9%	17.8%	12.5%	10.8%	Converting to K6 10/21/19
Pussell 1000 Growth		4.6%	21.5%	11.6%	18.1%	13.4%	10.5%	
Multi Blend Index								
anguard Total Stock Mkt Idx Adm	VTSAX	4.1%	18.7%	9.0%	14.0%	10.2%	13.8%	Moving to Fidelity 10/21/19
ERSP US Total Market Index		4.1%	18.7%	9.0%	14.0%	10.2%	13.8%	
nternational								▼
American Funds Europacific Growth R6	RERGX	3.9%	17.6%	1.9%	10.8%	4.4%	-0.4%	NONE
ISCI ACWI ex USA		3.2%	14.0%	1.8%	9.9%	2.6%	-0.1%	
Small Value								
FA US Targeted Value I	DFFVX	0.9%	13.2%	-8.1%	8.4%	4.0%	11.2%	SITE VISIT
ussell 2000 Value		1.4%	13.5%	-6.2%	9.8%	5.4%	10.6%	
Small Growth								
oomis Sayles Small Cap Growth Instl	LSSIX	5.6%	21.6%	6.4%	18.7%	11.2%	11.8%	NONE
ussell 2000 Growth		2.8%	20.4%	-0.5%	14.7%	8.6%	10.8%	
nternational Small Cap								
Hartford International Small Company Y	HNSYX	1.8%	12.5%	-14.3%	4.0%	0.4%	-3.3%	WL IV/To be Replaced 10/21/19
MSCI EAFE Small Cap		1.9%	12.9%	-6.0%	9.5%	4.8%	2.9%	I I

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 Inc. / Zephyr Associates, Inc.

*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).

							Active WL Criteria			Passive		
Erra antina Crease area								Quar	titative	Qua	litative	ive
Executive Summary TIDI Products, LLC								Peer Gr. <75% Peer Gr. <50%	Ret.	%	Inv. Personnel Inv. Firm	Tracking Error
As of June 30, 2019	Ticker	Qtr	YTD	1 Yr	3 Yr	5 Yr	Since Inc*		/ ▼ Indica		ive/Negativ Quarter	ve
Emerging Market Equity												
Invesco Oppenheimer Developing Markets R6	ODVIX	2.9%	15.6%	3.1%	12.6%	2.9%	5.9%		Fund Name	e Change	е	
MSCI Emerging Markets		0.7%	10.8%	1.6%	11.1%	2.9%	4.3%					
Hard Asset												
PIMCO CommoditiesPLUS Strategy Instl	PCLIX	-1.4%	14.0%	-8.3%	5.5%	-8.1%	-4.2%		NON	E		
Credit Suisse Commodity Benchmark		-0.4%	13.3%	-7.7%	3.5%	-9.6%	-5.9%					
Batting Average (Includes active managers and excludes target date funds)		7 of 11 64%	7 of 11 64%	5 of 11 45%	8 of 11 73%	7 of 11 64%	8 of 11 73%					

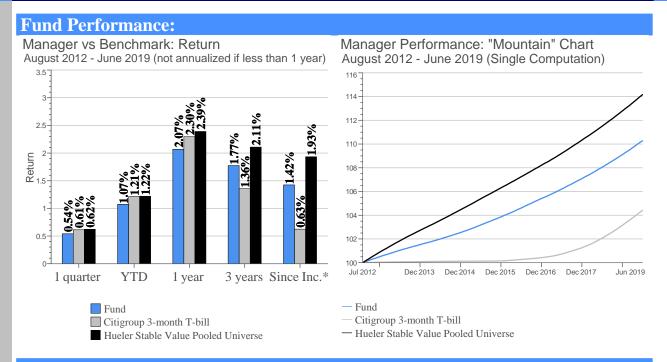
Returns shaded in red indicate underperformance by active managers relative to their passive benchmarks.

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 Inc. / Zephyr Associates, Inc.

*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



Francis Investment Counsel LLC Review:

Summary & Opinion

Your stable value fund, the Morley Stable Value Fund, gained 0.54% in the second 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

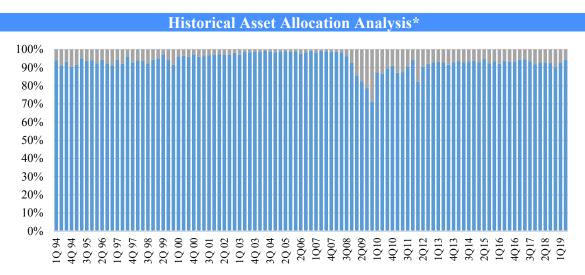
Team managed. The Fund's expense ratio is 0.51%.

Returns are time-weighted rates of return for period ended 6/30/2019.

^{*}Since Inc. results are average annualized time-weighted rates of return for 83 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

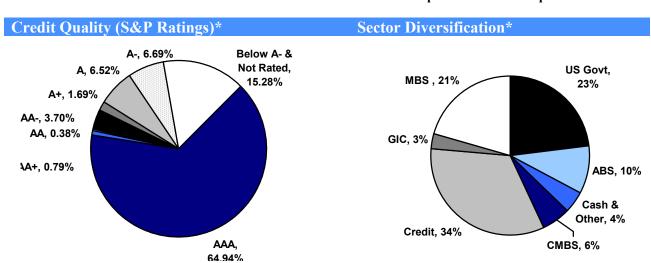
Fund Type: Stable Value



■ Synthetic/Separate Account Contracts & GICs ■ Cash

Portfolio Characteristics			Top Holdings*	
	3/31/19	5/31/19		% of
			Issue	Portfolio
Number of Issuers	10	10	Prudential	18.05%
Average Quality	AA (S&P)	AA (S&P)	MetLife	13.29%
Average Duration	2.59 Years	2.58 Years	Transamerica Life	12.32%
Total Fund Assets	\$7,748 M	\$7,576 M	MassMutual Life	10.75%
Crediting Rate	2.48%	2.51%	TIAA-CREF Life	10.75%
Total Fund Operating Expenses	0.51%	0.51%	New York Life	6.64%
Market Value/Book Value	99.91%	100.58%	RGA Reinsurance	4.22%
			American General Life	8.10%
			State Street Bank	5.82%
			Pacific Life	4.22%

Represents 94.18% of portfolio



^{*}As of 5/31/19

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

Converting To Fidelity U.S. Bond Index on 10/21/19



Francis Investment Counsel LLC Review:

Summary & Opinion

Your intermediate bond fund, the Vanguard Total Bond Market Index Fund, gained 3.07% during the second quarter, underperforming the average actively managed core bond fund. 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. 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. Innovation on this front is ongoing, and during our March 2019 visit to Vanguard's Malvern, PA headquarters, we spoke at length about the strategic direction of Vanguard's Quantitative Equity Group (QEG). Over the years, QEG has implemented new technologies to improve on trade execution, and Vanguard views blockchain technology as the next innovation on this front. While still early in the research process, Vanguard believes implementation of blockchain could ultimately reduce trading costs and improve both data security and availability. In an environment where index fund costs are rapidly approaching zero, any incremental cost savings would be a huge benefit to the organization. All of Vanguard's mutual funds allow for limited participation in securities lending, but prudent practices with respect to the program (low lending volume, investing in high quality collateral, returning all net proceeds to shareholders) gives us confidence that management isn't taking on unnecessary risks to add value. 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 (0.035%) which requires a minimum investment of \$5M.

Index Fund Competitive Landscape

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 Plan can 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%. In order to take advantage of this Savings, the Plan will be moving to the Fidelity product, a change that will occur on October 21, 2019.

Performance Commentary

Domestic bonds fared well during the second quarter as a continuation in underwhelming economic data prompted dovish comments from the Federal Reserve Bank. Ten-year Treasury yields fell more than 0.40% during the quarter, benefitting long-duration issues over shorter-term bonds. Given the uncertainty surrounding the health of the U.S. economy, both Treasuries and investment grade corporates outperformed U.S. high-yield.

Performance vs. Active Management

The Fund currently ranks outside the top half of the Morningstar Intermediate Core 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.

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

Returns are time-weighted rates of return for period ended 6/30/2019

^{*}Since Inc. results are average annualized time-weighted rates of return for 83 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 have 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).

Vanguard Total Bond Market Index Adm **VBTLX**

Benchmark: BBgBarc US Agg Bond TR USD Morningstar Category: US Fund Intermediate Core Bond



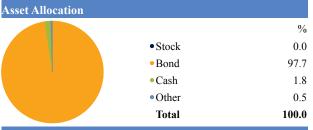
Operations	
Inception Date	11/12/2001
Total Net Assets (\$)	229,332,816,805
12b-1 Fee	_
Redemption Fee	_

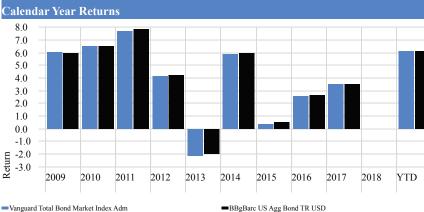


■Vanguard Total Bond Market Index Adm ■BBgBarc US Agg Bond TR USD

NISK/Neturn Statistics							
	3 years	5 years	10 years				
Alpha	-0.10	-0.12	-0.17				
Beta	1.01	1.03	1.03				
R-sqaured	99.13	99.11	99.15				
Tracking Error	0.28	0.30	0.29				
Information Ratio	-0.32	-0.19	-0.27				
Excess Return	-0.09	-0.06	-0.08				
Standard Deviation	3.09	3.05	2.99				
Sharpe Ratio	0.26	0.65	1.10				
Sortino Ratio	0.37	1.07	1.93				

runu Characteristics	
SEC Yield	2.52
# of Holdings	17,338
Turnover Ratio %	54.00





Fixed Income Style Exposures Morningstar Fixed Income Style BoxTM

	Ltd	Mod	Ext
High			
Med			
Low]			

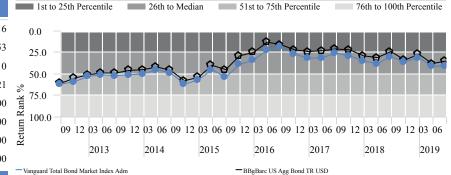
Credit Quality

Fixed-Income Stats				
Average Eff Duration	6.0			
Average Eff Maturity	8.2			
Average Coupon	3.3			
Average Price	105.1			



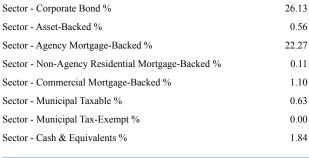
Time Period: 7/1/2009 to 6/30/2019

Vanguard Total Bond Market Index Adm



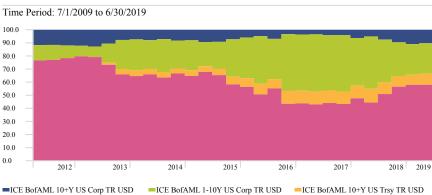
Credit Qual AAA %	68.16
Credit Qual AA %	3.53
Credit Qual A %	11.10
Credit Qual BBB %	17.21
Credit Qual BB %	0.00
Credit Qual B %	0.00
Credit Qual Below B %	0.00
Credit Qual Not Rated %	0.00
Sector Exposure	

43.06
26.13
0.56





■ICE BofAML 1-10Y US Trsy TR USD



Regional Exposure

Sector - Government %

Country - United States % 90.35 Country - Non-US % 7.36

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Fidelity® US Bond Index **FXNAX**

Benchmark: BBgBarc US Agg Bond TR USD Morningstar Category: US Fund Intermediate Core Bond

■BBgBarc US Agg Bond TR USD



Operations Inception Date 5/4/2011 42,730,601,694





Risk/Return Statistics							
	3 years	5 years	10 years				
Alpha	-0.13	-0.11	_				
Beta	1.02	1.04	_				
R-sqaured	99.48	99.46	_				
Tracking Error	0.23	0.25	_				
Information Ratio	-0.50	-0.16	_				
Excess Return	-0.12	-0.04	_				
Standard Deviation	3.10	3.05	_				
Sharpe Ratio	0.25	0.66	_				
Sortino Ratio	0.36	1.10	_				

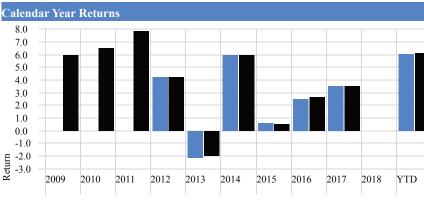
Fund Characteristics	
SEC Yield	2.51
# of Holdings	1,998
Turnover Ratio %	43.00



Fidelity® US Bond Index

Fidelity® US Bond Index

■ICE BofAML 1-10Y US Trsy TR USD



Torningstar Fixed filcome Style Box						
	Ltd	Mod	Ext			
允						
High						
ਰ						
Med						
×						
-						

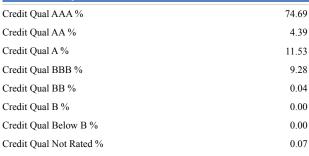
Credit Quality

Fixed-Income Stats	
Average Eff Duration	5.6
Average Eff Maturity	-
Average Coupon	3.2
Average Price	105.0



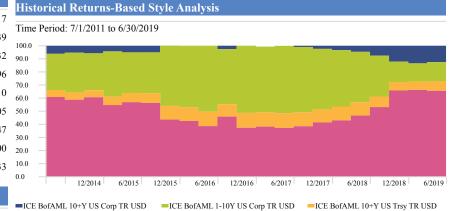
Time Period: 7/1/2009 to 6/30/2019 1st to 25th Percentile 26th to Median 51st to 75th Percentile 76th to 100th Percentile 0.0

■BBgBarc US Agg Bond TR USD





Sector Exposure	
Sector - Government %	43.17
Sector - Corporate Bond %	23.39
Sector - Asset-Backed %	0.32
Sector - Agency Mortgage-Backed %	26.96
Sector - Non-Agency Residential Mortgage-Backed %	0.10
Sector - Commercial Mortgage-Backed %	1.05
Sector - Municipal Taxable %	0.47
Sector - Municipal Tax-Exempt %	0.00
Sector - Cash & Equivalents %	1.33
B 1 1 B	



Regional Exposure	
Country - United States %	66.02
Country - Non-US %	5.91

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

DFA Inflation Protected Securities I

Fund Type: Inflation-Protected Bond

SITE VISIT



Francis Investment Counsel LLC Review:

Summary & Opinion

Your inflation-protected bond fund, the DFA Inflation Protected Securities Fund, gained 3.09% in the second quarter and outperformed its benchmarks. The value proposition offered to investors here is straight forward: charge an ultra-competitive fee for active management (0.12%) and use a targeted maturity approach to keep the Fund's assets in the most attractive areas of the yield curve. On the former, the economical expense structure is enabled by DFA's efficient trading systems and the Fund's low turnover approach (24% currently). As for the latter, the Fund stays focused on the 5-20 year segment of the yield curve. DFA's research shows that it's most favorable from a risk-adjusted performance standpoint. The Fund will try to own a portion of each issue in the investable TIPS universe with maturities between 5- and 20-years, but the managers sometimes choose to exclude "on-the-run" issues. These are recent issues, which are typically in high demand and frequently overvalued. Additionally, interest rate forecasting plays no role in the portfolio management process; the Fund's mandate is to match the duration of the passive benchmark, which is roughly seven years. On the Watch List, the Fund passes 2 of the 4 quantitative metrics with a three year peer group ranking just outside of the top quartile (26%). Lastly, we visited DFA's Charlotte, NC office in May 2019 to get an update on the firm's research objectives and portfolio management initiatives, and we remain confident in the resources backing this offering. Based on the Fund's successful long-term results and the straightforward nature of the investment process, we believe this is an efficacious strategy for investors.

Management & Expenses

David Plecha (since 2006), Joe Kolerich (2012), and Alan Hutchison (2016) of Dimensional Fund Advisors (Austin, TX). With an expense ratio of just 0.12%, the Fund is one of the cheapest in the inflation-protected bond fund category.

Quarterly Performance Commentary

Outperformance was driven primarily by a greater-than-benchmark allocation to the 7-10 year maturity range (55% vs. 23%), which gained 3.4%. Excluding securities in the 1-3 year maturity range, where the benchmark has a 22% weight, was also beneficial.

*Since Inc. results are average annualized time-weighted rates of return for 83 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

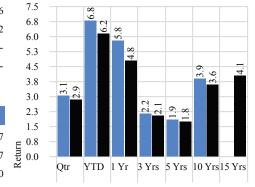
Benchmark: BBgBarc US Treasury US TIPS TR USD Morningstar Category: US Fund Inflation-Protected Bond

■BBgBarc US Treasury US TIPS TR USD



Operations 9/18/2006 4,782,642,902





Annualized Returns

■DFA Inflation-Protected Securities I

Calendar Year Returns

	rasid rectain Statistics					
1		3 years	5 years	10 year		
	Alpha	0.03	0.04	0.0		
	Beta	1.13	1.12	1.0		
-	R-sqaured	96.70	97.88	98.0		
ŀ	Tracking Error	0.70	0.72	0.7		
	Information Ratio	0.14	0.18	0.3		
	Excess Return	0.10	0.13	0.2		
ŀ	Standard Deviation	3.36	3.98	4.8		
	Sharpe Ratio	0.23	0.26	0.7		
,	Sortino Ratio	0.32	0.40	1.13		

Risk/Return Statistics

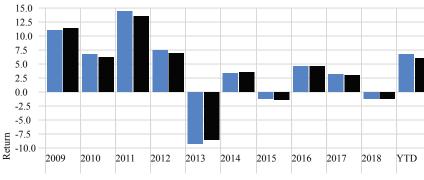
Fund Characteristics	
SEC Yield	0.17
# of Holdings	17
Turnover Ratio %	24.00



Fixed Income Style Exposures

12.5 10.0 7.5 5.0 2.5 0.0-2.5





High		
Med		
Low]		

Morningstar Fixed Income Style BoxTM

Ltd

Mod Ext

Fixed-Income Stats	
Average Eff Duration	7.3
Average Eff Maturity	7.8
Average Coupon	1.4
Average Price	109.4

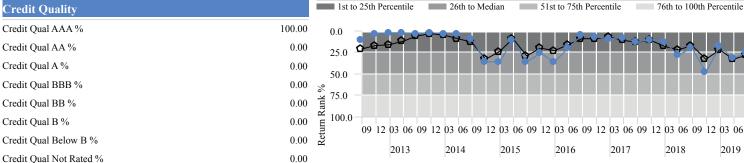


Time Period: 7/1/2009 to 6/30/2019

DFA Inflation-Protected Securities I

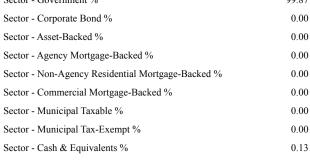
■ICE BofAML 1-10Y US Trsy TR USD

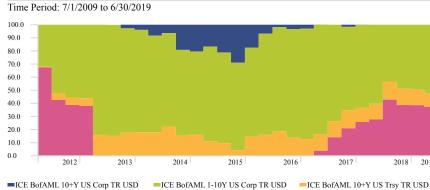
Historical Returns-Based Style Analysis



0.00







Regional Exposure	
Country - United States %	99.87

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

2017

-BBgBarc US Treasury US TIPS TR USD

76th to 100th Percentile

2018

2019

Source: Morningstar Direct

Country - Non-US %

Jun. 30, 2019

DFA Inflation-Protected Securities I

Fund Type: Inflation-Protected Bond

Watch List Criteria

Peer Group Ranking	Dec 2	018	Mar 201	9 Ju	n 2019	Gra	ade
Trailing 36-Months vs. Peer Group:		20%		2	26%		
2 of 3 better than median (<50%) needed to pass	PAS	PASS		P	ASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	ASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 201	9 Ju	n 2019		
Trailing 36-Months vs. Passive Target:	116.4	%	117.9%	11	8.0%		
2 of 3 better than median (<100%) needed to pass	FAI	L	FAIL	F	FAIL	0 of 3	FAIL
Returns vs. Markets	Jun	Jun	Jun	Jun	Jun		
	2015	2016		2018	2019		
Trailing 12-Months vs. Passive Target:	-0.1%	0.4%		-0.4%	1.0%		
3 of 5 outperforming the passive target needed to pass	FAIL	PASS	FAIL	FAIL	PASS	2 of 5	FAIL
Ovelitative Iggres							
Qualitative Issues			~ ~				
Investment Style:	Trailing	g 3-Yea	r R-Squar	ed: 96.8 3	3%		PASS
Investment Firm:	Dimens	ional F	und Advis	ors LP			PASS
Investment Personnel:		David Plecha, since 2006					PASS
		Joe Kolerich, since 2012					
	Alan H	utchiso	n, since 20	16			

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



Francis Investment Counsel LLC Review:

Summary & Opinion

Your emerging market bond fund, the MFS Emerging Markets Debt Fund, gained 4.17% in the second quarter and outperformed its benchmarks. This Fund's mandate is dedicated 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 stresses selecting securities with above average trading liquidity. No doubt, the determined focus on liquidity adjoins with management's defensive approach. The clearest examples of the benefits of this defensive strategy arise when markets sell-off such as in 2008, 2013, and 2018. In 2008 for instance, the Fund outperformed on a relative basis versus the average Lipper peer albeit with a loss of -10.94% versus a loss nearly double that of -20.11%. We also note that over the last decade, the up capture of this Fund versus the passive benchmark is 96.4% while the downside is 97.6%. In contrast, the average peer gives investors far more unpredictability with an up capture of 103.3% and a down capture of 116.2%. All told, your Fund's cumulative results since being in the plan are better versus the average Lipper peer but have routinely lagged the passive benchmark mainly due to management forgoing investment in some of the newest, less liquid entrants of the passive index which they see as uninvestable. Turning to the Watch List, the Fund is meeting expectations by passing 6 out of 7 Watch List metrics. Finally, we continue to endorse this Fund as the Plan's emerging markets debt manager given the long tenured management team, the successful performance history, and cost competitive structure (0.74%).

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.

Ouarterly Performance Commentary

Security selection results helped relative outperformance in general and were especially notable in Indonesia (7% of assets, +7.08% vs. +6.68%) which functioned as the Fund's leading contributor in the quarter. Fund results were held back on the margin due to underweight positions in strong performing markets such as Ecuador, Nigeria, Sri Lanka, and Ukraine.

Returns are time-weighted rates of return for period ended 6/30/2019.

^{*}Since Inc. results are average annualized time-weighted rates of return for 83 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%.

MFS Emerging Markets Debt R6 **MEDHX**

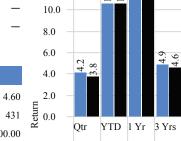
Benchmark: JPM EMBI Global TR USD Morningstar Category: US Fund Emerging Markets Bond



Operations Inception Date 5/1/2006 Total Net Assets (\$) 5,576,896,061 12b-1 Fee Redemption Fee







■MFS Emerging Markets Debt R6

■ICE BofAML 1-10Y US Trsy TR USD

Annualized Returns

14.0

12.0

	Risk/Return Sta	tistics		
		3 years	5 years	10 years
-	Alpha	0.41	-0.16	-0.12
-	Beta	0.93	0.93	0.98
?	R-sqaured	96.93	96.60	96.29
	Tracking Error	1.01	1.09	1.28
	Information Ratio	0.21	-0.37	-0.22
ľ	Excess Return	0.22	-0.42	-0.30
ľ	Standard Deviation	5.38	5.48	6.59
S	Sharpe Ratio	0.64	0.59	1.00
5	Sortino Ratio	1.01	0.96	1.69

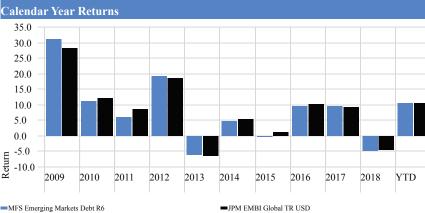
Asset Allocation		
		%
	Stock	0.0
	Bond	93.0
	Cash	6.9
	Other	0.1
	Total	100.0



Morningstar Fixed Income Style BoxTM Ltd Mod Ext High Med

Credit Quality

Fixed-Income Stats	
Average Eff Duration	7.0
Average Eff Maturity	10.9
Average Coupon	5.6
Average Price	



ge Eff Duration	7.0	-10.0	2009	2010	2011	
ge Eff Maturity	10.9		2007	2010	2011	
ge Coupon	5.6	MFS Emer	rging Mark	ets Debt R6		
ige Price	-	Rolling	3 Year	Retur	n Morr	ni
		Time Peri	iod: 7/1/	2009 to 6	30/2019)

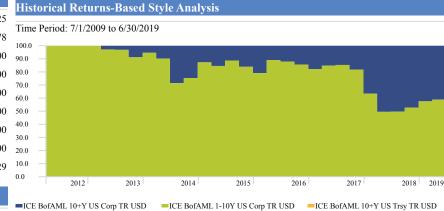
Rolling 3	Year	Return	Morni	ingstar	Peer	Group	Ranking	S

■JPM EMBI Global TR USD

Credit Quality	
Credit Qual AAA %	0.83
Credit Qual AA %	3.45
Credit Qual A %	7.03
Credit Qual BBB %	36.22
Credit Qual BB %	17.63
Credit Qual B %	27.24
Credit Qual Below B %	1.15
Credit Qual Not Rated %	6.44

	■ 1st to	25th Pe	rcent	tile		■ 26	5th t	ю М	edia	an			51s	t to	75th	Pe	rcen	tile			70	5th t	o 10	00th	Per	cen	tile
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Sector Exposure	
Sector - Government %	53.25
Sector - Corporate Bond %	31.78
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 %	6.29
Dagianal Evnasura	



Regional Exposure	
Country - United States %	5.72
Country - Non-US %	87.88

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Source: Morningstar Direct

Jun. 30, 2019

MFS Emerging Markets Debt R6 Fund Type: Emerging Market Bond

Watch List Criteria

Peer Group Ranking		18	Mar 2019) Ju	n 2019	Gra	ade
Trailing 36-Months vs. Peer Group:	55%		50%	5	55%		
2 of 3 better than median (<50%) needed to pass	FAIL		PASS	F	AIL	1 of 3	FAIL
3 of 3 better than median (<75%) needed to pass	PASS	S	PASS	PASS		3 of 3	PASS
•							
Downside Risk	Dec 20	18	Mar 2019	9 Ju	n 2019		
Trailing 36-Months vs. Passive Target:	88.9%	6	86.9%	88	3.0%		
2 of 3 better than median (<100%) needed to pass	PASS	S	PASS	P	ASS	3 of 3	PASS
Returns vs. Markets	Jun	Jun	Jun	Jun	Jun		
	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:		-3.7%		0.6%	-0.3%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	PASS	FAIL	3 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing :	3-Yea	r R-Square	ed: 96.9 5	5%		PASS
Investment Firm:	Massach	usetts	Financial	Services			PASS
	Company						
Investment Personnel:	Matthew	Ryan,		PASS			
	Ward Br	own, s	ince 2008				

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
T. Rowe Price Ret. Balanced Tr A**	3.04%	9.95%	6.29%	6.32%	5.68%	0.46%
Fidelity Freedom Income	2.45%	6.97%	5.33%	4.87%	4.07%	0.47%
Vanguard Target Retirement Income	2.97%	8.63%	6.54%	5.24%	4.88%	0.12%
S&P Target Date Income TR Index	2.83%	8.56%	5.92%	5.02%	4.76%	
T. Rowe Price Retirement 2010 Tr A**	3.27%	10.57%	6.85%	6.89%	6.68%	0.46%
American Funds Trgt Date Ret 2010 R6	2.68%	8.80%	6.57%	6.01%	6.56%	0.33%
Fidelity Freedom 2010	2.75%	9.08%	5.28%	6.88%	6.18%	0.53%
S&P Target Date 2010 TR Index	2.82%	9.20%	5.87%	5.80%	5.67%	
T. Rowe Price Retirement 2015 Tr A**	3.36%	11.50%	6.76%	7.75%	7.63%	0.46%
American Funds Trgt Date Ret 2015 R6	2.70%	9.36%	6.66%	6.43%	7.28%	0.33%
Fidelity Freedom 2015	2.87%	10.17%	5.20%	7.73%	6.69%	0.57%
Vanguard Target Retirement 2015	3.05%	9.74%	6.48%	6.66%	6.81%	0.13%
S&P Target Date 2015 TR Index	2.80%	9.88%	5.78%	6.54%	6.55%	
T. Rowe Price Retirement 2020 Tr A**	3.43%	12.66%	6.79%	8.88%	8.57%	0.46%
American Funds Trgt Date Ret 2020 R6	2.79%	9.80%	6.51%	7.27%	8.14%	0.34%
Fidelity Freedom 2020	2.96%	11.11%	5.10%	8.33%	7.19%	0.61%
Vanguard Target Retirement 2020	3.21%	11.28%	6.50%	7.81%	7.82%	0.13%
S&P Target Date 2020 TR Index	2.89%	10.55%	5.79%	7.27%	7.32%	
T. Rowe Price Retirement 2025 Tr A**	3.62%	13.77%	6.78%	9.80%	9.37%	0.46%
American Funds Trgt Date Ret 2025 R6	2.97%	11.07%	6.34%	8.39%	9.41%	0.36%
Fidelity Freedom 2025	3.08%	11.90%	4.99%	8.92%	7.97%	0.66%
Vanguard Target Retirement 2025	3.35%	12.46%	6.61%	8.69%	8.53%	0.13%
S&P Target Date 2025 TR Index	3.00%	11.62%	5.70%	8.09%	8.04%	
T. Rowe Price Retirement 2030 Tr A**	3.65%	14.73%	6.76%	10.67%	10.09%	0.46%
American Funds Trgt Date Ret 2030 R6	3.12%	12.41%	6.27%	9.88%	10.38%	0.38%
Fidelity Freedom 2030	3.20%	13.20%	4.72%	10.25%	8.70%	0.70%
Vanguard Target Retirement 2030	3.41%	13.27%	6.42%	9.39%	9.16%	0.14%
S&P Target Date 2030 TR Index	3.10%	12.78%	5.56%	8.82%	8.71%	
T. Rowe Price Retirement 2035 Tr A**	3.73%	15.53%	6.57%	11.33%	10.59%	0.46%
American Funds Trgt Date Ret 2035 R6	3.16%	14.16%	6.15%	11.13%	10.95%	0.39%
Fidelity Freedom 2035	3.28%	14.56%	4.09%	11.13%	9.43%	0.74%
Vanguard Target Retirement 2035	3.42%	13.97%	6.22%	10.09%	9.76%	0.14%
S&P Target Date 2035 TR Index	3.18%	13.78%	5.36%	9.51%	9.27%	
T. Rowe Price Retirement 2040 Tr A**	3.79%	16.16%	6.47%	11.87%	10.95%	0.46%
American Funds Trgt Date Ret 2040 R6	3.22%	14.77%	6.06%	11.57%	11.20%	0.40%
Fidelity Freedom 2040	3.14%	14.99%	3.92%	11.11%	9.49%	0.75%
Vanguard Target Retirement 2040	3.46%	14.79%	6.00%	10.79%	10.20%	0.14%
S&P Target Date 2040 TR Index	3.27%	14.45%	5.26%	10.01%	9.69%	
T. Rowe Price Retirement 2045 Tr A**	3.77%	16.50%	6.34%	12.02%	10.99%	0.46%
American Funds Trgt Date Ret 2045 R6	3.30%	14.96%	6.08%	11.83%	11.32%	0.40%
Fidelity Freedom 2045	3.24%	15.00%	3.92%	11.11%	9.60%	0.75%
Vanguard Target Retirement 2045	3.51%	15.39%	5.90%	11.05%	10.31%	0.15%
S&P Target Date 2045 TR Index	3.32%	14.78%	5.15%	10.32%	9.98%	

Jun. 30, 2019

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
T. Rowe Price Retirement 2050 Tr A**	3.77%	16.52%	6.31%	12.00%	10.99%	0.46%
American Funds Trgt Date Ret 2050 R6	3.30%	15.14%	6.09%	11.95%	11.36%	0.41%
Fidelity Freedom 2050	3.20%	14.98%	3.92%	11.15%	9.65%	0.75%
Vanguard Target Retirement 2050	3.47%	15.38%	5.86%	11.03%	10.30%	0.15%
S&P Target Date 2050 TR Index	3.32%	14.97%	5.02%	N/A	10.25%	
T. Rowe Price Retirement 2055 Tr A**	3.78%	16.54%	6.39%	12.04%	11.01%	0.46%
American Funds Trgt Date Ret 2055 R6	3.26%	15.13%	5.99%	11.92%	11.34%	0.42%
Fidelity Freedom 2055	3.14%	14.89%	3.84%	11.08%	9.77%	0.75%
Vanguard Target Retirement 2055	3.48%	15.38%	5.88%	11.04%	10.28%	0.15%
S&P Target Date 2055 TR Index	3.34%	15.02%	5.03%	N/A	10.45%	
T. Rowe Price Retirement 2060 Tr A**	3.74%	16.56%	6.44%	12.03%	7.79%	0.46%
Fidelity Freedom 2060	3.10%	14.93%	3.84%	11.08%	7.09%	0.75%
Vanguard Target Retirement 2060	3.48%	15.36%	5.86%	11.03%	7.05%	0.15%
S&P Target Date 2060+ TR Index	3.37%	15.17%	5.12%	N/A	7.35%	

^{*}Since inclusion performance in 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).

Jun. 30, 2019

T. Rowe Price Retirement Trust A

Fund Type: Target Retirement Date

Francis Investment Counsel LLC Review:

Summary & Opinion: The T. Rowe Price Retirement Trusts outperformed the S&P Target Date Indexes and peers during the second quarter. Manager selection was the primary point of strength this quarter--14 of the 20 component managers (70%) outperformed their respective benchmarks. Most vintages also benefited from above-benchmark strategic equity exposure. On a three year basis, each vintage outperforms its S&P Target Date Index by a healthy margin and ranks in the top decile of its respective peer group. 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 suite was 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 \$250B. 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 then 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 a strategic equity target of 41.5%.

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 20+ person research and development team (half have PhDs). Importantly, T. Rowe continues to reinvest in the franchise. Not only is headcount increasing, but the team has started to leverage the firm's new technology center (in New York City) with a project to improve their cash flow models. The most recent strategic asset allocation change (complete in 2Q18) modified how the Trusts allocate to fixed income, adding asset classes like non-USD hedged, unconstrained, long duration Treasuries, and bank loans. Looking forward, there are 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 knowledge 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, the portfolio management team thinks it's "getting closer" to using passive vehicles for exposure to these areas.

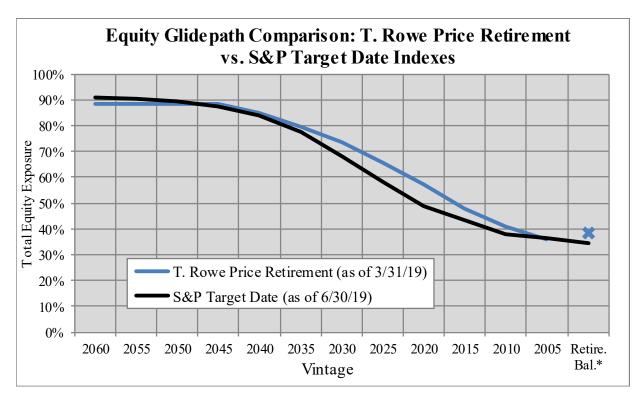
In contrast to strategic asset allocation changes, tactical changes are made with a shorter time frame in mind, typically 6 to 18 months. These adjustments arise from a combination of somewhat fluid inputs, including macroeconomic outlook, valuations, supply/demand dynamics, and input from the firm's army of analysts and portfolio managers. Tactical calls are generally inspired by a belief that valuation levels tend to revert to the mean. As an example, the management team started the year with a neutral position on equities, meaning equity exposure was largely in-line with long-term targets. However, as the stock market rallied in the first half of the year, management trimmed their exposure. At the end of 2Q19, the Trusts were underweight to stocks relative to bonds. In their view, "equity valuations remain extended against a backdrop of rising risks." Among the risks, management cites the late stage of the economic cycle, enduring trade risks, diminishing earnings expectations, and fading growth.

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.



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%.

T. Rowe Price Retirement I

Component Performance

As of June 30, 2019	Quarter	YTD	1 Year	3 Years	5 Years
T. Rowe Price New Income I	3.16%	6.57%	7.96%	2.56%	2.89%
BBgBarc US Agg Bond TR USD	3.08%	6.11%	7.87%	2.31%	2.95%
T. Rowe Price Ltd Dur Infl Focus Bd I	2.10%	4.03%	3.84%	1.63%	0.86%
BBgBarc U.S. Treasury TIPS 1-5Y TR USD	1.82%	3.60%	3.41%	1.60%	0.91%
T. Rowe Price Intl Bd (USD Hdgd) I	2.99%	6.82%	8.55%	N/A	N/A
BBgBarc Gbl Agg Ex USD TR Hdg USD	2.75%	5.79%	7.61%	3.33%	4.43%
T. Rowe Price Dynamic Global Bond I	1.31%	0.41%	1.68%	0.55%	N/A
ICE LIBOR 3 Month USD	0.70%	1.42%	2.59%	1.65%	1.12%
T. Rowe Price US Treasury Long-Term I	5.73%	10.63%	12.06%	1.06%	5.15%
BBgBarc Long Term US Treasury TR USD	6.03%	10.98%	12.30%	1.34%	5.71%
T. Rowe Price Floating Rate I	1.74%	5.55%	4.19%	4.38%	3.43%
S&P/LSTA Performing Loan TR	1.71%	5.76%	4.01%	5.41%	4.04%
T. Rowe Price High Yield I	3.15%	10.15%	7.72%	7.10%	4.20%
Credit Suisse HY USD	2.55%	9.95%	7.12%	7.55%	4.50%
T. Rowe Price Emerging Markets Bond I	3.37%	10.91%	10.22%	4.88%	4.23%
JPM EMBI Global TR USD	3.76%	10.60%	11.32%	4.65%	4.47%
T. Rowe Price Value I	4.71%	17.80%	9.10%	11.42%	7.62%
Russell 1000 Value TR USD	3.84%	16.24%	8.46%	10.19%	7.46%
T. Rowe Price Equity Index 500 I	4.30%	18.51%	10.36%	14.11%	10.58%
S&P 500 TR USD	4.30%	18.54%	10.42%	14.19%	10.71%
T. Rowe Price Growth Stock I	3.83%	20.37%	8.45%	19.91%	13.77%
Russell 1000 Growth TR USD	4.64%	21.49%	11.56%	18.07%	13.39%
T. Rowe Price Mid-Cap Value I	1.26%	12.22%	-2.81%	7.96%	6.37%
Russell Mid Cap Value TR USD	3.19%	18.02%	3.68%	8.95%	6.72%
T. Rowe Price Mid-Cap Growth I	6.96%	24.32%	16.06%	16.90%	12.99%
Russell Mid Cap Growth TR USD	5.40%	26.08%	13.94%	16.49%	11.10%
T. Rowe Price International Value Eq I	2.06%	10.88%	-4.11%	4.55%	-0.75%
MSCI EAFE Value GR USD	1.89%	10.12%	-1.48%	9.11%	0.63%
T. Rowe Price International Stock I	3.31%	16.78%	2.80%	9.99%	4.27%
MSCI EAFE Growth GR USD	5.96%	18.87%	4.67%	10.12%	4.79%
T. Rowe Price Overseas Stock I	2.06%	12.06%	-2.92%	8.76%	2.31%
MSCI EAFE GR USD	3.97%	14.49%	1.60%	9.65%	2.74%
T. Rowe Price Small-Cap Value I	4.54%	17.92%	0.12%	12.52%	7.37%
Russell 2000 Value TR USD	1.38%	13.47%	-6.24%	9.81%	5.39%
T. Rowe Price Small-Cap Stock I	5.71%	24.30%	10.78%	16.61%	10.39%
Russell 2000 TR USD	2.10%	16.98%	-3.31%	12.30%	7.06%
T. Rowe Price New Horizons I	8.06%	30.52%	18.16%	24.18%	15.77%
Russell 2000 Growth TR USD	2.75%	20.36%	-0.49%	14.69%	8.63%
T. Rowe Price Emerging Markets Stock I	1.76%	15.92%	3.60%	12.26%	5.50%
MSCI EM GR USD	0.74%	10.78%	1.61%	11.06%	2.87%
T. Rowe Price Real Assets I	1.23%	14.29%	1.56%	4.50%	0.71%
S&P North American Natural Resources TR	-1.40%	14.58%	-14.10%	0.07%	-6.80%
BATTING AVERAGE (active funds only)	14 of 20	11 of 20	12 of 20	11 of 19	8 of 18
, , , , , , , , , , , , , , , , , , , ,	70%	55%	60%	58%	44%

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.

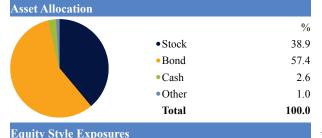
T. Rowe Price Retirement Balanced Tr-A

Benchmark: S&P Target Date Retirement Income TR USD Morningstar Category:US Fund Target-Date Retirement



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	18.75	17.83
Average Market Cap (mil)	47,416.54	36,890.54
# of Holdings	20	9
Turnover Ratio %	30.50	_
% Asset in Top 10 Holdings	86.33	100.00
US Equity %	26.36	23.30
Non-US Equity %	12.56	11.02
Emerging Market Equity %	2.59	1.80

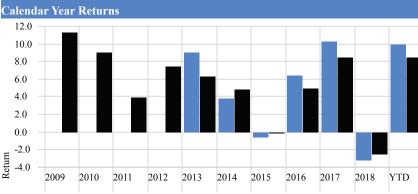


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,	Value	Blend	Growth
Large	23.4	27.1	25.6
Mid	5.3	7.2	7.0
Small	1.0	1.7	1.7

Market Cap	%
Market Cap Giant %	44.4
Market Cap Large %	31.2
Market Cap Mid %	19.9
Market Cap Small %	4.1
Market Cap Micro %	0.5

∞ ·	_		
Top 20 Holdings			
	Ticker V	Portfolio Veighting %	Qtr Return
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	_	29.24	2.06
T. Rowe Price Equity Index Tr-Z	_	20.01	4.31
T. Rowe Price Bond Tr I	_	13.38	3.27
T. Rowe Price International Bond Tr-Z	_	4.48	3.14
T. Rowe Price Emerging Markets Bd Tr-Z	_	3.67	3.77
T. Rowe Price International Gr Eq Tr-Z	_	3.46	3.50
T. Rowe Price International Core Eq Tr-Z	_	3.45	2.26
T. Rowe Price International Val Eq Tr-Z	_	3.03	2.30
T. Rowe Price Dynamic Global Bond Tr-Z	_	2.94	1.40
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	2.67	5.84
T. Rowe Price High Yield Tr-Z	_	2.49	3.28
T. Rowe Price Emerging Markets Eq Tr-Z	_	2.19	2.11
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	1.90	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	1.64	1.43
T. Rowe Price New Horizons Tr-Z	_	1.28	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	1.12	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	1.02	4.82
T. Rowe Price Real Assets Tr I-Z	_	0.78	1.46
T. Rowe Price Floating Rate Tr-Z	_	0.71	2.02





■S&P Target Date Retirement Income TR USD

76th to 100th Percentile

51st to 75th Percentile

Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019

T. Rowe Price Retirement Balanced Tr-A

Rolling Window: 3 Years 3 Months shift

1st to 25th Percentile 26th to Median

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,	ž				2013		201	4		2015			201	6		20	17			20	18			201	9
,	— т.	Rowe Price	Retireme	nt Bal	lanced Tr-A						-	-S&I	P Target	Date Ret	iremen	Incor	ne TR	USD							

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD

0.54



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

T Rowe Price U S Treas Money Mkt Tr

Jun. 30, 2019

T. Rowe Price Retirement Balanced Tr A

Fund Type: Target Retirement

Watch List Criteria

		<u> </u>			
Peer Group Ranking	Dec 2018	Mar 2019	Jun 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	8%	18%	18%		
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	Dec 2018	Mar 2019	Jun 2019		
Trailing 36-Months vs. Passive Target:	115.9%	107.6%	111.8%		
2 of 3 better than median (<100%) needed to pass	FAIL	FAIL	FAIL	0 of 3	FAIL
	Jun Jur	Jun	Jun Jun		
Returns vs. Markets	2015 2016		2018 2019		
Trailing 12-Months vs. Passive Target:	-1.0% -1.19		0.6% 0.3%		
3 of 5 outperforming the passive target needed to pass	FAIL FAI	L PASS	PASS PASS	3 of 5	PASS
Qualitative Issues					
Investment Style:	Trailing 3-Ye	ar R-Square	d: 97.43%		PASS
Investment Firm:	T. Rowe Price	e			PASS
Investment Personnel:	Jerome Clark				PASS
	Wyatt Lee, si	nce 2015			

Benchmarks

Peer Group: Lipper Mixed-Asset Target Today Funds
Passive Target: S&P Target Date Retirement Income Index

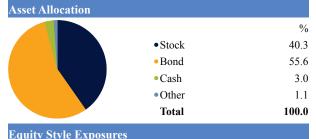
T. Rowe Price Retirement 2010 Tr-A

Benchmark: S&P Target Date 2010 TR USD Morningstar Category: US Fund Target-Date 2000-2010



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	18.74	17.78
Average Market Cap (mil)	47,100.38	36,906.79
# of Holdings	20	9
Turnover Ratio %	25.70	_
% Asset in Top 10 Holdings	84.81	100.00
US Equity %	27.31	25.43
Non-US Equity %	12.95	12.64
Emerging Market Equity %	2.65	1.80

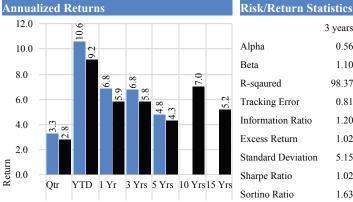


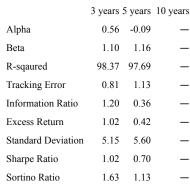
Վաւ	ty Sty.	IC LAP	Josuics
	Value	Blend	Growth
Large	23.4	27.1	25.5
Mid	5.4	7.3	7.0
Small	1.0	1.7	1.7

Market Cap	%
Market Cap Giant %	44.3
Market Cap Large %	31.1
Market Cap Mid %	20.0
Market Cap Small %	4.2
Market Cap Micro %	0.5

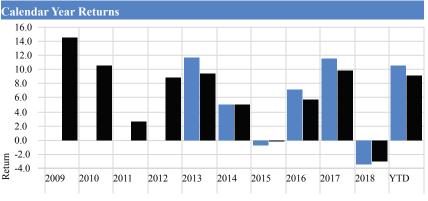
Top 20 Holdings

	Ticker W	Portfolio eighting %	Qtr Return
T. Rowe Price Equity Index Tr-Z	_	20.66	4.31
T. Rowe Price Bond Tr I	_	18.65	3.27
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	_	15.91	2.06
T. Rowe Price International Bond Tr-Z	_	6.20	3.14
T. Rowe Price Emerging Markets Bd Tr-Z	_	5.05	3.77
T. Rowe Price Dynamic Global Bond Tr-Z	_	4.06	1.40
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	3.78	5.84
T. Rowe Price International Core Eq Tr-Z	_	3.60	2.26
T. Rowe Price International Gr Eq Tr-Z	_	3.47	3.50
T. Rowe Price High Yield Tr-Z	_	3.43	3.28
T. Rowe Price International Val Eq Tr-Z	_	3.14	2.30
T. Rowe Price Emerging Markets Eq Tr-Z	_	2.24	2.11
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	1.96	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	1.69	1.43
T. Rowe Price New Horizons Tr-Z	_	1.32	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	1.18	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	1.09	4.82
T. Rowe Price Floating Rate Tr-Z	_	1.04	2.02
T. Rowe Price Real Assets Tr I-Z	_	0.88	1.46
T Rowe Price U S Treas Money Mkt Tr	_	0.65	_





■T. Rowe Price Retirement 2010 Tr-A ■S&P Target Date 2010 TR USD



T. Rowe Price Retirement 2010 Tr-A ■S&P Target Date 2010 TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019

Rolling Window: 3 Years 3 Months shift

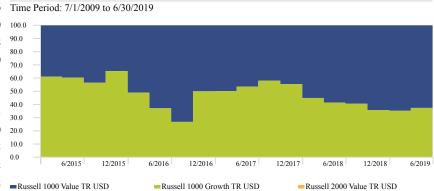
1st to 25th Percentile 26th to Median

0.0 25.0 50.0 \$ 75.0	, o o e	2000		000	0000	2000	306
	03 06 09 12	03 06 09 12	03 06 09 12	03 06 09 12	03 06 09 12	03 06 09 12	03 06
~	2013	2014	2015	2016	2017	2018	2019
T. Rowe Price Retirement 20	10 Tr-A		— S&P	Target Date 2010 TR U	SD		

51st to 75th Percentile

Historical Returns-Based Style Analysis

Russell 2000 Growth TR USD



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

76th to 100th Percentile

Jun. 30, 2019

T. Rowe Price Retirement 2010 Tr A

Fund Type: Target Retirement

Watch List Criteria

Peer Group Ranking		018	Mar 2019	9 Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:		6%			7%		
2 of 3 better than median (<50%) needed to pass	PAS	PASS		PASS		3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 2019	9 Ju	n 2019		
Trailing 36-Months vs. Passive Target:	108.3		104.0%		4.5%		
2 of 3 better than median (<100%) needed to pass	FAI	L	FAIL	F	FAIL	0 of 3	FAIL
Returns vs. Markets		Jun	Jun	Jun	Jun		
	2015	2016		2018	2019		
Trailing 12-Months vs. Passive Target:	-0.7%	-0.2%	2.0%	0.2%	1.0%		
3 of 5 outperforming the passive target needed to pass	FAIL	FAIL	PASS	PASS	PASS	3 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	g 3-Yea	r R-Square	ed: 98.3 3	3%		PASS
Investment Firm:	T. Row	e Price					PASS
Investment Personnel:	Jerome	Clark,	since 2002	2			PASS
			ce 2015				
	-						

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2010 Funds
Passive Target: S&P Target Date 2010 Index

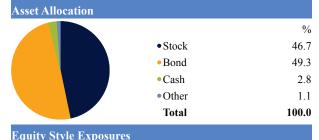
T. Rowe Price Retirement 2015 Tr-A

Benchmark: S&P Target Date 2015 TR USD Morningstar Category: US Fund Target-Date 2015



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.03	17.92
Average Market Cap (mil)	46,612.63	35,656.53
# of Holdings	22	10
Turnover Ratio %	28.50	_
% Asset in Top 10 Holdings	77.49	100.00
US Equity %	31.20	29.27
Non-US Equity %	15.50	14.06
Emerging Market Equity %	3.28	1.96



Վաւ	ty Sty.	IC LAP	Josuics
	Value	Blend	Growth
Large	22.3	26.9	26.7
Mid	5.2	7.0	7.4
Small	1.0	1.7	1.7

T. Rowe Price U.S. Treasury Lng-Tm Tr-Z

Top 20 Holdings

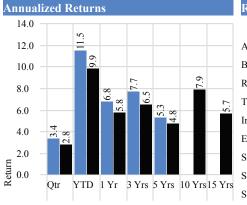
Market Cap	%
Market Cap Giant %	43.8
Market Cap Large %	31.6
Market Cap Mid %	19.9
Market Cap Small %	4.2
Market Cap Micro %	0.5

Portfolio

3.70

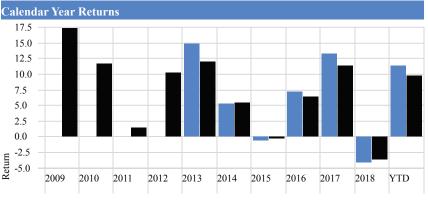
	Ticker Wei	Portfolio ghting %	Qtr Return
T. Rowe Price Equity Index Tr-Z	_	17.94	4.31
T. Rowe Price Bond Tr I	_	16.88	3.27
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	_	13.44	2.06
T. Rowe Price International Bond Tr-Z	_	5.60	3.14
T. Rowe Price Emerging Markets Bd Tr-Z	_	4.43	3.77
T. Rowe Price International Core Eq Tr-Z	_	4.15	2.26
T. Rowe Price International Gr Eq Tr-Z	_	4.03	3.50

T. Rowe Price International Val Eq Tr-Z	_	3.66	2.30
T. Rowe Price Dynamic Global Bond Tr-Z	_	3.65	1.40
T. Rowe Price Growth Stock Tr-Z	_	3.07	4.00
T. Rowe Price High Yield Tr-Z	_	2.97	3.28
T. Rowe Price U.S. Value Equity T-Z	_	2.97	4.83
T. Rowe Price Emerging Markets Eq Tr-Z	_	2.60	2.11
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	2.30	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	1.96	1.43
T. Rowe Price New Horizons Tr-Z	_	1.54	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	1.40	6.05
Γ. Rowe Price U.S. SC Value Eq Tr-Z	_	1.25	4.82



RISK/Return Sta	lusues		
	3 years	5 years	10 years
Alpha	0.66	0.02	_
Beta	1.09	1.13	_
R-sqaured	98.29	98.23	_
Tracking Error	0.93	1.13	_
Information Ratio	1.20	0.43	_
Excess Return	1.18	0.51	_
Standard Deviation	5.91	6.44	_
Sharpe Ratio	1.04	0.69	_
Sortino Ratio	1.64	1.11	-

■T. Rowe Price Retirement 2015 Tr-A ■S&P Target Date 2015 TR USD

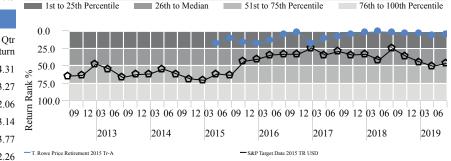


T. Rowe Price Retirement 2015 Tr-A ■S&P Target Date 2015 TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019

Rolling Window: 3 Years 3 Months shift



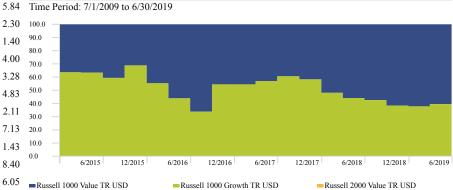
Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD

1.46

1.04



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

T. Rowe Price Real Assets Tr I-Z

Jun. 30, 2019

T. Rowe Price Retirement 2015 Tr A

Fund Type: Target Retirement

Watch List Criteria

* * ***********************************							
Peer Group Ranking	Dec 2	018	Mar 201	9 Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	3%)	6%		5%		
2 of 3 better than median (<50%) needed to pass	PAS	SS	PASS	P	ASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	ASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 201	9 Ju	n 2019		
Trailing 36-Months vs. Passive Target:	1069	%	102%	1	03%		
2 of 3 better than median (<100%) needed to pass	FAI	L	FAIL	F	AIL	0 of 3	FAIL
	_	-		_	_		
Returns vs. Markets	Jun 2015	Jun 2016	Jun 2017	Jun 2018	Jun 2019		
Trailing 12-Months vs. Passive Target:	-0.2%	-0.7%		0.4%	1.0%		
3 of 5 outperforming the passive target needed to pass	FAIL	FAIL		PASS	PASS	3 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	g 3-Yea	r R-Squar	ed: 98.2 6	6%		PASS
Investment Firm:	T. Row	e Price					PASS
Investment Personnel:	Jerome	Clark,	since 2004	ļ			PASS
	Wyatt I	Lee, sind	ce 2015				

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2015 Funds
Passive Target: S&P Target Date 2015 Index

T. Rowe Price Retirement 2020 Tr-A

Benchmark: S&P Target Date 2020 TR USD Morningstar Category: US Fund Target-Date 2020



Operations Inception Date 1/13/2012 Total Net Assets (\$) 10,552,757,720 12b-1 Fee Redemption Fee

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.18	17.87
Average Market Cap (mil)	46,318.59	34,589.48
# of Holdings	22	10
Turnover Ratio %	22.70	_
% Asset in Top 10 Holdings	74.85	100.00
US Equity %	37.04	32.78
Non-US Equity %	18.92	15.97
Emerging Market Equity %	4.07	2.25

Asset Allocation		
		%
	• Stock	56.0
	Bond	40.2
	Cash	2.7
	Other	1.1
	Total	100.0

Equity Style Exposures					
	Value	Blend	Growth		
Large	21.7	26.9	27.4		
Mid	5.2	6.9	7.5		
Small	1.0	1.7	1.7		

Market Cap	%
Market Cap Giant %	43.6
Market Cap Large %	31.9
Market Cap Mid %	19.8
Market Cap Small %	4.2
Market Cap Micro %	0.5

1.27

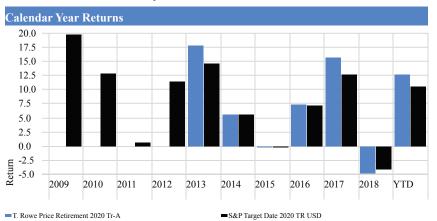
1.46

Top 20 Holdings			
	Ticker We	Portfolio ighting %	Qtr Return
T. Rowe Price Equity Index Tr-Z	_	17.94	4.31
T. Rowe Price Bond Tr I	_	15.09	3.27
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	_	8.03	2.06
T. Rowe Price Growth Stock Tr-Z	_	5.49	4.00
T. Rowe Price U.S. Value Equity T-Z	_	5.25	4.83
T. Rowe Price International Core Eq Tr-Z	_	5.01	2.26
T. Rowe Price International Bond Tr-Z	_	5.00	3.14
T. Rowe Price International Gr Eq Tr-Z	_	4.88	3.50
T. Rowe Price International Val Eq Tr-Z	_	4.36	2.30
T. Rowe Price Emerging Markets Bd Tr-Z	_	3.81	3.77
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	3.61	5.84
T. Rowe Price Dynamic Global Bond Tr-Z	_	3.25	1.40
T. Rowe Price Emerging Markets Eq Tr-Z	_	3.13	2.11
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	2.72	7.13
T. Rowe Price High Yield Tr-Z	_	2.58	3.28
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	2.38	1.43
T. Rowe Price New Horizons Tr-Z	_	1.83	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	1.69	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	1.52	4.82



Kisk/Keturii Sta	usucs		
	3 years	5 years	10 years
Alpha	0.66	0.08	_
Beta	1.15	1.16	_
R-sqaured	98.26	98.35	_
Tracking Error	1.30	1.39	_
Information Ratio	1.13	0.49	_
Excess Return	1.58	0.72	_
Standard Deviation	6.96	7.47	_
Sharpe Ratio	1.04	0.68	_
Sortino Ratio	1.63	1.08	_

■T. Rowe Price Retirement 2020 Tr-A ■S&P Target Date 2020 TR USD



Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

Time Period: 7/1/2009 to 6/30/2019 Rolling Window: 3 Years 3 Months shift

1st to 25th Percentile

T. Rowe Price Retirement 2020 Tr-A

0.0 25.0 Return Rank % 75.0 100.0 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 2013 2014 2016 2017 2018 2019

51st to 75th Percentile

- S&P Target Date 2020 TR USD

12/2017

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0

12/2016 Russell 1000 Value TR USD Russell 1000 Growth TR USD Russell 2000 Value TR USD Russell 2000 Growth TR USD

> Return Date: 6/30/2019 Portfolio Date: 6/30/2019

12/2018

6/2018

76th to 100th Percentile

T. Rowe Price Real Assets Tr I-Z

T. Rowe Price Retirement 2020 Tr A

Fund Type: Target Retirement

Watch List Criteria

VV accii 2150 Ciitoria							
Peer Group Ranking	Dec 2	018	Mar 2019	9 Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	2%	, O	1%		1%		
2 of 3 better than median (<50%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 2019	9 Ju	n 2019		
Trailing 36-Months vs. Passive Target:	111.4	1%	107.0%	10	8.3%		
2 of 3 better than median (<100%) needed to pass	FAI	L	FAIL	F	FAIL	0 of 3	FAIL
	Torre	T	T	T	Torre		
Returns vs. Markets	Jun 2015	Jun 2016	Jun 2017	Jun 2018	Jun 2019		
Trailing 12-Months vs. Passive Target:	0.2%	-1.1%		0.8%	1.0%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL		PASS	PASS	4 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	g 3-Yea	r R-Square	ed: 98.2 2	2%		PASS
Investment Firm:	T. Row	e Price	Associate	s, Inc.			PASS
Investment Personnel:			since 2002	2			PASS
	Wyatt I	Lee, sind	ce 2015				

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2020 Funds
Passive Target: S&P Target Date 2020 Index

T. Rowe Price Retirement 2025 Tr-A

Benchmark: S&P Target Date 2025 TR USD Morningstar Category: US Fund Target-Date 2025



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.39	17.83
Average Market Cap (mil)	46,327.11	34,456.63
# of Holdings	22	10
Turnover Ratio %	16.50	_
% Asset in Top 10 Holdings	74.66	100.00
US Equity %	42.02	38.60
Non-US Equity %	22.06	19.67
Emerging Market Equity %	4.83	2.97

Asset Allocation		
		%
	Stock	64.1
	Bond	32.2
	Cash	2.6
	Other	1.1
	Total	100.0

Equity Style Exposures				
	Value	Blend	Growth	
arge	21.0	26.8	28.3	
Mid	5.1	6.7	7.6	
Small	1.0	1.7	1.7	

Market Cap	%
Market Cap Giant %	43.4
Market Cap Large %	32.2
Market Cap Mid %	19.7
Market Cap Small %	4.2
Market Cap Micro %	0.5

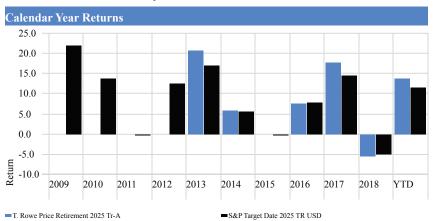
Top 20 Holdings

Top 20 Holdings			
	Ticker We	Portfolio eighting %	Qtr Return
T. Rowe Price Equity Index Tr-Z	_	15.05	4.31
T. Rowe Price Bond Tr I	_	12.89	3.27
T. Rowe Price Growth Stock Tr-Z	_	9.18	4.00
T. Rowe Price U.S. Value Equity T-Z	_	8.81	4.83
T. Rowe Price International Core Eq Tr-Z	_	5.76	2.26
T. Rowe Price International Gr Eq Tr-Z	_	5.53	3.50
T. Rowe Price International Val Eq Tr-Z	_	5.00	2.30
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	_	4.60	2.06
T. Rowe Price International Bond Tr-Z	_	4.27	3.14
T. Rowe Price Emerging Markets Eq Tr-Z	_	3.57	2.11
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	3.48	5.84
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	3.10	7.13
T. Rowe Price Emerging Markets Bd Tr-Z	_	3.05	3.77
T. Rowe Price Dynamic Global Bond Tr-Z	_	2.78	1.40
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	2.74	1.43
T. Rowe Price New Horizons Tr-Z	_	2.07	8.40
T. Rowe Price High Yield Tr-Z	_	2.06	3.28
T. Rowe Price U.S. SC Core Eq Tr-Z	_	1.89	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	1.72	4.82
T. Rowe Price Real Assets Tr I-Z	_	1.44	1.46



	Risk/Return Sta	itistics		
1		3 years	5 years	10 years
	Alpha	0.92	0.28	_
	Beta	1.11	1.13	_
	R-sqaured	98.01	98.26	_
	Tracking Error	1.35	1.44	_
	Information Ratio	1.17	0.56	_
	Excess Return	1.71	0.85	_
	Standard Deviation	7.85	8.35	_
	Sharpe Ratio	1.04	0.67	_
	Sortino Ratio	1.62	1.06	_

■T. Rowe Price Retirement 2025 Tr-A ■S&P Target Date 2025 TR USD



-1. Rower free Retirement 2023 fr-A -3&F faiget Date 2023 fr

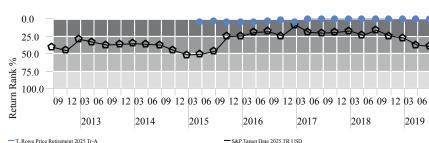
Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

Time Period: 7/1/2009 to 6/30/2019

1st to 25th Percentile

Rolling Window: 3 Years 3 Months shift



51st to 75th Percentile

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

76th to 100th Percentile

T. Rowe Price Retirement 2025 Tr A

Fund Type: Target Retirement

Watch List Criteria

Peer Group Ranking	Dec 20)18	Mar 2019	Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	1%)	1%		1%		
2 of 3 better than median (<50%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
Downside Risk	Dec 20)18	Mar 2019	Ju	n 2019		
Trailing 36-Months vs. Passive Target:	1089	⁄ o	103%	1	04%		
2 of 3 better than median (<100%) needed to pass	FAI	L	FAIL	F	FAIL	0 of 3	FAIL
	Jun	Jun	Jun	Jun	Jun		
Returns vs. Markets	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	0.9%	-1.6%	3.4%	0.7%	1.0%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	PASS	PASS	4 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	3-Year	R-Squared:	97.98%	1		PASS
Investment Firm:	T. Rowe	Price					PASS
T () (D)	т ,	71 1 .	2004				DA CC
Investment Personnel:	Wyatt L	,	nce 2004				PASS
	" yatt D	cc, since	2013				

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2025 Funds
Passive Target: S&P Target Date 2025 Index

T. Rowe Price Retirement 2030 Tr-A

Benchmark: S&P Target Date 2030 TR USD Morningstar Category: US Fund Target-Date 2030



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.54	17.80
Average Market Cap (mil)	46,087.51	34,233.22
# of Holdings	22	10
Turnover Ratio %	16.70	_
% Asset in Top 10 Holdings	76.68	100.00
US Equity %	46.66	44.87
Non-US Equity %	25.13	23.20
Emerging Market Equity %	5.57	3.45

Asset Allocation		
		%
	Stock	-
	Bond	24.6
	Cash	2.6
	Other	1.1
	Other	71.8
	Total	100.0

Equity Style Exposures					
	Value	Blend	Growth		
arge	20.4	0.0	29.0		
La					
Mid	5.1	6.5	7.8		
	1.0	1.7	1.7		
Small	1.0	1.,	/		

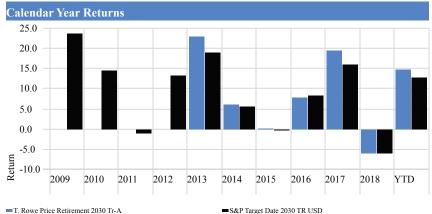
Market Cap	%
Market Cap Giant %	43.3
Market Cap Large %	-
Market Cap Mid %	19.6
Market Cap Small %	4.2
Market Cap Micro %	0.5

Top 20 Holdings			
	Ticker We	Portfolio eighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	_	12.60	4.00
T. Rowe Price Equity Index Tr-Z	_	12.38	4.31
T. Rowe Price U.S. Value Equity T-Z	_	12.01	4.83
T. Rowe Price Bond Tr I	_	10.46	3.27
T. Rowe Price International Core Eq Tr-Z	_	6.45	2.26
T. Rowe Price International Gr Eq Tr-Z	_	6.28	3.50
T. Rowe Price International Val Eq Tr-Z	_	5.59	2.30
T. Rowe Price Emerging Markets Eq Tr-Z	_	3.99	2.11
T. Rowe Price International Bond Tr-Z	_	3.46	3.14
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	3.45	7.13
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	3.18	5.84
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	3.08	1.43
T. Rowe Price Emerging Markets Bd Tr-Z	_	2.31	3.77
T. Rowe Price New Horizons Tr-Z	_	2.29	8.40
T. Rowe Price Dynamic Global Bond Tr-Z	_	2.24	1.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	2.15	6.05
T. Rowe Price US Ltd Dur Inf Fo Bd Tr-Z	_	2.10	2.06
T. Rowe Price U.S. SC Value Eq Tr-Z	_	1.94	4.82
T. Rowe Price Real Assets Tr I-Z	_	1.63	1.46



	NISK/Neturn Sta	lustics		
1		3 years	5 years	10 years
	Alpha	1.31	0.49	_
1	Beta	1.06	1.09	_
	R-sqaured	97.82	97.97	_
	Tracking Error	1.37	1.51	_
	Information Ratio	1.24	0.59	_
	Excess Return	1.84	0.94	_
	Standard Deviation	8.67	9.15	_
	Sharpe Ratio	1.04	0.67	_
8	Sortino Ratio	1.61	1.04	_

■T. Rowe Price Retirement 2030 Tr-A ■S&P Target Date 2030 TR USD



■S&P Target Date 2030 TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

Time Period: 7/1/2009 to 6/30/2019

1st to 25th Percentile

Rolling Window: 3 Years 3 Months shift



51st to 75th Percentile

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD

1.56

3.28



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

76th to 100th Percentile

T. Rowe Price High Yield Tr-Z

T. Rowe Price Retirement 2030 Tr A

Fund Type: Target Retirement

Watch List Criteria

v accii	LIBU C	11111	ıu				
Peer Group Ranking	Dec 2	018	Mar 2019	Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	5%)	1%		1%		
2 of 3 better than median (<50%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 2019	Ju	n 2019		
Trailing 36-Months vs. Passive Target:	103.9	¹⁰ / ₀	98.5%	99	9.1%		
2 of 3 better than median (<100%) needed to pass	FAI	L	PASS	P	ASS	2 of 3	PASS
	Jun	Jun	Jun	Jun	Jun		
Returns vs. Markets	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	1.2%	-1.8%		0.7%	1.1%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	PASS	PASS	4 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	3-Year	R-Squared:	97.80%			PASS
Investment Firm:	T. Rowe Price				PASS		
	·	a	2002				D 1 GG
Investment Personnel:	Jerome Clark, since 2002 Wyatt Lee, since 2015				PASS		
	w yau L	ce, since	2013				

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2030 Funds
Passive Target: S&P Target Date 2030 Index

T. Rowe Price Retirement 2035 Tr-A

Benchmark: S&P Target Date 2035 TR USD Morningstar Category: US Fund Target-Date 2035



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

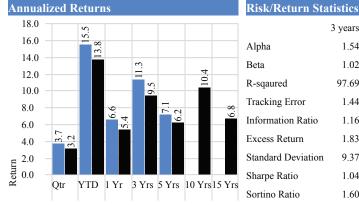
Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.64	17.77
Average Market Cap (mil)	46,127.29	34,382.43
# of Holdings	21	9
Turnover Ratio %	14.50	_
% Asset in Top 10 Holdings	80.27	100.00
US Equity %	50.58	50.59
Non-US Equity %	27.65	26.96
Emerging Market Equity %	6.19	4.18

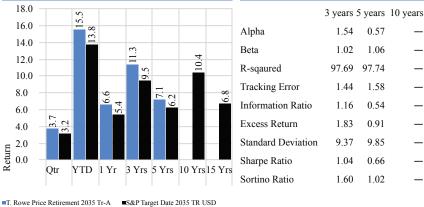
Asset Allocation		
		%
	• Stock	78.3
	Bond	18.1
	Cash	2.6
	Other	1.0
	Total	100.0

Equi	ty Sty	le Exp	osures
	Value	Blend	Growth
arge	20.1	26.8	29.4
Mid	5.0	6.4	7.8
Small	1.0	1.7	1.7

Market Cap	%
Market Cap Giant %	43.2
Market Cap Large %	32.7
Market Cap Mid %	19.5
Market Cap Small %	4.2
Market Cap Micro %	0.5

Sn	Market Cap Micro 70			
Top 20 Holdings				
	Ticker Weighting % F	Qtr Return		
T. Rowe Price Growth Stock Tr-Z	— 15.47	4.00		
T. Rowe Price U.S. Value Equity T-2	– 14.78	4.83		
T. Rowe Price Equity Index Tr-Z	— 10.20	4.31		
T. Rowe Price Bond Tr I	- 8.39	3.27		
T. Rowe Price International Core Eq	Tr-Z - 7.08	2.26		
T. Rowe Price International Gr Eq Tr	r-Z — 6.78	3.50		
T. Rowe Price International Val Eq T	r-Z — 6.11	2.30		
T. Rowe Price Emerging Markets Eq	Tr-Z – 4.37	2.11		
T. Rowe Price U.S. Mid-Cap Gr Eq	Tr-Z — 3.75	7.13		
T. Rowe Price U.S. Mid-Cap Val Eq	Tr-Z – 3.34	1.43		
T. Rowe Price U.S. Treasury Lng-Tn	m Tr-Z — 2.84	5.84		
T. Rowe Price International Bond Tr	-Z – 2.77	3.14		
T. Rowe Price New Horizons Tr-Z	— 2.47	8.40		
T. Rowe Price U.S. SC Core Eq Tr-Z	_ 2.30	6.05		
T. Rowe Price U.S. SC Value Eq Tr-	Z – 2.12	4.82		
T. Rowe Price Dynamic Global Bone	d Tr-Z — 1.78	1.40		
T. Rowe Price Real Assets Tr I-Z	— 1.74	1.46		
T. Rowe Price Emerging Markets Bo	1 Tr-Z — 1.69	3.77		
T. Rowe Price High Yield Tr-Z	– 1.17	3.28		
T Rowe Price U S Treas Money Mkt	Tr — 0.45	_		





Calendar Year Returns 25.0 20.0 15.0 10.0 5.0 0.0 -5.0

2014

2015

51st to 75th Percentile

- S&P Target Date 2035 TR USD

2016

2017

76th to 100th Percentile

T. Rowe Price Retirement 2035 Tr-A ■S&P Target Date 2035 TR USD

2012

2013

Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

Time Period: 7/1/2009 to 6/30/2019 Rolling Window: 3 Years 3 Months shift

2010

2011

2009

1st to 25th Percentile

T. Rowe Price Retirement 2035 Tr-A

Russell 2000 Growth TR USD

0.0 Return Rank % 75.0 100.0 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 09 12 03 06 2013 2014 2015 2016 2018 2019

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 6/2016 12/2016 12/2017 6/2018 12/2018 6/2019 Russell 1000 Value TR USD -Russell 1000 Growth TR USD Russell 2000 Value TR USD

> Return Date: 6/30/2019 Portfolio Date: 6/30/2019

T. Rowe Price Retirement 2035 Tr A

Fund Type: Target Retirement

Watch List Criteria

Watch	LIST C	11111	ıa				
Peer Group Ranking	Dec 2	018	Mar 2019	Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	8%)	6%		2%		
2 of 3 better than median (<50%) needed to pass	PAS	S	PASS	P	PASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	S	PASS	P	PASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 2019	Ju	n 2019		
Trailing 36-Months vs. Passive Target:	101.6	5%	95.5%	9:	5.8%		
2 of 3 better than median (<100%) needed to pass	FAI	L	PASS	P	PASS	2 of 3	PASS
D. A. D. A.	Jun	Jun	Jun	Jun	Jun		
Returns vs. Markets	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	1.5%	-2.1%	3.9%	0.5%	1.2%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	PASS	PASS	4 of 5	PASS
Ovelitative Iggreg							
Qualitative Issues							
Investment Style:	Trailing 3-Year R-Squared: 97.67%				•		PASS
T (177		ъ.					D. CC
Investment Firm:	T. Rowe	Price					PASS
Investment Personnel:	Ioromo (Clark ci	nce 2004				PASS
investment i ersonner.	Wyatt L						1 ASS
	· J ···· —	,					

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2035 Funds
Passive Target: S&P Target Date 2035 Index

T. Rowe Price Retirement 2040 Tr-A

Benchmark: S&P Target Date 2040 TR USD Morningstar Category: US Fund Target-Date 2040



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

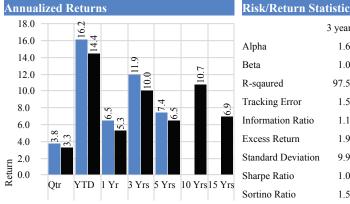
Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.72	17.74
Average Market Cap (mil)	45,980.49	33,809.89
# of Holdings	21	9
Turnover Ratio %	15.10	_
% Asset in Top 10 Holdings	82.64	100.00
US Equity %	53.43	54.37
Non-US Equity %	29.72	29.31
Emerging Market Equity %	6.69	4.53

Asset Allocation		
		%
	• Stock	83.2
	Bond	13.3
	Cash	2.5
	Other	1.0
	Total	100.0

qui	quity Style Exposures						
	Value	Blend	Growth				
Large	19.8	26.7	29.8				
Mid	5.0	6.4	7.9				
Small	1.0	1.7	1.7				

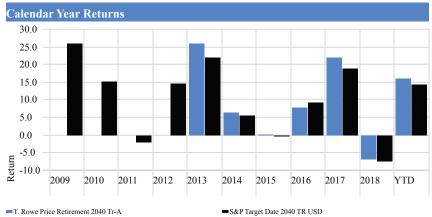
Market Cap	%
Market Cap Giant %	43.1
Market Cap Large %	32.8
Market Cap Mid %	19.5
Market Cap Small %	4.2
Market Cap Micro %	0.5

Top 20 Holdings			
	Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	_	17.84	4.00
T. Rowe Price U.S. Value Equity T-Z	_	17.08	4.83
T. Rowe Price Equity Index Tr-Z	_	7.98	4.31
T. Rowe Price International Core Eq Tr-Z	_	7.53	2.26
T. Rowe Price International Gr Eq Tr-Z	_	7.33	3.50
T. Rowe Price International Val Eq Tr-Z	_	6.48	2.30
T. Rowe Price Bond Tr I	_	6.21	3.27
T. Rowe Price Emerging Markets Eq Tr-Z	_	4.64	2.11
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	3.97	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	3.58	1.43
T. Rowe Price New Horizons Tr-Z	_	2.63	8.40
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	2.51	5.84
T. Rowe Price U.S. SC Core Eq Tr-Z	_	2.42	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	2.25	4.82
T. Rowe Price International Bond Tr-Z	_	2.04	3.14
T. Rowe Price Real Assets Tr I-Z	_	1.89	1.46
T. Rowe Price Dynamic Global Bond Tr-Z	_	1.28	1.40
T. Rowe Price Emerging Markets Bd Tr-Z	_	1.04	3.77
T. Rowe Price High Yield Tr-Z	_	0.70	3.28
T Rowe Price U S Treas Money Mkt Tr	_	0.35	_



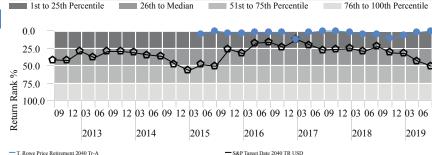
Misik itetui ii Sta	telstics		
	3 years	5 years	10 years
Alpha	1.67	0.62	_
Beta	1.01	1.05	_
R-sqaured	97.53	97.61	_
Tracking Error	1.57	1.69	_
Information Ratio	1.10	0.51	_
Excess Return	1.90	0.92	_
Standard Deviation	9.94	10.40	_
Sharpe Ratio	1.03	0.65	_
Sortino Ratio	1.59	1.01	_

■T. Rowe Price Retirement 2040 Tr-A ■S&P Target Date 2040 TR USD



Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019 Rolling Window: 3 Years 3 Months shift



Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

T. Rowe Price Retirement 2040 Tr A

Fund Type: Target Retirement

Watch List Criteria

v v atem		11101	144				
Peer Group Ranking	Dec 2	018	Mar 2019	Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	7%	•	3%		0%		
2 of 3 better than median (<50%) needed to pass	PAS	S	PASS	P	PASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	S	PASS	P	PASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 2019	Ju	n 2019		
Trailing 36-Months vs. Passive Target:	100.3	%	93.7%	9.	4.3%		
2 of 3 better than median (<100%) needed to pass	FAI	L	PASS	P	PASS	2 of 3	PASS
	Jun	Jun	Jun	Jun	Jun		
Returns vs. Markets	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	1.7%	-2.5%	4.2%	0.4%	1.3%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	PASS	PASS	4 of 5	PASS
O-1'4-4' I							
Qualitative Issues							
Investment Style:	Trailing	3-Year	R-Squared:	97.51%	•		PASS
							- L aa
Investment Firm:	T. Rowe	Price					PASS
Investment Developmel	I	71a.d. a:	2002				DACC
Investment Personnel:	Wyatt L		nce 2002 2015				PASS
	, att 12	, 511100					

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2040 Funds
Passive Target: S&P Target Date 2040 Index

T. Rowe Price Retirement 2045 Tr-A

Benchmark: S&P Target Date 2045 TR USD Morningstar Category: US Fund Target-Date 2045



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

Fund Characteristics					
	Fund	Benchmark			
P/E Ratio (TTM)	19.78	17.72			
Average Market Cap (mil)	46,003.86	34,077.19			
# of Holdings	21	9			
Turnover Ratio %	16.50	_			
% Asset in Top 10 Holdings	84.20	100.00			
US Equity %	55.63	56.30			
Non-US Equity %	31.05	31.25			
Emerging Market Equity %	7.02	4.91			

Asset Allocation		
		%
	• Stock	86.7
	Bond	9.7
	Cash	2.6
	Other	1.0
	Total	100.0

qui	quity Style Exposures					
,	Value	Blend	Growth			
19.6		26.7	30.0			
Mid	5.0	6.3	7.9			
Small	1.0	1.7	1.7			

Market Cap	%
Market Cap Giant %	43.1
Market Cap Large %	32.9
Market Cap Mid %	19.4
Market Cap Small %	4.2
Market Cap Micro %	0.5

S	· · · · · · · · · · · · · · · · · · ·		
Top 20 Holdings			
	Ticker	Portfolio Weighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	_	19.48	4.00
T. Rowe Price U.S. Value Equity T-Z	_	18.64	4.83
T. Rowe Price International Core Eq Tr-2	z –	7.85	2.26
T. Rowe Price International Gr Eq Tr-Z	_	7.61	3.50
T. Rowe Price International Val Eq Tr-Z	_	6.74	2.30
T. Rowe Price Equity Index Tr-Z	_	6.73	4.31
T. Rowe Price Emerging Markets Eq Tr-2	z –	4.82	2.11
T. Rowe Price Bond Tr I	_	4.47	3.27
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	4.14	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z		3.72	1.43
T. Rowe Price New Horizons Tr-Z	_	2.70	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	2.55	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	2.35	4.82
T. Rowe Price U.S. Treasury Lng-Tm Tr-	z –	2.07	5.84
T. Rowe Price Real Assets Tr I-Z	_	1.94	1.46
T. Rowe Price International Bond Tr-Z	_	1.45	3.14
T. Rowe Price Dynamic Global Bond Tr-	z –	0.95	1.40
T. Rowe Price Emerging Markets Bd Tr-	z –	0.63	3.77
T Rowe Price U S Treas Money Mkt Tr	_	0.56	_



	KISK/Keturii Sta	lusues		
1		3 years	5 years	10 years
	Alpha	1.58	0.69	_
	Beta	1.00	1.03	_
	R-sqaured	97.59	97.82	_
	Tracking Error	1.60	1.60	_
	Information Ratio	1.00	0.53	_
	Excess Return	1.77	0.90	_
	Standard Deviation	10.26	10.58	_
	Sharpe Ratio	1.02	0.65	_
	Sortino Ratio	1.57	1.01	_

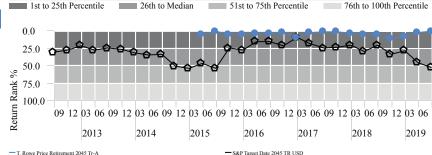
■T. Rowe Price Retirement 2045 Tr-A ■S&P Target Date 2045 TR USD



Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019

Rolling Window: 3 Years 3 Months shift



Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD

0.42

3.28



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

T. Rowe Price High Yield Tr-Z

T. Rowe Price Retirement 2045 Tr A

Fund Type: Target Retirement

Watch List Criteria

Water List Criteria							
Peer Group Ranking	Dec 2	018	Mar 2019	Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	8%	•	3%		0%		
2 of 3 better than median (<50%) needed to pass	PAS	SS	PASS	PASS		3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 2019	Ju	n 2019		
Trailing 36-Months vs. Passive Target:	98.89	%	93.0%	9.	4.0%		
2 of 3 better than median (<100%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS
	Jun	Jun	Jun	Jun	Jun		
Returns vs. Markets	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	1.8%	-2.3%	3.8%	0.4%	1.3%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	PASS	PASS	4 of 5	PASS
O-1'4-4' I							
Qualitative Issues							
Investment Style:	Trailing	3-Year	R-Squared:	97.57%	•		PASS
Investment Firm:	T. Rowe	Price					PASS
T (17)	.	a	2007				D. A. CIC
Investment Personnel:	Jerome Clark, since 2005 Wyatt Lee, since 2015			PASS			
	w yau L	cc, since	2013				

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2045 Funds
Passive Target: S&P Target Date 2045 Index

T. Rowe Price Retirement 2050 Tr-A

Benchmark: S&P Target Date 2050 TR USD Morningstar Category: US Fund Target-Date 2050



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.77	17.69
Average Market Cap (mil)	46,032.84	33,629.75
# of Holdings	21	8
Turnover Ratio %	18.40	_
% Asset in Top 10 Holdings	84.15	100.00
US Equity %	55.48	57.46
Non-US Equity %	31.08	31.93
Emerging Market Equity %	7.04	5.07



Equity Style Exposures Blend Growth 19.6 26.7 30.1 7.9 6.3 1.7 1.7

Market Cap	%
Market Cap Giant %	43.1
Market Cap Large %	32.9
Market Cap Mid %	19.4
Market Cap Small %	4.2
Market Cap Micro %	0.5

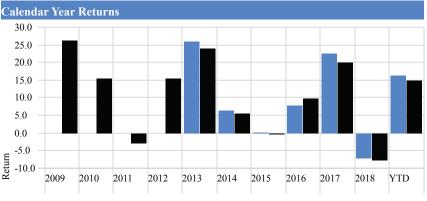
Top 20 Holdings

	Ticker We	Portfolio eighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	_	19.46	4.00
T. Rowe Price U.S. Value Equity T-Z	_	18.58	4.83
T. Rowe Price International Core Eq Tr-Z	_	7.84	2.26
T. Rowe Price International Gr Eq Tr-Z	_	7.74	3.50
T. Rowe Price Equity Index Tr-Z	_	6.72	4.31
T. Rowe Price International Val Eq Tr-Z	_	6.69	2.30
T. Rowe Price Emerging Markets Eq Tr-Z	_	4.82	2.11
T. Rowe Price Bond Tr I	_	4.45	3.27
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	4.12	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	3.72	1.43
T. Rowe Price New Horizons Tr-Z	_	2.66	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	2.51	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	2.39	4.82
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	2.10	5.84
T. Rowe Price Real Assets Tr I-Z	_	1.91	1.46
T. Rowe Price International Bond Tr-Z	_	1.46	3.14
T. Rowe Price Dynamic Global Bond Tr-Z	_	0.97	1.40
T. Rowe Price Emerging Markets Bd Tr-Z	_	0.64	3.77
T Rowe Price U S Treas Money Mkt Tr	_	0.63	_
T. Rowe Price High Yield Tr-Z	_	0.42	3.28



	Kisk/Return Sta	itistics		
1		3 years	5 years	10 years
	Alpha	1.46	0.69	_
	Beta	0.98	1.01	_
	R-sqaured	97.51	97.85	_
	Tracking Error	1.64	1.56	_
	Information Ratio	0.80	0.45	_
	Excess Return	1.45	0.75	_
	Standard Deviation	10.30	10.62	_
	Sharpe Ratio	1.02	0.65	_
S	Sortino Ratio	1.55	1.00	_

■T. Rowe Price Retirement 2050 Tr-A ■S&P Target Date 2050 TR USD



■S&P Target Date 2050 TR USD

51st to 75th Percentile

Rolling 3 Year Return Morningstar Peer Group Rankings

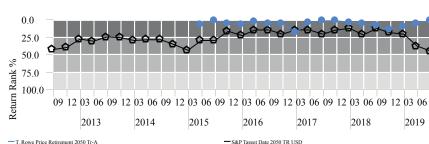
26th to Median

Time Period: 7/1/2009 to 6/30/2019

T. Rowe Price Retirement 2050 Tr-A

1st to 25th Percentile

Rolling Window: 3 Years 3 Months shift



Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

76th to 100th Percentile

T. Rowe Price Retirement 2050 Tr A

Fund Type: Target Retirement

Watch List Criteria

vvaten Bist Criteria							
Peer Group Ranking	Dec 20	018	Mar 2019	Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	9%	•	5%		0%		
2 of 3 better than median (<50%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
Downside Risk	Dec 20	018	Mar 2019	Ju	n 2019		
Trailing 36-Months vs. Passive Target:	96.59	%	91.5%	92	2.3%		
2 of 3 better than median (<100%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
	Jun	Jun	Jun	Jun	Jun		
Returns vs. Markets	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	1.7%	-2.0%	3.1%	0.1%	1.3%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	PASS	PASS	4 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	3-Year	R-Squared:	97.49%			PASS
·	C		•				
Investment Firm:	T. Rowe	Price					PASS
Investment Personnel:			nce 2006				PASS
	Wyatt Lee, since 2015						

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2050 Funds
Passive Target: S&P Target Date 2050 Index

T. Rowe Price Retirement 2055 Tr-A

Benchmark: S&P Target Date 2055 TR USD Morningstar Category:US Fund Target-Date 2055



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.76	17.69
Average Market Cap (mil)	46,072.43	33,771.24
# of Holdings	21	8
Turnover Ratio %	16.30	_
% Asset in Top 10 Holdings	84.41	100.00
US Equity %	55.56	57.83
Non-US Equity %	31.28	32.72
Emerging Market Equity %	7.04	5.22

	0/0
Stock	86.9
Bond	9.7
Cash	2.5
Other	1.0
Total	100.0
	BondCashOther

Equity Style Exposures							
,	Value	Blend	Growth				
Large	19.7	26.8	30.0				
Mid	5.0	6.3	7.9				
Small	1.0	1.7	1.7				

Ton 20 Holding

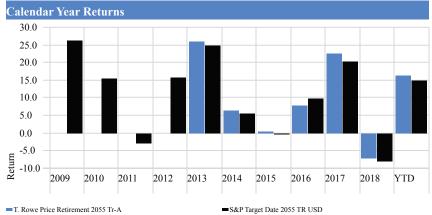
Market Cap	%
Market Cap Giant %	43.1
Market Cap Large %	32.9
Market Cap Mid %	19.3
Market Cap Small %	4.1
Market Cap Micro %	0.5

10p 20 Holdings			
	Ticker We	Portfolio eighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	_	19.48	4.00
T. Rowe Price U.S. Value Equity T-Z	_	18.68	4.83
T. Rowe Price International Gr Eq Tr-Z	_	7.85	3.50
T. Rowe Price International Core Eq Tr-Z	_	7.83	2.26
T. Rowe Price International Val Eq Tr-Z	_	6.82	2.30
T. Rowe Price Equity Index Tr-Z	_	6.72	4.31
T. Rowe Price Emerging Markets Eq Tr-Z	_	4.78	2.11
T. Rowe Price Bond Tr I	_	4.45	3.27
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	4.08	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	3.74	1.43
T. Rowe Price New Horizons Tr-Z	_	2.68	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	2.52	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	2.32	4.82
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	2.07	5.84
T. Rowe Price Real Assets Tr I-Z	_	1.95	1.46
T. Rowe Price International Bond Tr-Z	_	1.46	3.14
T. Rowe Price Dynamic Global Bond Tr-Z	_	0.94	1.40
T. Rowe Price Emerging Markets Bd Tr-Z	_	0.66	3.77
T Rowe Price U S Treas Money Mkt Tr	_	0.40	_



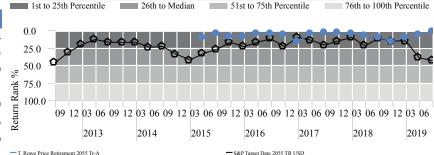
KISK/Keturii Sta	iusucs		
	3 years	5 years	10 years
Alpha	1.35	0.70	_
Beta	0.98	0.99	_
R-sqaured	97.54	97.95	_
Tracking Error	1.64	1.52	_
Information Ratio	0.70	0.43	_
Excess Return	1.28	0.70	_
Standard Deviation	10.31	10.64	_
Sharpe Ratio	1.02	0.65	_
Sortino Ratio	1.56	1.00	_

■T. Rowe Price Retirement 2055 Tr-A ■S&P Target Date 2055 TR USD



Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019 Rolling Window: 3 Years 3 Months shift



Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD

3.28

0.40



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

T. Rowe Price High Yield Tr-Z

T. Rowe Price Retirement 2055 Tr A

Fund Type: Target Retirement

Watch List Criteria

Peer Group Ranking	Dec 2	018	Mar 2019	Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	10%		5%		0%		
2 of 3 better than median (<50%) needed to pass	PAS	SS	PASS	P	PASS		PASS
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	PASS		PASS
Downside Risk	Dec 2	018	Mar 2019	Ju	n 2019		
Trailing 36-Months vs. Passive Target:	95.79	%	91.2%	92	2.0%		
2 of 3 better than median (<100%) needed to pass	PAS	SS	PASS	P	ASS	3 of 3	PASS
	Jun	Jun	Jun	Jun	Jun		
Returns vs. Markets	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	1.7%	-1.7%		-0.1%	1.4%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	PASS	FAIL	PASS	3 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	3-Year	R-Squared:	97.53%	1		PASS
Investment Firm:	T. Rowe	Price					PASS
T ()	.	a	2006				DA GG
Investment Personnel:	Jerome Clark, since 2006 Wyatt Lee, since 2015				PASS		
	w yatt L	cc, since	2013				

Benchmarks

Peer Group: Lipper Mixed-Asset Target 2055 Funds Passive Target: S&P Target Date 2055 Index

T. Rowe Price Retirement 2060 Tr-A

Benchmark: S&P Target Date 2060+ TR USD Morningstar Category: US Fund Target-Date 2060+



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

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	19.78	17.70
Average Market Cap (mil)	46,021.03	34,696.24
# of Holdings	21	8
Turnover Ratio %	11.10	_
% Asset in Top 10 Holdings	84.50	100.00
US Equity %	55.90	58.60
Non-US Equity %	31.14	32.35
Emerging Market Equity %	7.00	5.17

%
/0
87.1
9.6
2.3
1.0
0.00

Equity Style Exposures				
	Value	Growth		
Large	19.6		30.0	
Mid	5.0	6.3	8.0	
Small	1.0	1.7	1.7	

Top 20 Holdings

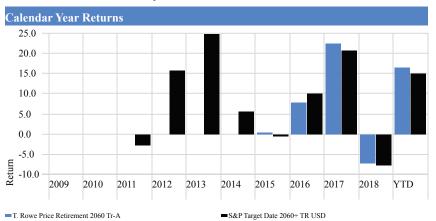
Market Cap	%
Market Cap Giant %	43.1
Market Cap Large %	32.9
Market Cap Mid %	19.4
Market Cap Small %	4.2
Market Cap Micro %	0.5

	Ticker We	Portfolio ighting %	Qtr Return
T. Rowe Price Growth Stock Tr-Z	_	19.61	4.00
T. Rowe Price U.S. Value Equity T-Z	_	18.73	4.83
T. Rowe Price International Core Eq Tr-Z	_	7.87	2.26
T. Rowe Price International Gr Eq Tr-Z	_	7.55	3.50
T. Rowe Price International Val Eq Tr-Z	_	6.87	2.30
T. Rowe Price Equity Index Tr-Z	_	6.75	4.31
T. Rowe Price Emerging Markets Eq Tr-Z	_	4.79	2.11
T. Rowe Price Bond Tr I	_	4.47	3.27
T. Rowe Price U.S. Mid-Cap Gr Eq Tr-Z	_	4.13	7.13
T. Rowe Price U.S. Mid-Cap Val Eq Tr-Z	_	3.73	1.43
T. Rowe Price New Horizons Tr-Z	_	2.79	8.40
T. Rowe Price U.S. SC Core Eq Tr-Z	_	2.53	6.05
T. Rowe Price U.S. SC Value Eq Tr-Z	_	2.36	4.82
T. Rowe Price U.S. Treasury Lng-Tm Tr-Z	_	2.03	5.84
T. Rowe Price Real Assets Tr I-Z	_	1.95	1.46
T. Rowe Price International Bond Tr-Z	_	1.45	3.14
T. Rowe Price Dynamic Global Bond Tr-Z	_	0.92	1.40
T. Rowe Price Emerging Markets Bd Tr-Z	_	0.65	3.77
T. Rowe Price High Yield Tr-Z	_	0.42	3.28



	Risk/Return Statistics					
1		3 years	5 years	10 years		
	Alpha	1.28	_	_		
	Beta	0.96	_	_		
	R-sqaured	97.43	_	_		
	Tracking Error	1.70	_	_		
	Information Ratio	0.57	_	_		
	Excess Return	1.07	_	_		
	Standard Deviation	10.28	_	_		
	Sharpe Ratio	1.02	_	_		
S	Sortino Ratio	1.56	_	_		

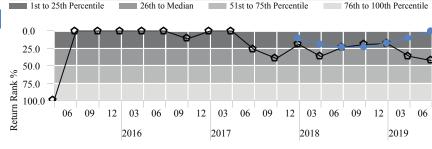
■T. Rowe Price Retirement 2060 Tr-A ■S&P Target Date 2060+ TR USD



Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 4/1/2012 to 6/30/2019

Rolling Window: 3 Years 3 Months shift



T. Rowe Price Retirement 2060 Tr-A - S&P Target Date 2060+ TR USD

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD

0.24



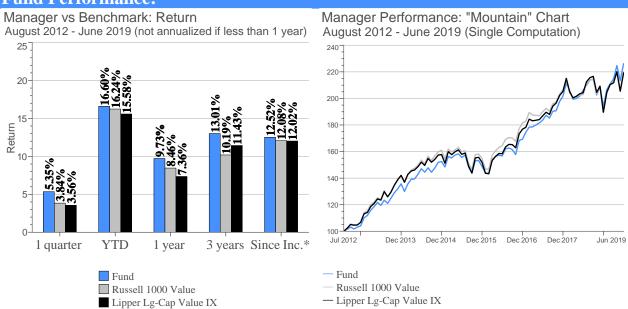
Return Date: 6/30/2019 Portfolio Date: 6/30/2019

T Rowe Price U S Treas Money Mkt Tr

FMI Large-Cap

Fund Type: Large Value





Francis Investment Counsel LLC Review:

Summary & Opinion

Your large-cap value fund, the FMI Large-Cap Fund, gained 5.35% in the second quarter and outperformed its benchmarks. We maintain shareholders are in good hands here thanks to a consistently applied investment strategy. Since large-cap stocks are very efficiently priced by scores of analysts in the marketplace, management's tactic to beat the market comes down to concentrating on best ideas and diversifying among industries. The focused nature of the Fund is one hallmark here (about 30 stocks) but so is management's skeptical perspective, no matter the macroeconomic environment. In fact, in their most recent letter to investors (April 2019) FMI stated the following: "As value-oriented investors, we often modestly lag growth stock-fueled markets, and this bull market has been no different. The real measure of performance, however, comes after a full market cycle, which few see coming but history says is inevitable. Since 1900, there have been 21 bear markets with a median duration of 1.43 years and a price return of -37.2%. As investors increasingly abandon risk sensitive investments chasing growth and index products, we remain steadfast in our belief that in the end, fundamentals win -- not momentum or popularity." This critical approach serves as a significant risk management tool when deployed in the context of their bottom-up, fundamental company analysis. The mantra here: "Prepare for the worst, and hope for the best." It's when markets turn south in years such as 2018, 2015, 2011, and 2008 that this defensive attitude pays off the most as the market's flight to safety results in favoring the types of companies FMI holds: those with recurring cash flow, high returns on invested capital, and relatively cheaper valuations. That said, management has undoubtedly demonstrated its ability to position the Fund to capture some upside as can be seen in the annualized returns of late. This combination - an emphasis on companies with sturdy attributes in addition to harvesting gains and redeploying cash on market weakness - have been key in helping the Fund's shareholders do quite well over full market cycles. In summing-up, we endorse the Fund for its 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 top decile.

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 credit 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

Relative outperformance for the quarter was primarily driven by advantageous stock selection in the Health Care (+11.46% vs. +2.85%), Consumer Staples (+9.09% vs. +2.52%), and Information Technology (+9.45% vs. +3.18%) sectors, containing Cerner Corp. (+28.45%, 4% of assets), Nestle SA (+11.27%, 4% of assets), and TE Connectivity Ltd. (+19.24%). The Fund lost the most ground within the Financials (+3.94% vs. +7.69%) sector, while an overweight to and lagging stock selection within the Industrials (16.33% vs. 7.87% exposure, +4.96% vs. +6.67%) sector also weakened relative results.

Returns are time-weighted rates of return for period ended 6/30/2019.

*Since Inc. results are average annualized time-weighted rates of return for 83 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.

FMI Large Cap **FMIHX**

Benchmark: Russell 1000 Value TR USD Morningstar Category: US Fund Large Value

■Russell 1000 Value TR USD



Operations

o Posturation	
Inception Date	12/31/2001
Total Net Assets (\$)	5,106,730,279
12b-1 Fee	_
Redemption Fee	_
Fund Characteristics	

Fund Characteristics				
	Fund	Benchmark		
P/E Ratio (TTM)	18.13	17.24		
Average Market Cap (mil)	54,935.82	63,197.71		
# of Holdings	33	722		
Turnover Ratio %	25.00	_		
% Asset in Top 10 Holdings	40.06	21.40		
US Equity %	77.40	98.47		
Non-US Equity %	15.01	1.53		
Emerging Market Equity %	0.00	0.49		



νЧ	quity Style Exposures					
		Value	Blend	Growth	Marl	
	ge	25.4	41.7	16.3	Mark	
	Large				Mark	
	Mid	9.2	4.3	3.1	Mark	
	Σ				Mark	
	Small	0.0	0.0	0.0	Mark	
	,,					

Top 20 Holdings

Market Cap	%
Market Cap Giant %	39.7
Market Cap Large %	43.7
Market Cap Mid %	16.6
Market Cap Small %	0.0
Market Cap Micro %	0.0

	Ticker	Portfolio Weighting %	Qtr Return
Berkshire Hathaway Inc B	BRK.B	5.00	6.11
Honeywell International Inc	HON	4.54	10.38
UnitedHealth Group Inc	UNH	4.38	-0.88
Masco Corp	MAS	3.93	0.13
Dollar General Corp	DG	3.93	13.56
Dollar Tree Inc	DLTR	3.72	2.24
eBay Inc	EBAY	3.71	6.73
Accenture PLC Class A	ACN	3.70	5.80
JPMorgan Chase & Co	JPM	3.67	11.23
Nestle SA ADR	NSRGY	3.49	11.02
PepsiCo Inc	PEP	3.45	7.78
Unilever PLC ADR	UL	3.27	8.13
TJX Companies Inc	TJX	3.22	-0.19
Quest Diagnostics Inc	DGX	3.08	13.81
Cerner Corp	CERN	3.01	28.44
Expeditors International of Washington Inc	EXPD	2.91	0.61

SWK

BK

CB

SNN

2.89

2.82

2.73

5.68

9.65



Risk/Return Statistics											
	3 years	5 years	10 years								
Alpha	3.78	2.22	1.73								
Beta	0.85	0.87	0.86								
R-sqaured	89.17	91.29	91.64								
Tracking Error	4.04	3.57	3.85								
Information Ratio	0.63	0.40	0.02								
Excess Return	2.82	1.52	0.11								
Standard Deviation	10.86	10.83	11.72								
Sharpe Ratio	1.05	0.77	1.09								
Sortino Ratio	1.68	1.25	1.84								

Calenda	ar Year	Retur	ns								
35.0											
30.0											
25.0											
20.0					_						
15.0										_	
10.0	_							_			_
5.0											_
0.0			I								
-5.0											
-5.0 -10.0										_	
조	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

Russell 1000 Value TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019

■FMI Large Cap

FMI Large Cap

Rolling Window: 3 Years 3 Months shift

,	1st to 25th Percentile	26th to Median	51st to	75th Percenti	ile 76	oth to 100th Per	centile
1	0.0 25.0 50.0	000000	0 0	6 0 0	000	0000) Q
3	75.0 100.0 09 12 03 06 2013	09 12 03 06 09 12 0					
) I	— FMI Large Cap	2014	1	016 2	2017	2018	2019

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD



Return Date: 6/30/2019 Portfolio Date: 3/31/2019

Smith & Nephew PLC ADR

Stanley Black & Decker Inc

Chubb Ltd

Bank of New York Mellon Corp

FMI Large Cap Fund Type: Large Value

Watch List Criteria

Watch List Criteria										
Peer Group Ranking	Dec 2018		Mar 201	9 Ju	n 2019	Gra	ade			
Trailing 36-Months vs. Peer Group:	8%		16%		5%					
2 of 3 better than median (<50%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS			
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS			
Downside Risk	Dec 2	018	Mar 201	9 Ju	n 2019					
Trailing 36-Months vs. Passive Target:	80.9	%	82.9%	82	2.7%					
2 of 3 better than median (<100%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS			
	.	_	_	_	-					
Returns vs. Markets	Jun 2015	Jun 2016	Jun 2017	Jun 2018	Jun 2019					
Trailing 12-Months vs. Passive Target:	1.6%	-2.1%		5.4%	1.3%					
3 of 5 outperforming the passive target needed to pass	PASS	FAIL		PASS	PASS	4 of 5	PASS			
Qualitative Issues										
Investment Style:	Trailing 3-Year R-Squared: 89.12%						PASS			
Investment Firm:	Fiducia	ry Mana	agement Inc				PASS			
Investment Personnel:			nce 2001				PASS			
			since 200							
			zinger, sin nce 2009	ce 2009						
	Andy R									
			since 201							
	Jonathan Bloom, since 2011									
	Matthew Sullivan, since 2014 Jordan Teschendorf, since 2016									
			idorf, sinc k, since 2							
	Denjam	iii ixaic	n, since 2	010						

Benchmarks

Peer Group: Lipper Large-Cap Value Funds Passive Target: Russell 1000 Value

Fidelity Contrafund

Fund Type: Large Growth

Converting to K6 Shares on 10/21/19



Francis Investment Counsel LLC Review:

Summary & Opinion

Your large-cap growth fund, the Fidelity Contrafund, gained 5.44% during the second quarter, outperforming its benchmarks. The Fund rebounded nicely during a volatile second quarter, outpacing its benchmarks after consecutive quarters of lagging results. 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 (+14.25%) than either the Russell 1000 Growth Index (+12.27%) or S&P 500 (+10.52%) 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, all of which have been in the portfolio for at least 5-years. The Fund's active share (54.11%) has slipped as assets have ballooned (\$121B as of 6/30/19), with former small- and mid-cap positions being substituted for concentration in Danoff's top ideas (41.88% 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 (13.56% vs. 3.20%), with outof-benchmark positions in JPMorgan, Bank of America, and Citigroup. 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. This divergence into financials has been the key headwind for the Fund in recent periods, but the overweight allocation did add to the Fund's relative success during the second quarter. Although near-term results have been lackluster, we continue to believe that Will Danoff is a capable steward of long-term capital and the Fund currently passes 6 of our 7 Watch List criteria.

Management & Expenses

Will Danoff (Since 1990). Given the Fund's strong performance relative to the S&P 500 (its primary prospectus benchmark), it had its fee raised from 0.74% to 0.82% during the first quarter as part of Fidelity's performance-based variable fee system. This increase made the K6 share class of the mutual fund (0.45%) cheaper, even after accounting for the 0.35% revenue credit provided by the retail shares. The Committee chose to move the Plan to the K6 shares, a change that will occur on October 21, 2019.

Performance Commentary

Stock selection drove relative outperformance for the quarter. Despite being underweight to Information Technology (30% vs. 33% exposure, +7.64% vs. +6.60%) the sector was the Fund's best during the quarter, led by Microsoft Corp. (+14.00%, 5% of assets) and Visa Inc. (+11.28%, 4% of assets). Other contributors included the Health Care (+2.05% vs. +0.18%) and Communication Services (+4.93% vs. +3.62%) sectors, containing Mettler-Toledo International Inc. (+16.18%) and Facebook Inc. (+15.78%, 7% of assets).

Returns are time-weighted rates of return for period ended 6/30/2019.

*Since Inc. results are average annualized time-weighted rates of return for 171 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.

Fidelity® Contrafund® **FCNTX**

Benchmark: Russell 1000 Growth TR USD Morningstar Category: US Fund Large Growth

■Russell 1000 Growth TR USD



Operations 5/17/1967 Inception Date Total Net Assets (\$) 120,889,859,357 12b-1 Fee Redemption Fee

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	27.43	26.03
Average Market Cap (mil)	153,023.38	124,281.69
# of Holdings	319	528
Turnover Ratio %	32.00	_
% Asset in Top 10 Holdings	41.88	35.47
US Equity %	91.91	99.84
Non-US Equity %	6.21	0.16
Emerging Market Equity %	1.37	0.14



Value Blend Growth 6.6 23.3 64.6 0.9 3.5 0.4

Top 20 Holdings

Equity Style Exposures

Market Cap	%
Market Cap Giant %	70.6
Market Cap Large %	23.2
Market Cap Mid %	5.5
Market Cap Small %	0.7
Market Cap Micro %	0.0

	Ticker,	Portfolio Weighting %	Qtr Return
Facebook Inc A	FB	7.07	15.78
Amazon.com Inc	AMZN	7.01	6.34
Berkshire Hathaway Inc A	BRK.A	5.23	5.69
Microsoft Corp	MSFT	4.81	13.97
Visa Inc Class A	V	3.68	11.27
Salesforce.com Inc	CRM	3.32	-4.19
UnitedHealth Group Inc	UNH	2.87	-0.88
Adobe Inc	ADBE	2.76	10.57
Netflix Inc	NFLX	2.73	3.02
PayPal Holdings Inc	PYPL	2.40	10.23
Alphabet Inc A	GOOGI	2 35	-7 00

Visa Inc Class A	V	3.68	11.27
Salesforce.com Inc	CRM	3.32	-4.19
UnitedHealth Group Inc	UNH	2.87	-0.88
Adobe Inc	ADBE	2.76	10.57
Netflix Inc	NFLX	2.73	3.02
PayPal Holdings Inc	PYPL	2.40	10.23
Alphabet Inc A	GOOGL	2.35	-7.99
Mastercard Inc A	MA	2.33	12.49
Alphabet Inc Class C	GOOG	2.13	-7.88
Amphenol Corp Class A	APH	1.72	1.83
Apple Inc	AAPL	1.63	4.60
Bank of America Corporation	BAC	1.61	5.65
JPMorgan Chase & Co	JPM	1.47	11.23
Citigroup Inc	C	1.26	13.28
The Estee Lauder Companies Inc Class A	EL	1.24	10.87
Workday Inc Class A	WDAY	1.22	6.60
Source: Morningstar Direct			



Misk/Metul II Sta	itistics		
	3 years	5 years	10 years
Alpha	-0.25	-0.30	0.17
Beta	1.00	0.96	0.94
R-sqaured	95.81	95.32	95.40
Tracking Error	2.82	2.82	2.88
Information Ratio	-0.08	-0.27	-0.26
Excess Return	-0.26	-0.86	-0.86
Standard Deviation	13.74	12.82	12.8
Sharpe Ratio	1.16	0.92	1.15
Sortino Ratio	1.86	1.50	2.00

Calenda	ır Year	Retur	ns								
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0.0 - -5.0 -	2000	2010	2011	2012	2012	2014	2015	2016	2017	2010	VTD
-4	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

Russell 1000 Growth TR USD

51st to 75th Percentile

- Russell 1000 Growth TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

Time Period: 7/1/2009 to 6/30/2019 Rolling Window: 3 Years 3 Months shift

■Fidelity® Contrafund®

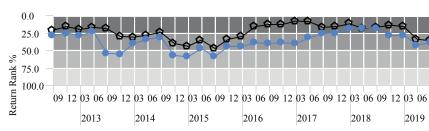
Fidelity® Contrafund®

1st to 25th Percentile

Fidelity® Contrafund®

Russell 1000 Value TR USD

Russell 2000 Growth TR USD



Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2017

Russell 1000 Growth TR USD

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Russell 2000 Value TR USD

76th to 100th Percentile

Fidelity Contrafund Fund Type: Large Growth

Watch List Criteria

Peer Group Ranking	Dec 2018	Mar 2019	Jun 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	34%	53%	49%		
2 of 3 better than median (<50%) needed to pass	PASS	FAIL	PASS	2 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PASS	PASS	PASS	3 of 3	PASS
Downside Risk	Dec 2018	Mar 2019	Jun 2019		
Trailing 36-Months vs. Passive Target:	101.1%	97.5%	96.4%		
2 of 3 better than median (<100%) needed to pass	FAIL	PASS	PASS	2 of 3	PASS
	Jun Jun	Jun	Jun Jun		
Returns vs. Markets	2015 2016		2018 2019		
Trailing 12-Months vs. Passive Target:	-0.3% -2.99		1.5% -3.6%		
3 of 5 outperforming the passive target needed to pass	FAIL FAI	L PASS	PASS FAIL	2 of 5	FAIL
Qualitative Issues					
Investment Style:	Trailing 3-Ye	ar R-Squared	d: 95.79%		PASS
Investment Firm:	Fidelity Mana	gement & R	esearch		PASS
	Company				
Investment Personnel:	William Danoff, since 1990				PASS
anvestment i cisumei.	William Danc	711, SHICE 177	·		1 Abb

Benchmarks

Peer Group: Lipper Large-Cap Growth Funds Passive Target: Russell 1000 Growth

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

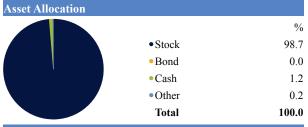
Fidelity® Contrafund® K6 **FLCNX**

Benchmark: Russell 1000 Growth TR USD Morningstar Category: US Fund Large Growth



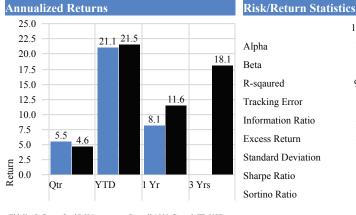


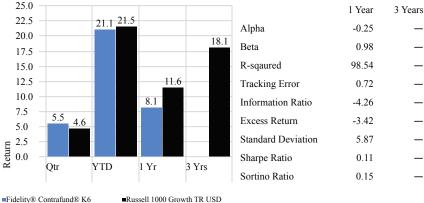
Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	27.40	26.03
Average Market Cap (mil)	153,727.26	124,281.69
# of Holdings	295	528
Turnover Ratio %	54.00	_
% Asset in Top 10 Holdings	42.31	35.47
US Equity %	92.49	99.84
Non-US Equity %	6.17	0.16
Emerging Market Equity %	1.40	0.14

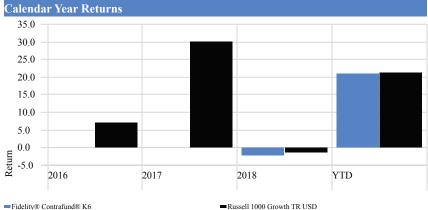


Equity Style Exposures Growth Market Cap % Value Blend Market Cap Giant % 70.7 23.5 64.5 6.6 Market Cap Large % 23.2 0.8 3.5 Market Cap Mid % 5.4 Market Cap Small % 0.6 0.00.1 0.4 Market Cap Micro % 0.0

Top 20 Holdings			
	Ticker ,	Portfolio Weighting %	Qtr Return
Amazon.com Inc	AMZN	7.01	6.34
Facebook Inc A	FB	6.96	15.78
Berkshire Hathaway Inc A	BRK.A	5.37	5.69
Microsoft Corp	MSFT	4.94	13.97
Visa Inc Class A	V	3.78	11.27
Salesforce.com Inc	CRM	3.32	-4.19
UnitedHealth Group Inc	UNH	2.95	-0.88
Adobe Inc	ADBE	2.84	10.57
Netflix Inc	NFLX	2.73	3.02
PayPal Holdings Inc	PYPL	2.40	10.23
Mastercard Inc A	MA	2.39	12.49
Alphabet Inc A	GOOGL	2.35	-7.99
Alphabet Inc Class C	GOOG	2.13	-7.88
Amphenol Corp Class A	APH	1.77	1.83
Apple Inc	AAPL	1.67	4.60
Bank of America Corporation	BAC	1.66	5.65
JPMorgan Chase & Co	JPM	1.51	11.23
The Estee Lauder Companies Inc Class A	EL	1.27	10.87
Citigroup Inc	C	1.27	13.28
Workday Inc Class A	WDAY	1.24	6.60

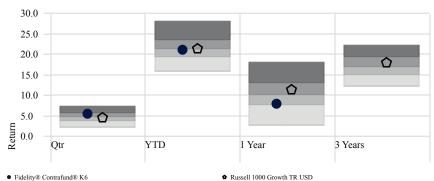




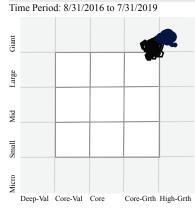


Performance Relative to Peer Group

Peer Group (5-95%): Open End Funds - U.S. - Large Growth



Holdings-Based Style Trail



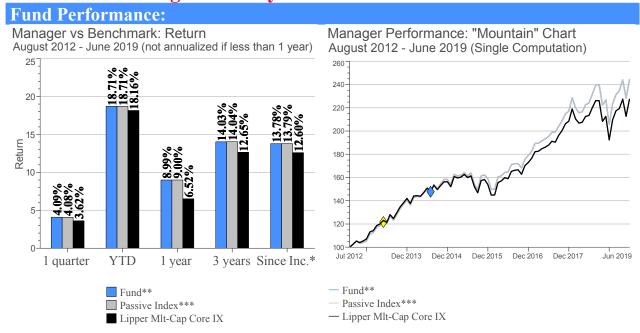
- Fidelity® Contrafund® K6 6/30/2017 6/30/2019
- ↑ Russell 1000 Growth TR USD 8/31/2016 7/31/2019

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Vanguard Total Stock Market Index Adm

Fund Type: Multi Blend Index

Converting to Fidelity Total Market Index on 10/21/19



Francis Investment Counsel LLC Review:

Summary & Opinion

Your multi-cap blend fund, the Vanguard Total Stock Market Index Fund, gained 4.09% during the second quarter, performing in-line with its primary benchmark and outperforming its average actively-managed peer. 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 (9%) 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. Innovation on this front is ongoing, and during our March 2019 visit to Vanguard's Malvern, PA headquarters, we spoke at length about the strategic direction of Vanguard's Quantitative Equity Group (QEG). Over the years, QEG has implemented new technologies to improve on trade execution, and Vanguard views blockchain technology as the next innovation on this front. While still early in the research process, Vanguard believes implementation of blockchain could ultimately reduce trading costs and improve data security. In an environment where index fund costs are rapidly approaching zero, any incremental cost savings would be a huge benefit to the organization. All of Vanguard's mutual funds allow for limited participation in securities lending, but prudent practices with respect to the program (low lending volume, investing in high quality collateral, returning all net proceeds to shareholders) 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

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 Plan could now utilize the Fidelity Total Market Index, which tracks the Dow Jones Total Stock Market Index, at a price of 0.015%. In order to take advantage of this savings, the Committee opted to transition to the Fidelity Fund, a change that will occur on October 21, 2019.

Performance Commentary

Ten of eleven of the Index's sectors posted solid, positive returns during the quarter. The strongest performing sectors included Information Technology (+5.70%), Financials (+7.64%), and Industrials (+4.63%). On an individual basis, Microsoft (+14.00%), Facebook (+15.78%), and Walt Disney (+25.77%) added significant value.

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.

*Since Inc. results are average annualized time-weighted rates of return for 83 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.

TIDI PRODUCTS LLC

Returns are time-weighted rates of return for period ended 6/30/2019.

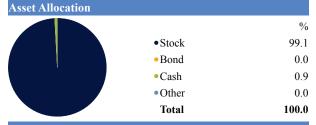
Vanguard Total Stock Mkt Idx Adm VTSAX

Benchmark: CRSP US Total Market TR USD Morningstar Category: US Fund Large Blend



Operations	
Inception Date	11/13/2000
Total Net Assets (\$)	814,085,679,762
12b-1 Fee	_
Redemption Fee	_

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	20.15	20.15
Average Market Cap (mil)	63,514.31	63,369.40
# of Holdings	3,640	3,577
Turnover Ratio %	3.00	_
% Asset in Top 10 Holdings	17.57	17.37
US Equity %	98.19	99.07
Non-US Equity %	0.94	0.93
Emerging Market Equity %	0.09	0.09



,	/alue	Blend	Growth
Large	24.3	25.8	26.8
Mid	5.3	5.9	5.7
Small	2.0	2.2	2.0

Equity Style Exposures

Market Cap	%
Market Cap Giant %	46.4
Market Cap Large %	29.8
Market Cap Mid %	17.4
Market Cap Small %	5.6
Market Cap Micro %	0.9

Top 20 Holdings			
	Ticker	Portfolio Weighting %	Qtr Return
Microsoft Corp	MSFT	3.48	13.97
Apple Inc	AAPL	2.78	4.60
Amazon.com Inc	AMZN	2.68	6.34
Facebook Inc A	FB	1.57	15.78
Berkshire Hathaway Inc B	BRK.B	1.37	6.11
Johnson & Johnson	JNJ	1.25	0.31
JPMorgan Chase & Co	JPM	1.17	11.23
Exxon Mobil Corp	XOM	1.10	-4.08
Alphabet Inc A	GOOGL	1.09	-7.99
Alphabet Inc Class C	GOOG	1.09	-7.88
Visa Inc Class A	V	1.03	11.27
Procter & Gamble Co	PG	0.93	6.10
The Walt Disney Co	DIS	0.85	25.77
Cmt Market Liquidity Rate	_	0.85	_
Bank of America Corporation	BAC	0.84	5.65
AT&T Inc	T	0.83	8.48
Pfizer Inc	PFE	0.82	2.85
Mastercard Inc A	MA	0.82	12.49
Chevron Corp	CVX	0.80	1.99

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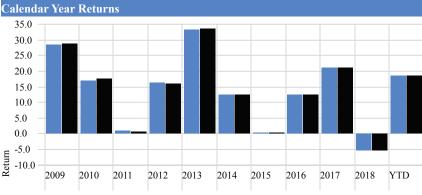
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Misk/Metul II Sta	uisuics		
	3 years	5 years	10 years
Alpha	-0.01	-0.01	-0.02
Beta	1.00	1.00	1.00
R-sqaured	100.00	100.00	99.99
Tracking Error	0.03	0.03	0.15
Information Ratio	-0.40	-0.41	0.11
Excess Return	-0.01	-0.01	0.02
Standard Deviation	12.53	12.32	13.17
Sharpe Ratio	1.00	0.78	1.07
Sortino Ratio	1.47	1.20	1.79

■Vanguard Total Stock Mkt Idx Adm ■CRSP US Total Market TR USD



-Vanguard Total Stock Mkt Idx Adm ■CRSP US Total Market TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

1st to 25th Percentile 26th to Median 51st to 75th Percentile

Time Period: 7/1/2009 to 6/30/2019

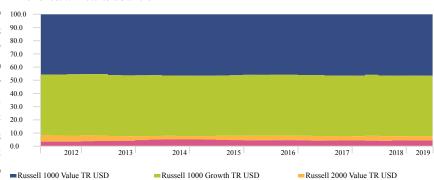
Rolling Window: 3 Years 3 Months shift

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_	Vanguard Tota	l Stock Mk	t Idx A	dm									_	-CRS	PUS	Total !	Marke	t TR U	JSD									

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 2000 Growth TR USD



Return Date: 6/30/2019 Portfolio Date: 6/30/2019

76th to 100th Percentile

Verizon Communications Inc

Fidelity® Total Market Index FSKAX

Benchmark: DJ US Total Stock Market TR USD Morningstar Category:US Fund Large Blend

■DJ US Total Stock Market TR USD





•		
Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	20.10	20.12
Average Market Cap (mil)	63,680.53	64,895.76
# of Holdings	3,454	3,765
Turnover Ratio %	8.00	_
% Asset in Top 10 Holdings	17.78	18.07
US Equity %	98.70	98.93
Non-US Equity %	1.09	1.07



,	Value	Blend	Growth
Large	24.4	25.9	26.7
Mid	5.3	5.9	5.6
Small	2.0	2.2	2.0

Top 20 Holdings

Emerging Market Equity %

Market Cap	%
Market Cap Giant %	46.4
Market Cap Large %	29.8
Market Cap Mid %	17.2
Market Cap Small %	5.7
Market Cap Micro %	0.9

0.13

rop 20 Horams			
	Ticker	Portfolio Weighting %	Qtr Return
Microsoft Corp	MSFT	3.47	13.97
Apple Inc	AAPL	2.92	4.60
Amazon.com Inc	AMZN	2.65	6.34
Facebook Inc A	FB	1.57	15.78
Berkshire Hathaway Inc B	BRK.B	1.39	6.11
Johnson & Johnson	JNJ	1.25	0.31
JPMorgan Chase & Co	JPM	1.22	11.23
Alphabet Inc Class C	GOOG	1.13	-7.88
Exxon Mobil Corp	XOM	1.10	-4.08
Alphabet Inc A	GOOGL	1.09	-7.99
Visa Inc Class A	V	1.02	11.27
Procter & Gamble Co	PG	0.93	6.10
Bank of America Corporation	BAC	0.87	5.65
AT&T Inc	T	0.83	8.48
The Walt Disney Co	DIS	0.82	25.77
Pfizer Inc	PFE	0.81	2.85
Mastercard Inc A	MA	0.80	12.49
Chevron Corp	CVX	0.80	1.99
Verizon Communications Inc	VZ	0.80	-2.36

CSCO

0.79

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щ	Qtr	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	S
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Risk/Return Statistics									
	3 years	5 years	10 years						
Alpha	0.02	0.02	_						
Beta	1.00	1.00	_						
R-sqaured	100.00	100.00	_						
Tracking Error	0.03	0.03	_						
Information Ratio	0.85	0.84	_						
Excess Return	0.03	0.03	_						
Standard Deviation	12.55	12.34	_						
Sharpe Ratio	0.99	0.77	_						
Sortino Ratio	1.47	1.20	_						

Calenda	ır Year	Retur	ns								
35.0 -						_					
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2 -10.0	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

■Fidelity® Total Market Index ■DJ US Total Stock Market TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

1st to 25th Percentile 26th to Median 51st to 75th Percentile

Time Period: 7/1/2009 to 6/30/2019

■Fidelity® Total Market Index

0.14

Rolling Window: 3 Years 3 Months shift

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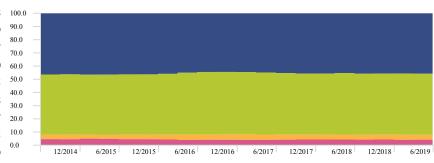
- DJ US Total Stock Market TR USD

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

Russell 1000 Value TR USD

Fidelity® Total Market Index



Russell 1000 Growth TR USD

= Russell 2000 Growth TR USD

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

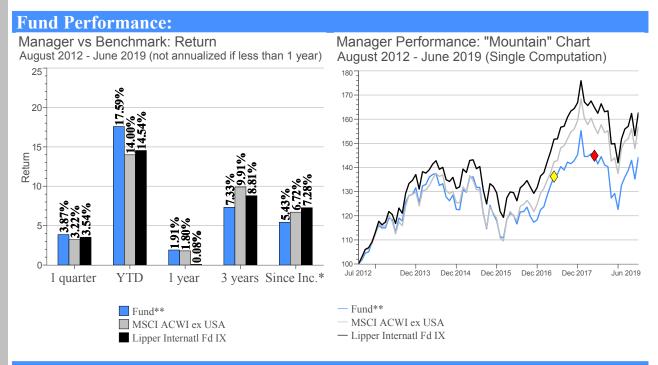
Russell 2000 Value TR USD

76th to 100th Percentile

Cisco Systems Inc

American Funds Europacific Growth R6

Fund Type: International



Francis Investment Counsel LLC Review:

Summary & Opinion

Your international equity fund, the American Funds EuroPacific Growth Fund, gained 3.87% during the second quarter, outperforming its benchmarks and extending its advantage since the start of 2019. EuroPacific Growth has bounced back in a major way to start 2019 as its more aggressive portfolio positioning turned from a headwind to a tailwind. Some of the Fund's largest positions are emerging market domiciled (EM represents 34.0% of assets) and higher-growth in nature. For example, Reliance Industries (India, 2.46% of assets), HDFC Bank (India, 2.43%), and Alibaba Group (China, 2.34%) are each in the Fund's top-10 holdings. As a refresher, 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 and analysts are among the organization's strongest tools. This has been evident in security selection results throughout the Fund's 35-year history and has been on full display to start 2019. The team has added value through security selection in each of the 11 sectors that comprise its benchmark index, as well as in several countries across both developed and emerging markets. This distribution of alpha is heartening to witness following the Fund's disappointing 2018 campaign. Resurgent performance has pushed the Fund back ahead of its benchmarks on a 1-year basis, and it now holds a sizable advantage over the past 3-years. The strength shines through onto our Watch List, where the Fund passes 6 of 7 criteria and ranks in the top decile of its Lipper peer group. When factoring in the extremely compelling price tag (0.49%) for this compilation of world-class investment talent, we believe participants are well-served in this asset class.

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

The Fund added value through both security selection and sector allocation during a strong second quarter. From a security selection standpoint, results were particularly strong in the Communication Services (+8.29% vs. +1.12%, Consumer Discretionary (+6.51% vs. +4.01%), and Financials (+6.54% vs. +4.74%) sectors. Nintendo Co. (+28.55%), AIA Group (+9.68%), and MercoLibre Inc. (+20.49%) each ranked among the Fund's leading contributors on an individual basis.

Returns are time-weighted rates of return for period ended 6/30/2019.

^{**}Represents spliced performance for Harbor International Inst (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 -0.44% versus -0.07% for the MSCI ACWI ex USA and -1.29% for the Lipper Internatl Fd IX.

American Funds Europacific Growth R6 RERGX

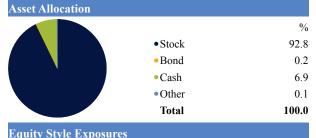
Benchmark: MSCI ACWI Ex USA GR USD Morningstar Category: US Fund Foreign Large Blend



Operations	
Inception Date	5/1/2009
Total Net Assets (\$)	162,892,707,194
12b-1 Fee	_
Redemption Fee	_

Inception Date		5/1/2009
Total Net Assets (\$)		162,892,707,194
12b-1 Fee		_
Redemption Fee		_
Fund Characteristics		
	Fund	Renchmark

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	16.99	14.63
Average Market Cap (mil)	45,932.60	34,387.94
# of Holdings	330	2,206
Turnover Ratio %	35.00	_
% Asset in Top 10 Holdings	21.49	9.80
US Equity %	1.56	1.12
Non-US Equity %	91.21	98.82
Emerging Market Equity %	27.94	19.70



/qui	ty Sty	IC EAP	USUI CS	
	Value	Blend	Growth	
Large	16.2	22.1	51.2	
Mid	3.2	2.2	5.0	
Small	0.1	0.0	0.1	

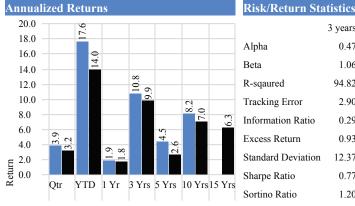
Top 20 Holdings

Market Cap	%
Market Cap Giant %	64.4
Market Cap Large %	24.7
Market Cap Mid %	10.7
Market Cap Small %	0.2
Market Cap Micro %	0.0

PRU

6861

	Ticker	Portfolio Weighting %	Qtr Return
Capital Group Central Cash Fund	_	6.42	_
AIA Group Ltd	01299	3.04	9.53
Airbus SE	AIR	2.89	8.67
HDFC Bank Ltd	HDFCBANK	2.46	6.41
Alibaba Group Holding Ltd ADR	BABA	2.38	-7.13
Nintendo Co Ltd	7974	2.32	28.55
Reliance Industries Ltd	RELIANCE	2.21	-7.75
Samsung Electronics Co Ltd	005930	1.73	3.48
ASML Holding NV	ASML	1.55	12.73
Vale SA ADR	VALE	1.52	2.91
Tencent Holdings Ltd	00700	1.38	-1.58
MercadoLibre Inc	MELI	1.30	20.49
Daiichi Sankyo Co Ltd	4568	1.27	13.51
Kotak Mahindra Bank Ltd	KOTAKBANK	1.26	11.08
LVMH Moet Hennessy Louis Vuitton SE	MC	1.22	17.01
Novartis AG	NOVN	1.20	5.74
Taiwan Semiconductor Manufacturing Co Ltd	2330	1.18	-0.16
SK Hynix Inc	000660	1.09	-7.92



■American Funds Europacific Growth R6 ■MSCI ACWI Ex USA GR USD

	3 years	5 years	10 years
Alpha	0.47	1.88	1.37
Beta	1.06	0.93	0.95
R-sqaured	94.82	91.56	95.27
Tracking Error	2.90	3.65	3.24
Information Ratio	0.29	0.48	0.33
Excess Return	0.93	1.80	1.13
Standard Deviation	12.37	12.19	14.47
Sharpe Ratio	0.77	0.34	0.58
Sortino Ratio	1.20	0.51	0.90

Calendar Year Returns 45.0 37.5 30.0 22.5 15.0 7.5 0.0

-American Funds Europacific Growth R6

2010

2011

-7.5

-15.0

0.0

9.01 1.02

0.99 -1.50

2009

1st to 25th Percentile

■MSCI ACWI Ex USA GR USD

51st to 75th Percentile

2015

2016

2017

2018

76th to 100th Percentile

YTD

Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

2012

2013

2014

Time Period: 7/1/2009 to 6/30/2019

Rolling Window: 3 Years 3 Months shift



Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0

Russell 1000 Value TR USD Russell 1000 Growth TR USD Russell 2000 Growth TR USD

> Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Russell 2000 Value TR USD

Prudential PLC

Keyence Corp

American Funds EuroPacific Gr R6

Fund Type: International

Watch List Criteria

	Dist CII	CCIIC				
Peer Group Ranking	Dec 2018	Mar 2019) Jur	1 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	18%	7%	7	7%		
2 of 3 better than median (<50%) needed to pass	PASS	PASS	P.	ASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PASS	PASS	P.	ASS	3 of 3	PASS
Downside Risk	Dec 2018	Mar 2019) Jur	1 2019		
Trailing 36-Months vs. Passive Target:	100.3%	97.6%	10	1.7%		
2 of 3 better than median (<100%) needed to pass	FAIL	PASS	F	AIL	1 of 3	FAIL
	Jun Ju	un Jun	Jun	Jun		
Returns vs. Markets		016 2017	2018	2019		
Trailing 12-Months vs. Passive Target:		2% 1.2%	1.6%	0.1%	'	
3 of 5 outperforming the passive target needed to pass	PASS PA	ASS PASS	PASS	PASS	5 of 5	PASS
Qualitative Issues						
Investment Style:	Trailing 3-Y	ear R-Square	ed: 94.79	0%		PASS
Investment Firm:	Comital Dag	aanah and Ma	. 4		DACC	
investment Firm:	Capital Reso		PASS			
	Company					
Investment Personnel:	Mark Denni	ing, since 199	1			PASS
	Carl Kawaja, since 2001					
	Jesper Lyck Jonathan Kı					
	Andrew Suz					
		Thomsen, sin		,		
		Cymisis, since				

Benchmarks

Peer Group: Lipper International **Passive Target:** MSCI ACWI ex USA

DFA US Targeted Value I

Fund Type: Small Value

SITE VISIT



Francis Investment Counsel LLC Review:

Summary & Opinion

Your small-cap value fund, the DFA US Targeted Value Fund, gained 0.95% in the second quarter while lagging the passive benchmark but outperforming its average peer. Over the last 12-months, relative performance versus the passive benchmark has been hindered by structural underweights to the defensive REIT and Utilities sectors and a valuation-inspired overweight to Energy. However, the Fund has stayed competitive with its peers on a three year basis, and as a result, is has an acceptable showing on the Watch List (passes 2 of 4 quantitative criteria). Over the longer term, the Fund has beaten the passive benchmark by a wide margin, +10.7% versus +9.2% 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. Where the management team has attempted to add value is by skewing the portfolio towards factors associated with premium returns: company size (favoring small), relative price (favoring value), and profitability (favoring higher profitability). When we visited DFA's Charlotte, NC office in May 2019, head of research Savina Rizova unveiled the firm's newest factor, investment, and discussed the research behind it. At the beginning of August 2019, DFA's portfolios started to exclude small-cap companies with the highest levels of asset growth. DFA's years-long research project showed that these companies tend to underperform by a significant margin. It's the latest factor since profitability was implemented in 2012. Overall, the research supporting the change was thorough, and it's a minor portfolio tweak overall. Accordingly, we have no concerns with the change. 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, highly profitable companies and away from those with high levels of investment. 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) 10.5% vs. 9.1%. Roughly 34% of the Fund's holdings are classified as mid-cap compared to 10% for the Russell 2000 Value Index. Overall, the Fund earns our endorsement.

Management & Expenses

Jed Fogdall (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 0.81% for active small-cap value funds used by Francis Investment Counsel clients.

Quarterly Performance Commentary

The Fund's deeper value orientation, the exclusion of Utilities (7% of benchmark, +5.3% return), and overweights to Consumer Discretionary (13% vs. 9%, -4.8% return) and Energy (8% vs. 5%, -8.6% return) dragged on performance. These headwinds were partially offset by a favorable impact from the Fund's mid-cap bias.

TIDI PRODUCTS LLC

Returns are time-weighted rates of return for period ended 6/30/2019

^{*}Since Inc. results are average annualized time-weighted rates of return for 83 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.

Benchmark: Russell 2000 Value TR USD Morningstar Category: US Fund Small Value

■Russell 2000 Value TR USD



Operations Inception Date 2/23/2000 Total Net Assets (\$) 10,489,132,292 12b-1 Fee Redemption Fee

Fund Characteristics								
	Fund	Benchmark						
P/E Ratio (TTM)	13.60	14.04						
Average Market Cap (mil)	2,280.67	1,545.20						
# of Holdings	1,522	1,392						
Turnover Ratio %	23.00	_						
% Asset in Top 10 Holdings	5.84	4.61						
US Equity %	97.50	98.92						
Non-US Equity %	1.74	1.08						
Emerging Market Equity %	0.31	0.17						



Equity Style Exposures % Market Cap Value Blend Growth Market Cap Giant % 0.0 0.4 0.1 0.0Market Cap Large % 0.5 9.7 2.7 21.4 Market Cap Mid % 33.4 Market Cap Small % 55.3 30.2 25.1 Market Cap Micro % 10.7

Top 20 Holdings			
	Ticker	Portfolio Weighting %	Qtr Return
Reliance Steel & Aluminum Co	RS	0.67	5.44
Arrow Electronics Inc	ARW	0.66	-7.51
People's United Financial Inc	PBCT	0.62	3.15
Avnet Inc	AVT	0.61	4.84
Toll Brothers Inc	TOL	0.59	1.46
Post Holdings Inc	POST	0.59	-4.96
Quanta Services Inc	PWR	0.55	1.40
Assured Guaranty Ltd	AGO	0.53	-4.88
AECOM	ACM	0.51	27.57
Genesee & Wyoming Inc Class A	GWR	0.50	14.76
JetBlue Airways Corp	JBLU	0.48	13.02
PacWest Bancorp	PACW	0.47	4.84
Tech Data Corp	TECD	0.46	2.14
US Foods Holding Corp	USFD	0.44	2.43
Jabil Inc	JBL	0.43	19.14
AGCO Corp	AGCO	0.43	11.76
Coty Inc Class A	COTY	0.42	17.61
Murphy Oil Corp	MUR	0.41	-15.02
Assurant Inc	AIZ	0.41	12.72
Unum Group	UNM	0.40	-0.06

Annual	izea i	keturi	18					
20.0								
15.0		13.2	i	~		13.1		1
10.0		_		8.4			7.9]
5.0	0.0				4.0]
0.0	0 -							
-5.0			7]
-10.0			-8.1					9
-15.0			L'					9
ž 13.0	Qtr	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	15 Yrs	
								,

MISK/ Netul II Statistics								
	3 years	5 years	10 years					
Alpha	-1.62	-1.30	0.13					
Beta	1.06	1.02	1.05					
R-sqaured	97.99	95.92	97.24					
Tracking Error	2.84	3.49	3.22					
Information Ratio	-0.44	-0.37	0.19					
Excess Return	-1.38	-1.35	0.67					
Standard Deviation	18.56	17.14	18.49					
Sharpe Ratio	0.45	0.26	0.73					
Sortino Ratio	0.67	0.39	1.17					

Calenda	ır Year	Retur	ns								
45.0 -											
37.5 -											
30.0 -											
22.5 -								-			
15.0 -											
7.5 -	-			-							
0.0											
0.0											
-7.5 -	-			-							
-15.0 - -22.5 -											
E -22.5 =											
Z	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD
	1	1	1	1	1	1	1	1		1	

Russell 2000 Value TR USD

51st to 75th Percentile

Russell 2000 Value TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019

■DFA US Targeted Value I

- DFA US Targeted Value I

Russell 1000 Value TR USD

Russell 2000 Growth TR USD

■DFA US Targeted Value I

Rolling Window: 3 Years 3 Months shift

1st to 25th Percentile 26th to Median

	0.0 — 25.0 5 0.0 6	0 (2 06	0 (90	0	<u>о</u> с	96		2	٥	0	05		4	۶	*	 2	4
Return Ran	75.0 — 100.0 —	09 12	03 06 2013	09 12	03 06	5 09 12	2 03	12	03 06 2016	09 1		03 0		12	03		09	03	

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 2017

Russell 1000 Growth TR USD

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Russell 2000 Value TR USD

76th to 100th Percentile

DFA US Targeted Value I Fund Type: Small Value

Watch List Criteria

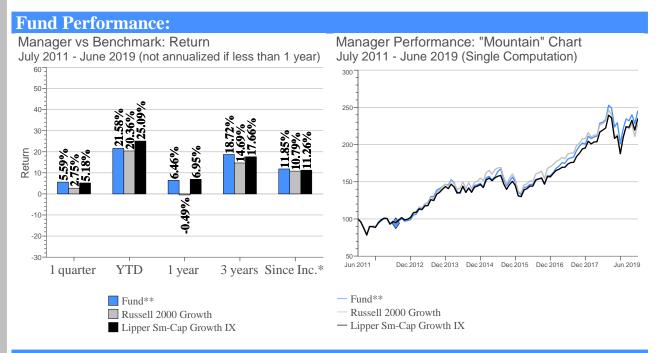
vvaccii.			114				
Peer Group Ranking	Dec 2	018	Mar 2019) Ju	n 2019	Gr	ade
Trailing 36-Months vs. Peer Group:	40%	6	41%	3	39%		
2 of 3 better than median (<50%) needed to pass	PAS	SS	PASS	P	PASS		PASS
3 of 3 better than median (<75%) needed to pass	PAS	SS	PASS	P	PASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 201 9) Ju	n 2019		
Trailing 36-Months vs. Passive Target:	99.4	%	100.2%	10	4.2%		
2 of 3 better than median (<100%) needed to pass	PAS	SS	FAIL	F	FAIL	1 of 3	FAIL
	T	T	T	T	T		
Returns vs. Markets	Jun 2015	Jun 2016	Jun 2017	Jun 2018	Jun 2019		
Trailing 12-Months vs. Passive Target:	0.6%	-3.1%		1.0%	-1.8%		
3 of 5 outperforming the passive target needed to pass	PASS	FAIL	FAIL	PASS	FAIL	2 of 5	FAIL
Qualitative Issues							
Investment Style:	Trailing	g 3-Yea	r R-Square	ed: 97.9 9	9%		PASS
Investment Firm:	Dimens	ional F	und Advis	ors LP			PASS
Investment Personnel:	_		nce 2012	_			PASS
	Joel Sc	nneider,	, since 201	.5			

Benchmarks

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

Loomis Sayles Small-Cap Growth Instl

Fund Type: Small Growth



Francis Investment Counsel LLC Review:

Summary & Opinion

Your small-cap growth fund, the Loomis Sayles Small-Cap Growth Fund, gained 5.59% in the second quarter and outperformed its benchmarks. We maintain this Fund remains a top offering for small-cap growth investing. Big picture, not much has changed in terms of investment strategy for several years as the Fund's turnover is running at 41%, mostly in-line with the 5-year average that implies a 2-year time horizon. The Fund almost always has around 100 stocks with top holding Kinsale Capital accounting for just 1.8% of assets. This kind of diversification, along with the Fund's sell discipline which includes stop-losses, serves to keep downside volatility in check as evidenced by the Fund routinely capturing 10%-15% less of the market's losses. One item noted by the team from late 2018 was an enhancement to the investment process by introducing the "Thesis Review" for stocks that are stagnant or just not working as initially envisioned. Given a stock's original thesis, they seek to understand what has evolved or changed that should be reconsidered. Portfolio manager Mark Burns argues that by going through a more disciplined procedure like this, it helps keep the portfolio fresh and arm the team with more intel as to when to trade positions as market conditions warrant. In terms of their outlook, management shared in April 2019 that in light of slower GDP growth in the US economy, small-cap stocks may need to pause in the near-term as valuations and upside momentum look to have gotten ahead of practical earnings growth estimates. Though volatility remains very subdued, the downside risks such as those witnessed during the fourth quarter could quickly return if macro conditions took a turn for the worse. Turning to appraise the Fund's performance on the Watch List, we note it is passing all of our criteria with the rolling 3-year peer group ranking in the second quartile. Given this encouraging backdrop, our opinion about this strategy remains very favorable.

Management & Expenses

Mark Burns and John Slavik (both since 2005). The Fund's expense ratio of 0.94% is slightly higher than that of the average small-cap growth fund we follow at 0.89%. However, the revenue credits paid to plan participants is 0.15% bringing the net cost to 0.79%. There is a share class of this fund (N shares) which does not pay revenue credits, 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.

Performance Commentary

The Fund outperformed in the quarter primarily due to advantageous stock selection results. The biggest advances came from within the Financials (+24.42% vs. +4.76%), Industrials (+15.13% vs. +9.34%), and Information Technology (+6.09% vs. +3.61%) sectors. Big winners included Goosehead Insurance Inc. (+71.45%, 1% of assets), Generac Holdings Inc. (+35.49%, 1% of assets), and Globant SA (+41.53%, 1% of assets). Not much worked against the Fund with the small exception of the Energy (-11.08% vs. -8.96%) sector, containing Apergy Corp. (-18.31%).

Returns are time-weighted rates of return for period ended 6/30/2019.

^{*}Since Inc. results are average annualized time-weighted rates of return for 96 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%.

Loomis Sayles Small Cap Growth Instl LSSIX

Benchmark: Russell 2000 Growth TR USD Morningstar Category: US Fund Small Growth



Operations	
Inception Date	12/31/1996
Total Net Assets (\$)	1,691,718,577
12b-1 Fee	0.00
Redemption Fee	_

Redemption Fee		_
Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	32.14	24.64
Average Market Cap (mil)	3,029.13	2,102.79
# of Holdings	96	1,148
Turnover Ratio %	41.00	_
% Asset in Top 10 Holdings	15.20	5.25

90.87

2.69

0.00

99.08

0.92

0.04

Asset Allocation		
		%
	Stock	93.6
	Bond	0.0
	Cash	6.4
	Other	0.0
	Total	100.0

ĽĢ	quit	iity Style Exposures					
	1	/alue	Blend Growth		Mar		
	arge	0.0	0.0	0.0	Mark		
	Laı				Mark		
	Mid	0.0	6.9	33.8	Mark		
	Σ		10.0	40.2	Mark		
	Small	0.8	10.3	48.3	Mark		

US Equity %

Non-US Equity %

Emerging Market Equity %

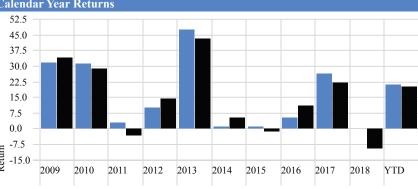
Market Cap	%
Market Cap Giant %	0.0
Market Cap Large %	0.0
Market Cap Mid %	39.7
Market Cap Small %	59.6
Market Cap Micro %	0.8

Top 20 Holdings			
	Ticker	Portfolio Weighting %	Qtr Return
Kinsale Capital Group Inc	KNSL	1.82	33.53
Insulet Corp	PODD	1.62	25.54
WNS (Holdings) Ltd ADR	WNS	1.62	11.13
Pool Corp	POOL	1.53	16.11
Grand Canyon Education Inc	LOPE	1.46	2.19
Albany International Corp	AIN	1.46	16.06
Generac Holdings Inc	GNRC	1.44	35.49
InterXion Holding NV	INXN	1.44	14.03
Wingstop Inc	WING	1.41	24.74
Goosehead Insurance Inc Class A	GSHD	1.40	71.45
PRA Health Sciences Inc	PRAH	1.39	-10.10
SiteOne Landscape Supply Inc	SITE	1.33	21.26
RBC Bearings Inc	ROLL	1.32	31.17
Mercury Systems Inc	MRCY	1.31	9.78
Harsco Corp	HSC	1.30	36.11
Rapid7 Inc	RPD	1.29	14.29
Q2 Holdings Inc	QTWO	1.29	10.25
Wright Medical Group NV	WMGI	1.27	-5.18
Ingevity Corp	NGVT	1.26	-0.42
Hexcel Corp	HXL	1.25	17.16

20.0 Alpha	tics
20.0	ears
4 4 Deta	4.62
	0.90
$\frac{1}{2}$ R-sqaured 9:	5.22
	3.92
5.0 Information Ratio	0.90
0.0 Excess Return	4.03
Standard Deviation 14	6.15
	1.06
	1.65

Tubil Trotal II St			
	3 years	5 years	10 years
Alpha	4.62	2.88	3.07
Beta	0.90	0.92	0.90
R-sqaured	95.22	94.21	93.94
Tracking Error	3.92	4.20	4.51
Information Ratio	0.90	0.55	0.40
Excess Return	4.03	2.52	2.07
Standard Deviation	16.15	16.44	16.77
Sharpe Ratio	1.06	0.67	0.97
Sortino Ratio	1.65	1.01	1.59

■Loomis Sayles Small Cap Growth Instl ■Russell 2000 Growth TR USD Calendar Year Returns



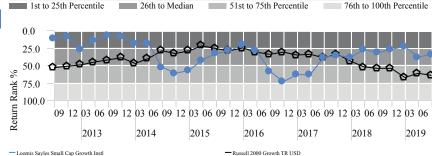
Russell 2000 Growth TR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

Time Period: 7/1/2009 to 6/30/2019

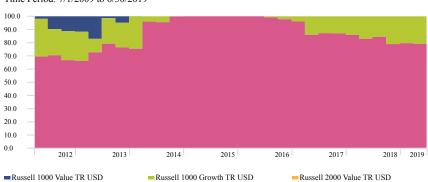
Loomis Sayles Small Cap Growth Instl

Rolling Window: 3 Years 3 Months shift



Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019 100.0



Russell 2000 Growth TR USD

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Loomis Sayles Small Cap Growth Instl

Fund Type: Small Growth

Watch List Criteria

Watch List Criteria							
Peer Group Ranking		Dec 2018		Ju	Jun 2019		ade
Trailing 36-Months vs. Peer Group:		25%		40% 37%			
2 of 3 better than median (<50%) needed to pass		PASS		P	PASS		PASS
3 of 3 better than median (<75%) needed to pass		PASS		P	PASS		PASS
Downside Risk	Dec 2018		Mar 2019 Jun 2		n 2019		
Trailing 36-Months vs. Passive Target:	88.3%		83.7%	82	82.9%		
2 of 3 better than median (<100%) needed to pass	PASS		PASS	P	PASS		PASS
	_			_	_		
Returns vs. Markets	Jun 2015	Jun	Jun	Jun	Jun		
Trailing 12-Months vs. Passive Target:	2015 1.1%	2016 0.1%	2017 -1.1%	2018 5.6%	2019 6.9%		
3 of 5 outperforming the passive target needed to pass	PASS	PASS		PASS	PASS	4 of 5	PASS
5 of 5 outperforming the passive target needed to pass	LASS	r Ass	TAIL	LASS	TASS	4013	1 ASS
Qualitative Issues							
Investment Style:		Trailing 3-Year R-Squared: 95.20%					PASS
Investment Firm:		Loomis Sayles & Company LP					PASS
Investment Personnel:		Mark Burns, since 2005					PASS
John Slavik, since 2005							

Benchmarks

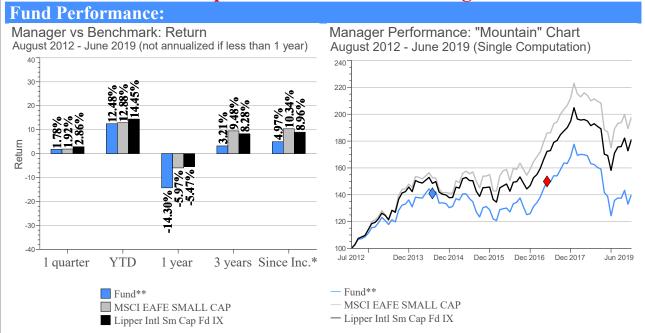
Peer Group: Lipper Small-Cap Growth Funds

Passive Target: Russell 2000 Growth

Hartford International Small Company Y

Fund Type: International Small

WL IV / To be Replaced 10/21/19 / Fund Merger on 11/22/19



Francis Investment Counsel LLC Review:

Summary & Opinion

Your international small-cap fund, the Hartford International Small Company Y Fund, gained 1.78% in the second quarter but came up shy of its passive benchmark and its average Lipper peer. Near-term underperformance has dealt a material blow to the Fund's long-term track record, and therefore, the marketability of the strategy. Thus, on 8/8/19, Hartford announced that this Wellington-managed offering will be merged into the Hartford Global Impact Fund (global smid-cap; environmental and social focus) on or about November 22, 2019. Given this unexpected turn of events, a call was held on August 26th with the Committee to determine the best course of action. We recommend the Fund remain on the Watch List until assets are mapped into the new international small cap fund, DFA International Small Company I, on 10/21/19.

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 funds used by Francis clients.

Quarterly Performance Commentary

Stock selection results were positive, but country and sector weighting decisions detracted from relative performance. Stock picking in Japan was the Fund's greatest contributor. Accounting for 34% of Fund assets (30.3% of the benchmark), Japanese holdings outperformed the benchmark's +1.5% vs. -0.9%. On a sector basis, results were most advantageous in Consumer Discretionary (+0.7% vs. -1.9%) and Industrials (+4.2% vs. +2.9%). Offsetting this strength were drags from an overweight to Consumer Discretionary (19.0% vs. 12.8%, -1.9% benchmark sector return), an underweight to Tech (5.2% vs. 9.7%, +8.0%), and various country over- and underweights.

Returns are time-weighted rates of return for period ended 6/30/2019.

^{*}Since Inc. results are average annualized time-weighted rates of return for 83 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 soliced 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 -3.30% versus 2.90% for the MSCI EAFE SMALL CAP and 2.38% for the Lipper Intl Sm Cap Fd IX.

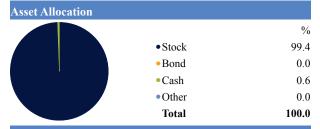
Hartford International Small Company Y **HNSYX**

Benchmark: MSCI EAFE Small Cap GR USD Morningstar Category: US Fund Foreign Small/Mid Blend



Operations Inception Date 4/30/2001 Total Net Assets (\$) 189,410,609 12b-1 Fee Redemption Fee

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	18.29	14.66
Average Market Cap (mil)	2,014.92	1,980.60
# of Holdings	126	2,352
Turnover Ratio %	38.00	_
% Asset in Top 10 Holdings	19.64	2.64
US Equity %	0.00	1.71
Non-US Equity %	99.41	97.67
Emerging Market Equity %	0.53	0.71



Equ	ity Sty	yle Exp	osures		
	Value	Blend	Growth	Market Cap	%
	g 0.5	0.5	0.0	Market Cap Giant %	0.0
	E			Market Cap Large %	1.1
3	13.4	16.2	23.0	Market Cap Mid %	53.2
,		10.1	4.0	Market Cap Small %	39.5
=	11.4	18.1	16.9	Market Cap Micro %	6.2
	**				

Top 20 Holdings			
	Ticker W	Portfolio eighting %	Qtr Return
Kongsberg Gruppen ASA	KOG	2.69	-6.31
Nippon Shinyaku Co Ltd	4516	2.35	-3.13
SCSK Corp	9719	2.17	10.33
Autogrill SpA	AGL	2.00	11.36
Salvatore Ferragamo SpA	SFER	1.96	13.09
Dmg Mori Co Ltd	6141	1.82	31.70
ID Logistics	IDL	1.79	12.19
ZENKOKU HOSHO Co Ltd	7164	1.68	9.77
Genus PLC	GNS	1.60	16.50
Maisons du Monde France SA	MDM	1.57	23.45
B&M European Value Retail SA	BME	1.50	-11.58
Toyo Tire Corp	5105	1.48	17.63
Ultra Electronics Holdings PLC	ULE	1.41	3.24
IMCD NV	IMCD	1.40	21.67
Dufry AG	DUFN	1.34	-14.74
Elis SA	ELIS	1.29	15.50
Soitec SA	SOI	1.19	33.79
Abcam PLC	ABC	1.19	26.84
oOh media Ltd	OML	1.19	-0.96
Hikma Pharmaceuticals PLC	HIK	1.17	-5.03

Annuanzeu Keturns
20.0
15.0
10.0
2.0 8.1.
0.0
-5.0
-10.0
-15.0 6 7
5 -20.0
≃ Qtr YTD 1 Yr 3 Yrs 5 Yrs 10 Yrs 15 Yrs

	Risk/Return Sta	itistics		
1		3 years	5 years	10 years
	Alpha	-6.31	-4.40	-1.33
	Beta	1.19	1.06	1.01
	R-sqaured	94.65	92.43	93.12
	Tracking Error	4.22	3.93	4.20
	Information Ratio	-1.18	-1.07	-0.31
	Excess Return	-5.43	-4.41	-1.43
	Standard Deviation	15.10	13.99	15.96
	Sharpe Ratio	0.24	0.03	0.57
•	Sortino Ratio	0.33	0.04	0.87

■Hartford International Small Company Y ■MSCI EAFE Small Cap GR USD

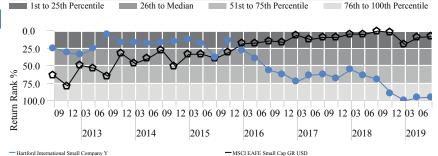
Calenda	ır Year	Retur	ns								
52.5 - 45.0 - 37.5 - 30.0 - 22.5 - 15.0 - 7.515.0 - E											
Re	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD

■MSCI EAFE Small Cap GR USD

Rolling 3 Year Return Morningstar Peer Group Rankings

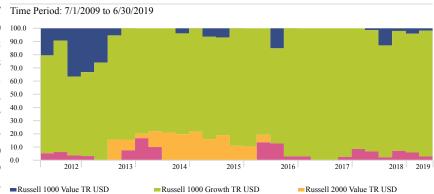
Time Period: 7/1/2009 to 6/30/2019 Rolling Window: 3 Years 3 Months shift

Hartford International Small Company Y



Historical Returns-Based Style Analysis

Russell 2000 Growth TR USD



Return Date: 6/30/2019 Portfolio Date: 6/30/2019 Jun. 30, 2019

Hartford International Small Company Y

Fund Type: International Small

Watch List Criteria

		0 = = 0					_
Peer Group Ranking	Dec	2018	Mar 20)19 .	Jun 2019	Gra	ade
Trailing 36-Months vs. Peer Group:	95	%	89%)	85%		
2 of 3 better than median (<50%) needed to pass	FA	II L	FAII		FAIL	0 of 3	FAIL
3 of 3 better than median (<75%) needed to pass	FA	AIL	FAII		FAIL	0 of 3	FAIL
•							
Downside Risk	Dec	2018	Mar 20)19	Jun 2019		
Trailing 36-Months vs. Passive Target:	125	.3%	124.29	%	129.4%		
2 of 3 better than median (<100%) needed to pass	FA	AIL	FAII		FAIL	0 of 3	FAIL
Returns vs. Markets	Jun	Jun	Jun	Jun	Jun		
	2015	2016	2017	2018	2019		
Trailing 12-Months vs. Passive Target:	-2.3%	-3.7%	-3.1%	-3.8%			
3 of 5 outperforming the passive target needed to	FAIL	FAIL	FAIL	FAIL	FAIL	0 of 5	FAIL
pass							
Qualitative Issues							
	σ. :1:	2.37) C	1 04 60	.0./		DA GG
Investment Style:	Trailing	3-Year I	R-Squared	1: 94.60	0%		PASS
			_	~			5 1 00
Investment Firm:		l Funds N	Managem (ent Con	npany,		PASS
	LLC		7 - 11 : t	Manaa			
Commentary: Closed to new investors on 4/29/16.	Subadvi	ised by w	ellington	i Manag	gement		
Commentary. Closed to new investors on 4/29/10.							
Investment Personnel:	Simon 7	Chomas s	since 200	6			PASS
in estimate tersonicie			since 200				1 1100
		,		- =			

Benchmarks

Peer Group: Lipper International Small/Mid-Cap Core

Passive Target: MSCI EAFE SMALL CAP

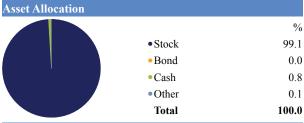
DFA International Small Company I DFISX

Benchmark: MSCI World Ex USA Small Cap GR USD Morningstar Category: US Fund Foreign Small/Mid Blend





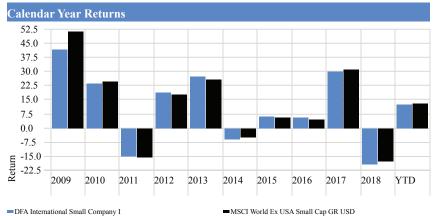
Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	14.21	14.46
Average Market Cap (mil)	1,453.80	1,954.91
# of Holdings	4,457	2,557
Turnover Ratio %	22.00	_
% Asset in Top 10 Holdings	2.75	2.54
US Equity %	1.04	1.75
Non-US Equity %	98.06	97.70
Emerging Market Equity %	1.08	0.79



Equi	ty Sty	le Exp	osures	5	
,	Value	Blend	Growth	Market Cap	%
ge	0.0	0.0	0.1	Market Cap Giant %	0.0
Large				Market Cap Large %	0.1
Mid	11.0	13.5	13.4	Market Cap Mid %	37.8
	242	20.4	17.4	Market Cap Small %	47.9
Small	24.2	20.4	17.4	Market Cap Micro %	14.2

10p 20 Holdings			
	Ticker	Portfolio Weighting %	Qtr Return
S+p500 Emini Fut Sep19 Xcme 20190920	_	0.41	_
Rheinmetall AG	RHM	0.29	19.84
PSP Swiss Property AG	PSPN	0.27	10.81
Ingenico Group SA	ING	0.26	25.75
Lanxess AG	LXS	0.26	13.41
Auto Trader Group PLC	AUTO	0.26	2.58
Cellnex Telecom SA	CLNX	0.25	26.15
Intermediate Capital Group PLC	ICP	0.25	29.86
Tate & Lyle PLC	TATE	0.25	2.17
Galapagos NV	GLPG	0.24	10.74
Rubis SCA	RUI	0.24	6.61
Bellway PLC	BWY	0.24	-9.05
IMCD NV	IMCD	0.23	21.67
Hugo Boss AG	BOSS	0.23	1.95
Spectris PLC	SXS	0.22	13.57
Howden Joinery Group PLC	HWDN	0.22	3.63
Huhtamäki Oyj	HUH1V	0.22	13.13
Homeserve PLC	HSV	0.21	13.11
Pennon Group PLC	PNN	0.21	-2.43
Travis Perkins PLC	TPK	0.21	-6.96

Annualized Returns	Risk/Return Statistics
20.0	3 years 5 years 10 years
15.0	Alpha -0.88 -0.74 -0.32
10.0	Beta 1.01 0.98 0.98
5.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	R-sqaured 98.31 98.10 98.50
0.0	Tracking Error 1.63 1.76 1.87
	Information Ratio -0.50 -0.45 -0.26
-5.0	Excess Return -0.90 -0.82 -0.54
E -10.0	Standard Deviation 12.44 12.59 15.01
Qtr YTD Yr 3 Yrs 5 Yrs 10 Yrs 15 Yrs	Sharpe Ratio 0.55 0.22 0.62
Qu 115 11 5 115	Sortino Ratio 0.80 0.32 0.97
■DFA International Small Company I ■MSCI World Ex USA Small Cap GR USD	



Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

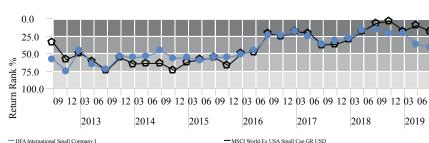
Time Period: 7/1/2009 to 6/30/2019

Rolling Window: 3 Years 3 Months shift

1st to 25th Percentile

Russell 1000 Value TR USD

Russell 2000 Growth TR USD



51st to 75th Percentile

Historical Returns-Based Style Analysis

Time Period: 7/1/2009 to 6/30/2019

100.0

90.0

80.0

70.0

60.0

50.0

40.0

30.0

20.0

10.0

0.0

2012

2013

2014

2015

2016

2017

2018

2019

Russell 1000 Growth TR USD

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

Russell 2000 Value TR USD

76th to 100th Percentile

Top 20 Holding

Invesco Oppenheimer Developing Markets R6

Fund Type: Emerging Market Equity



Francis Investment Counsel LLC Review:

Summary & Opinion

Your emerging market equity fund, the Invesco Oppenheimer Developing Markets Fund, gained 2.86% in the second quarter and outperformed its benchmarks. Portfolio manager Justin Leverenz characteristically spreads this Funds bets into approximately 100 holdings where conviction is conveyed with his best ideas residing in the top-10 (about 40% of 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%). As we've heard Leverenz say in the past, "Everything is about focus." To this point, the team is devoted to far-reaching international travel as well as staying in tune with developments in behavioral finance, both of which play nicely into refining the contrarian thinking that is distinctive about this strategy. Stock selection and country allocation no doubt drive the Fund's relative results, but more often than not it is stock selection that carries the day in terms of adding relative value. This can be seen by looking at the Fund's rolling 3-year peer group ranking which remains in the top quartile (9%) along with the Fund passing all of our Watch List metrics. While the Fund is soft-closed, the growth in assets will continue to be one of the areas of monitoring as it may hinder the ability of the manager to be nimble when needed. That said, about 90% of the Fund's assets are classified as large- or mega-cap, so Leverenz should have ample room to maneuver for the time being. All told, the Fund earns our confidence and our outlook here is favorable.

Management & Expenses

Justin Leverenz (since 2007). The Fund's expense ratio is 0.87%, which is competitive compared to an average of 1.06% for emerging market equity funds utilized by Francis Investment Counsel clients.

Quarterly Performance Commentary

Stock selection results drove relative outperformance for the quarter, particularly within the Financials (+9.20% vs. +4.52%) and Energy (+18.94% vs. -1.82%) sectors, led by Housing Development Finance Corp. (+11.77%, 4% of assets) and NOVATEK PJSC GDR (+25.39%, 5% of assets). Another contributor was an overweight to and strong stock selection results within the Consumer Discretionary (24.28% vs. 13.34% exposure, +1.79% vs. -0.93%) sector, containing big winner Meituan Dianping (+30.11%, 2% of assets). The Fund lost ground within the Materials (-4.28% vs. -0.82%) and Consumer Staples (+1.96% vs. +3.43%) sectors, containing key detractors Glencore PLC (-14.01%, 4% of assets) and LG Household & Health Care Ltd. (-8.91%).

Returns are time-weighted rates of return for period ended 6/30/2019.

*Since Inc. results are average annualized time-weighted rates of return for 83 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.

Invesco Oppenheimer Developing Mkts R6 ODVIX

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



Operations	
Inception Date	12/29/2011
Total Net Assets (\$)	42,364,933,494
12b-1 Fee	_
Redemption Fee	_

Fund Characteristics		
	Fund	Benchmark
P/E Ratio (TTM)	18.84	13.00
Average Market Cap (mil)	42,344.60	30,892.16
# of Holdings	93	1,193
Turnover Ratio %	36.00	_
% Asset in Top 10 Holdings	_	23.52
US Equity %	0.42	0.29
Non-US Equity %	90.60	99.71
Emerging Market Equity %	65.35	72.88



1	/alue	Blend	Growth
Large	9.4	29.6	52.0
Mid	0.8	1.8	5.9
Small	0.0	0.0	0.4

Market Cap	%
Market Cap Giant %	63.5
Market Cap Large %	28.7
Market Cap Mid %	7.3
Market Cap Small %	0.4
Market Cap Micro %	0.0

Allilua	ilizeu N	eturi	18					
18.0		5.6						
16.0	-	15						1
14.0				12.6				1
12.0		10.8		<u> </u>				J
10.0							9.1]
8.0								-
6.0						6.2	_]
4.0	2.9		3.1		6,6		_]
• •			9.1		2.9			9
Return 0.0	0.7							
9.0 8	Qtr	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs l	5 Yrs	5

NISK/Neturn Sta	uisucs		
	3 years	5 years	10 years
Alpha	2.02	0.22	_
Beta	0.93	0.89	_
R-sqaured	93.02	90.77	_
Tracking Error	3.68	4.80	_
Information Ratio	0.37	0.01	_
Excess Return	1.51	0.03	_
Standard Deviation	13.35	14.79	_
Sharpe Ratio	0.84	0.20	_
Sortino Ratio	1.34	0.30	_

■Invesco Oppenheimer Developing Mkts R6 ■MSCI EM GR USD

Calendar '	Year	Returr	1S								
80.0	_										
70.0											
60.0	_										
50.0											
40.0											
30.0											
20.0											
10.0											
0.0											
g -10.0											
-10.0 -20.0	009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD
20	,0,	2010	2011	2012	2013	2017	2013	2010	2017	2010	112

■MSCI EM GR USD

51st to 75th Percentile

Rolling 3 Year Return Morningstar Peer Group Rankings

26th to Median

Time Period: 7/1/2009 to 6/30/2019

Rolling Window: 3 Years 3 Months shift

■Invesco Oppenheimer Developing Mkts R6

1st to 25th Percentile



Historical Returns-Based Style Analysis Time Period: 7/1/2009 to 6/30/2019 100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 6/2016 12/2016 12/2017 6/2018 12/2018 Russell 1000 Value TR USD Russell 1000 Growth TR USD Russell 2000 Value TR USD Russell 2000 Growth TR USD

Return Date: 6/30/2019 Portfolio Date: 6/30/2019

76th to 100th Percentile

Top 20 Holdings

	Ticker	Portfolio Weighting %	Qtr Return
Alibaba Group Holding Ltd ADR	BABA	6.26	-7.13
NOVATEK PJSC GDR	NVTK	4.70	25.19
Invesco Oppenheimer Instl Govt MMFIntl	IOEXX	4.47	0.60
Master China Series 1	_	4.26	_
Housing Development Finance Corp Ltd	HDFC	4.02	11.77
Taiwan Semiconductor Manufacturing Co Ltd	2330	4.00	-0.16
Kering SA	KER	3.79	4.57
Kotak Mahindra Bank Ltd	KOTAKBANK	3.63	11.08
Tencent Holdings Ltd	00700	3.02	-1.58
AIA Group Ltd	01299	2.89	9.53
Glencore PLC	GLEN	2.87	-13.65
Meituan Dianping	03690	2.39	30.11
Fomento Economico Mexicano SAB de CV Units (1 Series B, 4 Series D)	FEMSA UBD	1.97	5.62
LVMH Moet Hennessy Louis Vuitton SE	MC	1.97	17.01
Huazhu Group Ltd ADR	НТНТ	1.93	-13.98
Yum China Holdings Inc	YUMC	1.82	3.14
Hong Kong Exchanges and Clearing Ltd	00388	1.68	1.29
Credicorp Ltd	BAP	1.65	-2.07
Firstrand Ltd	FSR	1.58	13.61
B3 SA - Brasil Bolsa Balcao	B3SA3	1.57	19.02

Jun. 30, 2019

Invesco Oppenheimer Developing Markets R6 Fund Type: Emerging Market Equity

Watch List Criteria

Peer Group Ranking	Dec 2	018	Mar 201	9 Ju	n 2019	Gra	ade
Trailing 36-Months vs. Peer Group:	26%		18%		9%		
2 of 3 better than median (<50%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
3 of 3 better than median (<75%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
Downside Risk	Dec 2	018	Mar 201	9 Ju	n 2019		
Trailing 36-Months vs. Passive Target:	87.2		84.2%		9.9%		
2 of 3 better than median (<100%) needed to pass	PAS	S	PASS	P	ASS	3 of 3	PASS
Returns vs. Markets	Jun 2015	Jun 2016	Jun 2017	Jun 2018	Jun 2019		
Trailing 12-Months vs. Passive Target:	-5.4%	1.7%		4.0%	1.5%		
3 of 5 outperforming the passive target needed to pass	FAIL	PASS	FAIL	PASS	PASS	3 of 5	PASS
Qualitative Issues							
Investment Style:	Trailing	3-Year	r R-Squar	ed: 92.96	5%		PASS
Investment Firm:	Invesco	Advise	ers, Inc.				PASS
Commentary: Fund closed to new investors on 4/12/13.							
Investment Personnel:	Justin L	everenz	z, since 20	07			PASS

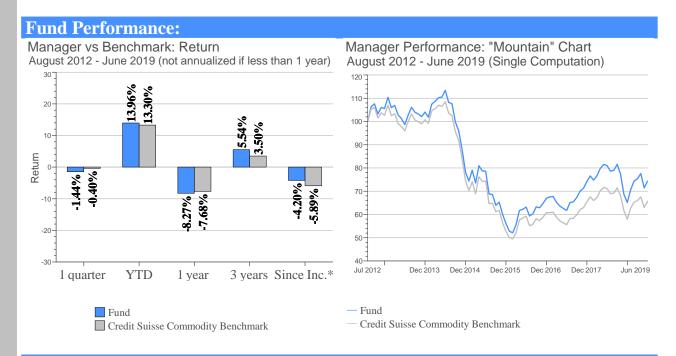
Benchmarks

Peer Group: Lipper Emerging Markets Funds

Passive Target: MSCI EM (EMERGING MARKETS)

PIMCO CommoditiesPLUS Strat Instl

Fund Type: Hard Asset



Francis Investment Counsel LLC Review:

Summary & Opinion

Your "hard asset" fund, the PIMCO CommoditiesPlus Fund, declined 1.44% in the second 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 finite amount of capital in an attempt to incrementally add value. While the trading increases the tracking error versus the passive benchmark, we believe PIMCO's trading capabilities are top notch. This conviction was affirmed during our February 2019 visit to PIMCO's Newport Beach, CA headquarters where we met with portfolio manager Andrew DeWitt for a strategy update and obtained some background on the newest addition to the team's energy desk. In general, the team is pleased with the relative results over the last 3-years and even longer where numerous tactical trades have added value on an incremental basis. DeWitt noted how the trading and research efforts emanate from the team's years of experience in observing price movements in the commodity markets and then constructing a quantitative approach to harvest gains from persistent inefficiencies. We see this as one of PIMCO's enduring competitive advantages and continuing to gain positive momentum. In our opinion, there is tangible evidence the team's capabilities are even better than hitherto produced. While the outperformance of the Fund versus its benchmark is one sign, another is the improvement in the Fund's risk-adjusted measures such as with the information ratio. Translated, the team is adding value to the benchmark by taking on less risk (as measured by the volatility of excess returns) than prior which is very constructive. In terms of personnel, Aaron Fu was recently added to the energy desk to further build-out the team's already impressive human capital in this capacity. Fu has 14-years of experience in the industry and was previously with DB and Citi prior to coming to PIMCO. In summing-up, we believe the Fund is set-up well for the future as it is guided by a competent crew. While past performance is no guarantee of future results, the Fund earns our continued endorsement as our site visit was productive and the team has delivered competitive results for shareholders.

Management & Expenses

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

Quarterly Performance Commentary

Commodity markets lagged stock markets in the second quarter as Livestock contracts such as Hogs (-16.65%) and Feeder Cattle (-12.37%) saw steep declines. Disadvantageous results came from Industrial Metals such as Zinc (-12.28%), Copper (-7.35%), and Aluminum (-6.61%), as well as the Energy complex with Natural Gas (-17.17%) and WTI Crude (-2.66%) contracts declining. In contrast, Precious metals such as Palladium (+15.51%) and Gold (+8.94%) performed well, as did Agricultural commodities like Corn (+14.08%) and SRW Wheat (+12.64%).

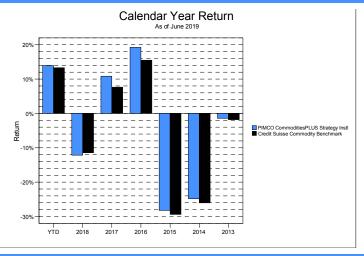
Returns are time-weighted rates of return for period ended 6/30/2019.

^{*}Since Inc. results are average annualized time-weighted rates of return for 83 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.

PIMCO CommoditiesPLUS Strategy I

Fund Type: Hard Asset

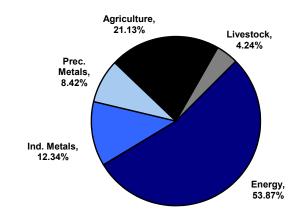
Calendar Year Returns



Fund Analytics Benchmark Target Commodity Weightings

	Fund	Index
Forward P/E Ratio	N/A	N/A
Median Market Cap (Avg.)	N/A	N/A
Number of Holdings	479*	34
Beta (vs. S&P 500 Index)	0.60	0.59
3-year Sharpe Ratio	0.29	0.16
Total Net Assets (Millions)	\$2,705	N/A
3-year Morningstar Rank [†]	1%	N/A
Expense Ratio ⁺	0.77%++	0.99%+++
Effective Duration	-0.07 yrs	N/A
*as of 3/31/19		

Benchmark Sector Weightings



Component	Exch.	PROMPT
Energy		53.8674%
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%
Ind. Metals		12.3436%
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%
Prec. Metals		8.4224%
Gold	COMEX	3.6689%
Silver	COMEX	1.7329%
Platinum	NYMEX	1.5374%
Palladium	NYMEX	1.4832%
Agriculture		21.1305%
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		0.3017%
	EN	0.301776
Cotton	EN ICE	2.1615%
Cotton Livestock		
		2.1615%
Livestock	ICE	2.1615% 4.2361%

⁺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.

Expense ratio reflects I shares net operating expense ratio.

^{##} 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.

PIMCO

PIMCO CommoditiesPLUS® Strategy Fund

Derivative Summary Report

FOR SHAREHOLDER SERVICES CALL 888.87.PIMCO 30 June 2019

Derivatives Duration (Years)	ap positions
Used to adjust interest rate exposures and replicate government bond positions. May offer opportunity to outperform due to active management of the backing the exposure. Non - U.S. Ole 1.S. Ole 1.C. Ole Futures: Ole 0.0 Includes municipal, mortgage-backed and interest rate swap futures. Interest Rate Swaps Receive Ole 0.0 Ole 1.C. Includes Swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long sw	ap positions
D.S. Non - U.S. O.2 -0.2 -2.3 Other Futures: Interest Rate Swaps Receive O.0 O.0 O.0 D.0 Includes Swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long sw ("receive fixed") increase exposure to long-term interest rates; short positions ("pay fixed") decrease exposure. Pay -1.7 -27.2 Credit Default Swaps Written O.0 O.2 Credit default swaps are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure ("selling probligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	ap positions
Non - U.S. Other Futures: O.0 Other Futures: O.0 O.0 Includes municipal, mortgage-backed and interest rate swap futures. Interest Rate Swaps Receive O.0 O.0 O.0 Includes Swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long sw ("receive fixed") increase exposure to long-term interest rates; short positions ("pay fixed") decrease exposure. Pay O.0 O.2 Credit Default Swaps Written O.0 O.2 Credit default swaps are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure ("selling probligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	rotection"),
Other Futures: Interest Rate Swaps Receive 0.0 0.0 Includes municipal, mortgage-backed and interest rate swap futures. Includes Swaps with duration greater than 1 year. Used to adjust interest rate and yield curve exposures and substitute for physical securities. Long sw ("receive fixed") increase exposure to long-term interest rates; short positions ("pay fixed") decrease exposure. Pay 1-1.7 2-7.2 Credit Default Swaps 0.0 0.2 Credit default swaps are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure ("selling probligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	rotection"),
Receive 0.0 0.3 Pay -1.7 -27.2 Credit Default Swaps 0.0 0.2 Written 0.0 0.2 Credit Default Swaps 0.0 0.2 O.0 0.2 Credit Default Swaps 0.0 0.2 Credit Default Swaps 0.0 0.2 O.0 0.2 Credit Default Swaps 0.0 0.2	rotection"),
Receive 0.0 0.3 ("receive fixed") increase exposure to long-term interest rates; short positions ("pay fixed") decrease exposure. Pay -1.7 -27.2 Credit Default Swaps 0.0 0.2 Credit default swaps are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure ("selling probligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	rotection"),
Pay -1.7 -27.2 Credit Default Swaps 0.0 0.2 Credit default swaps are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure ("selling probligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	
Credit Default Swaps 0.0 Credit Default Swaps 0.0 Credit default swaps are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure ("selling probligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	
obligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	
Written 0.0 obligating the portfolio to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure ("buying protection"), providing bonds to the counterparty in the event of a default.	the right to "put"
boilds to the counterparty in the event of a default.	
	may generate
capital losses if unexpected interest rate environments are realized. Both written and purchased options will become worthless at expiration if the und	
Written 0.0 0.0 instrument does not reach the strike price of the option.	
Purchased 0.0 0.0	
Used to manage portfolio duration and/or enhance yield. Includes securities determined by PIMCO to have potentially less stable duration characterist Mortgage Derivatives 0.0 0.0 Used to manage portfolio duration and/or enhance yield. Includes securities determined by PIMCO to have potentially less stable duration characterist Interest Only strips (IOs), Principal Only strips (POs), Support Class CMOs and Inverse Floaters. Value will fluctuate as prepayment speeds respond to ris interest rates.	
Total Return Swaps 0.0 0.0	
Fixed Income 0.0 0.0	
Total Bond-Equiv. Derivatives: -1.6 -25.9	
Money Market Derivatives: 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	
Futures 0.0 0.0 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.	e. Eurodollar
Interest Rate Swaps 0.0 0.0	
Commodity Exposure N/A 130.7	
Equity Derivatives N/A 0.0	
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. 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.

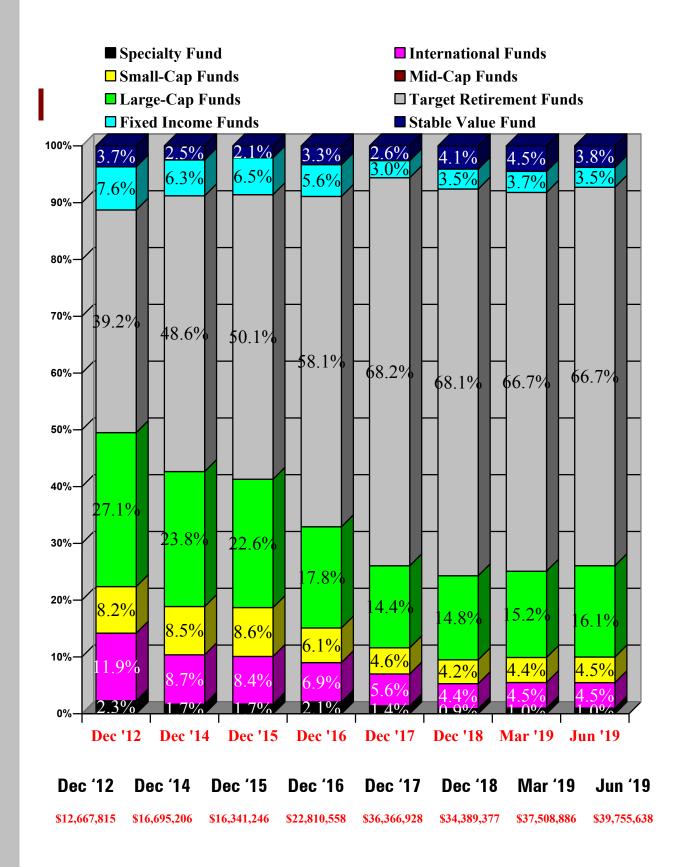
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Plan Asset Allocation

Tidi Products, LLC



Plan Asset Allocation

Tidi Products, LLC

Morley Stable Value		Dec-12	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18	Mar-19	Jun-19	
Fixed Income Funds	Stable Value Fund	3.7%				2.6%	4.1%	4.5%		\$1,506,799
Fixed Income Funds 7.6% 6.3% 6.5% 5.6% 3.0% 3.5% 3.7% 3.5% \$1,495.07	Morley Stable Value		2.5%	2.1%	3.3%	2.6%	4.1%	4.5%	3.8%	\$1,506,799
Bond Find	Fidelity Managed Income	2.6%	-	-	-	-	-	-	-	-
Vangaard Total Bond Market Index 1,7% 3,4% 3,6% 3,2% 1,5% 1,8% 1,8% 1,7% 5683,117 117 117 117 117 1,4% 1,4% 1,3% 0,7% 0,9% 1,1% 1,1% 5432,244 148 1,2% 0,7% 0,8% 0,8% 0,7% 5289,715 1,76 1,2% 1,4% 1,5% 1,2% 0,7% 0,8% 0,8% 0,7% 5289,715 1,76 1,7	Fixed Income Funds	7.6%	6.3%	6.5%	5.6%	3.0%	3.5%	3.7%	3.5%	\$1,405,075
Inflation Protected Bond DPA Inflation Protected Sewrities 1.7% 1.4% 1.4% 1.3% 0.7% 0.9% 1.1% 1.1% 5432_244 Emerging Market Debt MFS Emerging Market Debt 1.2% 1.4% 1.5% 1.2% 0.7% 0.8% 0.8% 0.8% 0.7% \$289.715 Target Retirement Date Funds 3.92% 48.6% 50.1% \$8.1% 66.2% 68.1% 66.7% 52.6\$27,11 I. Rowe Price Retirement Income 1.0% 1.5% 1.2% 1.1% 0.7% 2.3% 2.3% 2.2% \$876,090 1. Rowe Price Retirement 2010 1.5% 1.1% 1.1% 1.1% 0.0% 0.8% 0.4% 0.3% 0.3% \$10.1,017 1. Rowe Price Retirement 2015 4.7% 4.2% 4.0% 6.2% 4.0% 6.2% 4.0% 0.3% 0.3% 51.0,10.7 1. Rowe Price Retirement 2020 11.9% 1.2% 1.2% 1.1% 0.0% 0.8% 0.4% 0.3% 0.3% \$10.1,017 1. Rowe Price Retirement 2020 11.9% 1.2% 52.5% 1.2% 1.0% 0.8% 4.0% 0.8% 0.4% 0.9% 0.3% 58.10,10.7 1. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.9% 54.234.50 1. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.8% 54.234.62 1. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.8% 54.234.62 1. Rowe Price Retirement 2040 5.3% 8.4% 9.3% 10.9% 10.3% 10.9% 10.8% 54.234.62 1. Rowe Price Retirement 2040 5.3% 8.4% 9.3% 10.9% 10.3% 10.9% 10.8% 54.836.44 1. Rowe Price Retirement 2045 1.8% 2.6% 3.0% 4.0% 4.3% 4.7% 5.0% 5.0% 51.979.75 1. Rowe Price Retirement 2045 1.8% 2.6% 3.0% 4.0% 4.3% 4.7% 5.0% 5.0% 51.979.75 1. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.8% 3.0% 3.4% 51.332.45 1. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.8% 5.7% 5.0% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9% 5.9	Bond Fund									
DFA Inflation Protected Securities 1.7% 1.4% 1.4% 1.3% 0.7% 0.9% 1.1% 1.1% \$432,244		4.7%	3.4%	3.6%	3.2%	1.5%	1.8%	1.8%	1.7%	\$683,117
### AFS Emerging Market Debt 1.2% 1.4% 1.5% 1.2% 0.7% 0.8% 0.8% 0.7% \$289,715 ### Target Retirement Date Funds 39.2% 48.6% \$0.1% \$0.1% \$1.2% \$1.1% \$0.7% \$2.3% \$2.3% \$2.2% \$2.57,527,12 ### I. Rowe Price Retirement Date Funds 1.0% 1.5% 1.2% 1.1% 0.7% 2.3% 2.3% 2.2% \$2.58,606 ### T. Rowe Price Retirement 2015 0.0% 0.0% 0.0% 0.0% 0.7% 0.3% 0.4% 0.3% 0.3% 0.3% 0.10,107 ### T. Rowe Price Retirement 2015 4.7% 4.2% 4.0% 6.2% 4.0% 3.3% 1.7% 1.7% 5681164 ### T. Rowe Price Retirement 2020 11.9% 12.8% 12.7% 9.7% 9.7% 9.7% 8.0% 6.9% 6.7% 52.660.15 ### T. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.9% 4.234.6% 4.2% 4.0% 4.3% 4.1% 1.3% 11.5% 12.2% 54.36.48 ### T. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.8% 54.204.62 ### T. Rowe Price Retirement 2040 5.3% 8.4% 9.3% 10.9% 10.8% 10.9% 10.9% 10.8% 54.065.78 ### T. Rowe Price Retirement 2040 5.3% 8.4% 9.3% 10.9% 10.8% 10.4% 10.6% 10.2% 54.865.48 ### T. Rowe Price Retirement 2050 0.4% 0.8% 1.8% 2.6% 2.8% 3.0% 3.0% 3.4% 5.0% 5.0% 5.0% 5.1% 5.1% 5.0% 5.0% 5.1% 5.1% 5.2% 5.0% 5.0% 5.0% 5.1% 5.13.63 ### T. Rowe Price Retirement 2050 0.4% 0.4% 0.3% 1.8% 2.1% 2.4% 2.2% 2.8% 5.121.63 ### T. Rowe Price Retirement 2050 0.4% 0.4% 0.3% 1.8% 2.1% 2.4% 2.2% 2.8% 5.121.63 ### T. Rowe Price Retirement 2050 0.4% 0.4% 0.3% 1.8% 2.0% 2.5% 5.0	DFA Inflation Protected Securities	1.7%	1.4%	1.4%	1.3%	0.7%	0.9%	1.1%	1.1%	\$432,244
T. Rowe Price Retirement Income		1.2%	1.4%	1.5%	1.2%	0.7%	0.8%	0.8%	0.7%	\$289,715
T. Rowe Price Retirement 2015 T. Rowe Price Retirement 2010 1.5% 1.19% 1.19% 1.19% 1.09% 0.8% 0.4% 0.3% 0.3% 0.10,107 T. Rowe Price Retirement 2015 1.7 Rowe Price Retirement 2015 1.7 Rowe Price Retirement 2015 1.8 4.7% 1.8 4.2% 1.8 4.0% 1.8 5.9 9.7% 9.7% 9.7% 9.7% 9.7% 8.0% 6.9% 6.9% 6.9% 6.9% 6.9% 6.9% 6.9% 6.9	Target Retirement Date Funds	39.2%	48.6%	50.1%	58.1%	68.2%	68.1%	66.7%	66.7%	\$26,527,139
T. Rowe Price Retirement 2010 1.5% 1.1% 1.19% 1.0% 0.8% 0.4% 0.3% 0.3% \$10.10.17 T. Rowe Price Retirement 2015 1.7% 4.2% 4.0% 6.2% 4.0% 3.8% 1.7% 1.7% \$681.164 T. Rowe Price Retirement 2020 11.9% 12.8% 12.7% 9.7% 9.7% 8.0% 6.9% 6.7% \$2.660.15 T. Rowe Price Retirement 2020 11.9% 12.8% 12.7% 9.7% 9.7% 8.0% 6.9% 6.7% \$2.660.15 T. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.8% \$4.234.59 T. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.8% \$4.234.59 T. Rowe Price Retirement 2035 4.3% 6.0% 6.6% 8.3% 10.8% 10.9% 10.9% 10.8% \$4.294.65 T. Rowe Price Retirement 2035 4.3% 6.0% 6.6% 8.3% 10.8% 10.9% 10.9% 10.8% \$4.294.65 T. Rowe Price Retirement 2040 5.3% 8.4% 9.3% 10.9% 10.8% 10.4% 10.6% 10.2% \$4.055.7% T. Rowe Price Retirement 2045 1.8% 2.6% 3.0% 4.0% 4.3% 4.7% 5.0% 5.0% \$11.979.75 T. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.8% 3.0% 3.4% \$1.332.45 T. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.8% 3.0% 3.4% \$1.332.45 T. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.8% 3.0% 3.4% \$1.332.45 T. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.8% 3.0% 3.4% \$1.332.45 T. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.8% 3.0% 3.4% \$1.332.45 T. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 0.3% 0.3% 0.5% 0.5% \$1.21.63 \$1.21.63 \$1.20 \$1.		1.0%	1.5%	1.2%	1.1%	0.7%	2.3%	2.3%	2.2%	\$876,696
T. Rowe Price Retirement 2015 T. Rowe Price Retirement 2020 11.94 12.88* 12.78* 9.79* 9.79* 9.79* 8.09* 8.09* 6.69* 6.79* 5.26.60.15 T. Rowe Price Retirement 2025 6.09* 6.89* 7.119* 7.769* 11.69* 11	T. Rowe Price Retirement 2005	0.0%	0.0%	0.0%	-	-	-			_
T. Rowe Price Retirement 2020 11.9% 12.8% 12.7% 9.7% 9.7% 8.0% 6.9% 6.7% \$2.660.15 T. Rowe Price Retirement 2025 6.0% 6.8% 7.1% 7.6% 11.6% 10.4% 10.9% 10.7% \$4.234.59 T. Rowe Price Retirement 2030 2.2% 4.1% 3.6% 5.4% 10.3% 10.9% 10.9% 10.8% \$4.294.59 T. Rowe Price Retirement 2035 4.3% 6.0% 6.6% 8.3% 10.8% 11.3% 11.5% 12.2% \$4.836.48 T. Rowe Price Retirement 2040 5.3% 8.4% 6.9% 4.0% 4.3% 4.7% 5.0% 5.0% \$4.065.78 T. Rowe Price Retirement 2040 0.4% 0.8% 1.0% 10.8% 10.4% 10.6% 10.2% \$4.065.78 T. Rowe Price Retirement 2055 1.8% 2.6% 3.0% 4.0% 4.3% 4.7% 5.0% 5.0% \$1.979.75 T. Rowe Price Retirement 2050 0.4% 0.8% 1.0% 1.8% 2.6% 2.4% 2.7% 2.8% \$3.121.63 T. Rowe Price Retirement 2050 0.4% 0.3% 1.8% 2.6% 2.4% 2.7% 2.8% \$3.121.63 T. Rowe Price Retirement 2060 - 0.0% 0.1% 0.4% 0.5% 0.7% 0.9% 0.9% \$3.42.779 Large-Cap Funds 27.1% 23.8% 22.6% 17.8% 14.4% 14.8% 15.2% 16.1% \$6.383.93 Large-Cap Funds 27.1% 23.8% 22.6% 17.8% 14.4% 14.8% 15.2% 16.1% \$6.383.93 Large-Cap Funds 4.8% 4.3% 3.7% 3.5% 2.3% 2.0% 2.1% 2.1% \$843.138 Large-Cap Blend Fund 4.8% 4.3% 3.7% 3.5% 2.3% 2.0% 2.1% 2.1% \$843.138 Large-Cap Growth Fund 14.5% 11.3% 11.4% 7.5% 7.0% 7.1% 7.5% 7.9% \$3.126.20 Small-Cap Funds 8.2% 8.5% 8.6% 6.1% 4.6% 4.2% 4.4% 4.5% \$1.776.30 Small-Cap Funds 2.7% 3.1% 2.9% 2.9% 2.2% 1.6% 1.5% 1.4% \$574.484 Small-Cap Funds 11.9% 8.7% 8.4% 6.9% 5.6% 4.4% 4.5% 4.5% \$1.776.30 Small-Cap Funds 11.9% 8.7% 8.4% 6.9% 5.6% 4.4% 4.5% 4.5% \$1.776.30 Developed International 1.4% 1.5% 1.3% 1.4% 1.1% 1.5% 1.4% 1.8% 1.8% \$718.551 Theretional Funds 1.3% 1.3% 1.4% 1.9% 1.7% 1.4% 1.8% 1.8% 1.8% \$718.551 Emerging Markets 1.3% 1.3% 1.4%	T. Rowe Price Retirement 2010	1.5%	1.1%	1.1%	1.0%	0.8%	0.4%	0.3%	0.3%	\$101,017
T. Rowe Price Retirement 2020	T. Rowe Price Retirement 2015									\$681,164
T. Rowe Price Retirement 2025	T. Rowe Price Retirement 2020									\$2,660,154
T. Rowe Price Retirement 2030	T. Rowe Price Retirement 2025									, ,
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	Specialty Fund	2,3%	1.7%	1.7%	2.1%	1.4%	0.9%	1.0%	1.0%	\$383.029

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BUSINESS

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Roth 401(k) could be a better choice

401(k) ADVISER MICHAEL J. FRANCIS



The Roth 401(k) account was first made available nearly 15 years ago. Today, how one works is still a mystery to most and only 11% of those eligible use one, according to Vanguard's How America Saves 2019 edition. This in the face of overwhelming evidence of the benefits of Roth for certain types of savers.

Clearly, foregoing an up-front tax deduction goes against everything we're taught in Financial Planning 101. But for many, waiting to collect the meaningfully larger tax benefits of Roth in retirement should lead to a better outcome.

Over the years, we've heard all kinds of reasons why people don't use Roth. Some mistakenly think because there are income limits on those who can contribute to a Roth IRA, those same limits apply to a Roth 401(k). Others are skeptics and believe it's safer to capture some form of tax break today, no matter how small, than to wait for one that is promised down the road, no matter how potentially large.

Whatever the reason, experts agree that saving in a Roth account is likely better for many 401(k) participants today. The fact that so few take advantage means for many it's time to revisit this issue.

Let's review the tax advantages offered by a Roth 401(k) account and those who should seriously consider switching to a Roth 401(k) account.

Under 40

Most younger workers are well-suited to a Roth 401(k) account because they're early in their career and still in a low tax bracket. This makes the loss of an up-front tax deduction less of a sacrifice and easier to live without. Furthermore, younger workers have a long investment time horizon. The biggest benefit a Roth account offers is that all your earnings and your initial investment are forever free from taxation if withdrawn in retirement and after at least five years after the account was started.

Legendary stories abound of tech entrepreneurs purchasing pre-IPO shares in a Roth account, only to see their value skyrocket creating a huge tax-free windfall to be enjoyed in retirement.

Tax diversifiers

When your employer contributes matching, profit sharing or non-discretionary dollars to your 401(k) account, they are required to use pre-tax dollars. Therefore, the vast majority of 401(k) participants will build a substantial pool of pre-tax dollars that will be subject to ordinary income taxation upon their withdrawal in retirement. To protect against the risk of higher tax rates in

retirement, and to allow for income tax planning in retirement, contributing dollars to a Roth 401(k) account can be a smart tax diversification strategy.

Maximum savers

While few can afford to save the maximum in their 401(k) plan, which is \$19,000 in 2019, for those in the top tax bracket, saving \$19,000 after-tax is equivalent to saving more than \$24,000 pretax. Anyone looking to maximize their annual retirement savings via their employer's payroll deduction retirement savings plan should use a Roth account.

Estate planners

Because the assets in a Roth account have already been taxed, the IRS promises your contributions, and all their future earnings, will not be taxed again. Therefore, the current rule mandating Required Minimum Distributions, beginning at age 70½ from traditional 401(k) accounts, does not apply to Roth assets if you roll over your account into a Roth IRA before age 70½.

This means if you are fortunate enough to not need your retirement savings right away in retirement, having assets in a Roth account allows you to keep this money sheltered and compounding tax-free for as long as you desire.

This tax-free distribution status also carries over to Roth assets left to your beneficiaries. Any Roth assets passed along after your death are inherited without income taxes being owed by your beneficiaries.

Not for everyone

Those who are in a high tax bracket, those who expect to be in a meaningfully lower tax bracket when they retire and those who have a limited time to save before withdrawing their savings should focus on pre-tax traditional 401(k) contributions. Lowering your taxable income currently will allow you to put more away for retirement, which is likely to compensate you for the taxes you will pay when you begin to withdraw your retirement savings.

Some financial planning experts speculate the best explanation for the lack of utilization of Roth 401(k) is that many 401(k) service providers prefer you don't use Roth because it's likely to lower the amount you save and therefore the fees they collect.

All the more reason to read columns like this one and gain an independent opinion before deciding what's best for you.

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