

PARS: County of Contra Costa

Fourth Quarter 2019

**Presented by
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HIGHMARK 2020 FORECAST

2020	
GDP	1.9% - 2.5%
S&P500 earnings	\$172 – \$178
Unemployment	3.70%
Core PCE Inflation	1.7% - 2.0%
Fed Funds Target	1.25% - 1.75%

Asset Allocation Committee

Key Global Investment Themes

Global Economy Resets	<ul style="list-style-type: none"> • Economic growth decelerating as the cycle ages and geopolitical tensions increase • Corporate profit growth weak, margins under pressure from tariffs and higher labor costs • Soft landing expected as manufacturing weakness may be bottoming • US consumer confidence remains healthily / acting as a stabilizer
Monetary Policy Accommodative	<ul style="list-style-type: none"> • Global central banks have retreated to easing bias as economy slows under tighter financial conditions • The Fed responded to market fears of slowing economic growth with 3 cuts in 2019 • Weak inflation provides cover opportunity for Fed to lower rates • Proactively easing policy may extend the cycle, but limits counter measures central banks can deploy during contractions
Leverage Increasing	<ul style="list-style-type: none"> • Deleveraging in the household sector offset by increasing debt burden in public and corporate sectors • US budget deficit over 4% of GDP (uncommon outside of recessions and war time) • High debt levels will weigh on economic growth potential • Debt saturation followed by rate normalization will increase risk of credit events – possible rescission trigger
Trade Tensions Thaw	<ul style="list-style-type: none"> • US / China make progress on trade negotiations with partial “phase one” deal • Headlines on progress or setbacks will continue to sway sentiment • Administration incentivized not to risk economic harm as election approaches • Trade war will loom over corporate investment decisions without permanent resolution
Political Climate	<ul style="list-style-type: none"> • US presidential election year will highlight the increasing polarity in Washington • Democratic candidates range from progressive to centrist representing a wide spectrum of policy perspectives • An increase in probability of a progressive candidate taking office may be met with worry by investors • The likelihood of major policy changes in either direction is low under the expectation of a divided congress
China Transitions	<ul style="list-style-type: none"> • Global growth highly levered to emergence of Chinese middle class • Economy being weaned off investment spending to become more reliant on consumption • Government reigning in excessive credit expansion, yet needs to reengage stimulus to maintain a “safe” deceleration • Hard landing would have significant ripple effects across the global economy

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DISCUSSION HIGHLIGHTS

U.S. Economic and Market Overview

Equity markets around the world saw strong 2019 gains and positive 10-year returns following the “Lost Decade” of the 2000s. Meanwhile, the “phase one” trade deal with China lowered trade tensions but left many details unanswered. With the 2020 election in view, investors began assessing potential winners and losers, particularly in the banking and energy sectors. Manufacturing activity hit a 10-year low and mid-western job growth was soft, raising the possibility that the key “swing states” of 2016 will be in play again this year.

Key Takeaways:

- U.S. and foreign data releases in the fourth quarter raised hopes that the worst of the global economic slowdown may be behind us.
- Manufacturing doldrums remain an area of concern, particularly if contagion to the consumer sector occurs.
- The Federal Reserve’s expected pause in rate adjustments allows investors to shift attention to politics and the potential impact of the 2020 election on markets.
- Looking ahead to the 2020s, we expect fixed income and equity returns to be lower than those recorded in the banner year of 2019.
- Geopolitical tensions from Iran to Ukraine to North Korea may lead to market volatility.

Asset classes across the spectrum recorded positive returns in 2019 with nearly every asset class finishing in the green. Stocks, corporate bonds, REITs, and even gold recorded gains benefiting investors of all persuasions. Even Treasuries—which typically decline when risk assets such as stocks rally—ended the year with a gain of 6.8%.¹ What is surprising about the bumper crop of winners last year is the contrast, from a fundamental perspective, between 2018 and 2019.

In 2018, investors should have been encouraged by corporate earnings up 20%², inflation-adjusted GDP growth above long-term averages at 3%, and the stimulative impact of corporate tax cuts and deregulation of multiple industries and sectors. Yet in the midst of these buy-side signals, the S&P 500 lost -4.4% for the year. Among the suspects cited for lackluster market returns were trade tensions and Fed rate hikes.

¹ As measured by the Bloomberg Barclays US Government Index.

² Source: FactSet Earnings Insight

Fast forward to 2019, where corporate earnings flatlined at 0.3% according to FactSet, GDP growth fell to long-term averages of around 2%, and some progress - but no resolution was made to trade disputes with China and Europe. In the midst of these sell-side signals, the S&P 500 rallied to fresh highs—seemingly daily as the year drew to a close—and finished 2019 up 31.5%. The Fed’s dovish about-face, resulting in three rate cuts in 2019, has been key to understanding the animal spirits in the market. But it should be noted that the S&P 500 had already jumped nearly 20% even before the first rate cut following the Fed’s July 30-31 meeting.

The second half of 2019 saw data releases that helped assuage investor concerns over the summer that economic recession might be on the horizon. These included a Treasury yield curve returning from the inversion brink, a pickup in residential housing starts, and consumer sentiment that, while down from earlier peaks, had yet to hit levels consistent with predicting an upcoming recession. Investors also cheered the USMCA trade deal, which could add as much as 35 basis points to future GDP growth ³.

The “phase one” deal with China was also welcomed, but more as a promising start of a period of risk reduction and a sign of a renewed willingness on both sides to work together rather than as a resolution of numerous outstanding issues. Hopefully, “phase two” will supply more details that investors can use to determine the impact of a trade thaw. For now, “phase one” does little to resolve ongoing corporate concerns over global supply chain management and whether to increase capital expenditures on plant and equipment.

November 2020

With the Fed expected to take a pause from making rate adjustments, investors are beginning to pay attention to politics and the impact of the election on markets and the economy. On the slate for November is the presidential election, as well as congressional elections for all 435 seats in the U.S. House of Representatives and 35 of the 100 senatorial seats. While the last few months have seen headlines about U.S.-China trade relations, Democratic party candidate jockeying and impeachment proceedings, 2020 may be a year when voters demand that the candidates offer specific policies rather than vague wish lists.

While it is early in the election cycle, and voters may already be fatigued, most observers anticipate that if the Republican party maintains the presidency, the administration would continue to seek increased defense spending, possibly act on prior infrastructure plans, and most likely continue aggressive trade policies with China and potentially, Europe. If current trade policies continue with President Trump’s re-election, capital expenditure and business investment spending could suffer as a result of a spike in trade tensions.

3 As measured by the Bloomberg Barclays US Government Index.

The possibility of a Democratic administration also concerns investors because of the widely varying proposals of the Democratic hopefuls and little clarity on who the final candidate will be. The differences between tax changes proposed by, for example, candidates Sanders and Biden are dramatic, as are defense spending goals with Buttigieg planning to raise and Warren seeking to cut. That said, there are several areas where the Democratic candidates broadly agree while differing in the details:

- roll back some or all of the 2017 Tax Cut and Jobs Act;
- increase tax rates for wealthy individuals; and
- change current banking and energy policies.

Banking and energy appear at this stage of the campaign to offer the clearest expectations of the potential impact of a Democratic presidency on specific market sectors. Two of the candidates, Sanders and Warren, would bring back the 1933 Glass-Steagall Act which separated retail banking and investment banking. While Glass-Steagall was repealed by Democratic President Bill Clinton in 1999, lack of Glass-Steagall protection has often been cited by Democratic politicians as one cause of the Great Recession. Forcing banks to unwind the changes they have made to balance sheets and operations over the last 20 years would almost certainly result in lower profitability for the financial sector.

The Democratic candidates also have plans for the oil patch, including ending new oil and natural gas leases on Federal lands, ending offshore drilling, enacting carbon taxes and, for Warren and Sanders, banning oil and natural gas extraction through fracking. These proposals could exacerbate current slowdowns in an energy sector already suffering from stubbornly low oil prices and a significant debt overhang. According to Moody's Investor Services, the exploration and production sector holds some \$93 billion in debt—nearly all of it below-investment grade—that will be coming due next year. If a fracking ban is implemented, the cash flow needed to service or refinance this debt will be even more constrained, further compounding the daunting task of refinancing below-investment grade paper. A fracking ban could also lead to layoffs and lost employment in the oil and natural gas sector.

Beyond banking and energy, the technology sector might also see increased regulatory oversight in a Democratic administration. While past administrations, in particular President Obama's, welcomed the expertise—and lobbying—of tech heavyweight companies, a Democratic winner in November may want to follow the lead of several European nations which are pursuing legislative changes, designed for tighter antitrust enforcement, data privacy rules, and regulatory scrutiny of multinational technology and social media firms. These tech companies, which dramatically outperformed the U.S. stock market in 2019, may see new and unwelcome domestic pressures.

Prospects for Legislative Success

Perhaps heartening to investors is the likelihood that many of the more progressive Democratic proposals would face little chance of passage in a post-election Senate with a Republican majority. Even in the unlikely event of a Democratic takeover of the Senate majority, many of the Warren-Sanders initiatives might struggle to achieve the majority of votes needed to pass.

If the Democratic party selects a moderate candidate and is successful in gaining the Presidency, a Democrat-led House of Representatives and a Republican Senate may find areas where compromise is achievable. Infrastructure spending and a solution to health care costs that continue to soar as the U.S. population ages may be two of the challenges that a divided Congress could successfully tackle.

Market Overview/Performance Discussion

Total Plan

The County of Contra Costa OPEB Plan returned 4.7% net of investment fees in the fourth quarter, which slightly exceeded the County's Plan benchmark target of 4.56%. Investment performance in the quarter was solid from both an absolute and relative performance standpoint. In every category where the Plan implements 'active' management, returns exceeded benchmark targets. Within large cap equity, four of the five managers outperformed the Russell 1000 Index in the quarter, with three managers ranking in the top quartile of their respective Morningstar peer universe rankings. The top equity returning fund for the quarter was the Victory RS Small Cap Growth Fund who returned 13.46% and ranked in the 8th percentile of the small cap growth peer universe. The strong relative outperformance also extended to the fixed income segment where the internally managed fixed income strategy returned 0.52% which would have ranked in the top quartile of the Morningstar US Fund Intermediate Core-Plus Bond Universe – if it were a mutual fund. Two of the three international equity managers outperformed the MSCI-EAFE Index in the quarter. Additionally, the Alternative asset class segment saw three of the Plan's four managers beat the Plan benchmark target. The primary detractor for the Plan in the quarter was asset allocation. The Plan began the quarter with an underweight to equities, and moreover maintained an overweight to REIT equity. REITs turned in a disappointing fourth quarter, returning -1.1%. The underweight to stocks stemmed from concerns over the U.S. and China trade relations, and from Brexit. As the quarter progressed, we increased equities to almost a neutral target allocation. However, the underweight to equities that was maintained for the majority of the quarter, was a detractor.

Domestic Equity

- **The Plan's large cap equity segment returned 9.38% in the quarter, which exceeded the Russell 1000 Index return of 9.04%.**
 - The iShares Russell 1000 ETF 9.0% in the quarter.
 - The Columbia Contrarian Core Fund returned 9.21% in the quarter, which outperformed the benchmark. The Fund ranked in the 23rd percentile of the Morningstar U.S. Large Cap Blend Universe.
 - The Harbor Capital Appreciation Fund returned 12.45% in the quarter, which exceeded the Russell 1000 Growth Index's return of 10.62%. The Fund ranked in the 9th percentile of the Morningstar U.S. Large Growth Universe.
 - The T. Rowe Price Growth Stock Fund returned 10.08% in the quarter, which trailed the Russell 1000 Growth Index. The Fund ranked in the 36th percentile of the Morningstar U.S. Large Growth Universe.
 - The Dodge and Cox Stock Fund gained 10.09% in the quarter, and outperformed the Russell 1000 Value Index's return of 7.41%. The Fund ranked in the 6th percentile of the Morningstar U.S. Large Value Universe.
 - The Vanguard Growth and Income Fund registered a 8.79% return in the quarter, which trailed the S&P 500 Index. The Fund ranked in the 47th percentile of the Morningstar U.S. Large Blend Universe.
 - In December, the iShares S&P500 Value ETF was added to the Plan. For the month, the Fund returned 2.94%.

Domestic Equity

- **The mid cap equity segment returned 7.02% in the quarter, which was in-line with the Russell Mid Cap Index return of 7.06%.**
 - The iShares Russell Mid Cap ETF returned 7.04% in the quarter.
- **The small cap equity segment returned 10.10% in the quarter, which outperformed the Russell 2000 Index return of 9.94%.**
 - The iShares Russell 2000 ETF returned 9.92% in the fourth quarter.
 - The Victory RS Small Cap Growth Fund returned 13.46% in the quarter, which outpaced the Russell 2000 Growth Index return of 11.39%. The fund ranked in the 8th percentile of the Morningstar U.S. Small Growth Universe.
 - The Undiscovered Managers Behavioral Value Fund returned 7.29% in the quarter, and underperformed the Russell 2000 Value Index's return of 8.49%. The Fund ranked in the 69th percentile of Morningstar's U.S. Small Value Universe.

Real Estate

The Vanguard REIT ETF returned 0.6% which ranked in the 36th percentile of Morningstar's U.S. Fund Real Estate Universe

International/Global Equity

- **The Plan's international/global equity segment returned 8.86% in the quarter. This return outperformed the MSCI EAFE Index return of 8.17% but slightly trailed the MSCI ACWI Index return of 8.95%.**
 - The iShares MSCI EAFE Index ETF returned 8.1% in the quarter.
 - The Dodge & Cox International Stock Fund returned 10.61% in the quarter and outperformed the MSCI EAFE Index. The Fund ranked in the 12th percentile of the Foreign Large Value Universe as measured by Morningstar.
 - The MFS International Growth Fund returned 9.03% in the quarter which outperformed the MSCI EAFE Index. The Fund ranked in the 58th percentile for foreign large growth managers as measured by Morningstar.
 - The iShares MSCI ACWI Index ETF returned 8.93% in the quarter.
 - The American Funds New Perspective Fund recorded a 10.15% return in the quarter, which exceeded the MSCI ACWI Index and ranked in the 17th percentile within the Morningstar World Large Stock Universe
 - The MFS Global Equity R6 Fund returned 7.36%, which lagged the benchmark and ranked in the 71st percentile of the Morningstar World Large Stock Universe.
 - The Hartford Schroders Emerging Market Equity Fund returned 11.32% during the quarter and underperformed the MSCI Emerging Market benchmark return of 11.84%. The Fund ranked in the 42nd percentile of the Morningstar Diversified Emerging Market Universe.

Fixed Income

The Bloomberg Barclays Aggregate Bond Index returned 8.7% in 2019, the best performance for this index since 2002, seventeen years ago! Interest rates in 2019 ended the year 103 basis points lower at the one year maturity, and 62 basis points lower in the thirty-year. The significant declines in interest rates resulted in a total return for the U.S. Treasury sector of 6.9%, while all other sectors outperformed their Treasury counterparts. Investment grade corporate bonds delivered returns of 14.5%, outperforming Treasuries by 676 basis points, while non-investment grade bonds outperformed Treasuries by 934 basis points. However, most of that outstanding performance last year is due to the sell-off in the fourth quarter of 2018, which resulted in a return of exactly one basis point for the index in 2018. The sell-off resulted from concerns over slowing growth, U.S. versus China trade disputes, and tight monetary policy. When those concerns, especially regarding monetary policy, began to diminish, interest rates declined and corporate bond spreads fell even more. However, it's unlikely that we will have a repeat of last year's performance since we are starting from a much higher base. Rather than project another year of performance like 2019, it is probably best to think of the returns as an average for the last two years as an average of the 8.7% return in 2019, and the 0.01% return in 2018, which would be about 4.3% per year, much closer to the long term average.

In late 2018, after nine consecutive 25 basis point increases in the fed funds rate beginning in 2015, the market sent an unmistakable message to the federal reserve that it had gone far enough toward tighter credit conditions. However, despite market warnings, the central bank indicated that they were going to raise rates several more times in 2019, and that the reduction in their Treasury holdings was on "autopilot", meaning that the sale of securities would continue indefinitely. As a result risk assets sold off sharply in the fourth quarter of 2018 and the S&P 500 plummeted -13.5%, high-yield bonds fell -4.5%, and the 10-year Treasury yield reached nearly 3.25%. As interest rates continued to rise, the Federal Reserve got the message that the economy wasn't healthy enough to withstand any more tightening and, in fact, rates needed to be lowered. The Federal Reserve then cut rates in three successive quarter point increments to the current level of 1.50% to 1.75%, while risk assets recovered quickly in the first quarter. For the remainder of the year, including the fourth quarter, risk assets continued a modest recovery while Treasury rates returned to where they were prior to the sell-off.

After the robust returns earlier in the year, fourth quarter returns were quite modest. The Bloomberg Barclays Aggregate Index gained only 0.2% in the quarter, helped by a 1.2% return from investment grade corporate bonds, and 0.7% from mortgage-backed securities. U.S. Treasury returns were mixed as the yield curve steepened, resulting in a return of -0.8% for the Treasury sector as 1-year rates fell 18 basis points, while the 5-year yield increased 15 basis points, and the 30-year bond yield increased 28 basis points. Investment grade bond spreads averaged +101 at year-end, +58 bp below the long term average, while non-investment grade bonds averaged +360 bp, +198 bp below average.

Fixed Income (Cont.)

- **The Plan's fixed income segment returned 0.37% in the quarter, which slightly exceeded the Bloomberg Barclays Aggregate Index return of 0.18%.**
 - The separately managed fixed income portfolio returned 0.52% which beat the benchmark. The portfolio would have ranked approximately in the 9th percentile of the Morningstar U.S. Intermediate Term Core-Plus Bond Universe.
 - The PIMCO Total Return Bond Fund posted a -0.3% return in the quarter, which ranked in the 94th percentile of Morningstar's U.S. Intermediate-Term Core-Plus Bond Universe. The Fund underperformed the Index.
 - The Prudential Total Return Bond Fund returned 0.35% in the quarter. This ranked in the 51st percentile of Morningstar's U.S. Intermediate-Term Core-Plus Bond Universe and outperformed the benchmark.

Alternative Investments

The Alternatives portion of the Plan returned 2.88% and outperformed the Wilshire Liquid Alternative Index return of 1.55%. Three of the four managers generated returns in excess of the benchmark. For the second quarter in a row, the Eaton Vance Global Macro Fund was the strongest performing manager returning 3.09%. Results were positive across all global regions. Eastern Europe was the top contributor, driven by strength in rates and currencies. A long bond position in Ukraine (unhedged) performed well as the central bank cut interest rates by 3%. Latin America and the Middle East/Africa region was the next largest contributor. In Latin America a sovereign credit long position in Barbados, where the government and external creditors reached a debt restructuring deal was additive to performance. Western Europe and Asia were favorable to performance as the region's top position was a long position in Icelandic equities, which rallied after the central bank reduced interest rates in an effort to increase aggregate demand. Two detractors to performance included a short position in the New Zealand Dollar and a short position in the South African Rand.

The Blackrock Strategic Income Fund generated a 1.61% return for the fourth quarter. Positive performance was driven by their macro strategy (+37 bps), absolute return (+30 bps), structured credit (+21 bps), European credit (+18 bps) and emerging market debt positions (+16 bps). The strategy was long mortgages which provided strong absolute returns in the quarter. The Fund reduced duration in the quarter, moving from 3.7 years to 3 years, which cost the strategy roughly 30 basis points in performance. The team also reduced investment grade corporate exposure as spreads tightened and the sector was viewed as slightly expensive by the team.

Alternative Investments (Cont.)

The Blackrock Event Driven Fund posted a 1.42% return for the quarter, resulting in a peer ranking of 35 in the Morningstar Market Neutral category. Hard catalysts were the largest contributor (+1.50%) for the quarter, while soft catalyst situations contributed 16bps and credit detracted 5bps respectively. The fund increased exposure to hard catalyst situations from 86% of long market value in Q3 to 91% given the robust opportunity set in mergers and acquisitions. The remaining 9% was allocated to 5% soft catalyst situations and 4% to credit opportunities. We should continue to see the majority of exposure and returns coming by way of M&A with opportunities presenting themselves in soft catalyst and credit strategies.

The Western Asset Macro Opportunities Fund returned 5.96% leading the alternative managers. Long foreign currency positions to the Brazilian Real, the Russian Ruble, and the Mexican Peso were positive for the fund as all of these currencies strengthen against the dollar. Emerging market debt holdings also were additive to performance, specifically positions in Argentina, Russia, and Mexico. Overall EM debt gains were aided by continued easing with central banks in Turkey, Brazil, Mexico, and Russia. Mexican credit benefitted from the progress made on the USMCA trade agreement. Investment grade and high-yield credit exposure to the financial and energy sectors aided performance as well. The only area where the fund saw any decline in value was in Peripheral Europe

Alternative Investments (Cont'd)

- The alternative investment segment returned 2.88% in the fourth quarter, which exceeded the Wilshire Liquid Alternatives Index return of 1.55%.
 - The BlackRock Strategic Income Opportunity Fund returned 1.61%, which exceeded the benchmark, and ranked in the 42nd percentile of Morningstar's Non-Traditional Bond Universe.
 - The Eaton Vance Global Macro Absolute Return Fund gained 3.09% which ranked in the 12th percentile of Morningstar's Non-Traditional Universe
 - The Western Asset Macro Opportunities Fund returned 5.96% in the fourth quarter and ranked in the 1st percentile of Morningstar's Non-Traditional Universe.
 - The BlackRock Event Driven Equity Fund returned 1.42% in the quarter and ranked in the 34th percentile of the Morningstar US Fund Market Neutral Universe

Asset allocation/Manager Changes

As the quarter progressed, and perceived risks associated with the trade war and Brexit diminished, we increased the equity allocation by 2%. We did end the quarter at a slight underweight to equities (-0.75%)

In December, we implemented an overweight to domestic large cap value stocks, relative to large cap growth stocks. The 2.5% overweight to large cap value was implemented through the purchase of the iShares S&P 500 Value ETF. We believe large cap growth stocks are expensive on a relative basis. Valuation dispersion are near all-time levels, favoring value.

Manager Watch List

<i>Name of Fund</i>	<i>Date on watch list</i>	<i>Date exiting watch list</i>	<i>Recommendation</i>	<i>Rationale</i>
<i>Columbia Contrarian Core Fund</i>	3Q 2018		Remove from watch list	Originally, the Annualized return trailed the benchmark return on a 3-year basis, triggering inclusion on the manager watch list. The manager delivered strong performance over the course of 2019, outperforming the Russell 1000 Index and ranking in the 10 th percentile of the Morningstar U.S. Large Cap Blend Universe.
<i>Dodge & Cox International</i>	3Q 2018		Retain on watch	We are encouraged by the performance of the Plan by outperforming the EAFE Index benchmark for the calendar year period of 2019, and ranking in the Morningstar Foreign Large Value Universe in the 7 th percentile for the calendar year period. We would anticipate removing this fund from watch list in the next few quarters.

Asset Allocation

Period Ending December 31, 2019

Asset Allocation	9/30/2019 Market Value	9/30/2019 % of Total	12/31/2019 Market Value	12/31/2019 % of Total	Target Allocation
Large Cap Equities					
Columbia Contrarian Core Inst3	9,324,664	3.0%	10,183,866	3.1%	--
iShares Russell 1000 ETF	23,960,808	7.7%	26,750,689	8.1%	--
Vanguard Growth & Income Adm	9,369,321	3.0%	10,192,831	3.1%	--
Dodge & Cox Stock Fund	7,945,384	2.6%	6,627,109	2.0%	--
iShares S&P 500 Value ETF	--	--	3,312,612	1.0%	--
Harbor Capital Appreciation Retirement	3,778,001	1.2%	3,699,738	1.1%	--
T. Rowe Price Growth Stock Fund	3,812,540	1.2%	3,341,079	1.0%	--
Total Large Cap Equities	\$ 58,190,719	18.7%	\$ 64,107,923	19.4%	19.0%
		<i>Range</i>		<i>Range</i>	13-32%
Mid Cap Equities					
iShares Russell Mid-Cap ETF	17,053,224	5.5%	19,945,990	6.0%	--
Total Mid Cap Equities	\$ 17,053,224	5.5%	\$ 19,945,990	6.0%	6.0%
		<i>Range</i>		<i>Range</i>	2-10%
Small Cap Equities					
iShares Russell 2000 ETF	12,314,536	4.0%	15,168,745	4.6%	--
Undiscovered Managers Behavioral Val R6	6,257,824	2.0%	6,579,864	2.0%	--
Victory RS Small Cap Growth R6	6,097,132	2.0%	7,206,361	2.2%	--
Total Small Cap Equities	\$ 24,669,491	7.9%	\$ 28,954,971	8.8%	9.0%
		<i>Range</i>		<i>Range</i>	4-12%
International Equities					
DFA Large Cap International I	4,798,325	1.5%	5,183,101	1.6%	--
iShares MSCI EAFE ETF	11,917,519	3.8%	13,158,949	4.0%	--
Dodge & Cox International Stock Fund	4,852,772	1.6%	5,367,675	1.6%	--
MFS® International Growth R6	4,712,302	1.5%	5,137,894	1.6%	--
Hartford Schroders Emerging Mkts Eq Y	3,993,421	1.3%	5,068,577	1.5%	--
Total International Equities	30,274,338	9.7%	\$ 33,916,197	10.3%	10.0%
		<i>Range</i>		<i>Range</i>	4-20%
Global Equities					
MSCI iShares ACWI Index ETF	10,980,048	3.5%	11,603,627	3.5%	--
American Funds New Perspective R6	4,662,061	1.5%	5,135,216	1.6%	--
MFS Global Equity FD CL R5 #4818	4,670,500	1.5%	5,014,223	1.5%	--
Total Global Equities	\$ 20,312,609	6.5%	\$ 21,753,065	6.6%	8.0%
		<i>Range</i>		<i>Range</i>	4-12%

Asset Allocation

Period Ending December 31, 2019

Asset Allocation	9/30/2019 Market Value	9/30/2019 % of Total	12/31/2019 Market Value	12/31/2019 % of Total	Target Allocation
Real Estate					
Vanguard Real Estate ETF	15,797,762	5.1%	15,269,615	4.6%	--
	\$ 15,797,762	5.1%	\$ 15,269,615	4.6%	4.0%
		<i>Range</i>		<i>Range</i>	<i>0-8%</i>
Fixed Income					
Core Fixed Income Holdings	86,568,212	27.8%	92,045,705	27.8%	--
PIMCO Total Return Instl Fund	18,852,721	6.1%	19,720,114	6.0%	--
Prudential Total Return Bond Q	18,886,670	6.1%	19,762,579	6.0%	--
Total Fixed Income	\$ 124,307,604	40.0%	\$ 131,528,397	39.8%	43.0%
		<i>Range</i>		<i>Range</i>	<i>30-50%</i>
Alternatives					
BlackRock Event Driven Equity Instl	4,688,205	1.5%	4,073,852	1.2%	--
BlackRock Strategic Income Opps K	3,917,401	1.3%	3,280,172	1.0%	--
Eaton Vance Glb Macr Absolt Retrn R6	3,902,460	1.3%	3,243,916	1.0%	--
Western Asset Macro Opportunities IS	3,125,540	1.0%	3,311,843	1.0%	--
Total Alternatives	\$ 15,633,605	5.0%	\$ 13,909,784	4.2%	0.0%
		<i>Range</i>		<i>Range</i>	<i>0-10%</i>
Cash					
Money Market	4,635,731	1.5%	1,300,389	0.4%	--
Total Cash	\$ 4,635,731	1.5%	\$ 1,300,389	0.4%	1.0%
		<i>Range</i>		<i>Range</i>	<i>0-5%</i>
TOTAL	\$ 310,875,084	100.0%	\$ 330,686,331	100.0%	100.0%

Investment Summary

Period Ending December 31, 2019

Investment Summary	Fourth Quarter 2019	Year to Date 2019
Beginning Value	311,460,604.92	\$ 260,226,787.74
Net Contributions/Withdrawals	5,004,716.01	20,914,785.10
Fees Deducted	-49,746.46	-196,492.99
Income Received	6,441,322.71	11,448,085.44
Market Appreciation	8,414,955.37	38,915,024.12
Net Change in Accrued Income	120,240.59	83,903.73
Ending Market Value*	\$ 331,392,093.14	\$ 331,392,093.14 *

Investment Summary	Fourth Quarter 2018	Year to Date 2018
Beginning Value	275,858,092.90	\$ 254,664,786.12
Net Contributions/Withdrawals	4,992,580.98	20,833,234.72
Fees Deducted	-48,392.18	-193,402.20
Income Received	5,833,237.10	9,681,815.66
Market Appreciation	-26,299,750.76	-24,826,725.70
Net Change in Accrued Income	-108,980.30	67,079.14
Ending Market Value*	\$ 260,226,787.74	\$ 260,226,787.74 *

*Ending Market Value differs from total market value on the previous page due to differences in reporting methodology. The above ending market value is reported as of trade date and includes accruals. The Asset Allocation total market value is reported as of settlement date.

Investment Strategy

As of December 31, 2019

Tactical Asset Allocation

Asset Class	% Portfolio Weighting			Rationale
	Target	Current Portfolio	Over/Under Weighting	
Cash	1.0%	0.5%	-0.5%	
Fixed Income	43.0%	40.0%	-3.0%	<ul style="list-style-type: none"> We forecast the Fed Funds rate to be between 1.25% - 1.75% at the end of 2020. This forecast implies that the Fed will either cut rates one time, or stand pat for 2020. Economic data, while soft, will likely not warrant a cut. The trillions of dollars of global sovereign debt trading at negative yields will likely keep a bid in the fixed income markets. Inflation expectations seem to be anchored at 2%.
Alternatives	0.0%	4.25%	+4.25%	<ul style="list-style-type: none"> Cash currently offers a low competitive rate of return. If the Fed does not lower interest rates, fixed income returns may disappoint. While we are not forecasting the 8% return from alternatives in 2019 to be repeated in 2020, we may seek to increase our allocation to alternatives over the course of 2020.
Real Estate (REITS)	4.0%	4.5%	+0.5%	<ul style="list-style-type: none"> REIT equity was the strongest performing asset class through September 2019. REITs sold off modestly in the fourth quarter. We believe REIT fundamentals are still supported by positive employment trends, consumer spending, and GDP growth. REITs have historically performed well in late-cycle periods.
Global Equity	8.0%	6.5%	-1.5%	<ul style="list-style-type: none"> A variety of global economic readings are still indicating a deceleration in global growth. However, during the quarter (and in January 2020) events indicating that a thaw in the trade war between the U.S. and China are encouraging signs that might support the case for an increase in global growth. The early news reports surrounding the Coronavirus are not encouraging, but it is too soon to take any action.
International (Developed)	10.0%	8.5%	-1.5%	<ul style="list-style-type: none"> Purchasing manager readings are still tepid globally. However as mentioned above, with a Phase I deal signed between the U.S. and China, it is reasonable to think that global trade could pick up. Valuations are more attractive internationally versus the U.S. The risks surrounding 'Brexit' seemed to have diminished as well throughout the quarter. The uncertainty around a potential rebound in growth keeps this allocation at a slight underweight.
International (Emerging)	0.0%	1.5%	+1.5%	<ul style="list-style-type: none"> Trade war risks have diminished somewhat with the signing of a Phase 1 deal with China. Emerging market corporate earnings are facing ongoing pressure from slowing global growth and a strong dollar. Valuation spreads relative to developed market equities are not reflecting the more difficult environment and outlook facing emerging market companies.
Total Domestic Equity	34.0%	34.25%	+0.25%	
Large Cap	19.0%	19.5%	+0.5%	<ul style="list-style-type: none"> Large cap equities are currently trading at an 18X forward PE ratio, which is slightly overvalued versus historical valuation levels. We estimate earnings for 2020 will show a mid-single digit growth rate. In the most recent quarter we increased our allocation to large cap equities however by overweighting large cap value. Valuation dispersion between value and growth stocks is at or near all-time levels.
Mid Cap	6.0%	6.0%	-	<ul style="list-style-type: none"> Mid-Cap valuations are currently at a 17X PE ratio. We are at a neutral allocation.
Small Cap	9.0%	8.75%	-0.25%	<ul style="list-style-type: none"> We see small cap equities as offering low double digit earnings growth, with relatively cheap valuations compared to large cap stocks. The higher Beta/higher leverage levels that small caps offer temper some of our enthusiasm.

Selected Period Performance
PARS/COUNTY OF CONTRA COSTA PRHCP
Account 6746038001
Period Ending: 12/31/2019

	3 Months	Year to Date (1 Year)	1 Year	3 Years	5 Years	Inception to Date 02/01/2011
Cash Equivalents	.40	2.07	2.07	1.51	.97	.55
<i>Lipper Money Market Funds Index</i>	.38	1.98	1.98	1.42	.88	.49
Fixed Income ex Funds	.52	9.20	9.20	4.21	3.40	3.80
Total Fixed Income	.37	9.32	9.32	4.41	3.48	3.90
<i>BBG Barclays US Aggregate Bd Index</i>	.18	8.72	8.72	4.03	3.05	3.46
Total Equities	8.27	27.99	27.99	12.37	9.10	9.63
Large Cap Funds	9.38	30.19	30.19	14.83	11.37	12.23
<i>Russell 1000 Index</i>	9.04	31.43	31.43	15.05	11.48	13.09
Mid Cap Funds	7.02	30.21	30.21	11.92	8.79	10.33
<i>Russell Midcap Index</i>	7.06	30.54	30.54	12.06	9.33	11.76
Small Cap Funds	10.10	26.59	26.59	10.38	9.49	11.58
<i>Russell 2000 Index</i>	9.94	25.53	25.53	8.59	8.23	10.40
International Equities	8.86	25.20	25.20	11.78	7.15	6.01
<i>MSCI AC World Index</i>	8.95	26.60	26.60	12.44	8.41	8.26
<i>MSCI EAFE Index</i>	8.17	22.01	22.01	9.56	5.67	5.03
<i>MSCI EM Free Index</i>	11.84	18.42	18.42	11.57	5.61	2.45
REIT Funds	.56	28.88	28.88	8.33	7.11	9.63
<i>Wilshire REIT Index</i>	-1.14	25.76	25.76	7.63	6.87	9.90
Alternatives	2.88	8.33	8.33	1.03	.65	
<i>Dynamic Alternatives Index</i>	1.55	6.66	6.66	2.38	.80	.31
Total Managed Portfolio	4.72	18.67	18.67	8.20	6.11	6.51
Total Account Net of Fees	4.70	18.60	18.60	8.12	6.02	6.40
<i>Contra Costa Policy Benchmark</i>	4.56	18.46	18.46	8.15	6.18	6.93

Inception Date: 02/01/2011

* Benchmark from February 1, 2011 to June 30, 2013: 18% Russell 1000 Index, 6% Russell Midcap Index, 8% Russell 2000 Index, 8% MSCI ACWI Index, 10% MSCI EAFE Index, 45% Barclays Aggregate Index, 4% DJ Wilshire REIT Index, 1% Citigroup 3 Month T Bill Index. From July 1, 2013 to June 30, 2015: 17% Russell 1000 Index, 6% Russell Midcap Index, 8% Russell 2000 Index, 7% MSCI AC World US Index, 9% MSCI EAFE Index, 38% Barclays Aggregate Index, 4% DJ Wilshire REIT Index, 10% HFRI FOF Market Defensive Index, 1% Citigroup 3 Month T-Bill Index. From July 1, 2015 to September 30, 2019: 17% Russell 1000 Index, 6% Russell Midcap Index, 8% Russell 2000 Index, 7% MSCI AC World Index, 9% MSCI EAFE Index, 38% Barclays Aggregate Index, 4% DJ Wilshire REIT Index, 10% Wilshire Liquid Alternative Index, 1% Citigroup 3 Month T-Bill Index. From October 1, 2019: 43% BBG Barclays US Aggregate Bd Index, 1% FTSE 3 Month T-Bill Index, 8% MSCI AC World Index, 10% MSCI EAFE Index, 19% Russell 1000 Index, 9% Russell 2000 Index, 6% Russell Midcap Index, 4% Wilshire REIT Index. ** Dynamic Alternatives Index represents the HFRI FOF Market Defensive Index from 07/01/2013 until 06/30/2015, and then the Wilshire Liquid Alternatives Index from 07/01/2015 forwards. Returns are gross-of-fees unless otherwise noted. Returns for periods over one year are annualized. The information presented has been obtained from sources believed to be accurate and reliable. Past performance is not indicative of future returns. Securities are not FDIC insured, have no bank guarantee, and may lose value.

COUNTY OF CONTRA COSTA

For Period Ending December 31, 2019

LARGE CAP EQUITY FUNDS											
Fund Name	Inception	3-Month Return	Rank	YTD Return	Rank	1-Year Return	Rank	3-Year Return	Rank	5-Year Return	Rank
Columbia Contrarian Core Inst3	(7/13)	9.21	23	33.08	10	33.08	10	13.94	48	10.69	40
Vanguard Growth & Income Adm	(12/16)	8.79	47	29.77	51	29.77	51	14.35	41	11.33	22
Dodge & Cox Stock	(10/14)	10.09	6	24.83	58	24.83	58	11.13	31	9.72	13
iShares S&P 500 Value ETF	(12/19)	9.88	8	31.71	5	31.71	5	11.31	28	9.35	24
T. Rowe Price Growth Stock I		10.08	36	30.98	61	30.98	61	20.22	30	14.38	19
Harbor Capital Appreciation Retirement		12.45	9	33.39	39	33.39	39	21.77	17	14.68	15
Russell 1000 TR USD		9.04	--	31.43	--	31.43	--	15.05	--	11.48	--
iShares Russell 1000 ETF	(3/15)	9.00	36	31.26	30	31.26	30	14.90	28	11.35	21
MID CAP EQUITY FUNDS											
iShares Russell Mid-Cap ETF	(3/15)	7.04	43	30.31	21	30.31	21	11.90	18	9.17	18
Russell Mid Cap TR USD		7.06	--	30.54	--	30.54	--	12.06	--	9.33	--
SMALL CAP EQUITY FUNDS											
Undiscovered Managers Behavioral Val R6	(9/16)	7.29	69	23.34	30	23.34	30	5.90	19	8.26	8
Russell 2000 Value TR USD		8.49	--	22.39	--	22.39	--	4.77	--	6.99	--
Victory RS Small Cap Growth R6	(2/19)	13.46	8	38.38	8	38.38	8	20.10	12	11.83	20
Russell 2000 Growth TR USD		11.39	--	28.48	--	28.48	--	12.49	--	9.34	--
iShares Russell 2000 ETF	(3/15)	9.92	17	25.42	35	25.42	35	8.56	23	8.24	29
INTERNATIONAL EQUITY FUNDS											
Dodge & Cox International Stock		10.61	12	22.77	7	22.77	7	7.66	33	3.67	62
MFS International Growth R6		9.03	58	27.31	60	27.31	60	15.47	18	9.70	12
MFS Global Equity R6	(3/15)	7.36	71	30.66	17	30.66	17	13.61	31	9.22	29
iShares MSCI EAFE ETF	(3/15)	8.10	63	21.94	45	21.94	45	9.50	46	5.61	45
iShares MSCI ACWI ETF	(3/15)	8.93	37	26.70	45	26.70	45	12.70	39	8.62	38
American Funds New Perspective R6	(3/15)	10.15	17	30.48	19	30.48	19	16.79	13	11.45	10
DFA Large Cap International I	(12/18)	8.02	64	22.04	43	22.04	43	9.52	45	5.65	42
MSCI EAFE NR USD		8.17	--	22.01	--	22.01	--	9.56	--	5.67	--
MSCI ACWI NR USD		8.95	--	26.60	--	26.60	--	12.44	--	8.41	--
Hartford Schroders Emerging Mkts Eq F	(11/12)	11.32	42	22.32	30	22.32	30	13.40	18	7.05	16
MSCI EM Free Index		11.84	--	18.42	--	18.42	--	11.57	--	5.61	--

Data Source: Morningstar, SEI Investments

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COUNTY OF CONTRA COSTA

For Period Ending December 31, 2019

REIT EQUITY FUNDS											
Fund Name	Inception	3-Month Return	Rank	YTD Return	Rank	1-Year Return	Rank	3-Year Return	Rank	5-Year Return	Rank
Vanguard Real Estate ETF	(6/17)	0.60	36	28.91	30	28.91	30	8.36	46	7.17	39
Wilshire REIT Index		-1.14	--	25.76	--	25.76	--	7.63	--	6.87	--
BOND FUNDS											
Core Fixed Income Portfolio		.52	9	9.20	21	9.20	21	4.21	15	3.40	9
PIMCO Total Return Instl		-0.30	94	8.26	73	8.26	73	4.31	36	3.25	45
PGIM Total Return Bond R6	(5/16)	0.35	51	11.13	7	11.13	7	5.62	2	4.33	3
BBgBarc US Agg Bond TR USD		0.18	--	8.72	--	8.72	--	4.03	--	3.05	--
ALTERNATIVE FUNDS											
BlackRock Event Driven Equity Instl	(3/19)	1.42	34	7.29	13	7.29	13	6.64	1	4.48	--
BlackRock Strategic Income Opps K	(7/13)	1.61	42	7.82	36	7.82	36	4.05	32	3.09	42
Eaton Vance Glb Macr Absolt Retrn R6	(7/13)	3.09	12	9.82	18	9.82	18	3.50	47	3.42	31
Western Asset Macro Opportunities IS	(2/19)	5.96	1	16.80	1	16.80	1	8.37	2	6.62	1
Dynamic Alternatives Index		1.55	--	6.66	--	6.66	--	2.38	--	0.80	--

Data Source: Morningstar, SEI Investments

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COUNTY OF CONTRA COSTA

For Period Ending December 31, 2019

LARGE CAP EQUITY FUNDS															
Fund Name	Inception	2019 Return	Rank	2018 Return	Rank	2017 Return	Rank	2016 Return	Rank	2015 Return	Rank	2014 Return	Rank	2013 Return	Rank
Columbia Contrarian Core Inst3	(7/13)	33.08	10	-8.81	82	21.89	28	8.77	73	3.25	7	13.14	27	36.04	15
Vanguard Growth & Income Adm	(12/16)	29.77	51	-4.61	31	20.80	54	12.12	24	2.03	16	14.16	13	32.74	37
Dodge & Cox Stock	(10/14)	24.83	58	-7.07	31	18.33	24	21.28	6	-4.49	62	10.40	54	40.55	2
iShares S&P 500 Value ETF	(12/19)	31.71	5	-9.09	57	15.19	61	17.17	25	-3.24	42	12.14	24	31.69	45
T. Rowe Price Growth Stock I		30.98	61	-0.89	37	33.84	15	1.58	63	10.93	--	8.83	--	39.20	--
Harbor Capital Appreciation Retirement		33.39	39	-0.96	37	36.68	5	-1.04	--	10.99	--	9.93	--	37.66	--
Russell 1000 TR USD		31.43	--	-4.78	--	21.69	--	12.05	--	0.92	--	13.24	--	33.11	--
iShares Russell 1000 ETF	(3/15)	31.26	30	-4.91	37	21.53	37	11.91	27	0.82	30	13.08	28	32.93	35
MID CAP EQUITY FUNDS															
iShares Russell Mid-Cap ETF	(3/15)	30.31	21	-9.13	30	18.32	27	13.58	61	-2.57	30	13.03	8	34.50	46
Russell Mid Cap TR USD		30.54	--	-9.06	--	18.52	--	13.80	--	-2.44	--	13.22	--	34.76	--
SMALL CAP EQUITY FUNDS															
Undiscovered Managers Behavioral Val R6	(9/16)	23.34	30	-15.20	49	13.53	11	20.97	80	3.52	1	5.83	25	37.72	--
Russell 2000 Value TR USD		22.39	--	-12.86	--	7.84	--	31.74	--	-7.47	--	4.22	--	34.52	--
Victory RS Small Cap Growth R6	(2/19)	38.38	8	-8.66	70	37.05	--	0.88	--	0.09	--	9.36	--	49.22	--
Russell 2000 Growth TR USD		28.48	--	-9.31	--	22.17	--	11.32	--	-1.38	--	5.60	--	43.30	--
iShares Russell 2000 ETF	(3/15)	25.42	35	-11.02	36	14.66	24	21.36	43	-4.33	44	4.94	44	38.85	35
INTERNATIONAL EQUITY FUNDS															
Dodge & Cox International Stock		22.78	7	-17.98	81	23.94	72	8.26	2	-11.35	98	0.08	9	26.31	8
DFA Large Cap International I	(12/18)	22.04	43	-14.14	44	25.37	48	3.16	23	-2.86	72	-5.24	49	20.69	39
MFS International Growth R6		27.31	60	-8.79	9	32.58	31	2.79	6	0.40	52	-5.01	57	13.94	78
MFS Global Equity R6	(3/15)	30.66	17	-9.51	50	24.04	41	7.43	27	-1.34	48	4.08	33	27.93	34
iShares MSCI EAFE ETF	(3/15)	21.94	45	-13.83	37	24.94	58	0.96	47	-0.90	46	-5.04	46	22.62	18
iShares MSCI ACWI ETF	(3/15)	26.70	45	-9.15	45	24.35	39	8.22	21	-2.39	62	4.64	28	22.91	63
American Funds New Perspective R6	(3/15)	30.48	19	-5.56	18	29.30	16	2.19	77	5.63	6	3.56	40	27.23	38
MSCI EAFE NR USD		22.01	--	-13.79	--	25.03	--	1.00	--	-0.81	--	-4.90	--	22.78	--
MSCI ACWI NR USD		26.60	--	-9.41	--	23.97	--	7.86	--	-2.36	--	4.16	--	22.80	--
Hartford Schroders Emerging Mkts Eq F	(11/12)	22.32	30	-15.42	45	40.96	--	10.41	--	-12.68	--	-4.61	--	-2.28	--
MSCI EM PR USD		15.42	--	-16.63	--	34.35	--	8.58	--	-16.96	--	-4.63	--	-4.98	--

Data Source: Morningstar, SEI Investments

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COUNTY OF CONTRA COSTA

For Period Ending December 31, 2019

REIT EQUITY FUNDS															
Fund Name	Inception	2019 Return	Rank	2018 Return	Rank	2017 Return	Rank	2016 Return	Rank	2015 Return	Rank	2014 Return	Rank	2013 Return	Rank
Vanguard Real Estate ETF	(6/17)	28.91	30	-5.95	58	4.95	57	8.53	17	2.37	65	30.29	33	2.42	27
Wilshire US REIT TR USD		25.76	--	-4.84	--	4.18	--	7.24	--	4.23	--	31.78	--	1.86	--
BOND FUNDS															
Fixed Income Core Portfolio		9.20	21	.14	24	3.49	59	3.63	37	0.78	14	4.74	70	-1.40	41
PIMCO Total Return Instl		8.26	73	-0.26	30	5.13	17	2.60	82	0.73	11	4.69	72	-1.92	78
PGIM Total Return Bond R6	(5/16)	11.13	7	-0.63	46	6.71	3	4.83	21	0.09	40	7.25	7	-0.91	42
BBgBarc US Agg Bond TR USD		8.72	--	0.01	--	3.54	--	2.65	--	0.55	--	5.97	--	-2.02	--
ALTERNATIVE FUNDS															
BlackRock Strategic Income Opps K	(7/13)	7.82	36	-0.47	46	4.97	37	3.65	--	-0.30	--	3.89	--	3.28	--
BlackRock Event Driven Equity Instl	(3/19)	7.29	13	5.49	11	7.14	9	4.29	37	-1.56	--	10.40	--	32.30	--
Eaton Vance Glb Macr Absolt Retrn R6	(7/19) (EGMSX)	9.82	18	-3.13	78	4.21	--	4.00	--	2.63	--	3.03	--	-0.24	--
Western Asset Macro Opportunities IS	(2/19)	16.80	1	-5.42	94	15.21	1	6.57	25	1.57	13	8.11	5	--	--
Dynamic Alternatives Index		6.66	--	-4.24	--	5.07	--	2.29	--	-5.19	--	6.39	--	0.54	--

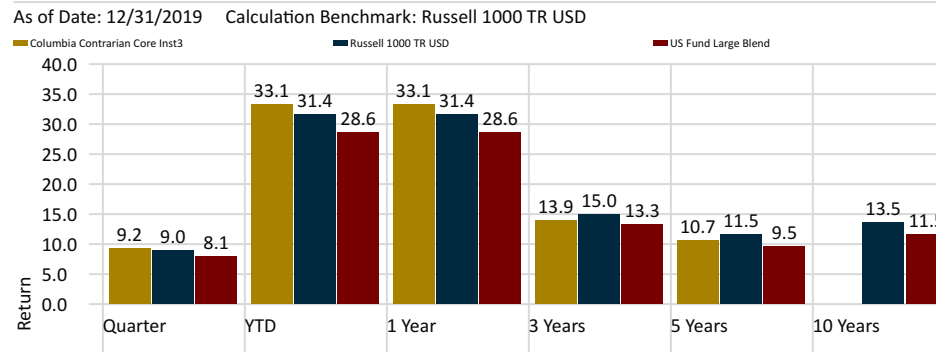
Data Source: Morningstar, SEI Investments

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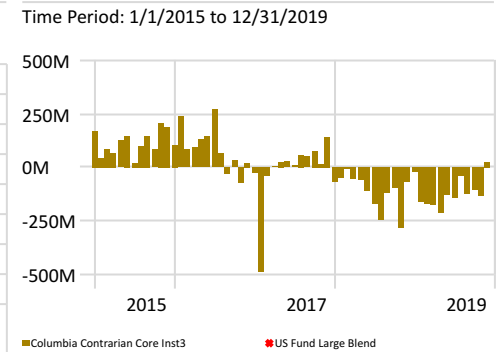
Key Information

Morningstar Category	US Fund Large Blend
Morningstar Rating Overall	★★★
Inception Date	11/8/2012
Expense Ratio	0.64
Fund Size (Mil)	10,332.12
Portfolio Date	11/30/2019
Manager Name	Guy W. Pope

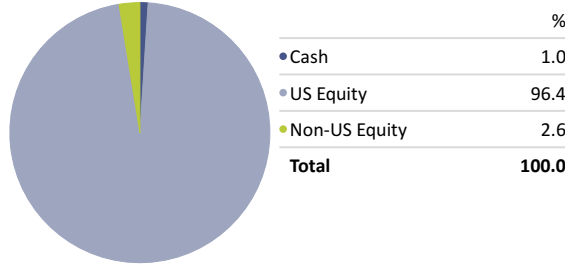
Returns



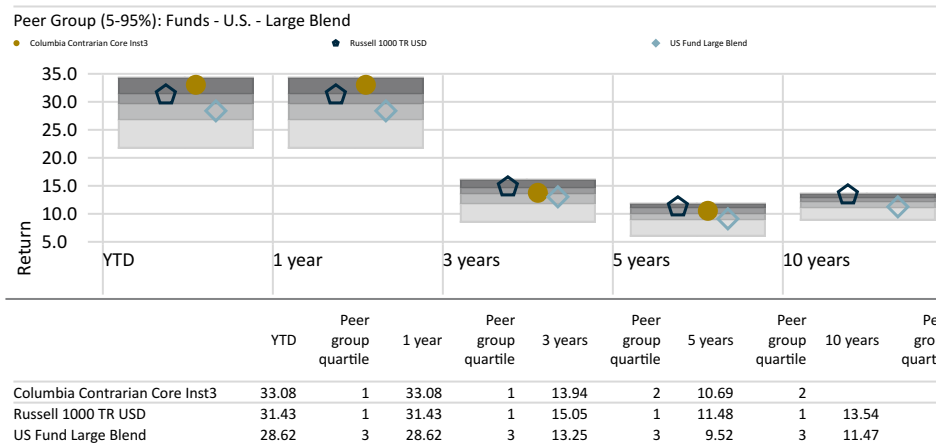
Monthly Estimated Fund-Level Net Flow



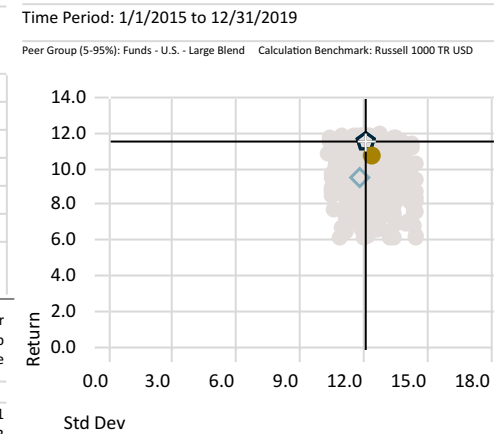
Asset Allocation



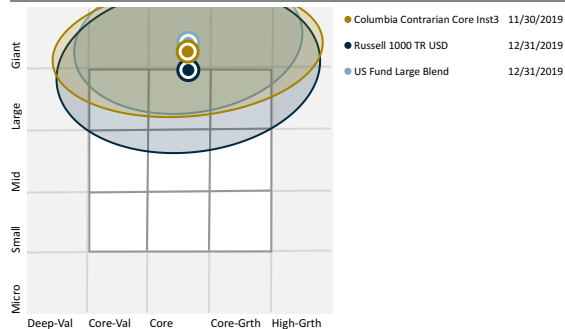
Performance Relative to Peer Group



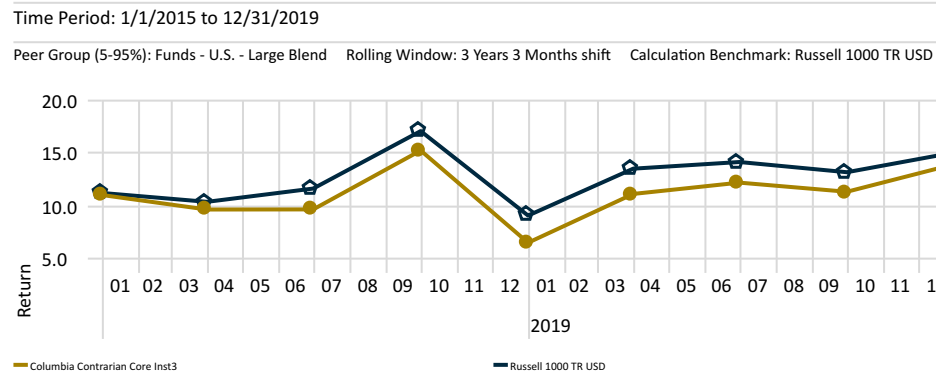
Risk-Reward



Holdings-Based Style Map



Rolling Returns



Columbia Contrarian Core Inst3 - Risk

Time Period: 1/1/2015 to 12/31/2019

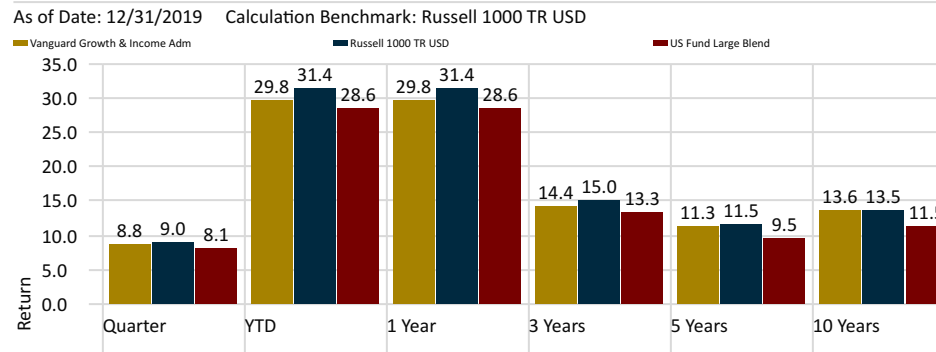
Calculation Benchmark: Russell 1000 TR USD

	Inv	Bmk1
Return	10.69	11.48
Std Dev	12.39	12.07
Downside Deviation	1.68	0.00
Alpha	-0.81	0.00
Beta	1.01	1.00
R2	97.11	100.00
Sharpe Ratio (arith)	0.77	0.86
Tracking Error	2.11	0.00

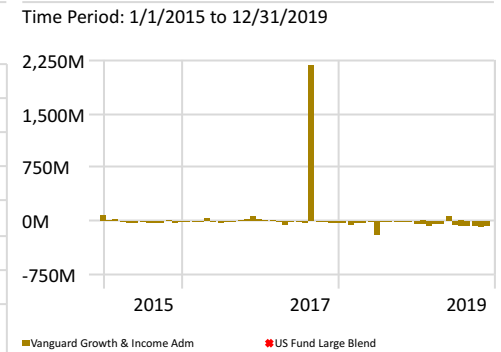
Key Information

Morningstar Category	US Fund Large Blend
Morningstar Rating Overall	★★★★
Inception Date	5/14/2001
Expense Ratio	0.23
Fund Size (Mil)	12,029.59
Portfolio Date	9/30/2019
Manager Name	Multiple

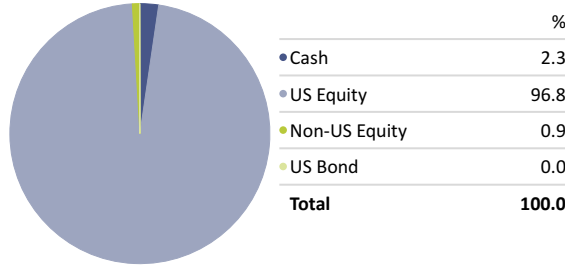
Returns



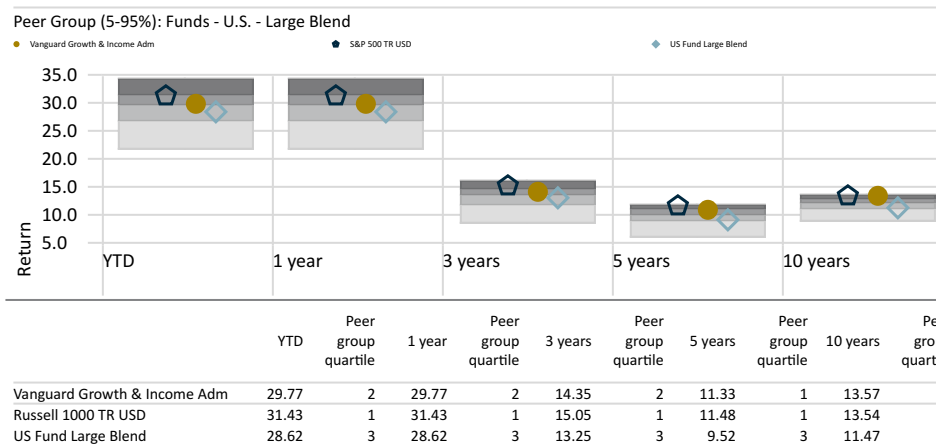
Monthly Estimated Fund-Level Net Flow



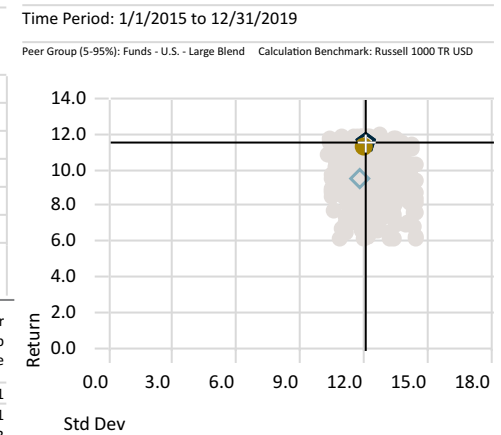
Asset Allocation



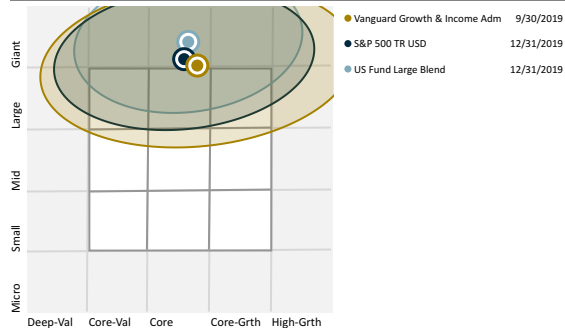
Performance Relative to Peer Group



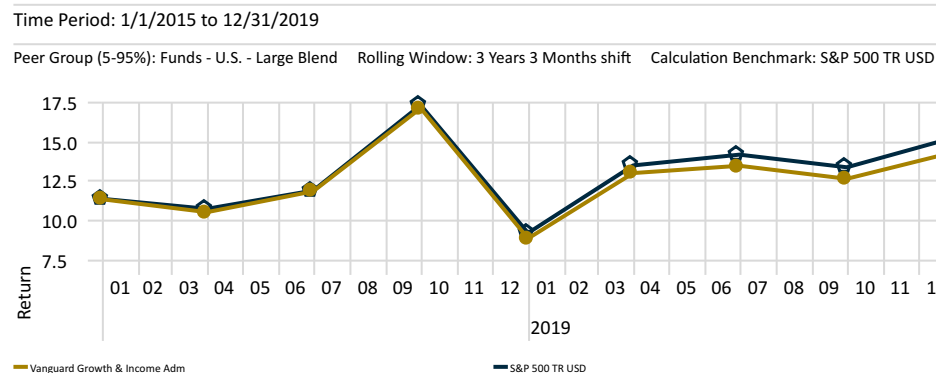
Risk-Reward



Holdings-Based Style Map



Rolling Returns



Vanguard Growth & Income Adm - Risk

Time Period: 1/1/2015 to 12/31/2019

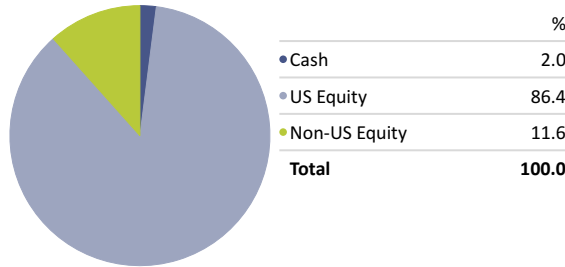
Calculation Benchmark: S&P 500 TR USD

	Inv	Bmk1
Return	11.33	11.70
Std Dev	11.94	11.98
Downside Deviation	0.69	0.00
Alpha	-0.26	0.00
Beta	0.99	1.00
R2	99.34	100.00
Sharpe Ratio (arith)	0.86	0.88
Tracking Error	0.97	0.00

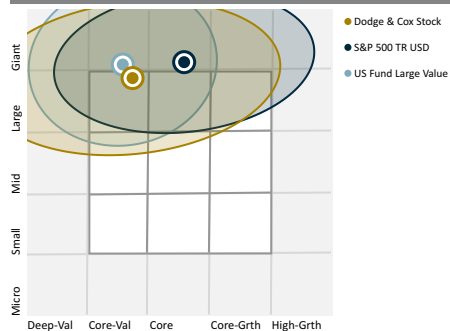
Key Information

Morningstar Category	US Fund Large Value
Morningstar Rating Overall	★★★★
Inception Date	1/4/1965
Expense Ratio	0.52
Fund Size (Mil)	74,585.37
Portfolio Date	9/30/2019
Manager Name	Multiple

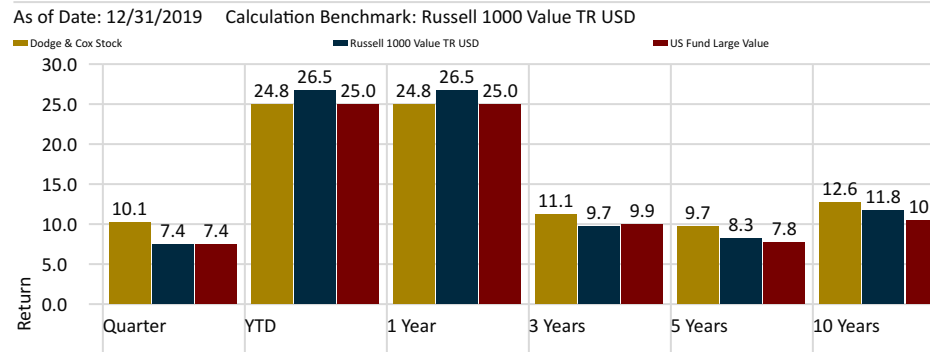
Asset Allocation



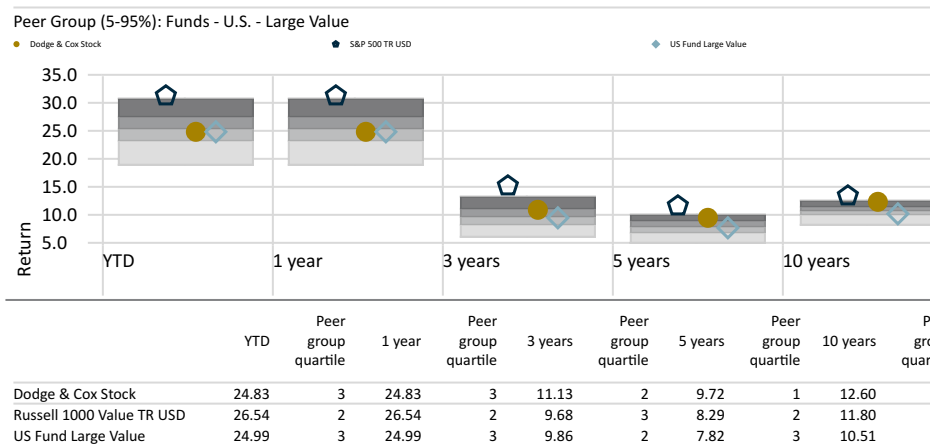
Holdings-Based Style Map



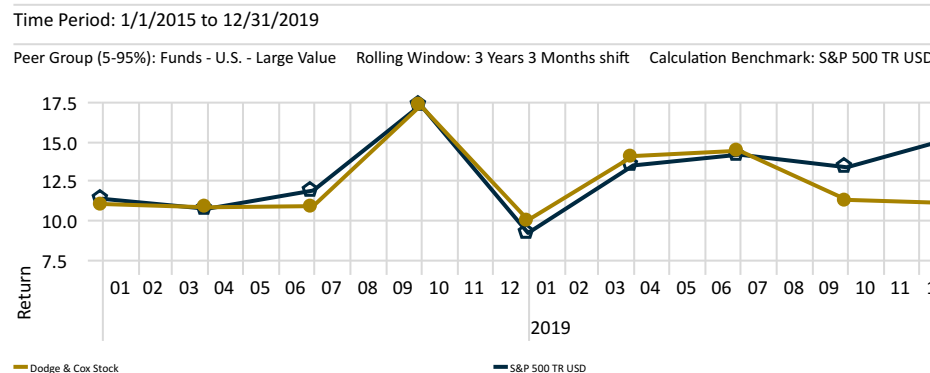
Returns



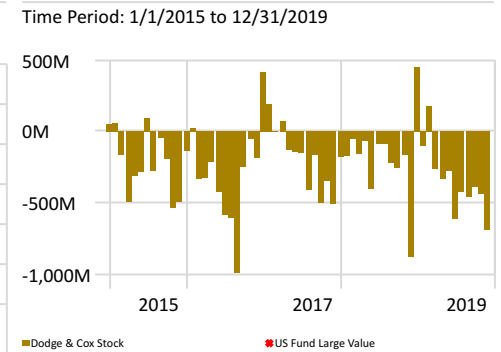
Performance Relative to Peer Group



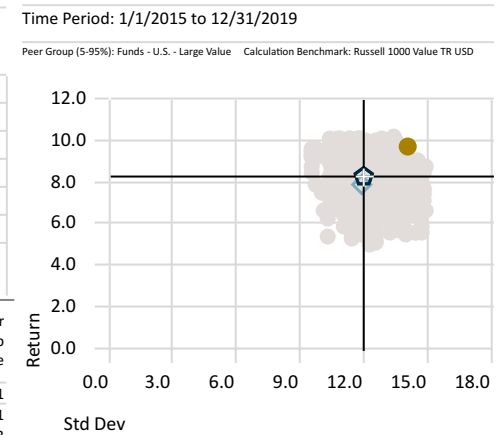
Rolling Returns



Monthly Estimated Fund-Level Net Flow



Risk-Reward



Dodge & Cox Stock - Risk

Time Period: 1/1/2015 to 12/31/2019

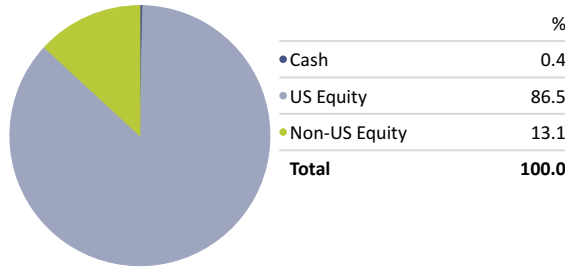
Calculation Benchmark: S&P 500 TR USD

	Inv	Bmk1
Return	9.72	11.70
Std Dev	14.05	11.98
Downside Deviation	3.60	0.00
Alpha	-2.58	0.00
Beta	1.10	1.00
R2	87.40	100.00
Sharpe Ratio (arith)	0.61	0.88
Tracking Error	5.12	0.00

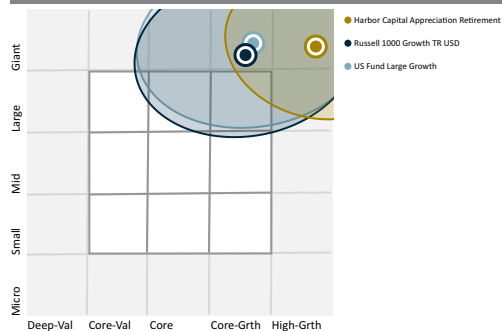
Key Information

Morningstar Category	US Fund Large Growth
Morningstar Rating Overall	★★★★
Inception Date	3/1/2016
Expense Ratio	0.58
Fund Size (Mil)	32,858.72
Portfolio Date	9/30/2019
Manager Name	Multiple

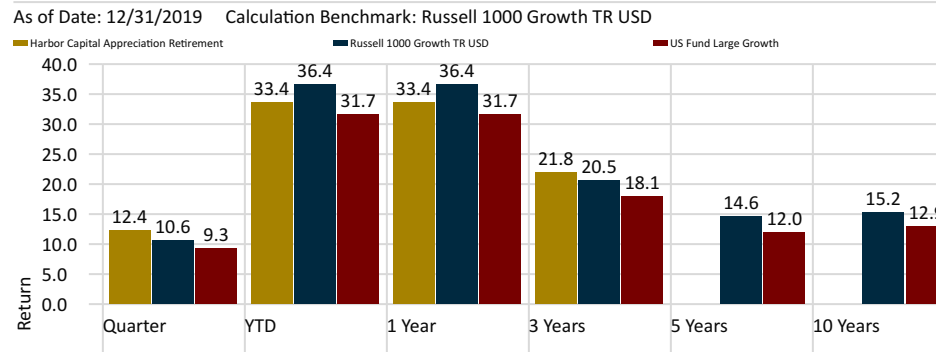
Asset Allocation



Holdings-Based Style Map



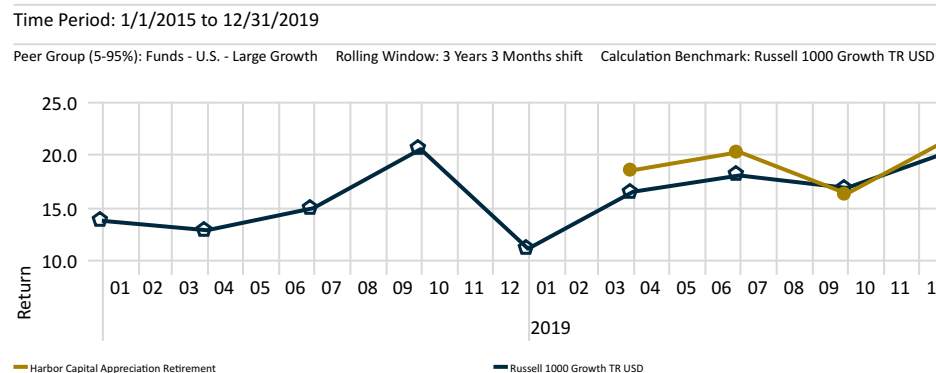
Returns



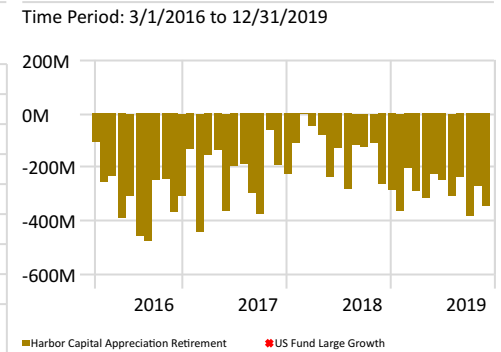
Performance Relative to Peer Group



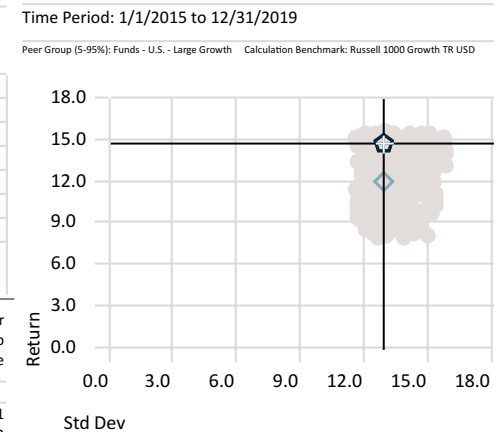
Rolling Returns



Monthly Estimated Fund-Level Net Flow



Risk-Reward



Harbor Capital Appreciation Retirement - Risk

Time Period: 1/1/2015 to 12/31/2019

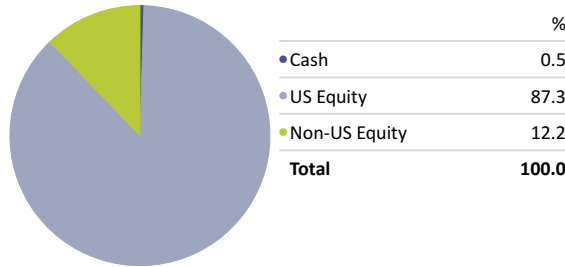
Calculation Benchmark: Russell 1000 Growth TR USD

	Inv	Bmk1
Return		14.63
Std Dev		12.92
Downside Deviation		0.00
Alpha		0.00
Beta		1.00
R2		100.00
Sharpe Ratio (arith)		1.05
Tracking Error		0.00

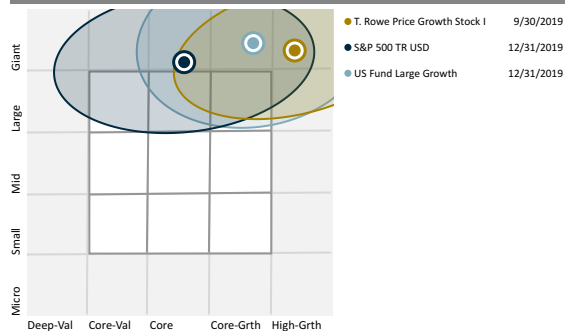
Key Information

Morningstar Category	US Fund Large Growth
Morningstar Rating Overall	★★★★
Inception Date	8/28/2015
Expense Ratio	0.52
Fund Size (Mil)	59,494.08
Portfolio Date	9/30/2019
Manager Name	Joseph B. Fath

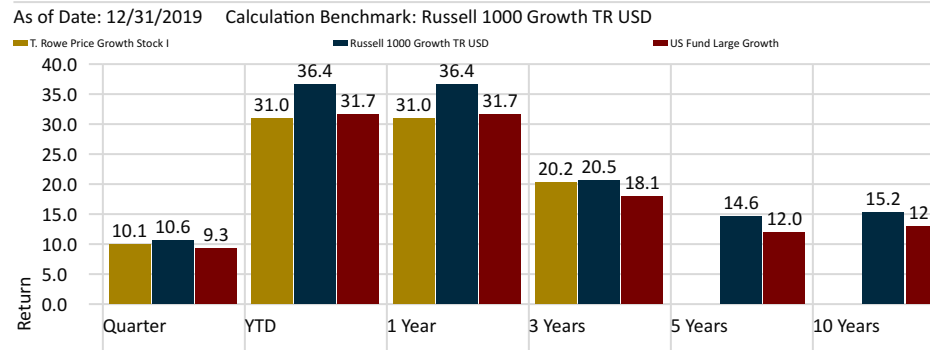
Asset Allocation



Holdings-Based Style Map



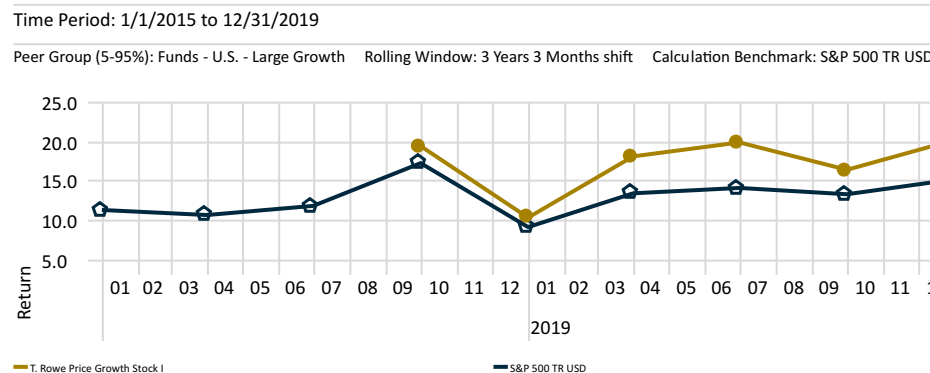
Returns



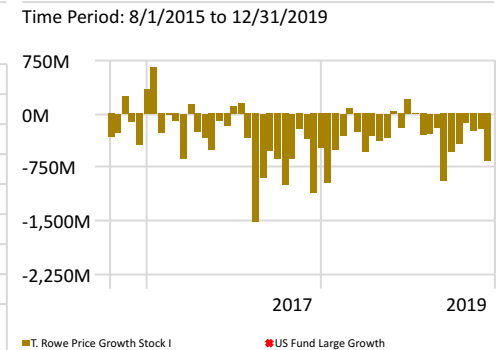
Performance Relative to Peer Group



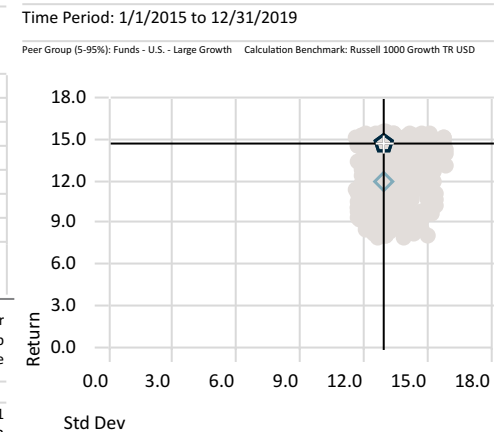
Rolling Returns



Monthly Estimated Fund-Level Net Flow



Risk-Reward



T. Rowe Price Growth Stock I - Risk

Time Period: 1/1/2015 to 12/31/2019

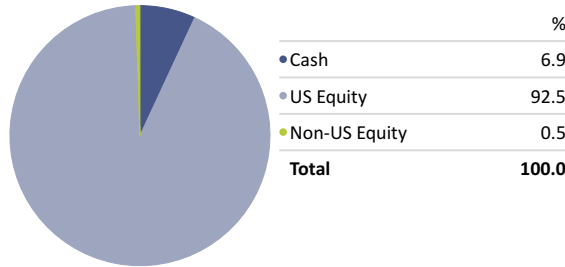
Calculation Benchmark: S&P 500 TR USD

	Inv	Bmk1
Return		11.70
Std Dev		11.98
Downside Deviation		0.00
Alpha		0.00
Beta		1.00
R2		100.00
Sharpe Ratio (arith)		0.88
Tracking Error		0.00

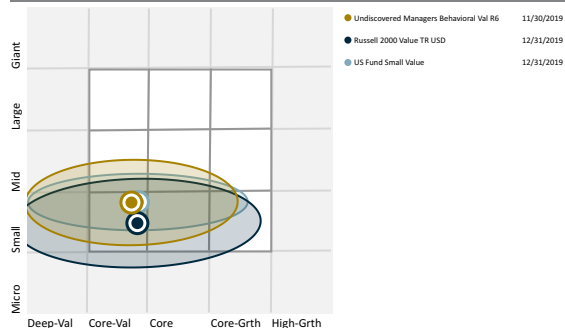
Key Information

Morningstar Category	US Fund Small Value
Morningstar Rating Overall	★★★★★
Inception Date	4/30/2013
Expense Ratio	0.80
Fund Size (Mil)	5,281.94
Portfolio Date	11/30/2019
Manager Name	Multiple

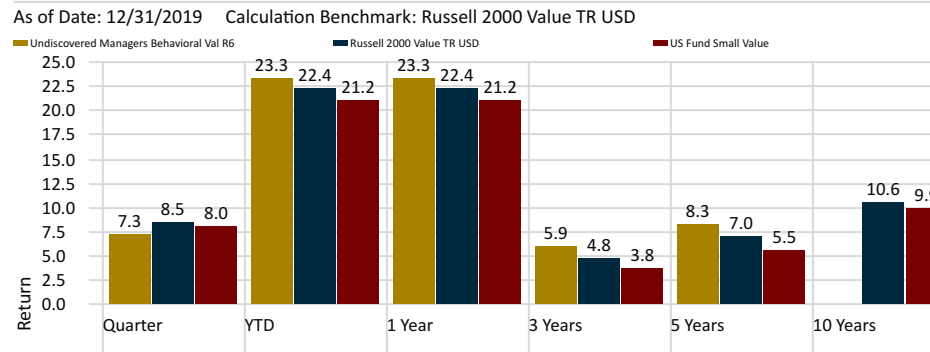
Asset Allocation



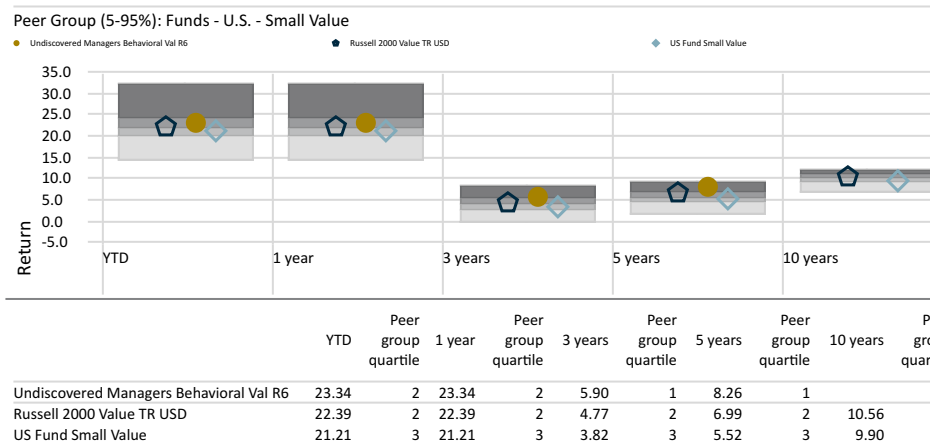
Holdings-Based Style Map



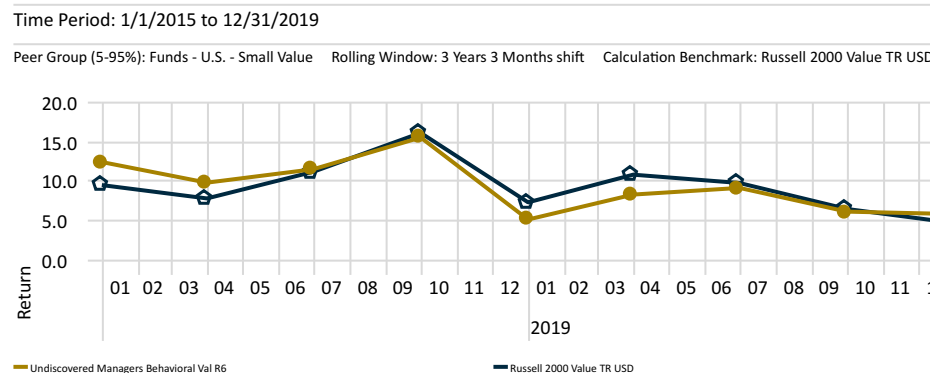
Returns



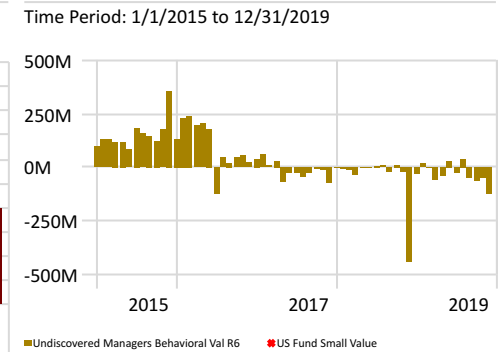
Performance Relative to Peer Group



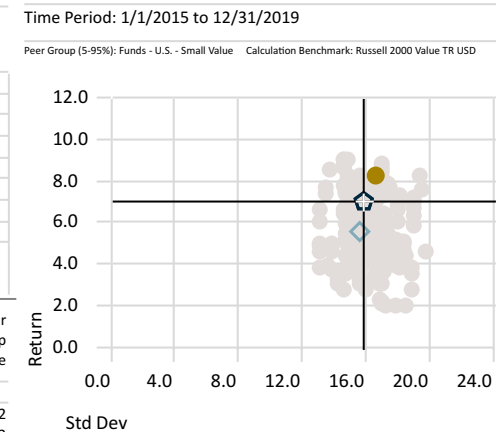
Rolling Returns



Monthly Estimated Fund-Level Net Flow



Risk-Reward



Undiscovered Managers Behavioral Val R6 - Risk

Time Period: 1/1/2015 to 12/31/2019

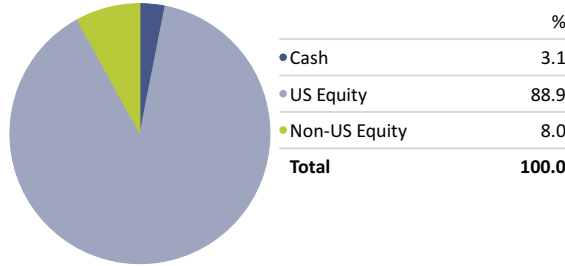
Calculation Benchmark: Russell 2000 Value TR USD

	Inv	Bmk1
Return	8.26	6.99
Std Dev	16.55	15.88
Downside Deviation	3.84	0.00
Alpha	1.39	0.00
Beta	0.99	1.00
R2	89.93	100.00
Sharpe Ratio (arith)	0.43	0.37
Tracking Error	5.26	0.00

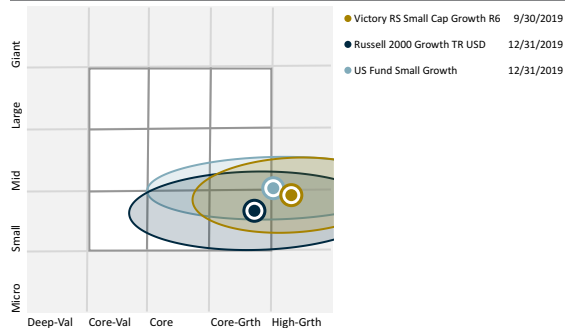
Key Information

Morningstar Category	US Fund Small Growth
Morningstar Rating Overall	
Inception Date	7/12/2017
Expense Ratio	1.06
Fund Size (Mil)	2,334.82
Portfolio Date	9/30/2019
Manager Name	Multiple

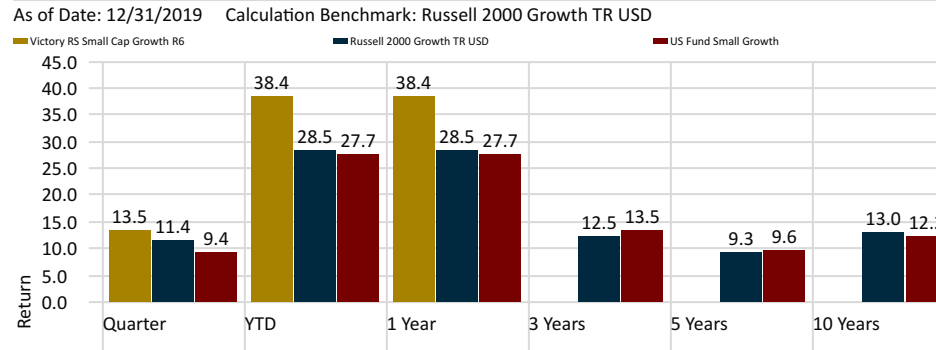
Asset Allocation



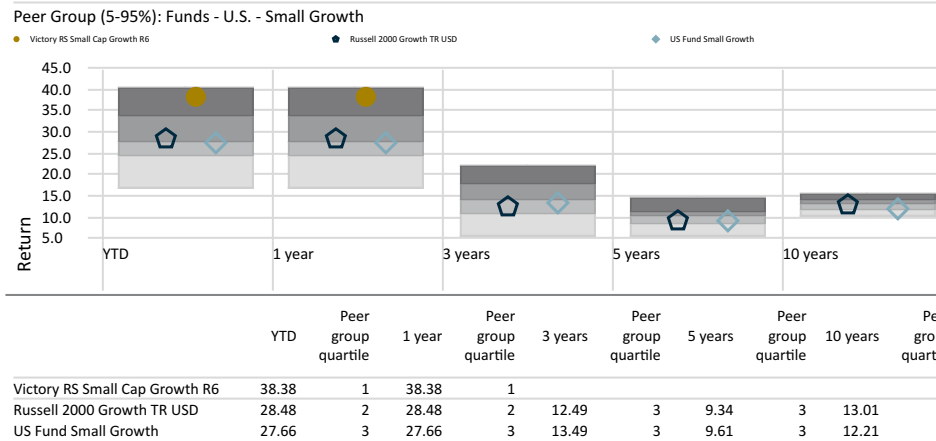
Holdings-Based Style Map



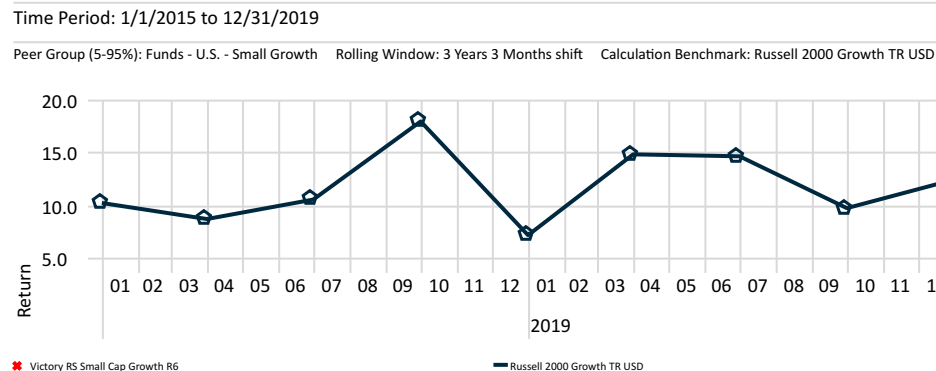
Returns



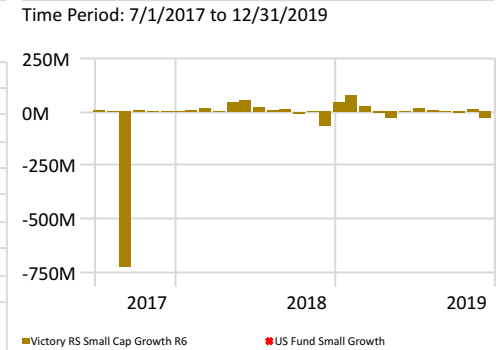
Performance Relative to Peer Group



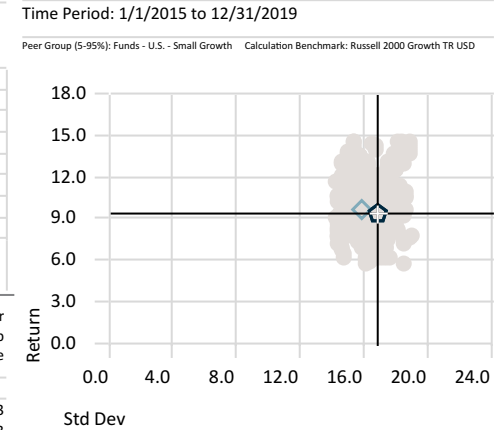
Rolling Returns



Monthly Estimated Fund-Level Net Flow



Risk-Reward



Victory RS Small Cap Growth R6 - Risk

Time Period: 1/1/2015 to 12/31/2019

Calculation Benchmark: Russell 2000 Growth TR USD

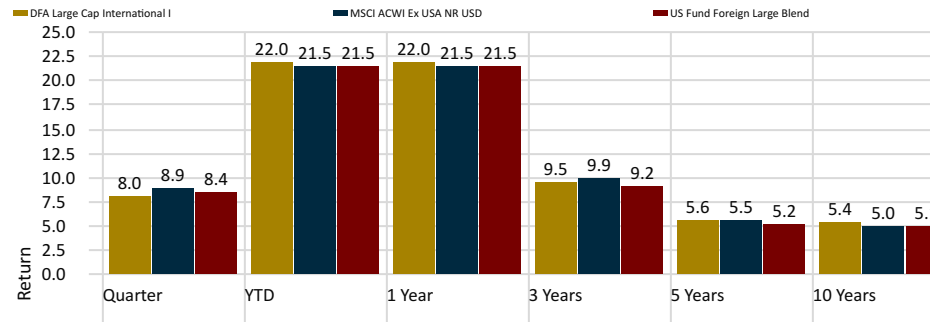
	Inv	Bmk1
Return		9.34
Std Dev		16.90
Downside Deviation		0.00
Alpha		0.00
Beta		1.00
R2		100.00
Sharpe Ratio (arith)		0.49
Tracking Error		0.00

Key Information

Morningstar Category	US Fund Foreign Large Blend
Morningstar Rating Overall	★★★
Inception Date	7/17/1991
Expense Ratio	0.23
Fund Size (Mil)	5,476.82
Portfolio Date	11/30/2019
Manager Name	Multiple

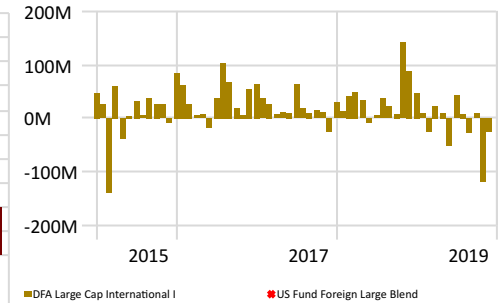
Returns

As of Date: 12/31/2019 Calculation Benchmark: MSCI ACWI Ex USA NR USD

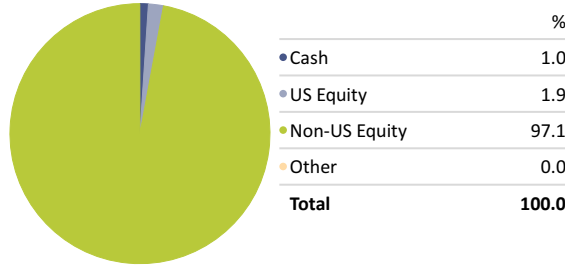


Monthly Estimated Fund-Level Net Flow

Time Period: 1/1/2015 to 12/31/2019

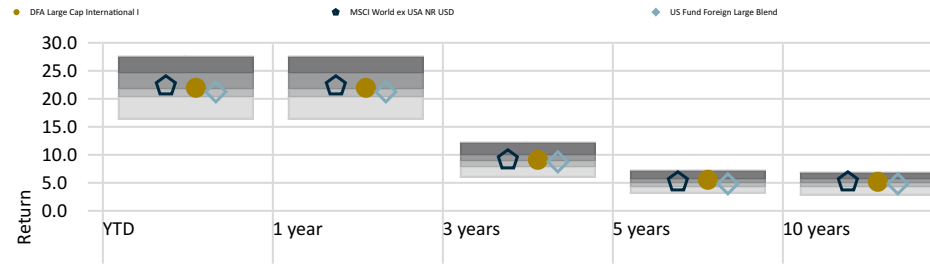


Asset Allocation



Performance Relative to Peer Group

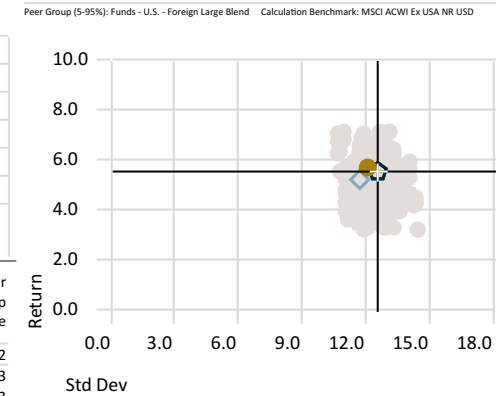
Peer Group (5-95%): Funds - U.S. - Foreign Large Blend



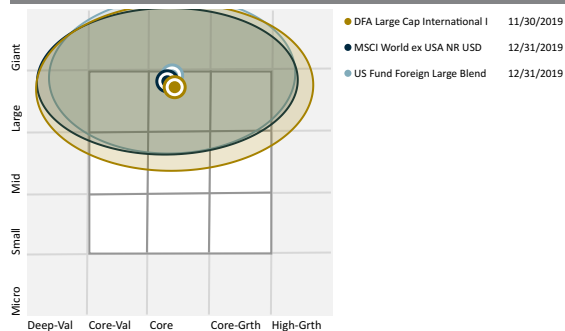
	YTD	Peer group quartile	1 year	Peer group quartile	3 years	Peer group quartile	5 years	Peer group quartile	10 years	Peer group quartile
DFA Large Cap International I	22.04	2	22.04	2	9.52	2	5.65	2	5.44	2
MSCI ACWI Ex USA NR USD	21.51	3	21.51	3	9.87	2	5.51	2	4.97	3
US Fund Foreign Large Blend	21.46	3	21.46	3	9.17	2	5.20	3	5.05	3

Risk-Reward

Time Period: 1/1/2015 to 12/31/2019



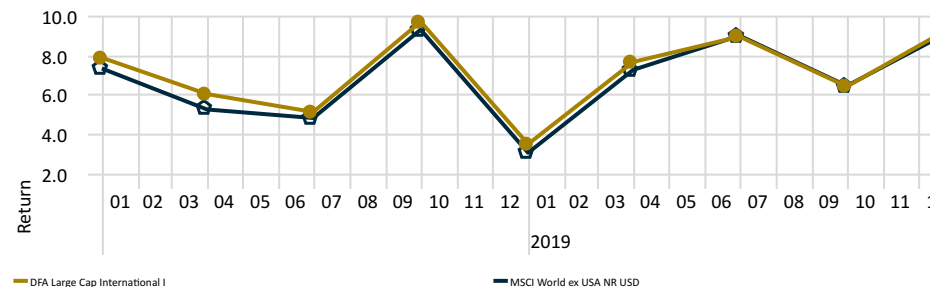
Holdings-Based Style Map



Rolling Returns

Time Period: 1/1/2015 to 12/31/2019

Peer Group (5-95%): Funds - U.S. - Foreign Large Blend Rolling Window: 3 Years 3 Months shift Calculation Benchmark: MSCI World ex USA NR USD



DFA Large Cap International I - Risk

Time Period: 1/1/2015 to 12/31/2019

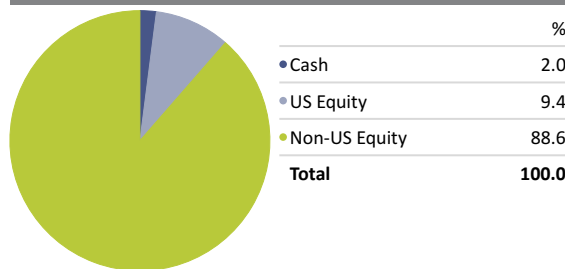
Calculation Benchmark: MSCI World ex USA NR USD

	Inv	Bmk1
Return	5.65	5.42
Std Dev	12.05	12.15
Downside Deviation	1.26	0.00
Alpha	0.30	0.00
Beta	0.98	1.00
R2	97.92	100.00
Sharpe Ratio (arith)	0.38	0.36
Tracking Error	1.75	0.00

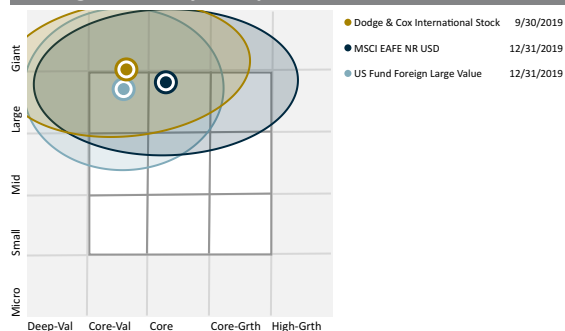
Key Information

Morningstar Category	US Fund Foreign Large Value
Morningstar Rating Overall	★★★
Inception Date	5/1/2001
Expense Ratio	0.63
Fund Size (Mil)	50,227.95
Portfolio Date	9/30/2019
Manager Name	Multiple

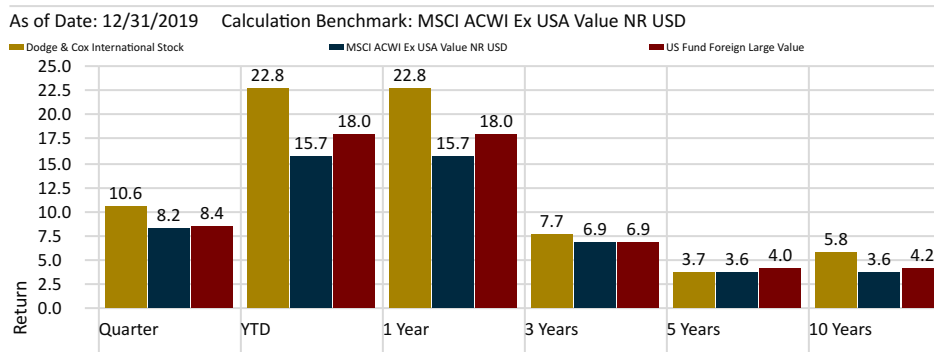
Asset Allocation



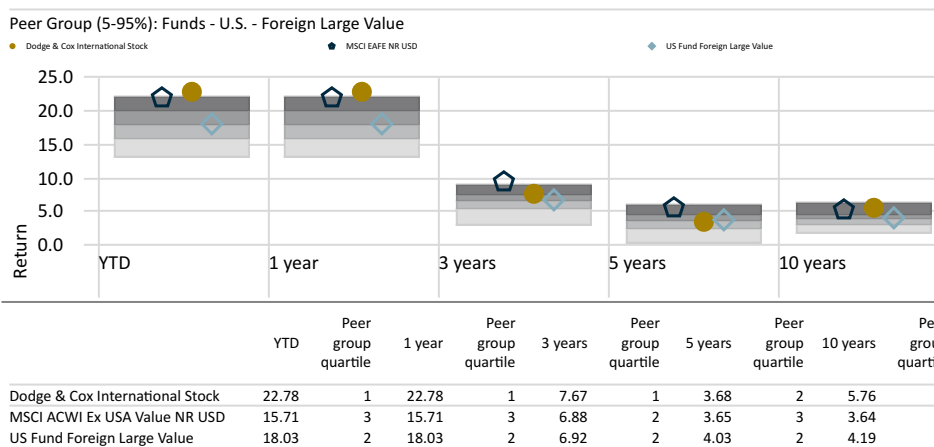
Holdings-Based Style Map



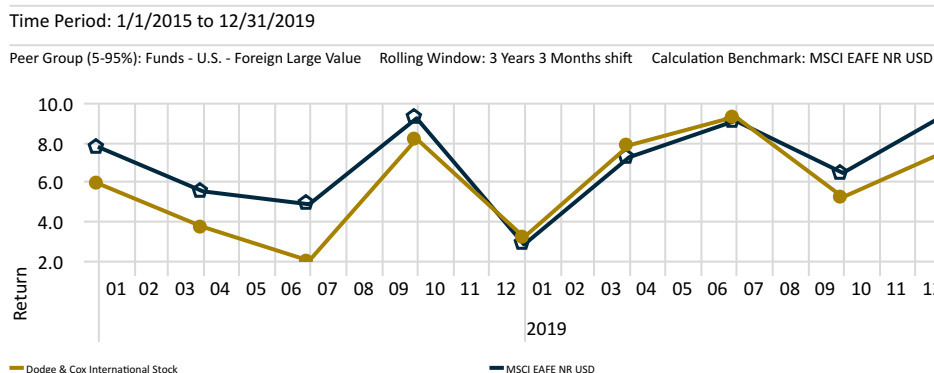
Returns



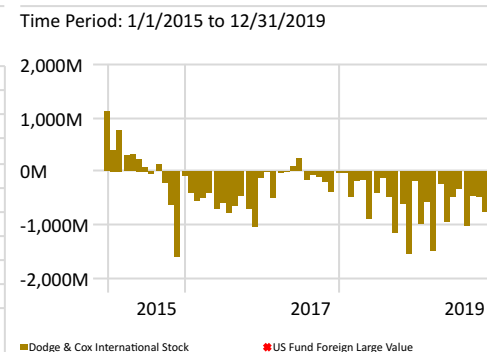
Performance Relative to Peer Group



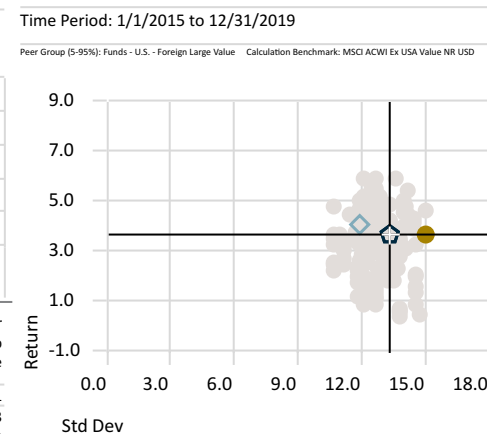
Rolling Returns



Monthly Estimated Fund-Level Net Flow



Risk-Reward



Dodge & Cox International Stock - Risk

Time Period: 1/1/2015 to 12/31/2019

Calculation Benchmark: MSCI EAFE NR USD

	Inv	Bmk1
Return	3.68	5.67
Std Dev	14.96	12.23
Downside Deviation	3.94	0.00
Alpha	-2.32	0.00
Beta	1.15	1.00
R2	88.50	100.00
Sharpe Ratio (arith)	0.17	0.37
Tracking Error	5.40	0.00

Key Information

Morningstar Category: US Fund Foreign Large Growth

Morningstar Rating Overall: ★★★★★

Inception Date: 5/1/2006

Expense Ratio: 0.77

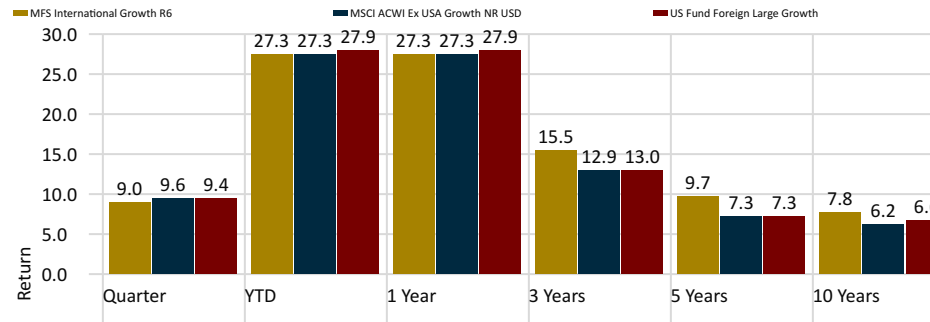
Fund Size (Mil): 11,338.58

Portfolio Date: 11/30/2019

Manager Name: Multiple

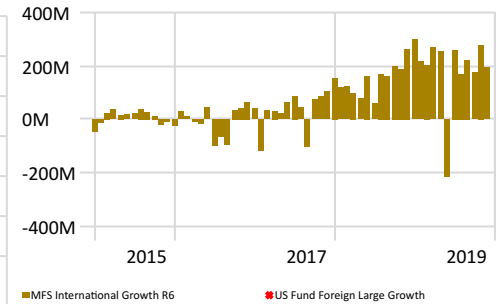
Returns

As of Date: 12/31/2019 Calculation Benchmark: MSCI ACWI Ex USA Growth NR USD

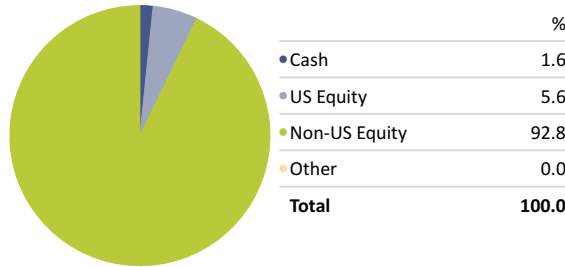


Monthly Estimated Fund-Level Net Flow

Time Period: 1/1/2015 to 12/31/2019

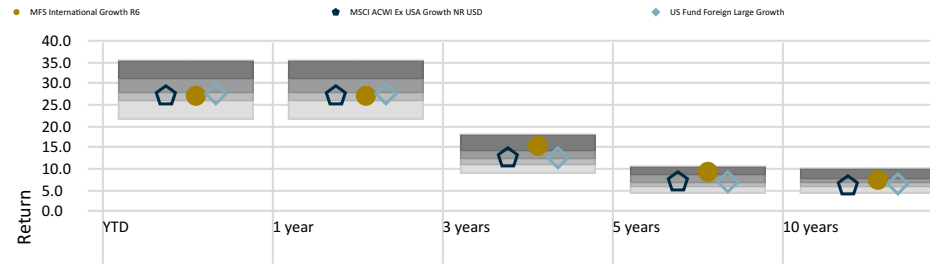


Asset Allocation



Performance Relative to Peer Group

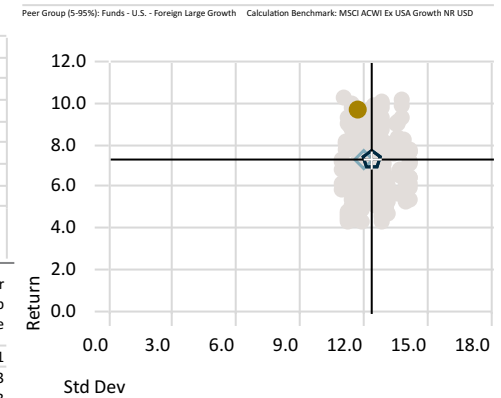
Peer Group (5-95%): Funds - U.S. - Foreign Large Growth



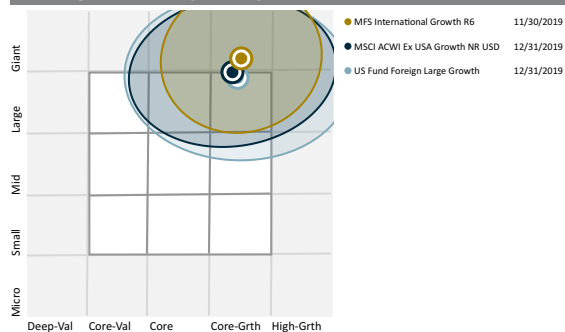
	YTD	Peer group quartile	1 year	Peer group quartile	3 years	Peer group quartile	5 years	Peer group quartile	10 years	Peer group quartile
MFS International Growth R6	27.31	3	27.31	3	15.47	1	9.70	1	7.79	1
MSCI ACWI Ex USA Growth NR USD	27.34	3	27.34	3	12.89	2	7.30	2	6.24	3
US Fund Foreign Large Growth	27.94	2	27.94	2	12.96	2	7.26	2	6.60	3

Risk-Reward

Time Period: 1/1/2015 to 12/31/2019



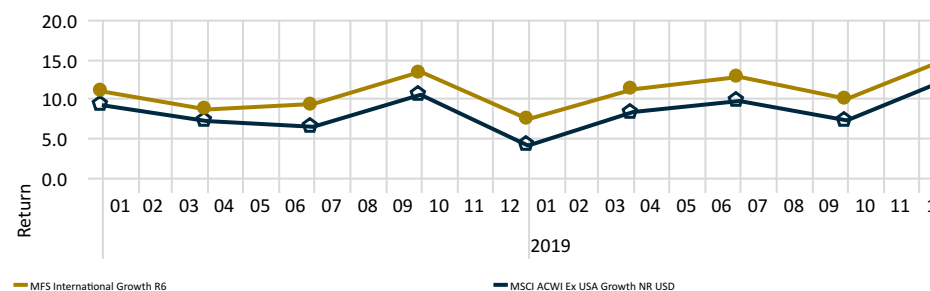
Holdings-Based Style Map



Rolling Returns

Time Period: 1/1/2015 to 12/31/2019

Peer Group (5-95%): Funds - U.S. - Foreign Large Growth Rolling Window: 3 Years 3 Months shift Calculation Benchmark: MSCI ACWI Ex USA Growth NR USD



MFS International Growth R6 - Risk

Time Period: 1/1/2015 to 12/31/2019

Calculation Benchmark: MSCI ACWI Ex USA Growth NR USD

	Inv	Bmk1
Return	9.70	7.30
Std Dev	11.65	12.37
Downside Deviation	1.71	0.00
Alpha	2.71	0.00
Beta	0.92	1.00
R2	94.52	100.00
Sharpe Ratio (arith)	0.74	0.50
Tracking Error	2.92	0.00

Key Information

Morningstar Category US Fund Diversified Emerging Mkts

Morningstar Rating Overall

Inception Date 2/28/2017

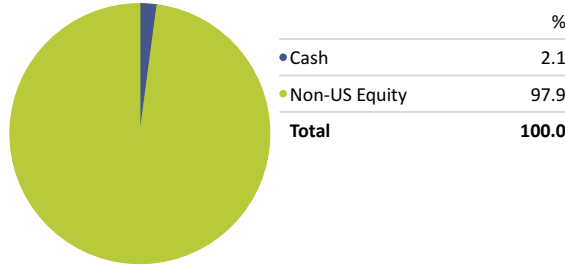
Expense Ratio 1.10

Fund Size (Mil) 4,116.51

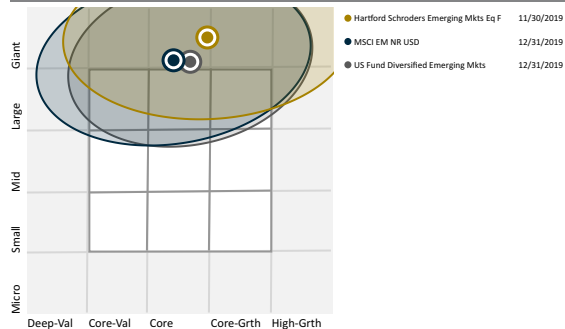
Portfolio Date 11/30/2019

Manager Name Multiple

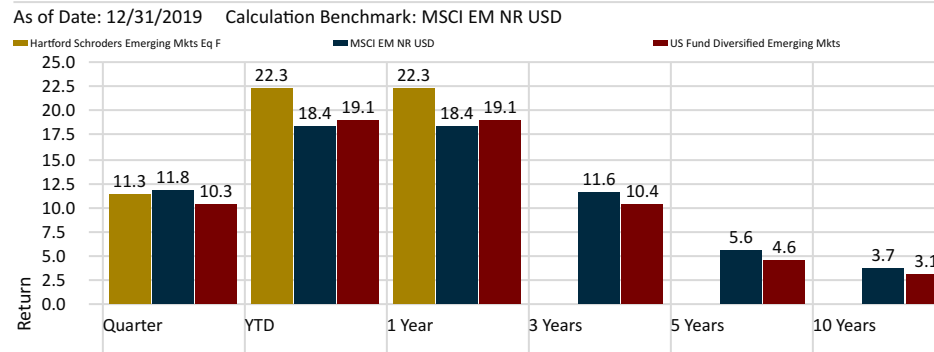
Asset Allocation



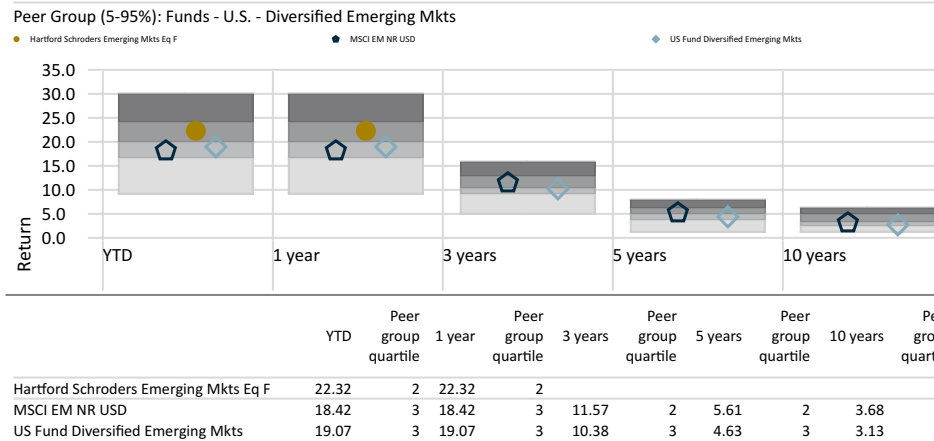
Holdings-Based Style Map



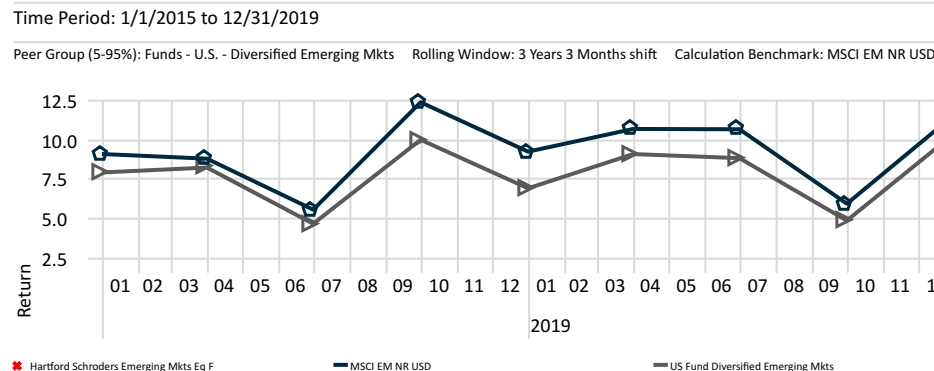
Returns



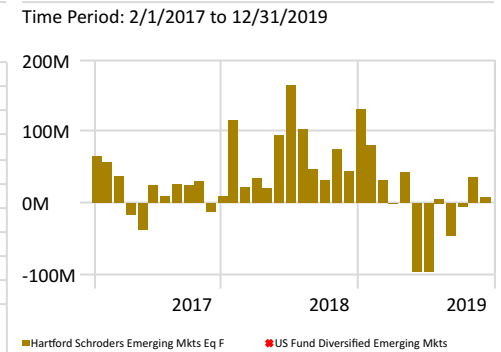
Performance Relative to Peer Group



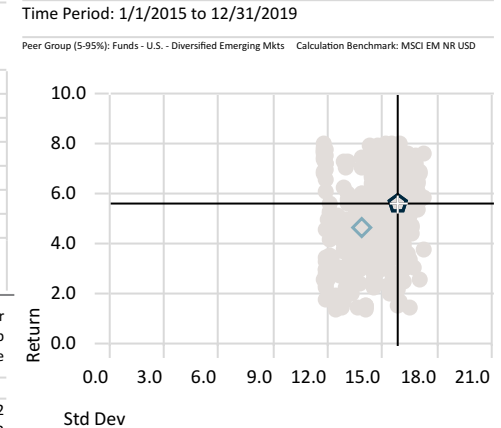
Rolling Returns



Monthly Estimated Fund-Level Net Flow



Risk-Reward



Hartford Schroders Emerging Mkts Eq F - Risk

Time Period: 1/1/2015 to 12/31/2019

Calculation Benchmark: MSCI EM NR USD

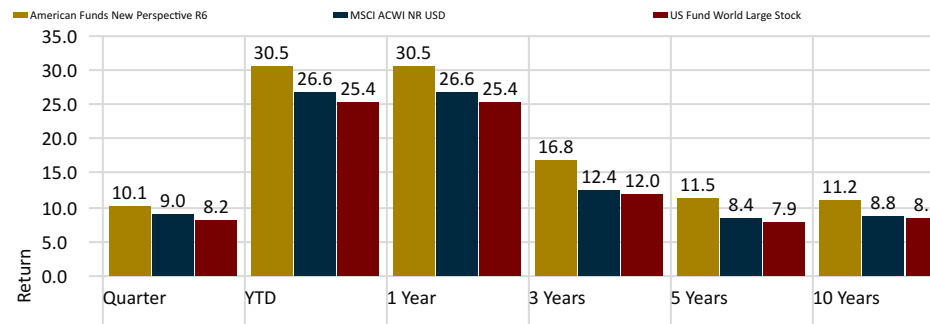
	Inv	Bmk1
Return		5.61
Std Dev		15.79
Downside Deviation		0.00
Alpha		0.00
Beta		1.00
R2		100.00
Sharpe Ratio (arith)		0.29
Tracking Error		0.00

Key Information

Morningstar Category	US Fund World Large Stock
Morningstar Rating Overall	★★★★★
Inception Date	5/1/2009
Expense Ratio	0.42
Fund Size (Mil)	100,504.52
Portfolio Date	12/31/2019
Manager Name	Multiple

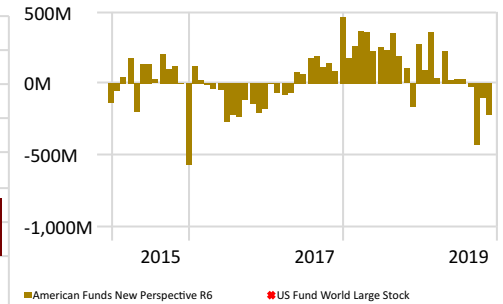
Returns

As of Date: 12/31/2019 Calculation Benchmark: MSCI ACWI NR USD

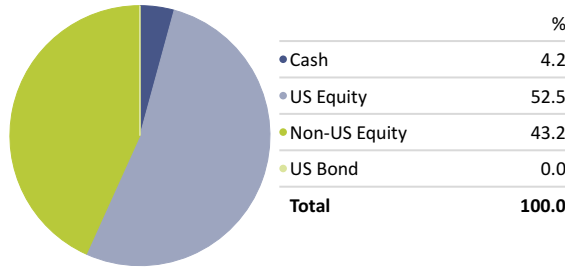


Monthly Estimated Fund-Level Net Flow

Time Period: 1/1/2015 to 12/31/2019

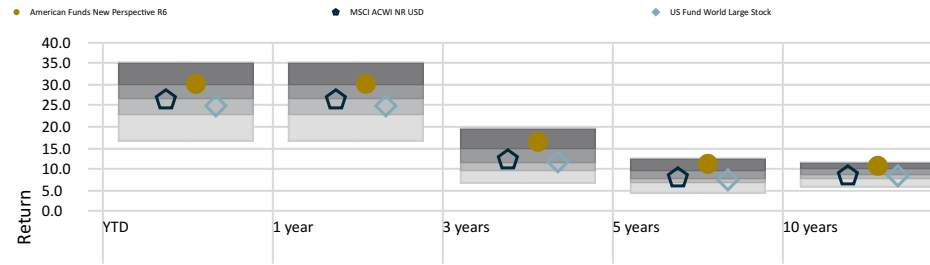


Asset Allocation



Performance Relative to Peer Group

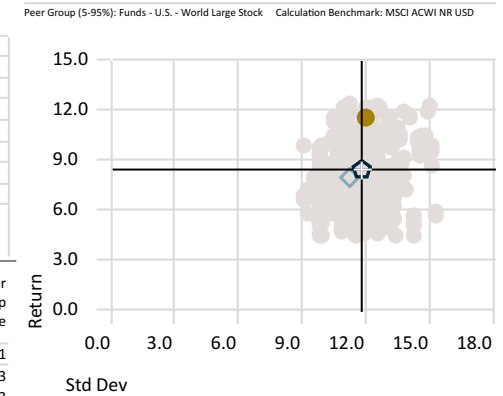
Peer Group (5-95%): Funds - U.S. - World Large Stock



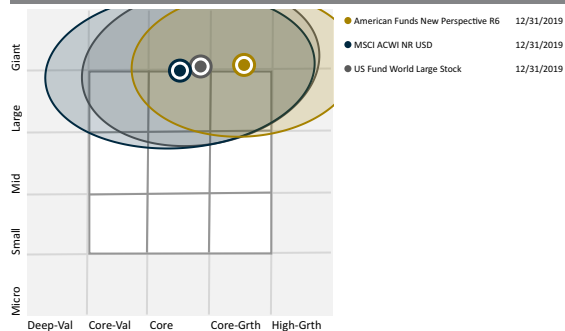
	YTD	Peer group quartile	1 year	Peer group quartile	3 years	Peer group quartile	5 years	Peer group quartile	10 years	Peer group quartile
American Funds New Perspective R6	30.48	1	30.48	1	16.79	1	11.45	1	11.15	1
MSCI ACWI NR USD	26.60	2	26.60	2	12.44	2	8.41	2	8.79	3
US Fund World Large Stock	25.36	3	25.36	3	11.96	2	7.87	3	8.47	3

Risk-Reward

Time Period: 1/1/2015 to 12/31/2019



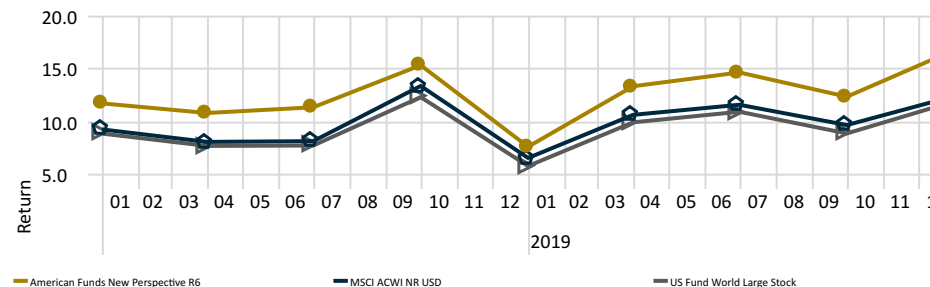
Holdings-Based Style Map



Rolling Returns

Time Period: 1/1/2015 to 12/31/2019

Peer Group (5-95%): Funds - U.S. - World Large Stock Rolling Window: 3 Years 3 Months shift Calculation Benchmark: MSCI ACWI NR USD



American Funds New Perspective R6 - Risk

Time Period: 1/1/2015 to 12/31/2019

Calculation Benchmark: MSCI ACWI NR USD

	Inv	Bmk1
Return	11.45	8.41
Std Dev	11.95	11.78
Downside Deviation	1.77	0.00
Alpha	2.95	0.00
Beta	0.98	1.00
R2	93.75	100.00
Sharpe Ratio (arith)	0.87	0.62
Tracking Error	3.00	0.00

Key Information

Morningstar Category: US Fund World Large Stock

Morningstar Rating Overall: ★★★★★

Inception Date: 6/1/2012

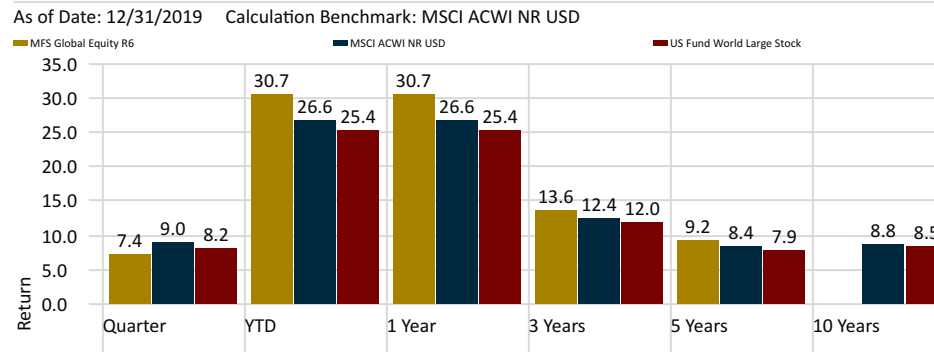
Expense Ratio: 0.81

Fund Size (Mil): 3,180.06

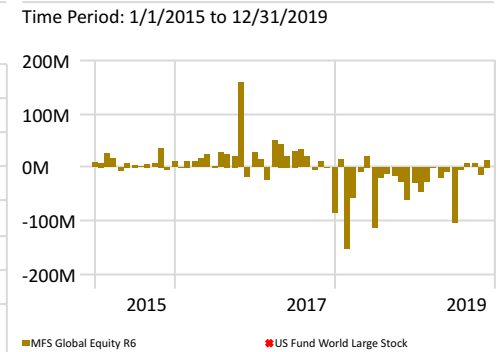
Portfolio Date: 11/30/2019

Manager Name: Multiple

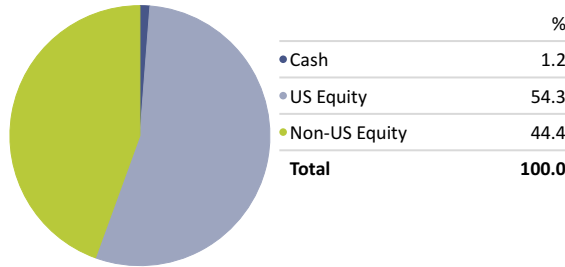
Returns



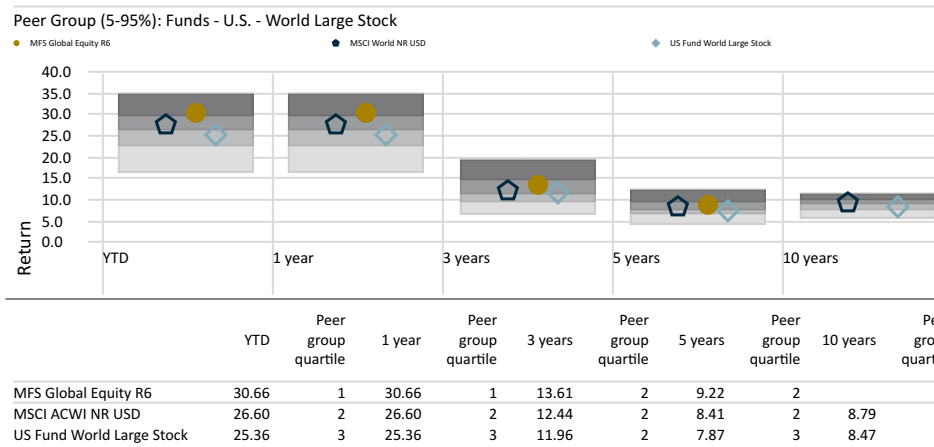
Monthly Estimated Fund-Level Net Flow



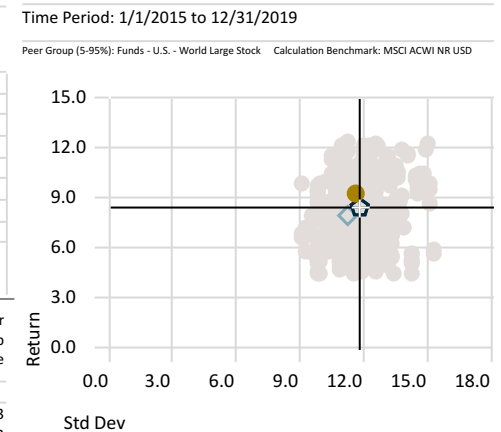
Asset Allocation



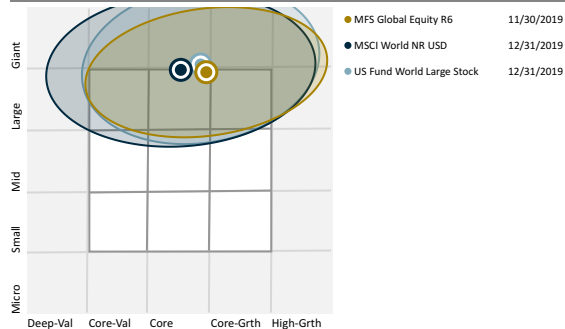
Performance Relative to Peer Group



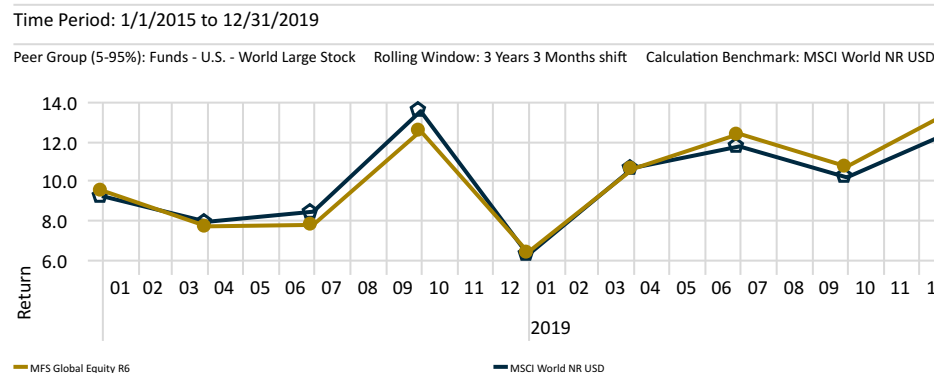
Risk-Reward



Holdings-Based Style Map



Rolling Returns



MFS Global Equity R6 - Risk

Time Period: 1/1/2015 to 12/31/2019

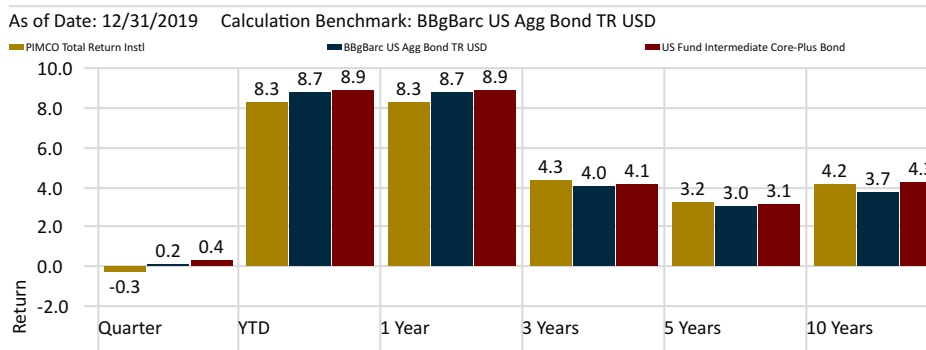
Calculation Benchmark: MSCI World NR USD

	Inv	Bmk1
Return	9.22	8.74
Std Dev	11.60	11.68
Downside Deviation	1.72	0.00
Alpha	0.71	0.00
Beta	0.97	1.00
R2	94.72	100.00
Sharpe Ratio (arith)	0.70	0.65
Tracking Error	2.69	0.00

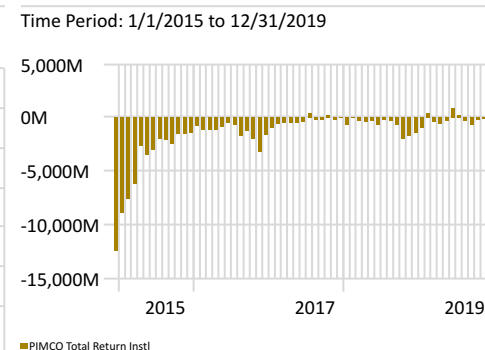
Key Information

Morningstar Category	US Fund Intermediate Core-Plus Bond
Morningstar Rating Overall	★★★
Inception Date	5/11/1987
Expense Ratio	0.71
Fund Size (Mil)	67,096.16
Portfolio Date	9/30/2019
Manager Name	Multiple

Returns

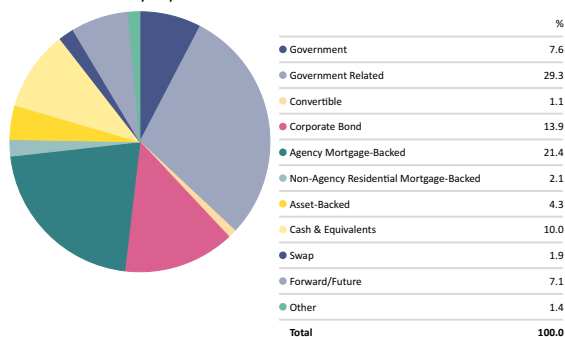


Monthly Estimated Fund-Level Net Flow

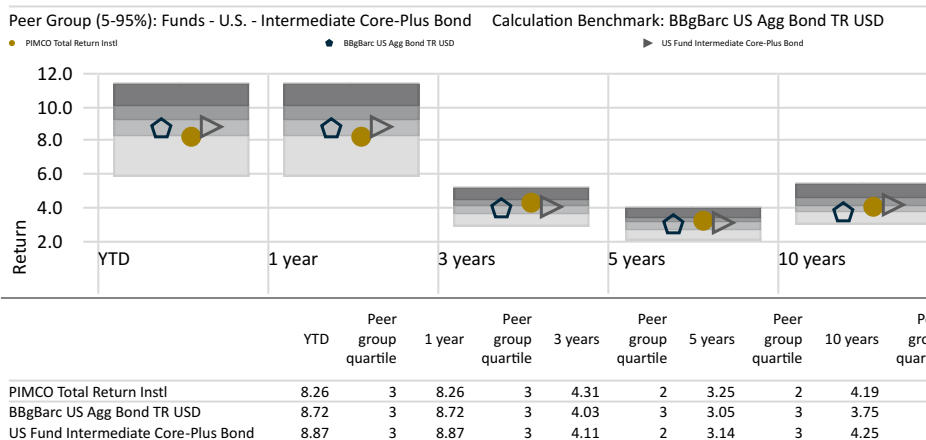


PIMCO Total Return Instl - Fixed-Inc Sectors (Morningstar)

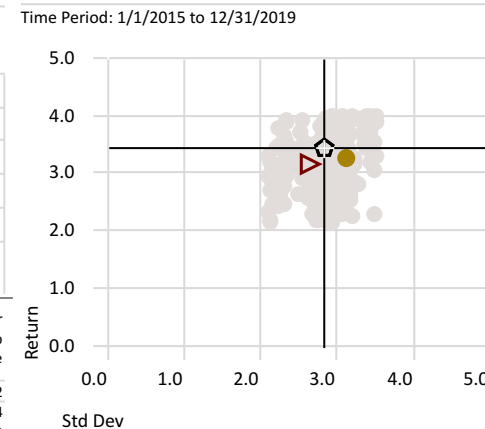
Portfolio Date: 9/30/2019



Performance Relative to Peer Group



Risk-Reward



Morningstar Style Box - PIMCO Total Return Instl

Portfolio Date: 9/30/2019

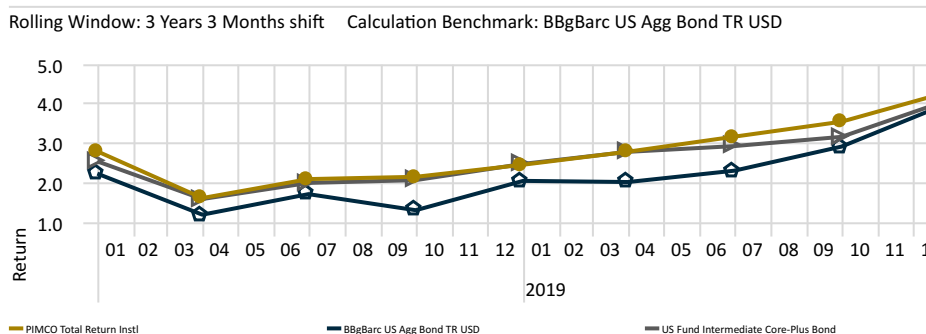
Morningstar Fixed Income Style Box™ Fixed-Income Stats

Average Eff Duration	5.6
Average Eff Maturity	7.7
Average Coupon	4.1
Average Price	112.1

Not Available

Rolling Returns

Time Period: 1/1/2015 to 12/31/2019



PIMCO Total Return Instl - Risk

Time Period: 1/1/2015 to 12/31/2019

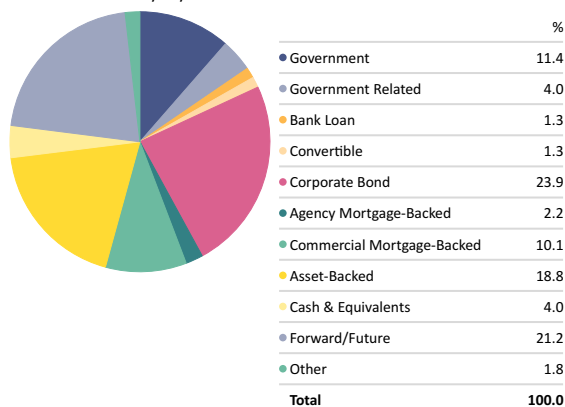
	Inv	Bmk1
Return	3.25	3.05
Std Dev	3.13	3.06
Downside Deviation	1.03	0.00
Alpha	0.33	0.00
Beta	0.93	1.00
R2	81.96	100.00
Information Ratio (geo)	0.14	
Tracking Error	1.34	0.00

Key Information

Morningstar Category	US Fund Intermediate Core-Plus Bond
Morningstar Rating Overall	★★★★★
Inception Date	12/27/2010
Expense Ratio	0.39
Fund Size (Mil)	53,149.40
Portfolio Date	11/30/2019
Manager Name	Multiple

PGIM Total Return Bond R6 - Fixed-Inc Sectors (Morning

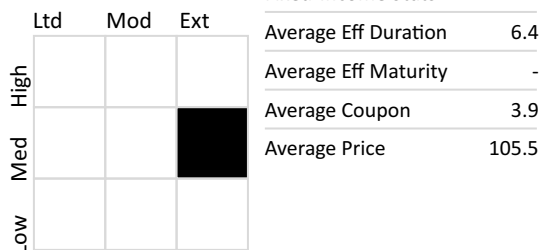
Portfolio Date: 11/30/2019



Morningstar Style Box - PGIM Total Return Bond R6

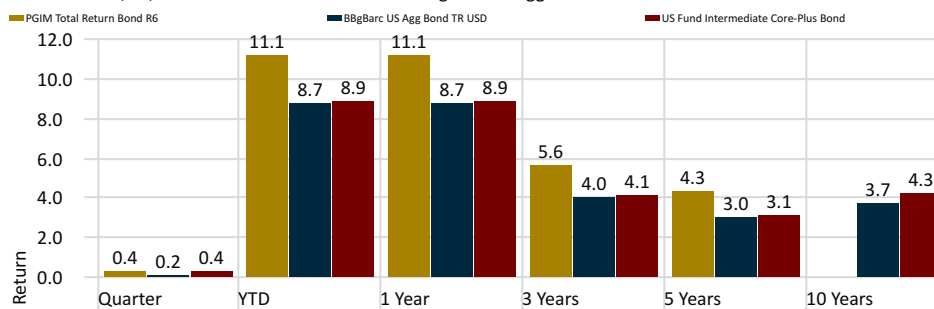
Portfolio Date: 11/30/2019

Morningstar Fixed Income Style Box™ Fixed-Income Stats



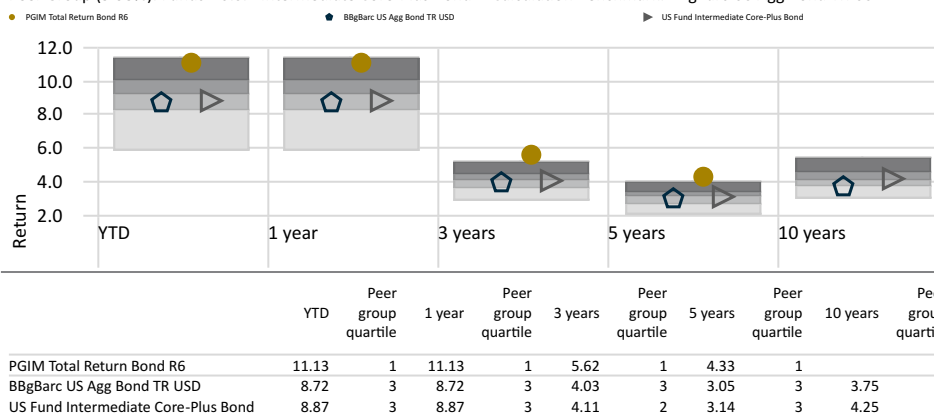
Returns

As of Date: 12/31/2019 Calculation Benchmark: BBgBarc US Agg Bond TR USD



Performance Relative to Peer Group

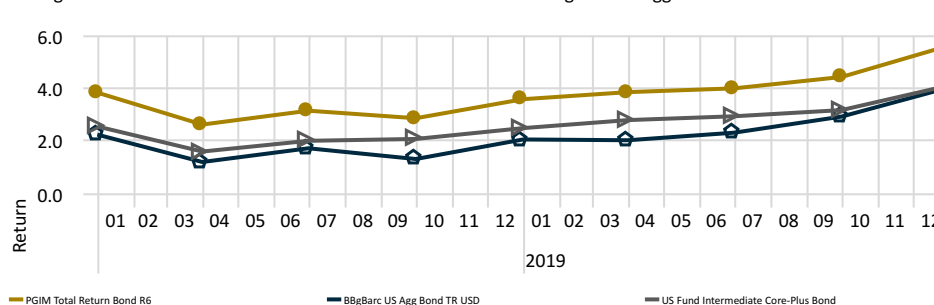
Peer Group (5-95%): Funds - U.S. - Intermediate Core-Plus Bond Calculation Benchmark: BBgBarc US Agg Bond TR USD



Rolling Returns

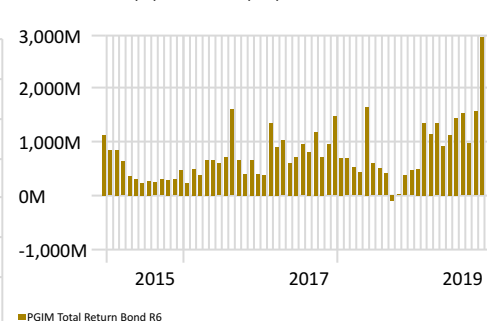
Time Period: 1/1/2015 to 12/31/2019

Rolling Window: 3 Years 3 Months shift Calculation Benchmark: BBgBarc US Agg Bond TR USD



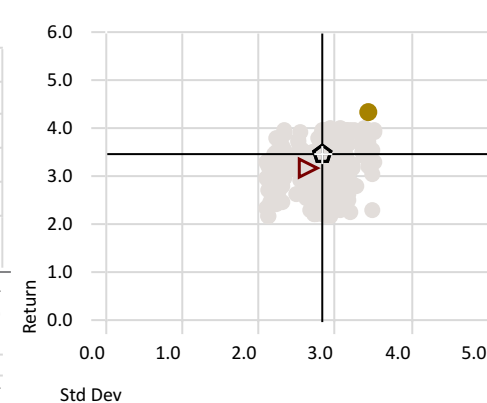
Monthly Estimated Fund-Level Net Flow

Time Period: 1/1/2015 to 12/31/2019



Risk-Reward

Time Period: 1/1/2015 to 12/31/2019



PGIM Total Return Bond R6 - Risk

Time Period: 1/1/2015 to 12/31/2019

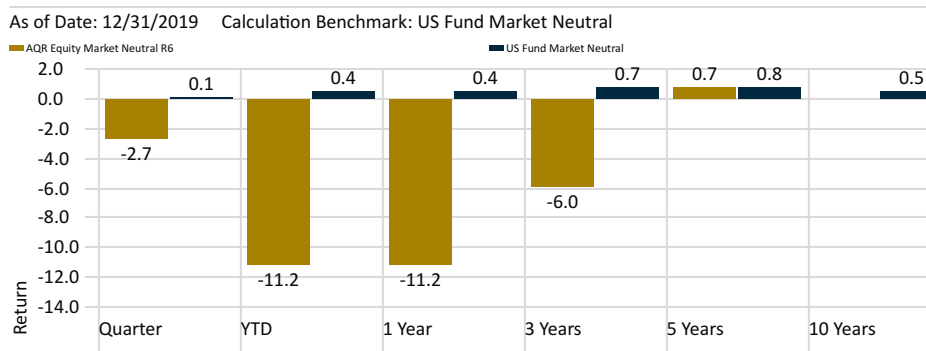
Calculation Benchmark: BBgBarc US Agg Bond TR USD

	Inv	Bmk1
Return	4.33	3.05
Std Dev	3.42	3.06
Downside Deviation	0.54	0.00
Alpha	1.11	0.00
Beta	1.07	1.00
R2	91.81	100.00
Information Ratio (geo)	1.25	
Tracking Error	1.00	0.00

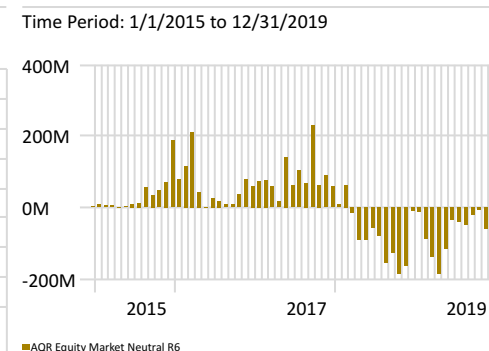
Key Information

Morningstar Category US Fund Market Neutral
Morningstar Rating Overall ★★
Inception Date 10/7/2014
Expense Ratio 1.97
Fund Size (Mil) 260.75
Portfolio Date 9/30/2019
Manager Name Multiple

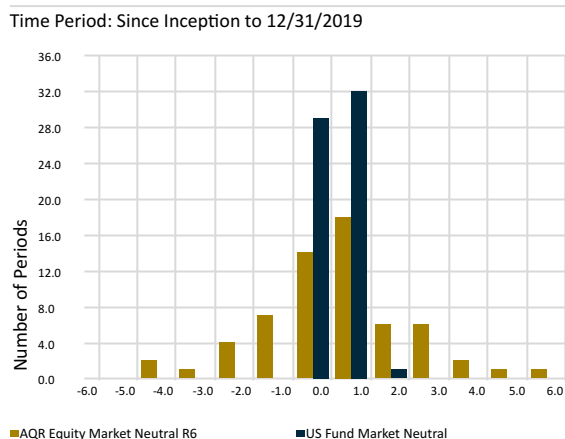
Returns



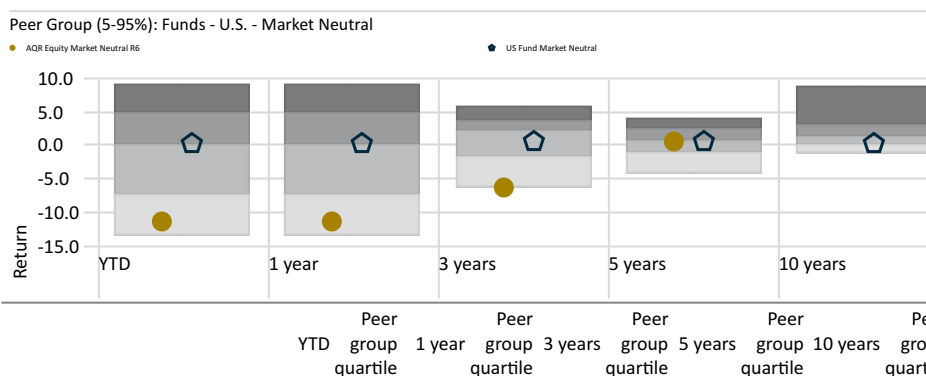
Monthly Estimated Fund-Level Net Flow



Return Distribution - AQR Equity Market Neutral R6

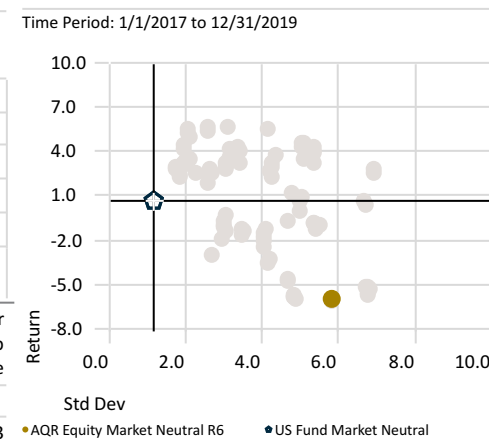


Performance Relative to Peer Group



	YTD	Peer group quartile	1 year	Peer group quartile	3 years	Peer group quartile	5 years	Peer group quartile	10 years	Peer group quartile
AQR Equity Market Neutral R6	-11.17	4	-11.17	4	-5.98	4	0.70	3		
US Fund Market Neutral	0.45	2	0.45	2	0.70	3	0.78	2	0.51	3

Risk-Reward



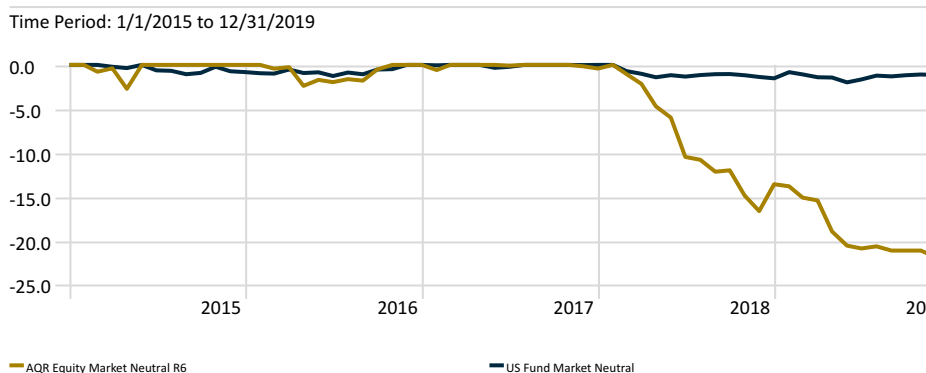
Correlation Matrix

Time Period: 11/1/2014 to 12/31/2019

	1	2	3
1 AQR Equity Market Neutral R6	1.00		
2 BBgBarc US Agg Bond TR USD	0.13	1.00	
3 S&P 500 TR (1989)	-0.13	-0.16	1.00

■ 1.00 to 0.80 ■ 0.80 to 0.60 ■ 0.60 to 0.40 ■ 0.40 to 0.20 ■ 0.20 to 0.00
■ 0.00 to -0.20 ■ -0.20 to -0.40 ■ -0.40 to -0.60 ■ -0.60 to -0.80 ■ -0.80 to -1.00

Drawdown



AQR Equity Market Neutral R6 - Risk

Time Period: Since Inception to 12/31/2019
Calculation Benchmark: US Fund Market Neutral

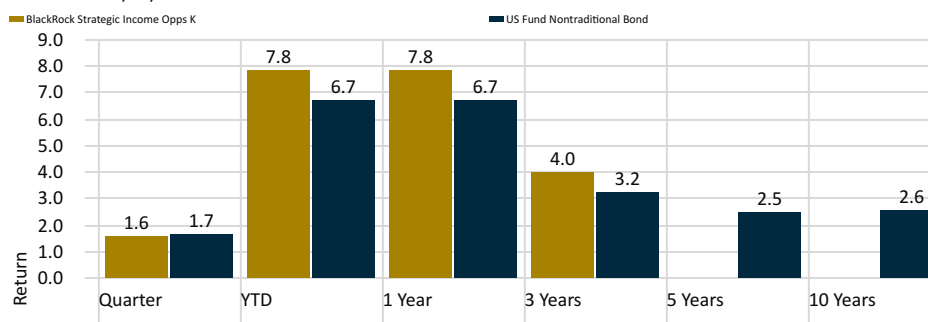
	Inv	Bmk1	+/- Bmk1
Return	1.57	0.82	0.76
Std Dev	6.54	1.28	5.26
Downside Deviation	4.01	0.00	4.01
Alpha	1.21	0.00	1.21
Beta	2.06	1.00	1.06
R2	16.79	100.00	-83.21
Sharpe Ratio (arith)	0.08	-0.20	0.27
Tracking Error	6.24	0.00	6.24

Key Information

Morningstar Category	US Fund Nontraditional Bond
Morningstar Rating Overall	★★★★
Inception Date	3/28/2016
Expense Ratio	0.74
Fund Size (Mil)	34,190.37
Portfolio Date	10/31/2019
Manager Name	Multiple

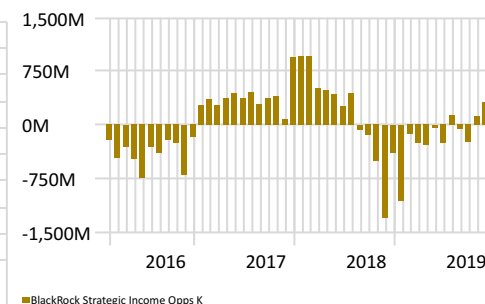
Returns

As of Date: 12/31/2019 Calculation Benchmark: US Fund Nontraditional Bond



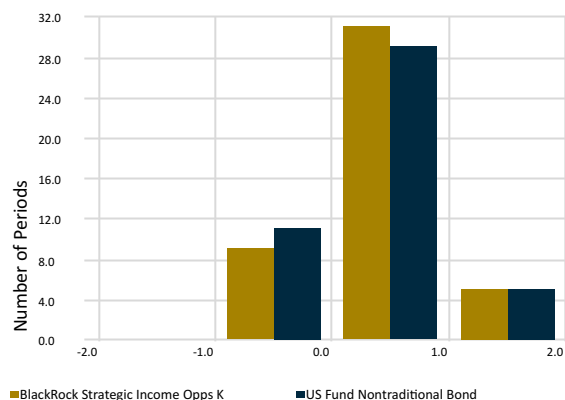
Monthly Estimated Fund-Level Net Flow

Time Period: 3/1/2016 to 12/31/2019



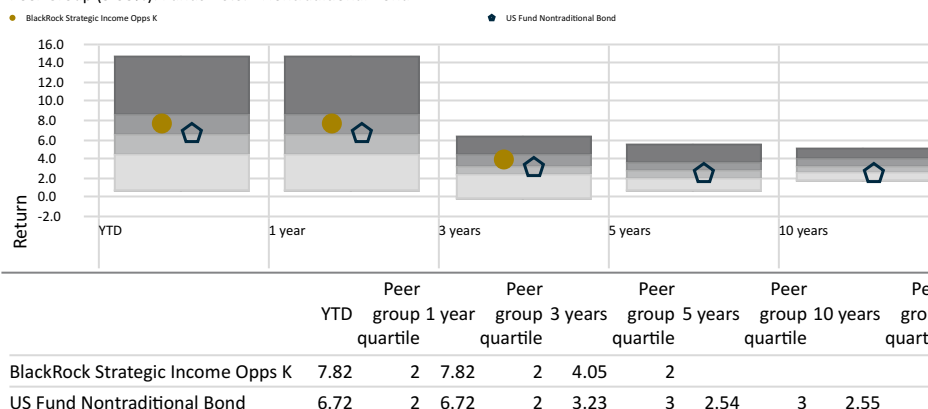
Return Distribution - BlackRock Strategic Income Opps K

Time Period: Since Inception to 12/31/2019



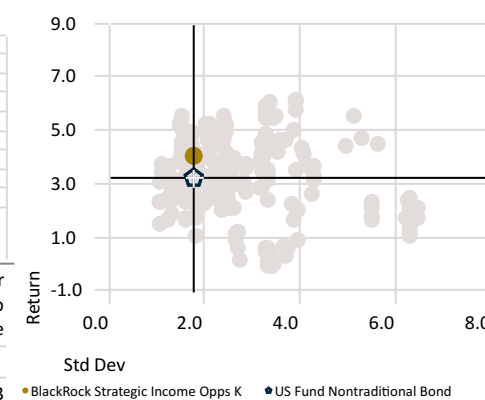
Performance Relative to Peer Group

Peer Group (5-95%): Funds - U.S. - Nontraditional Bond



Risk-Reward

Time Period: 1/1/2017 to 12/31/2019



Correlation Matrix

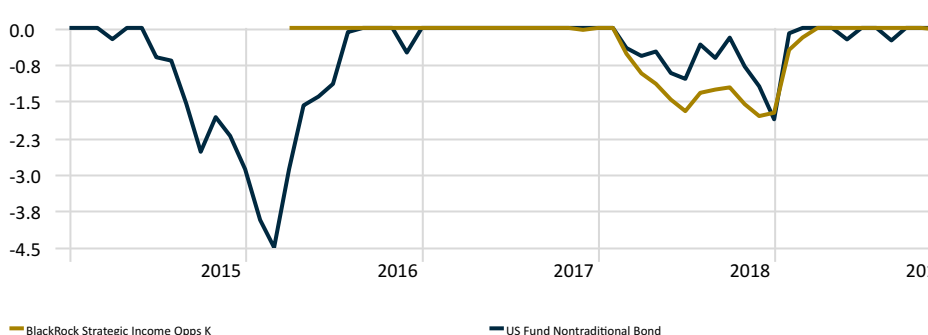
Time Period: 4/1/2016 to 12/31/2019

	1	2	3
1 BlackRock Strategic Income Opps K	1.00		
2 BBgBarc US Agg Bond TR USD	0.25	1.00	
3 S&P 500 TR (1989)	0.57	-0.15	1.00

1.00 to 0.80 0.80 to 0.60 0.60 to 0.40 0.40 to 0.20 0.20 to 0.00
 0.00 to -0.20 -0.20 to -0.40 -0.40 to -0.60 -0.60 to -0.80 -0.80 to -1.00

Drawdown

Time Period: 1/1/2015 to 12/31/2019



BlackRock Strategic Income Opps K - Risk

Time Period: Since Inception to 12/31/2019

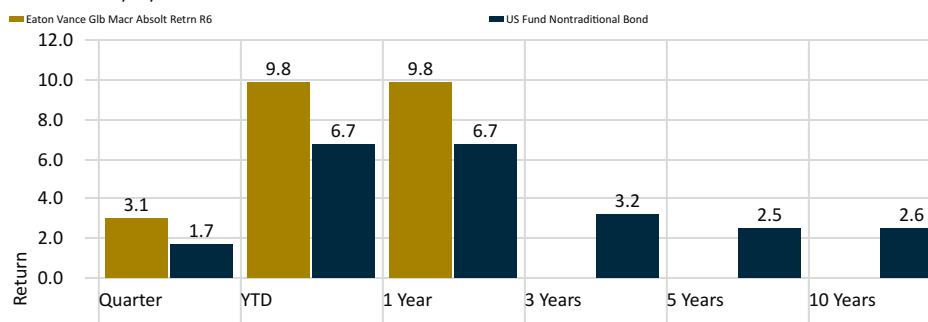
	Inv	Bmk1	+/- Bmk1
Return	4.37	3.82	0.55
Std Dev	1.67	1.83	-0.15
Downside Deviation	0.68	0.00	0.68
Alpha	1.19	0.00	1.19
Beta	0.72	1.00	-0.28
R2	62.74	100.00	-37.26
Sharpe Ratio (arith)	1.75	1.30	0.45
Tracking Error	1.17	0.00	1.17

Key Information

Morningstar Category	US Fund Nontraditional Bond
Morningstar Rating Overall	
Inception Date	5/31/2017
Expense Ratio	0.72
Fund Size (Mil)	3,538.54
Portfolio Date	10/31/2019
Manager Name	Multiple

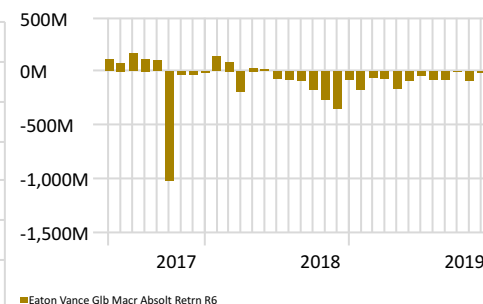
Returns

As of Date: 12/31/2019 Calculation Benchmark: US Fund Nontraditional Bond



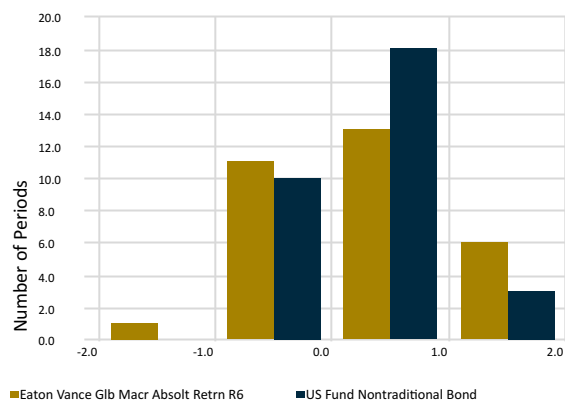
Monthly Estimated Fund-Level Net Flow

Time Period: 5/1/2017 to 12/31/2019



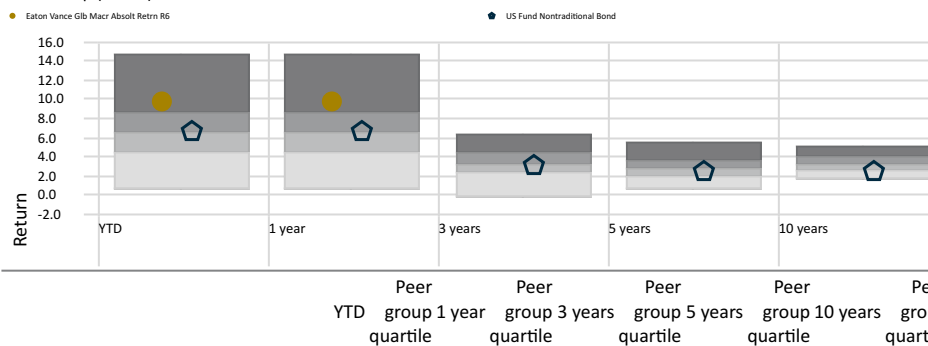
Return Distribution - Eaton Vance Glb Macr Absolt Retrn R6

Time Period: Since Inception to 12/31/2019



Performance Relative to Peer Group

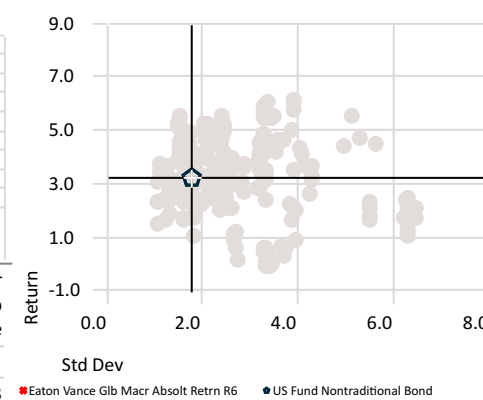
Peer Group (5-95%): Funds - U.S. - Nontraditional Bond



Eaton Vance Glb Macr Absolt Retrn R6	9.82	1	9.82	1						
US Fund Nontraditional Bond	6.72	2	6.72	2	3.23	3	2.54	3	2.55	3

Risk-Reward

Time Period: 1/1/2017 to 12/31/2019



Correlation Matrix

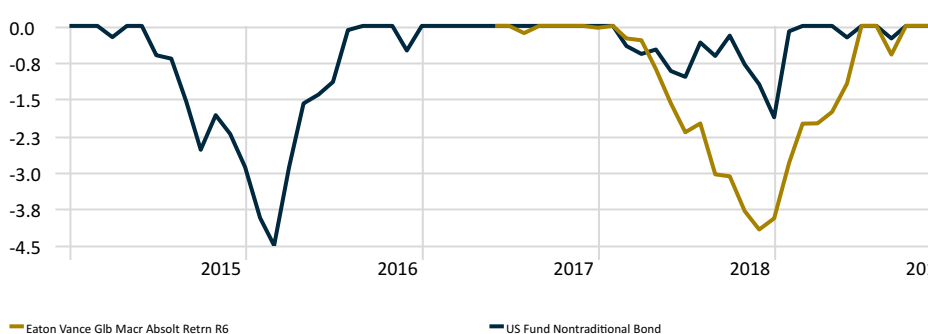
Time Period: 6/1/2017 to 12/31/2019

	1	2	3
1 Eaton Vance Glb Macr Absolt Retrn R6	1.00		
2 BBgBarc US Agg Bond TR USD	-0.03	1.00	
3 S&P 500 TR (1989)	0.39	-0.17	1.00

Legend: 1.00 to 0.80, 0.80 to 0.60, 0.60 to 0.40, 0.40 to 0.20, 0.20 to 0.00, 0.00 to -0.20, -0.20 to -0.40, -0.40 to -0.60, -0.60 to -0.80, -0.80 to -1.00

Drawdown

Time Period: 1/1/2015 to 12/31/2019



Eaton Vance Glb Macr Absolt Retrn R6 - Risk

Time Period: Since Inception to 12/31/2019

Calculation Benchmark: US Fund Nontraditional Bond

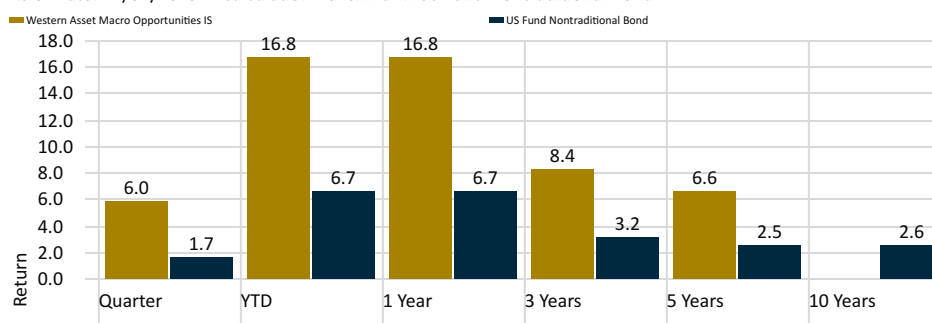
	Inv	Bmk1	+/- Bmk1
Return	3.15	2.77	0.37
Std Dev	2.51	1.89	0.62
Downside Deviation	1.14	0.00	1.14
Alpha	0.47	0.00	0.47
Beta	0.90	1.00	-0.10
R2	45.73	100.00	-54.27
Sharpe Ratio (arith)	0.51	0.48	0.03
Tracking Error	1.86	0.00	1.86

Key Information

Morningstar Category	US Fund Nontraditional Bond
Morningstar Rating Overall	★★★★★
Inception Date	8/30/2013
Expense Ratio	1.21
Fund Size (Mil)	1,702.11
Portfolio Date	11/30/2019
Manager Name	Multiple

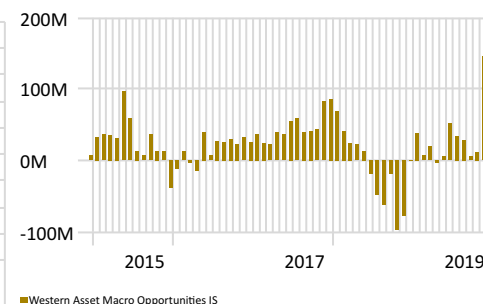
Returns

As of Date: 12/31/2019 Calculation Benchmark: US Fund Nontraditional Bond



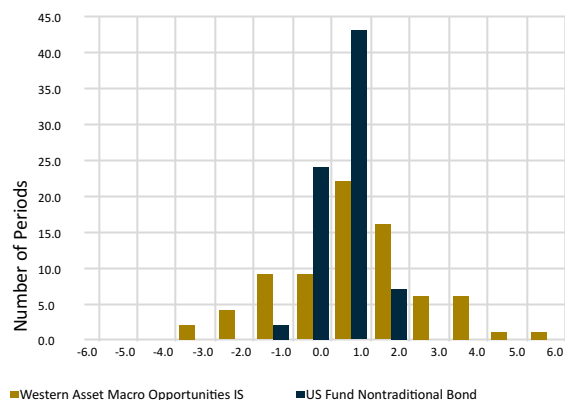
Monthly Estimated Fund-Level Net Flow

Time Period: 1/1/2015 to 12/31/2019



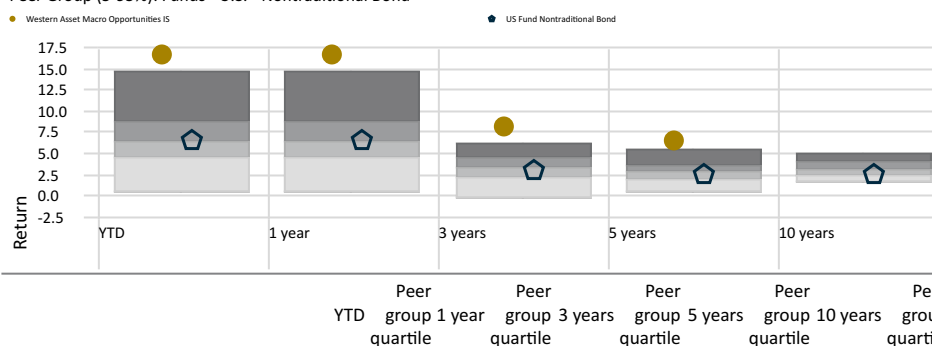
Return Distribution - Western Asset Macro Opportunities IS

Time Period: Since Inception to 12/31/2019



Performance Relative to Peer Group

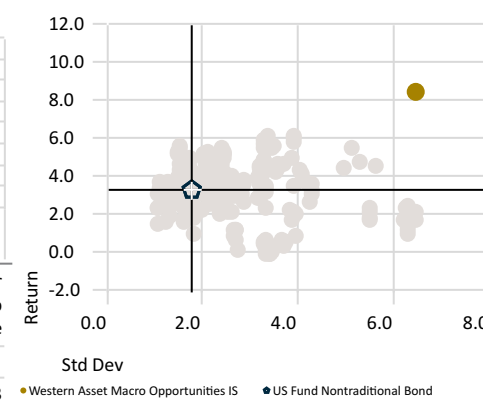
Peer Group (5-95%): Funds - U.S. - Nontraditional Bond



Western Asset Macro Opportunities IS	16.80	1	16.80	1	8.37	1	6.62	1		
US Fund Nontraditional Bond	6.72	2	6.72	2	3.23	3	2.54	3	2.55	3

Risk-Reward

Time Period: 1/1/2017 to 12/31/2019



Correlation Matrix

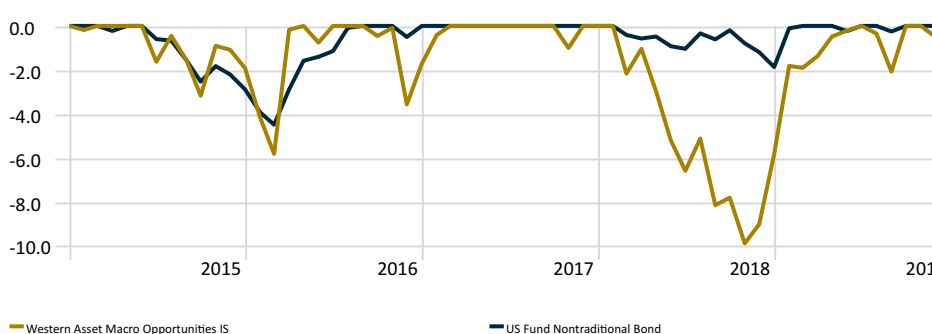
Time Period: 9/1/2013 to 12/31/2019

	1	2	3
1 Western Asset Macro Opportunities IS	1.00		
2 BBgBarc US Agg Bond TR USD	0.23	1.00	
3 S&P 500 TR (1989)	0.40	-0.12	1.00

1.00 to 0.80 0.80 to 0.60 0.60 to 0.40 0.40 to 0.20 0.20 to 0.00
 0.00 to -0.20 -0.20 to -0.40 -0.40 to -0.60 -0.60 to -0.80 -0.80 to -1.00

Drawdown

Time Period: 1/1/2015 to 12/31/2019



Western Asset Macro Opportunities IS - Risk

Time Period: Since Inception to 12/31/2019

Calculation Benchmark: US Fund Nontraditional Bond

	Inv	Bmk1	+/- Bmk1
Return	7.42	2.37	5.05
Std Dev	6.20	2.01	4.19
Downside Deviation	2.66	0.00	2.66
Alpha	3.15	0.00	3.15
Beta	2.24	1.00	1.24
R2	52.42	100.00	-47.58
Sharpe Ratio (arith)	1.05	0.74	0.31
Tracking Error	4.96	0.00	4.96