PARS: County of Contra Costa

Fourth Quarter 2021

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Discussion Highlights

U.S. Economic and Market Overview

As a new year begins, we see three key investment themes to watch going forward: the Federal Reserve's pivot to reverse 2020's unprecedented monetary stimulus measures; inflation soaring to a 40-year high; and the challenge of maintaining the recovery even as the economy faces various headwinds, such as an overstimulated economy.

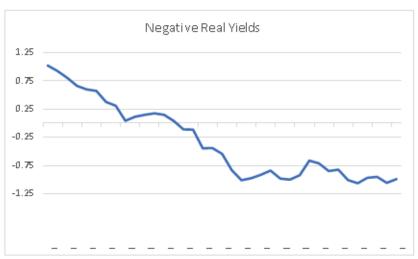
The Big Unwinding

CAPITAL MANAGEMENT

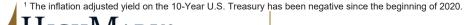
The Fed's intention to end its bond-buying program late in the first quarter of 2022 marks the beginning of a cycle of tightening the monetary reins. We expect that the Fed will raise short-term rates by 50 to 75 basis points over the course of two or three hikes in 2022 to tame building inflationary pressures.

Quantitative tightening--shrinking the Fed's balance sheet through slowing the reinvestment of maturing securities--should also commence in 2022. Central banks around the world also might cut back on aggressive monetary stimulus programs and consider rate hikes of their own.

• A return to positive real yields¹ may be a welcome change for investors whose income depends on risk-free U.S. Government bonds. The inflation adjusted yield on the 10-Year U.S. Treasury has been negative since the beginning of 2020.



Source: Federal Reserve Bank of St. Louis; Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Inflation-Indexed



- A significant move higher in longer maturity interest rates could be tempered by investor demand abroad. Specifically, demand from Asian and European investors for U.S. government bonds with higher yields than their domestic equivalents might put a ceiling on our interest rates if both U.S. and foreign rates don't move in tandem.
- The removal of monetary accommodation, especially during a lingering pandemic, could dampen economic recovery prospects if done too aggressively.

A Tale of Two Inflations

A nearly 40-year peak in inflation rattled investors during 2021.² Looking beneath the headlines, however, the primary sources of inflation—pandemic-related supply chain and production constraints as well as demand for goods and demand for services—followed different paths. Flush with stimulus cash and built-up savings during the pandemic, shoppers went on a buying spree while demand for services actually declined versus prior periods.³

But the worst of goods-driven inflation may be behind us if supply chains and production constraints normalize and consumer-savings levels continue to decline⁴, while cheap credit due to low interest rates slowly wanes.

- We expect core inflation to have run its course and settle lower by the end of 2022 to an annual rate of around 2.5%⁵.
- Supply chain disruptions should ease in 2022 although the timing and extent is uncertain.

Looking for Goldilocks

The Fed faces a daunting challenge and inflection point as it attempts to begin a tightening regime while simultaneously seeking to deliver on its two mandates of maximum employment and price stability. Too much tightening too soon could choke economic growth and, potentially, lead to recession. But tepid rate hikes could do too little to reduce inflation while leaving the Fed with a too small supply of "dry powder" to fight future downturns.

⁵ As measured by the Core PCE



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² CPI inflation was measured as increasing 6.8% year-on-year as of November 2021, the largest increase since 1982. Source: U.S. Bureau of Labor Statistics

³ For example, the energy and vehicle price segments of the CPI rose 33.3% and 21.1% respectively for twelve months ending November 2021 while prices for services including education and medical care each increased by only 1.7%. Source: U.S. Bureau of Labor Statistics.

⁴ The annual personal savings rate fell from 33.8% in April 2020 to 6.9% for the period ending November 2021. Source: U.S. Bureau of Economic Analysis

A "Goldilocks" monetary approach will be a challenge given the Fed's narrow range of policy options. Complicating matters further, data the Fed relies on to make decisions have been whipsawed by the pandemic.

- Regardless of how rapidly the Fed seeks to tighten economic conditions, COVID-era stimulus measures will impact the economy for some time before they are washed out.
- The potential for a Fed policy misjudgment, such as too rapidly draining bank reserves built up during quantitative easing, could be high going forward.
- The Fed is expected to keep close tabs on bond market reactions to its changes and is more aware than ever that a change of course may be required if markets view its moves as too harsh too soon or, conversely, not enough or too slow.

Looking Ahead

U.S. equities, as measured by the S&P 500 Index, ended the year on a record high. We believe that corporate earnings growth rates will remain positive in 2022, but rising rates might put a damper on stock valuations and earnings-per-share growth. Similar to prior record equity market peaks, we expect 2022 to be marked by more moderate advances.⁷

Fiscal stimulus uncertainty, particularly the on-again, off-again Build Back Better legislation, could continue to perplex markets in 2022 as will the ongoing pandemic. The knock-on effects of a more hawkish Fed may be another headwind as rate hikes are often seen as negative for stocks.

- As global central banks let the air out of ballooning balance sheets, volatility across asset classes might increase, but we expect above-average global economic momentum to continue despite the headwinds of the pandemic and an overly-stimulated global economy.
- The continuing rise of positive COVID-19 infections as the Omicron variant spreads is akin to two steps forward, one step back and represents an additional headwind to risk asset performance. But reports indicate that Omicron's less deadly effects on those vaccinated may help bring us closer to herd immunity and the end of the worst of the pandemic.⁸
- Equity valuations will be scrutinized and we anticipate a shift from the growth names that dominated 2021's 28.7 percent total return for the S&P 500⁹ to more cyclically-sensitive stocks that underperformed during the pandemic, including small capitalization value and international equities.

⁹ Source: FactSet



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⁶ "Not too hot, not too cold, just right" according to the three bears fairy tale.

⁷ For example, the S&P 500 Index was essentially flat, closing at 2,137 on July 11, 2016 after peaking at 2,131 on May 21, 2015. Source: FactSet

⁸ The discovery of additional COVID-19 variants could create new headwinds.

Market Overview/Performance Discussion

Total Plan

The County of Contra Costa OPEB Plan gained 3.67% net of investment fees in the fourth quarter, which trailed the County's Plan benchmark target of 3.94%. On the surface, the gains from the equity segment were encouraging, with the stocks in the Plan higher by 6.46%. On the positive side, REIT equity continued to generate strong returns with the Vanguard REIT ETF gaining 15.0% in the fourth quarter. Further, two of the three developed international equity managers outperformed the MSCI-EAFE Index in the quarter. Additionally, the small cap segment outperformed (2.97% vs. Russell 2000 Index 2.14%), solely on the performance of the Undiscovered Managers Behavioral Value Fund, which gained 7.31%, and ranked in the 28th percentile of small cap value managers as measured by the Morningstar US Fund Small Value Universe. However, our small cap growth manager, the Victory RS Small Cap Growth Fund generated another disappointing quarter, declining -0.55%, and ranking in the 73rd percentile of the Morningstar US Fund Small Growth Universe. As well, the fund ended the calendar year in the 98th percentile of the same universe. The Fund has been on our watch list for several quarters. At the end of the quarter, we sold out of the Fund, replacing it in the interim, with the Vanguard Small Cap Growth ETF.

The biggest disappointment in the fourth quarter came from our large cap managers. In the quarter only one manager, the Vanguard Growth & Income Fund (+11.43%), outperformed the Russell 1000 Index. Our two growth managers, T. Rowe Price Large Cap Growth (+4.77%) and the Harbor Capital Appreciation Fund (+5.02%) trailed both the Russell 1000 Index, and also lagged their style benchmark, the Russell 1000 Growth Index (+11.64%). A challenge that large cap growth managers faced in 2021, was that over 50% of the returns in the Russell 1000 Growth Index came from Apple, Nvidia, Tesla, Google, and Microsoft. In the case of the T. Rowe Price Fund, the managers were underweight Apple, Nvidia, and Microsoft. In the case of Tesla in which the fund did not have a position at all, the stock being higher by 36.2%, and being the fourth largest holding in the benchmark, was a drag on performance (understatement!). The disappointment of the large cap segment was magnified by our large cap value manager, the Dodge & Cox Stock Fund which gained only +5.85%, and ranked in the 91st percentile of investment managers in the Morningstar US Fund Large Value Universe. Despite the disappointing fourth quarter for the Fund, it was the best performing fund for the Plan in the large cap segment for the calendar year 2021, gaining +31.73%, and ranking in the 10th percentile of the Large Value Universe. A stellar year, somewhat tarnished by the last three months.

Rounding out Plan performance was the fixed income and the alternative segments which generated performance closely in-line with the Plan's underlying benchmark targets. The fixed income segment declined -0.08% versus the Bloomberg US Aggregate Index return of 0.01%. And the alternative segment gained 0.24% vs. the Wilshire Liquid Alternative Index return of 0.62%.



Domestic Equity

The Santa Claus rally was in full force in the fourth quarter with stocks rallying on the back of a November market sell-off, based on fears of the Omicron variant of the coronavirus. Aside from Omicron, investors also seemed to cast aside risks related to the Federal Reserve indicating that they were poised to hike interest rates in the upcoming year. Further, with supply chains still in disarray, and inflation readings at multi-year highs (Core CPI December 7.0% & Core PPI December 9.7%), the market proved adept in climbing the proverbial wall of worry. In this environment large cap equities provided strong returns for the quarter as the Russell 1000 Index gained 9.78%. Small cap equities struggled, 'only' posting gains of 2.14%, as measured by the Russell 2000 Index. The performance of value vs. growth varied based on market capitalization. Within large cap equities, the Russell 1000 Growth Index outperformed the Russell 1000 Value by almost 4% (11.64% vs. 7.77%). However, within the small cap segment, value outperformed with the Russell 2000 Value Index gaining 4.36% and the Russell 2000 Growth Index flat at 0.01%.

- The Plan's large cap equity segment returned 8.45% in the quarter, which trailed the Russell 1000 Index return of 9.78%.
 - The Columbia Contrarian Core Fund returned 8.34% in the quarter, which lagged the benchmark. The Fund ranked in the 77th percentile of the Morningstar U.S. Large Cap Blend Universe.
 - The Harbor Capital Appreciation Fund returned 5.02% in the quarter, which trailed the Russell 1000 Growth Index's return of 11.64%. The Fund ranked in the 74th percentile of the Morningstar U.S. Large Growth Universe.
 - The T. Rowe Price Growth Stock Fund returned 4.77% in the quarter, which trailed the Russell 1000 Growth Index. The Fund ranked in the 76th percentile of the Morningstar U.S. Large Growth Universe.
 - The Dodge and Cox Stock Fund gained 5.85% in the quarter and underperformed the Russell 1000 Value Index's return of 7.77%. The Fund ranked in the 91st percentile of the Morningstar U.S. Large Value Universe.
 - The iShares S&P500 Value ETF returned 8.28%, which outperformed the Russell 1000 Value Index.
 - The Russell 1000 ETF returned 9.74% in the quarter.
- The mid cap equity segment returned 6.47% in the quarter, which was in-line with the Russell Mid Cap Index return of 6.44%.
 - The iShares Russell Mid Cap ETF returned 6.40% in the quarter.
- The small cap equity segment returned 2.97% in the quarter, which outperformed the Russell 2000 Index return of 2.14%.
 - The Victory RS Small Cap Growth Fund returned -0.55% in the quarter, which trailed the Russell 2000 Growth Index return of 0.01%. The fund ranked in the 73rd percentile of the Morningstar U.S. Small Growth Universe. **We eliminated the Fund in the last week of December.**
 - The Undiscovered Managers Behavioral Value Fund gained 7.31% in the quarter, which outperformed the Russell 2000 Value Index's return of 4.36%. The Fund ranked in the 27th percentile of Morningstar's U.S. Small Value Universe.
 - The iShares Russell 2000 Index ETF returned 2.10% in the quarter.



Real Estate Equity

Real estate equity completed an incredible year, gaining 17.14% in the quarter, as measured by the Wilshire REIT Index. For the year, the index returned 46.18%. With respect to the S&P500 GICS sectors, REIT equity returns were second only to energy, which gained 55% for the year. Demand for real estate continues to be strong, with interest rates low, and supply in most segments constrained. In the quarter, performance was positive across all segments. Notable strength came from industrial (33.9%), self-storage (29.1%), regional mall (22.6%), and apartment/residential (15.3%). As we saw in the previous quarter, lodging & leisure (3.75%) demand was hampered by the continued presence of Covid. In this case, the Omicron variant negatively impacted demand in hotels and travel related stocks. In general, demand from tenants for a variety of property types are anticipated to be strong in 2022, and if there is continued progress with respect to the continuous battle with Covid, laggard sectors such as retail, office and lodging & leisure should perform well.

• The Plan's REIT equity returned 15.0% in the quarter, which trailed the Wilshire REIT Index return of 17.14%

International/Global Equity

Global equity markets were less successful than U.S. domestic equity markets in shrugging off the prevailing risks of inflation, rising interest rates, the Omicron variant, and increased geopolitical issues. The MSCI-EAFE Index gained 2.69%, while the MSCI-Emerging Market Index declined -1.31%. Gains in developed markets came primarily on the strength of corporate earnings and the continuation of governmental stimulus measures. The emerging markets were hampered primarily by China, where both Omicron related issues combined with the continued problems surrounding both heavily indebted property developers as well as significant regulatory pressures from the government led to the Chinese market declining -6% for the quarter. Other emerging market equity markets which also struggled in the quarter included Russia (-9.2%), Chile (-10.2%), and Brazil (-6.5%).

Gains from developed international markets were led by European markets in the quarter with France up 7.1%, Italy 5.6%, and Switzerland 12.8%. The combination of an increase in vaccine rollouts and massive government stimulus spurred some growth in the region in the quarter. Most sectors posted gains supported by consumer demand and a modest rebound in manufacturing activity. Conversely Japan was the most significant drag on international markets, declining by -4%. The Bank of Japan announced plans to taper their corporate debt purchases, but agreed to maintain their loose monetary policies. This placed downward pressure on the Yen, which impacted equities.

Similar to what we witnessed with the US Federal Reserve in the quarter, other global central banks also either hinted towards more restrictive monetary policies, or outright raised interest rates in the quarter. The Bank of England raised rates in the quarter. With inflation reading in the U.S. of 7% (CPI) and Eurozone inflation readings of 5%, interest rate hikes are on the table for global central bankers. Fears of a policy mistake are front and center in the minds of global equity investors.



International/Global Equity (Cont.)

- The Plan's international/global equity segment returned 4.21% in the quarter, outperforming the MSCI EAFE Index return of 2.69% and the MSCI Emerging Market Index return of -1.31%. However, the gain was less than the MSCI-ACWI Index return of 6.68%.
 - The iShares Core MSCI EAFE Index ETF returned 2.79% in the guarter.
 - The Dodge & Cox International Stock Fund returned 2.40% in the quarter and underperformed the MSCI EAFE Index. The Fund ranked in the 48th percentile of the Foreign Large Value Universe as measured by Morningstar.
 - The MFS International Growth Fund returned 4.94% in the quarter which beat the MSCI EAFE Index. The Fund ranked in the 22nd percentile for foreign large growth managers as measured by Morningstar.
 - The DFA Large Cap International Fund returned 3.32%, which outgained the benchmark and ranked in the 29th percentile of the Morningstar Foreign Large Blend Universe.
 - The iShares MSCI ACWI Index ETF returned 6.84% in the quarter.
 - The American Funds New Perspective Fund gained 6.72% in the quarter, which was slightly lower than the MSCI ACWI Index and ranked in the 26th percentile within the Morningstar World Large Stock Universe
 - The MFS Global Equity R6 Fund returned 6.0%, which lagged the benchmark and ranked in the 72nd percentile of the Morningstar World Large Stock Universe.
 - The Hartford Schroders Emerging Market Equity Fund returned -2.93% during the quarter and trailed the decline of the MSCI Emerging Market benchmark return of -1.31%. The Fund ranked in the 80th percentile of the Morningstar Diversified Emerging Market Universe.



Fixed Income

The fourth quarter of 2021 was characterized by a hawkish policy pivot by the FOMC, increased covid concerns amidst virus mutations, a strong yet decelerating US economic recovery, persistent inflation and a flattening of the yield curve. Long maturity US government bond interest rates ended the quarter moderately lower while intermediate rates and credit spreads generally ended the quarter modestly higher.

The Fed pivoted to a more hawkish stance given the broader labor market recovery and more persistent inflationary pressures. Inflation data remained stubbornly high given continued global supply chain disruptions, rising oil and natural gas prices, elevated shelter costs, wage pressures and low base level price comparisons versus the year earlier period. Renewed Covid concerns could intensify price pressures further in the short term. Fed Chairman Powell surprised the financial markets in late November by announcing an accelerated taper timeline and by dropping his transitory stance on inflation in an acknowledgment that price pressures will last longer than previously anticipated. As such, in the December FOMC release, the Fed median forecast became decidedly more hawkish, showing 3 hikes in 2022, 3 hikes in 2023 and 2 more in 2024. In addition, the potential for quantitative tightening (QT), the process of reducing the Fed's balance sheet, will be a discussion point at coming meetings. As a result, QE tapering is expected to conclude by March 2022, with a notably wide forecast range amongst FOMC participants regarding the timing, amount, and pace of interest rate hikes forthcoming. The hawkish FOMC forecast as well as the consideration of QT helped reprice short maturity interest rates in two-year and five-year US Treasuries higher due to more aggressive Fed policy assumptions. Further, this increased hawkishness also contributed to the decline in 30-year maturity interest rates as the market began pricing less future inflation and potentially slower economic growth prospects.

Short maturity interest rates rose significantly in the fourth quarter, with 2-year Treasury rates increasing 46 basis points to 0.73%, 3-year rates up 45 basis points to 0.96% and 5-year rates advancing 30 bps to 1.26%, reflecting the FOMC pivot to a more aggressive policy stance. Further out the curve, 10-year Treasury rates rose 2 basis points to 1.51% while the 30-year bond fell 15 bps to 1.90%. The market tends to price in the interest rate hiking cycle well in advance, which was clearly evident during the fourth quarter as the yield curve flattened. This translated to returns of 0.70% and +4.70% for 10 and 30-year US Treasuries respectively. The inflation expectations component of interest rates, TIPS breakevens, rose modestly during the quarter although declined from its mid-November peak reflecting the hawkish FOMC pivot.

The Bloomberg Aggregate Bond Index returned a modest 0.1%, and while Investment Grade corporate bond returns were up modestly during the quarter, they did underperform similar duration Treasuries by 29 basis points. For the year, corporate bond total returns remained negative at -1.0%, however outperforming similar duration US Treasuries by +161 basis points on an excess return basis. Despite Investment grade corporate bond index credit spreads widening +8 basis points during the quarter to +92 basis points, they remain near the post financial crisis credit spread low of +80 achieved on 6/30/2021.



Fixed Income (Cont.)

Outlook:

Heading into 2022, we expect the Federal Reserve to conclude tapering by the end of the first quarter, begin a steady interest rate hiking campaign, and potentially commence quantitative tightening as another tool to remove excess monetary accommodation. Despite currently elevated inflation we believe core inflation pressures will begin to ease by mid-2022 and year over year inflation readings will likely peak during Q1 2022. We expect intermediate to longer maturity interest rates to resume their trend higher across developed market economies as the global glut of liquidity slowly declines. Further, we believe the flattening yield curve bias will continue as short maturity interest rates react more unfavorably to Fed actions. As a result, we continue to target a short duration position relative to the index and a barbelled curve position.

The individual fixed income portfolio returned -0.11% in the quarter, underperforming the Bloomberg Aggregate Index by 12 basis points, while for the year, outperformed the benchmark by 24 basis points. During the fourth quarter, the portfolio's underperformance was primarily due to the slight overweight to investment grade bonds relative to the index as corporate bonds lagged. In terms of duration positioning, the portfolio remained 10% short of the index during the quarter, and this provided a positive contribution to overall performance as interest rates backed up. Lower quality investment grade corporate bonds outperformed. In particular, companies that benefit from higher rates and post Covid re-opening were notable performers during the quarter such as Financials, Insurance, Energy and Airlines. During the period, we added exposure to areas of the market that offered attractive relative value, including Financials, select Airline Equipment Trusts (EETC's), Insurance, US banks and short duration Auto ABS.

- The Plan's fixed income segment returned -0.08% in the quarter, which trailed the Bloomberg US Aggregate Index return of 0.01%.
 - The separately managed fixed income portfolio returned -0.11% which trailed the benchmark. The portfolio would have ranked approximately in the 30th percentile of the Morningstar U.S. Intermediate Term Core Bond Universe.
 - The PIMCO Total Return Bond Fund posted a 0.16% return in the quarter, which ranked in the 40th percentile of Morningstar's U.S. Intermediate-Term Core-Plus Bond Universe. The Fund outperformed the Index.
 - The PGIM Total Return Bond Fund returned 0.29% in the quarter. This ranked in the 6th percentile of Morningstar's U.S. Intermediate-Term Core-Plus Bond Universe and outperformed the benchmark.
 - The Pimco High Yield Bond Fund gained 0.68% in the quarter, which ranked in the 33rd percentile of the Morningstar US Fund High Yield Bond Universe. The Fund was in-line with the ICE BofA High Yield Master II Index return of 0.66%.



Alternatives

The Alternatives portion of the Plan gained 0.24% which trailed the Wilshire Liquid Alternative Index return of 0.62%. The only alternative manager to post a negative return was the Blackrock Strategic Income Fund, which declined a modest -0.19%. For the Fund, sectors that detracted in the quarter included Asian credit, European credit, and absolute return strategies. Duration positioning (current duration 1.13 years) and high yield credit were modest positives in the quarter. The strategy is currently short the Euro, while net long most foreign currencies relative to the US dollar. The team trimmed emerging market debt exposure in the quarter on Omicron related risks, but maintained their 5% long position in bank loans. The Blackrock Event Driven Fund gained 0.71% in the quarter. Hard catalyst strategies represented most of the gains in the quarter (82 bps), while soft catalyst opportunities contributed 21 basis points. Credit strategies detracted slightly from returns in the fourth quarter. The three largest positions remain the S&P Global/HIS Market, Microsoft/Nuance Communications, and Veolia/Suez deals. The Western Asset Global Macro Fund returned 0.48%, based on a very strong month of December where the fund was up over 2%. Duration and yield curve positioning was the most significant contributor to performance. Emerging market holdings detracted from performance. A long position in the Australian Dollar supported the modest gains in the quarter. The managers believe that 2022 will be a year where both growth and inflation moderate. The team is overweight spread product domestically, and as well emerging market debt, due to relative attractive pricing.

- The alternative investment segment returned 0.24% in the quarter, which slightly trailed the Wilshire Liquid Alternatives Index return of 0.62%.
 - The BlackRock Strategic Income Opportunity Fund returned -0.19%, which lagged the benchmark, and ranked in the 48th percentile of Morningstar's Non-Traditional Bond Universe.
 - The BlackRock Event Driven Equity Fund returned 0.71% in the quarter and ranked in the 38th percentile of the Morningstar U.S. Fund Market Neutral Universe, which outperformed the benchmark
 - The Western Asset Global Macro Fund gained 0.48%, which ranked in the 18th percentile of the Morningstar Non-Traditional Bond Fund Universe. The Fund slightly trailed the benchmark.

Asset allocation/Manager Changes

We ended the quarter with a target asset allocation of 58.5% stocks, 38.25% bonds, 2.5% alternatives, and 0.75% cash.

We reduced our international equity exposure by -0.75% in the quarter and decreased our cash exposure by -0.25% and increased our small cap equity allocation by +1.0%.

In late December, we eliminated the Victory RS Small Cap Growth Fund from the Plan. The decision was based on performance criteria.



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Economic and N	/larket Forecas	sts – January 2022
	2021	2022
	Assumptions	Assumptions
GDP	5.5% -6.5%	3.4% - 4.1%
S&P500 earnings	\$190 - \$210	\$215 - \$225
Unemployment	4.9% - 5.4%	3.7% - 4.5%
Core PCE Inflation	3.2% - 3.7%	2.6% - 3.1%
Fed Funds Target	0.0% - 0.25%	0.25% - 0.75%



Selected Period Performance PARS/COUNTY OF CONTRA COSTA PRHCP

Account 6746038001 Period Ending: 12/31/2021

Cash Equivalents Lipper Money Market Funds Index	3 Months .00 . <i>00</i>	Year to Date (1 Year) .02 .00	3 Years .81 .79	5 Years .98 .93	10 Years .53 .48	Inception to Date 02/01/2011 .48 .44
Fixed Income ex Funds Total Fixed Income Bloomberg US Aggregate Bd Index	11	-1.30	5.06	3.74	3.17	3.67
	08	-1.14	5.27	3.96	3.43	3.79
	. <i>0</i> 1	-1.54	4.79	3.57	2.90	3.35
Total Equities	6.46	19.60	21.32	14.63	12.99	11.13
Large Cap Funds Russell 1000 Index	8.45	25.24	25.42	18.07	16.33	14.15
	9.78	26.45	26.21	18.43	<i>16.54</i>	<i>14</i> .96
Mid Cap Funds	6.47	22.48	22.94	14.88	13.58	11.95
Russell Midcap Index	6.44	22.58	23.29	<i>15.10</i>	<i>14</i> .91	<i>13.19</i>
Small Cap Funds Russell 2000 Index	2.97	12.76	19.91	12.87	14.16	12.50
	2.14	<i>14.82</i>	20.02	12.02	13.23	<i>11</i> .65
International Equities MSCI AC World Index MSCI EAFE Index MSCI EM Free Index	4.21	12.14	16.96	12.28	9.70	7.26
	6.68	18.54	20.38	14.4	11.85	9.88
	2.69	11.26	13.54	9.55	8.03	5.84
	-1.31	-2.54	10.94	9.87	5.49	3.34
RR: REITS Wilshire REIT Index	15.00 17.14	40.42 46.18	19.69 19.19	11.11 <i>10</i> .92	11.47	11.00
Alternatives Dynamic Alternatives Index	.24 .62	3.03 4.72	4.87 4.85	1.88 3. <i>01</i>	1.69	.97
Total Managed Portfolio Total Account Net of Fees Contra Costa Policy Benchmark	3.68	10.57	14.09	9.65	8.37	7.47
	3.67	10.52	14.02	9.58	8.28	7.37
	3.94	11.09	<i>14.08</i>	9.65	8.51	7.83

Inception Date: 02/01/2011

CAPITAL MANAGEMENT

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^{*} 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% Litigroup 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, 8% Barclays Aggregate Index, 4% DJ Wilshire REIT Index, 10% Wilshire Reit Index, 10% Using Russell 2000 Index, 8% MSCI EAFE Index, 19% Russell 2000 Index, 6% Russell Midcap 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, 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.

Manager Watch List

Name of Fund Date on watch list Date exiting watch list Recommendation	Rationale
/ / / / / / / / / / / / / / / / / / /	Ve eliminated the managers based on erformance related issues encountered over the ast 5 quarters.



Investment Strategy As of December 31, 2021

CAPITAL MANAGEMENT

Tactical Asset Allocation

Asset Class	9	% Portfolio Weig	hting	<u>Rationale</u>
	<u>Target</u>	Current Portfolio	Over/Under <u>Weighting</u>	
Cash	1.0%	0.75%	-0.25%	 Money market yields are at 0.01%. We maintain a low/neutral allocation to cash
Fixed Income	43.0%	38.25%	-4.75%	 Increasing growth and inflation expectations, combined with Fed tapering of quantitative easing (QE), is likely to drive longer term interest rates higher, putting downward pressure on bond prices. We are forecasting the Fed may raise rates to 0.75% in calendar year 2022.
Alternatives	0.0%	2.5%	+2.5%	 Alternatives offer a reasonable diversification benefit with respect to the 95% of the portfolio which is invested in fixed income and equities.
Real Estate (REITS)	4.0%	4.0%	-	• Interest rates are likely headed higher in 2022, which may put some pressure on REIT returns, but still the absolute low levels of rates should not be too challenging to REIT returns. The pandemic has secularly altered some REIT sectors such as office, industrial, and regional malls. REIT equity was the top performing equity segment in the Plan in 2021. The rollout of the vaccines has led to an improvement in consumer demand as the economy has re-opened. Apartment REITs have been aided by surging demand and high occupancy rates. Industrial REITs have been supported by eCommerce. With the REIT sector up over 40% in 2021 as measured by the Wilshire REIT Index, earnings and adjusted funds from operations (AFFO) will need to catch up to price gains. We remain neutral to the sector.
Global Equity	8.0%	7.5%	-0.5%	• The recovery in global equity is based on improved vaccination rates and strong fiscal support in Europe. Challenges to global equity gains have come from supply chain issues, inflation fears, the coronavirus, geopolitical issues, and the potential impact to the end of QE in the United States. It is our belief that while both supply chain issues and inflationary effects will last for the next several quarters, both will prove to be temporary in nature.
International (Developed)	10.0%	9.5%	-0.5%	• The MSCI-ACWI ex-U.S. Index trades at 14.3X next year's earnings, relative to the 20 year average PE ratio of 13.3X. With respect to emerging market equities, long-term these economies will likely provide much of the gains in global growth. However, with the present concerns surrounding China (which represents roughly 35% of the emerging market equity index) for both slowing growth and increased regulatory scrutiny, has tempered our allocation to this region. With the MSCI-Emerging Market Index trading at 12.2X next year's earnings, we maintain a 1% allocation to this segment.
International (Emerging)	0.0%	1.0%	+1.0%	
Total Domestic Equity	34.0%	36.5%	+2.5%	
Large Cap	19.0%	20.0%	+1.0%	• We expect the economy to show sustainable growth in 2022, with a current forecast of 3.4% to 4.1% GDP. With this forecasted growth, corporate earnings should likely show strong year over year gains. While the S&P500 trading at 21.2X next year's earnings is expensive, it is our desire given the extremely low interest rate environment, to be slightly overweight large cap equities.
Mid Cap	6.0%	6.5%	+0.5%	 Mid-cap equities currently trade at 19.4X next year's earnings, which compel us to maintain a slight overweight allocation.
HIGHMARK	9.0% ®	10.0%	+1.0%	• We maintain our neutral allocation due to a belief that small caps will continue to perform in a pro-cycle environment. Valuations are at a 25X forward PE level, but if the recovery proves to be robust, earnings will grow into this valuation level.

Asset Allocation Period Ending December 31, 2021

A All di	9/30/2021	9/30/2021	12/31/2021	12/31/2021	Target
Asset Allocation	Market Value	% of Total	Market Value	% of Total	Allocation
Large Cap Equities					
Columbia Contrarian Core Inst3	13,143,592	3.0%	13,863,183	3.0%	-
iShares Russell 1000 ETF	39,137,441	8.9%	41,389,641	9.0%	-
Vanguard Growth & Income Adm	6,655,810	1.5%	6,944,523	1.5%	-
Dodge & Cox Stock	8,824,096	2.0%	9,340,548	2.0%	-
iShares S&P 500 Value ETF	6,602,359	1.5%	7,111,315	1.5%	-
Harbor Capital Appreciation Retirement	6,386,518	1.5%	6,903,203	1.5%	
T. Rowe Price Growth Stock I	6,423,469	1.5%	6,939,381	1.5%	
Total Large Cap Equities	\$ 87,173,284	19.8%	\$ 92,491,794	20.0%	19.0%
		Range		Range	13-32%
Mid Cap Equities					
iShares Russell Mid-Cap ETF	28,186,108	6.4%	30,075,436	6.5%	
Total Mid Cap Equities	\$ 28,186,108	6.4%	\$ 30,075,436	6.5%	6.0%
		Range		Range	2-10%
Small Cap Equities					
iShares Russell 2000 ETF	17,298,531	3.9%	22,368,237	4.8%	-
Undiscovered Managers Behavioral Val R6	11,203,346	2.5%	12,021,927	2.6%	
Vanguard Small-Cap Growth ETF	11,203,346	2.5%	11,096,045	2.4%	
Victory RS Small Cap Growth R6	10,707,406	2.4%			
Total Small Cap Equities	\$ 39,209,283	8.9%	\$ 45,486,209	9.9%	9.0%
		Range		Range	4-12%
International Equities					
DFA Large Cap International I	10,847,669	2.5%	11,501,305	2.5%	
iShares Core MSCI EAFE ETF	17,540,375	4.0%	18,397,864	4.0%	
Dodge & Cox International Stock	7,770,207	1.8%	7,010,614	1.5%	
MFS International Growth R6	7,655,116	1.7%	6,927,701	1.5%	
Hartford Schroders Emerging Mkts Eq F	5,440,932	1.2%	4,568,840	1.0%	
Total International Equities	49,254,298	11.2%	\$ 48,406,325	10.5%	10.0%
		Range		Range	4-20%
Global Equities					
iShares MSCI ACWI ETF	17,551,947	4.0%	18,581,315	4.0%	
American Funds New Perspective R6	7,727,431	1.8%	8,246,917	1.8%	
MFS Global Equity R6	7,619,920	1.7%	8,077,049	1.8%	
Total Global Equities	\$ 32,899,298	7.5%	\$ 34,905,280	7.6%	8.0%
		Range		Range	4-12%



PARS: County of Contra Costa

Asset Allocation Period Ending December 31, 2021

Asset Allocation	N	9/30/2021 larket Value	9/30/2021 % of Total		12/31/2021 larket Value	12/31/2021 % of Total	Target Allocation
Real Estate							
Vanguard Real Estate ETF		17,434,507	4.0%		19,102,903	4.1%	
	\$	17,434,507	4.0%	\$	19,102,903	4.1%	4.0%
	,	, - ,	Range	·	, , , , , , , , , , , , , , , , , , , ,	Range	0-8%
Fixed Income			J			S	
Core Fixed Income Holdings		120,929,899	27.5%		126,355,227	27.4%	
PIMCO Total Return Instl		21,293,181	4.8%		22,034,383	4.8%	
PGIM Total Return Bond R6		21,292,176	4.8%		22,041,656	4.8%	
PIMCO High Yield Instl		5,610,622	1.3%		5,648,566	1.2%	
Total Fixed Income	\$	169,125,878	38.4%	\$	176,079,833	38.2%	43.0%
			Range			Range	30-50%
Alternatives							
BlackRock Event Driven Equity Instl		4,473,487	1.0%		4,505,279	1.0%	
BlackRock Strategic Income Opps K		4,456,130	1.0%		4,627,048	1.0%	
Western Asset Macro Opportunities IS		2,234,708	0.5%		2,245,413	0.5%	
Total Alternatives	\$	11,164,326	2.5%	\$	11,377,740	2.5%	0.0%
			Range			Range	0-10%
Cash							
Money Market		5,533,361	1.3%		3,393,861	0.7%	
Total Cash	\$	5,533,361	1.3%	\$	3,393,861	0.7%	1.0%
			Range			Range	0-5%
TOTAL	\$	439,980,343	100.0%	\$	461,319,381	100.0%	100.0%



Investment Summary Period Ending December 31, 2021

Investment Summary	Fourth Quarter 2021	Ye	ear to Date 2021
Beginning Value	440,550,910.60	\$	399,003,595.89
Net Contributions/Withdrawals	4,973,142.43		19,843,141.52
Fees Deducted	-53,015.34		-210,342.25
Income Received	10,532,910.12		15,435,766.55
Market Appreciation	5,886,000.59		27,877,829.44
Net Change in Accrued Income	35,264.67		-24,778.08
Ending Market Value*	\$ 461,925,213.07	\$	461,925,213.07

Investment Summary	Fourth Quarter 2020	Yea	ar to Date 2020
Beginning Value	356,424,651.75	\$	331,392,093.14
Net Contributions/Withdrawals	5,039,008.87		20,931,386.28
Fees Deducted	-50,980.92		-200,372.92
Income Received	6,874,330.21		11,744,886.38
Market Appreciation	30,709,382.62		35,210,754.50
Net Change in Accrued Income	7,203.36		-75,151.49
Ending Market Value*	\$ 399,003,595.89	\$	399,003,595.89

^{*}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.



December 31, 2021

				LARGE C	AP EQUIT	Y FUNDS	_		_				
		3-Month		YTD		1-Year		3-Year		5-Year		10-Year	
Fund Name	Inception	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
Columbia Contrarian Core Inst3	(7/13)	8.34	77	24.45	75	24.45	75	26.57	15	17.65	41	16.55	10
Vanguard Growth & Income Adm	(12/16)	11.43	18	29.11	18	29.11	18	25.54	36	17.92	34	16.55	9
Dodge & Cox Stock	(10/14)	5.85	91	31.73	10	31.73	10	20.78	18	14.14	16	15.57	2
iShares S&P 500 Value ETF	(12/19)	8.28	53	24.67	69	24.67	69	18.46	40	11.72	47	13.10	31
T. Rowe Price Growth Stock I		4.77	76	20.18	62	20.18	62	29.23	53	23.41	40	19.24	20
Harbor Capital Appreciation Retirement		5.02	74	15.74	79	15.74	79	33.63	17	26.43	12	20.04	11
Russell 1000 TR USD		9.78		26.45		26.45		26.21		18.43		16.54	
iShares Russell 1000 ETF	(3/15)	9.74	56	26.27	56	26.27	56	26.04	23	18.27	24	16.39	18
				MID CA	P EQUITY	FUNDS							
iShares Russell Mid-Cap ETF	(3/15)	6.40	72	22.38	69	22.38	69	23.08	20	14.92	18	14.73	15
Russell Mid Cap TR USD		6.44		22.58		22.58		23.29		15.10		14.91	
				SMALL C	AP EQUIT	Y FUNDS							
Undiscovered Managers Behavioral Val R6	6 (9/16)	7.31	27	34.50	33	34.50	33	19.79	24	10.60	19	14.08	5
Russell 2000 Value TR USD		4.36		28.27		28.27		17.99		9.07		12.03	
Victory RS Small Cap Growth R6	Sold (12/21)	-0.55	73	-10.74	98	-10.74	98	19.55	90	16.42	62	15.00	54
Vanguard Small-Cap Growth ETF	(12/21)	0.58	70	5.71	73	5.71	76	23.82	56	16.90	56	14.83	58
Russell 2000 Growth TR USD		0.01		2.83		2.83		21.17		14.53		14.14	
iShares Russell 2000 ETF	(3/15)	2.10	92	14.62	95	14.62	95	19.90	52	11.95	39	13.22	41
				INTERNATIO	ONAL EQL	JITY FUNDS							
Dodge & Cox International Stock		2.40	48	11.03	58	11.03	58	11.65	25	7.19	34	7.58	15
MFS International Growth R6		4.94	22	9.65	46	9.65	46	17.37	77	14.35	40	10.09	43
MFS Global Equity R6	(3/15)	6.00	72	17.45	67	17.45	67	20.58	33	14.50	32	13.08	16
iShares Core MSCI EAFE ETF	(3/15)	2.79	51	11.29	37	11.29	37	14.01	40	9.96	35		
iShares MSCI ACWI ETF	(3/15)	6.84	49	18.38	52	18.38	52	20.40	36	14.55	30	12.01	35
American Funds New Perspective R6	(3/15)	6.72	26	18.10	27	18.10	27	27.28	28	20.28	22	15.81	15
DFA Large Cap International I	(12/18)	3.32	29	12.81	19	12.81	19	14.18	38	9.88	38	8.02	44
MSCI EAFE NR USD		2.69		11.26		11.26		13.54		9.55		8.03	
MSCI ACWI NR USD		6.68		18.54		18.54		20.38		14.40		11.85	
Hartford Schroders Emerging Mkts Eq F	(11/12)	-2.93	80	-4.93	78	-4.93	78	12.91	32	11.41	24	6.50	31
MSCI EM NR USD		-1.31		-2.54		-2.54		10.94		9.87		5.49	

Data Source: Morningstar, SEI Investments

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PARS: County of Contra Costa

December 31, 2021

				REIT	EQUITY F	UNDS							
		3-Month		YTD		1-Year		3-Year		5-Year		10-Year	
Fund Name	Inception	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
Vanguard Real Estate ETF	(6/17)	14.89	74	40.38	65	40.38	65	19.91	49	11.22	49	11.50	33
Wilshire REIT Index		17.14		46.18		46.18		19.19		10.92		11.47	-
				В	OND FUND	DS .							
Core Fixed Income Portfolio		-0.11	30	-1.30	32	-1.30	32	5.06	36	3.74	32	3.17	33
PIMCO Total Return Instl		0.16	40	-0.61	50	-0.61	50	5.42	55	4.20	39	3.70	39
PGIM Total Return Bond R6	(5/16)	0.29	6	-1.16	68	-1.16	68	5.89	32	4.71	15	4.44	11
Bloomberg US Agg Bond TR USD		0.01		-1.54		-1.54		4.79		3.57		2.90	
PIMCO High Yield Instl	(5/16)	0.68	33	4.05	68	4.05	68	8.00	43	5.62	35	6.17	35
ICE BofA US High Yield Mstr II Index		0.66		5.36		5.36		8.57		6.10		6.76	
				ALTE	RNATIVE F	UNDS							
BlackRock Event Driven Equity Instl	(3/19)	0.71	38	1.94	56	1.94	56	5.15	48	5.61	32	8.49	10
BlackRock Strategic Income Opps K	(7/13)	-0.19	48	1.06	56	1.06	56	5.35	22	4.08	19	4.06	16
Western Asset Macro Opportunities IS	(3/21)	0.48	18	-0.45	75	-0.45	75	7.55	5	6.27	2		
Dynamic Alternatives Index		0.62		4.72		4.72		4.85		3.01		1.69	

Data Source: Morningstar, SEI Investments

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For Period Ending December 31, 2021

				LAR	GE CAP	EQUITY FU	NDS								
		2021		2020		2019		2018		2017		2016		2015	
Fund Name	Inception	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
Columbia Contrarian Core Inst3	(7/13)	24.45	74	22.44	11	33.08	11	-8.81	85	21.89	31	8.77	75	3.25	10
Vanguard Growth & Income Adm	(12/16)	29.11	18	18.08	44	29.77	57	-4.61	33	20.80	60	12.12	28	2.03	19
Dodge & Cox Stock	(10/14)	31.73	10	7.16	25	24.83	62	-7.07	35	18.33	28	21.28	6	-4.49	72
iShares S&P 500 Value ETF	(12/19)	24.67	68	1.24	65	31.71	6	-9.09	60	15.19	66	17.17	30	-3.24	51
T. Rowe Price Growth Stock I		20.18	62	37.09	40	30.98	66	-0.89	42	33.84	17	1.58	66	10.93	6
Harbor Capital Appreciation Retirement		15.74	79	54.56	11	33.39	43	-0.96	43	36.68	6	-1.04	87	10.99	5
Russell 1000 Index		26.45		20.96		31.43		-4.78		21.69		12.05		0.92	
iShares Russell 1000 ETF	(3/15)	26.27	56	20.80	20	31.26	34	-4.91	41	21.53	42	11.91	33	0.82	39
				МІ	D CAP E	QUITY FUN	DS								
iShares Russell Mid-Cap ETF	(3/15)	22.38	68	16.91	23	30.31	25	-9.13	38	18.32	34	13.58	66	-2.57	45
Russell Midcap Index		22.58		17.10		30.54		-9.06		18.52		13.80		-2.44	
				SMA	ALL CAP	EQUITY FU	NDS								
Undiscovered Managers Behavioral Val R6	(9/16)	34.50	32	3.62	47	23.34	35	-15.20	51	13.53	12	20.97	75	3.52	1
Russell 2000 Value Index		28.27		4.63		22.39		-12.86		7.84		31.74		-7.47	
Victory RS Small Cap Growth R6	Sold (12/21)	-10.74	98	38.32	47	38.38	9	-8.66	77	37.05	4	0.88	96	0.09	27
Vanguard Small-Cap Growth ETF	(12/21)	5.71	69	35.29	55	32.75	32	-5.68	59	21.90	52	10.74	50	-2.51	57
Russell 2000 Growth Index		2.83		34.63		28.48		-9.31		22.17		11.32		-1.38	
iShares Russell 2000 ETF	(3/15)	14.62	95	19.89	15	25.42	37	-11.02	44	14.66	28	21.36	49	-4.33	52
				INTER	NATIONA	L EQUITY I	UNDS								
Dodge & Cox International Stock		11.03	58	2.10	44	22.78	11	-17.98	81	23.94	40	8.26	22	-11.35	92
DFA Large Cap International I	(12/18)	12.81	19	8.12	61	22.04	47	-14.14	49	25.37	52	3.16	28	-2.86	75
MFS International Growth R6		9.65	46	15.82	78	27.31	68	-8.79	11	32.58	32	2.79	16	0.40	51
MFS Global Equity R6	(3/15)	17.45	66	14.25	50	30.66	6	-9.51	46	24.04	35	7.43	36	-1.34	53
iShares Core MSCI EAFE ETF	(3/15)	11.29	37	8.55	54	22.67	38	-14.20	50	26.42	41	1.36	48	0.53	30
iShares MSCI ACWI ETF	(3/15)	18.38	52	16.38	28	26.70	41	-9.15	41	24.35	31	8.22	26	-2.39	75
American Funds New Perspective R6	(3/15)	18.10	28	33.81	35	30.48	52	-5.56	32	29.30	55	2.19	48	5.63	16
MSCI EAFE Index		11.26		7.82		22.01		-13.79		25.03		1.00		-0.81	
MSCI AC World Index		18.54		16.25		26.60		-9.41		23.97		7.86		-2.36	
Hartford Schroders Emerging Mkts Eq F	(11/12)	-4.93	78	23.78	26	22.32	33	-15.42	44	40.96	21	10.41	44	-12.68	39
MSCI EM Free Index		-2.54		18.31		18.42		-14.57		37.28		11.19		-14.92	

Data Source: Morningstar, SEI Investments

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PARS: County of Contra Costa

For Period Ending December 31, 2021

					REIT EQU	ITY FUNDS	;								
		2021		2020		2019		2018		2017		2016		2015	
Fund Name	Inception	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank	Return	Rank
Vanguard Real Estate ETF	(6/17)	40.38	60	-4.72	45	28.91	32	-5.95	61	4.95	66	8.53	17	2.37	61
Wilshire REIT Index		46.18		-7.90		25.76		-4.84		4.18		7.24		4.23	
					BOND	FUNDS									
Fixed Income ex Funds		-1.30		7.60		9.20		0.14		3.49		3.63		0.78	
PIMCO Total Return InstI		-0.84	51	8.88	35	8.26	76	-0.26	30	5.13	21	2.60	82	0.73	15
PGIM Total Return Bond R6	(5/16)	-1.15	67	8.10	53	11.13	7	-0.63	46	6.71	5	4.83	22	0.09	41
Bloomberg US Aggregate Bd Index		-1.54		7.51		8.72		0.01		3.54		2.65		0.55	
PIMCO High Yield Instl	(5/16)	4.05	69	5.34	49	14.93	24	-2.49	44	7.01	42	12.70	61	-1.85	29
ICE BofA US High Yield Mstr II Index		5.36	0	6.17	0	14.41	0	-2.27	0	7.48	0	17.49	0	-4.64	0
				A	LTERNA	TIVE FUND	S								
BlackRock Strategic Income Opps K	(7/13)	1.05	56	7.29	23	7.82	35	-0.47	52	4.97	40	3.65	79	-0.30	34
BlackRock Event Driven Equity Instl	(3/19)	1.94	56	6.30	36	7.29	35	5.49	9	7.14	11	4.29	41	-1.56	66
Western Asset Macro Opportunities IS	(2/19)	-0.45	75	6.99	25	16.80	1	-5.42	95	15.21	1	6.57	34	1.57	13
Dynamic Alternatives Index		4.72		3.19		6.66		-4.24		5.07		2.29		-5.19	

Data Source: Morningstar, SEI Investments

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Columbia Contrarian Core Inst3

Tracking Error



Source: Morningstar Direct, as of December 31, 2021 Information provided herein was obtained from third-party sources deemed reliable. HighMark and its affiliates make no representations or warranties with respect to the timeliness, accuracy, or completeness of the information and bear no liability for any loss arising from its use.

- US Fund Large Blend

Russell 1000 TR USD

- Columbia Contrarian Core Inst3

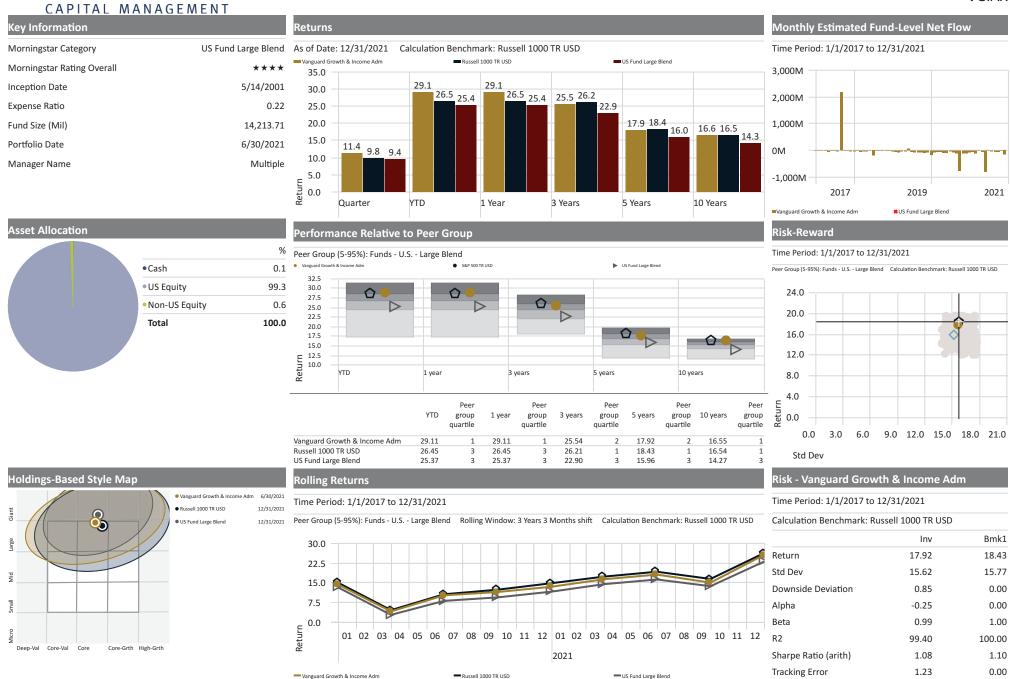
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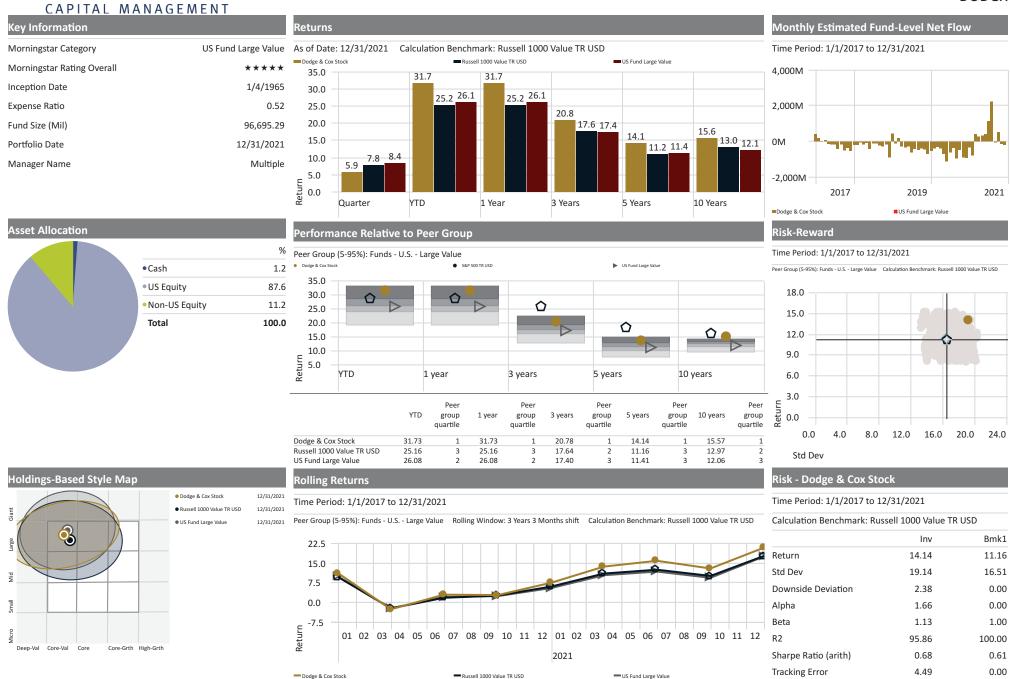
Vanguard Growth & Income Adm

VGIAX



Dodge & Cox Stock

DODGX





Harbor Capital Appreciation Retirement

HNDCX





T. Rowe Price Growth Stock I

Beta

Sharpe Ratio (arith)

Tracking Error



Russell 1000 Growth TR USD Source: Morningstar Direct, as of December 31, 2021 Information provided herein was obtained from third-party sources deemed reliable. HighMark and its affiliates make no representations or warranties with respect to the timeliness, accuracy, or completeness of the information and bear no liability for any loss arising from its use.

10 11 12 01 02 03 04 05 06 07 08 09 10 11 12

- US Fund Large Growth

2021

07

08 09

7.5

T. Rowe Price Growth Stock I

Return

1.00

1.46

0.00

100.00

0.98

94.81

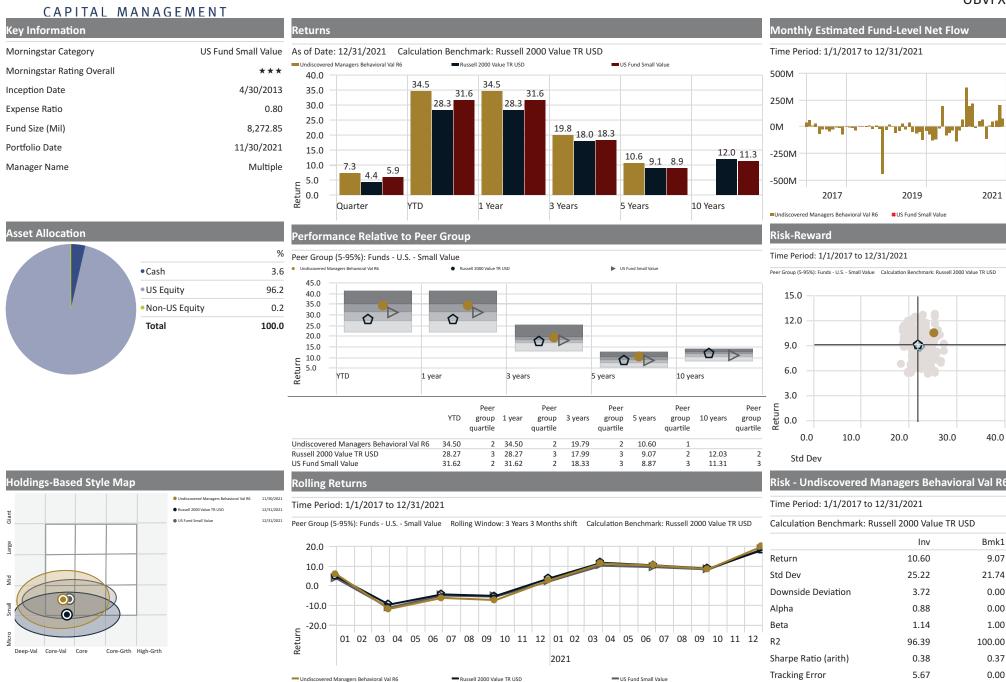
1.33

3.83



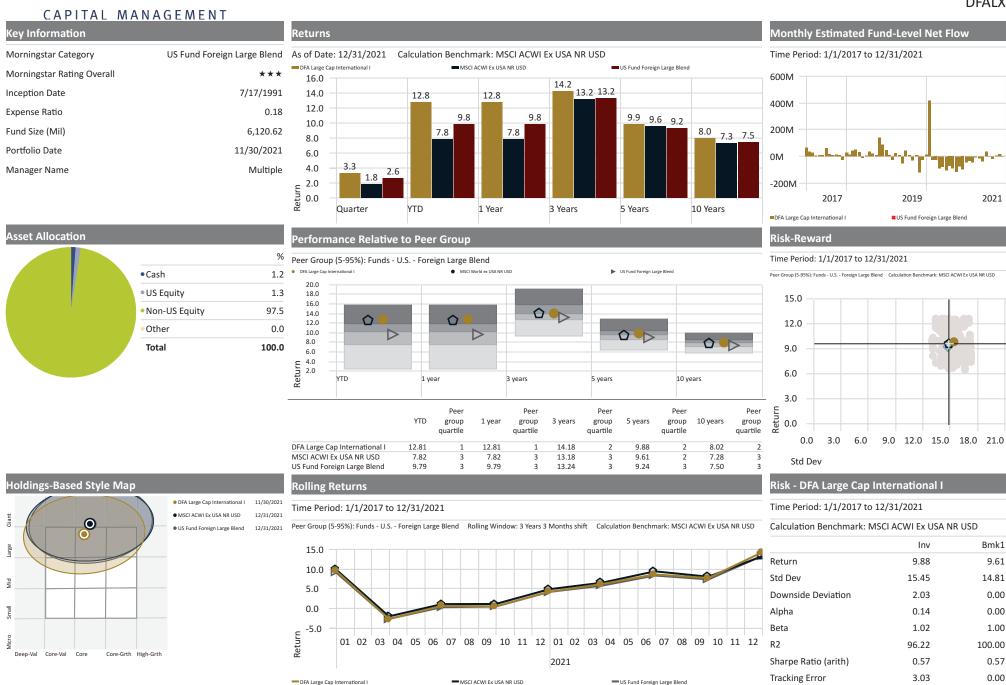
Undiscovered Managers Behavioral Val R6

UBVFX





DFA Large Cap International I





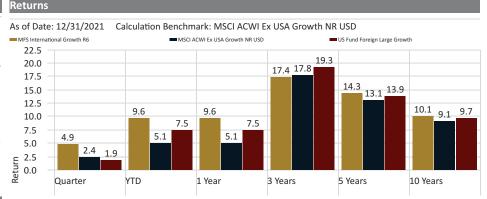
MFS International Growth R6

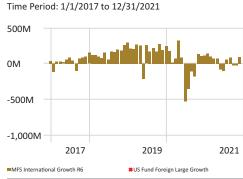
Risk-Reward

Time Period: 1/1/2017 to 12/31/2021

MGRDX

Key Information Morningstar Category US Fund Foreign Large Growth As of Date: 12/31/2021 Morningstar Rating Overall 5/1/2006 Inception Date **Expense Ratio** 0.72 Fund Size (Mil) 14,506.51 11/30/2021 Portfolio Date Manager Name Multiple

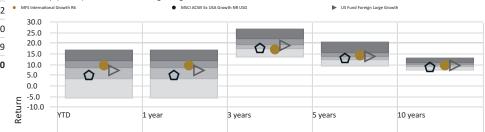




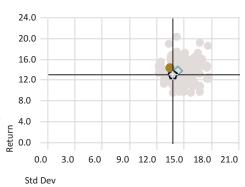
Monthly Estimated Fund-Level Net Flow

Asset Allocation Cash 2.2 US Equity 4.0 93.9 Non-US Equity **Total** 100.0



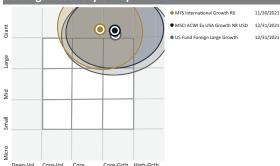


	YTD	Peer group quartile	1 year	Peer group quartile	3 years	Peer group quartile	5 years	Peer group quartile	10 years	Peer group quartile
MFS International Growth R6	9.65	2	9.65	2	17.37	4	14.35	2	10.09	2
MSCI ACWI Ex USA Growth NR USD	5.09	3	5.09	3	17.82	3	13.06	3	9.13	3
US Fund Foreign Large Growth	7.51	3	7.51	3	19.30	2	13.85	2	9.68	3



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

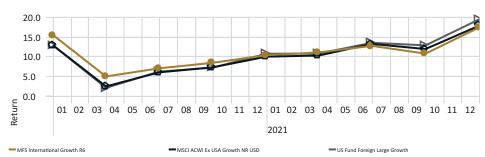
Holdings-Based Style Map



Rolling Returns

Time Period: 1/1/2017 to 12/31/2021

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



Risk - MFS International Growth R6

Time Period: 1/1/2017 to 12/31/2021

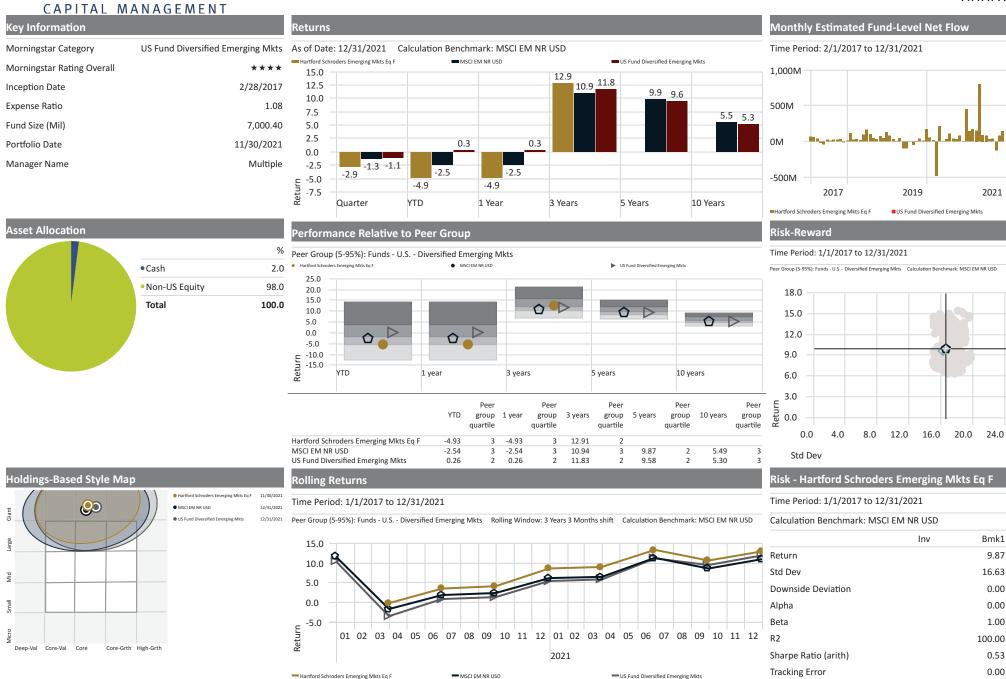
Calculation Benchmark: MSCI ACWI Ex USA Growth NR USD

	Inv	Bmk1
Return	14.35	13.06
Std Dev	13.43	13.78
Downside Deviation	2.29	0.00
Alpha	1.76	0.00
Beta	0.95	1.00
R2	94.17	100.00
Sharpe Ratio (arith)	0.99	0.87
Tracking Error	3.34	0.00



Hartford Schroders Emerging Mkts Eq F

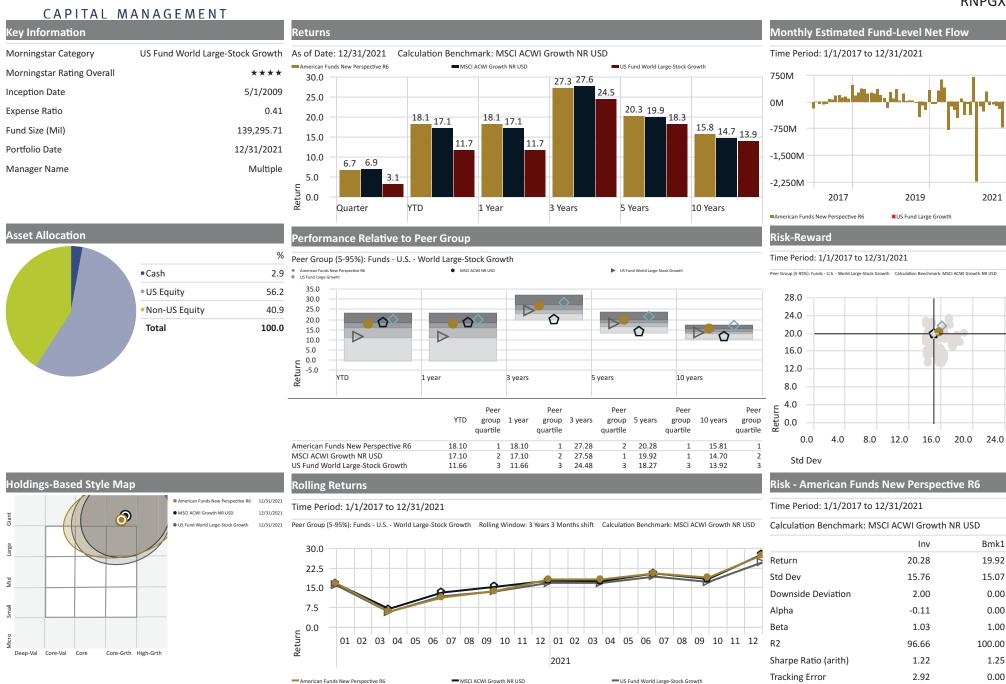
HHHFX





American Funds New Perspective R6

RNPGX



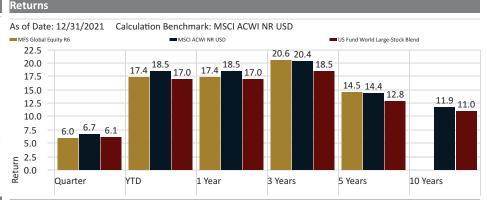


MFS Global Equity R6

Monthly Estimated Fund-Level Net Flow

MWEM)

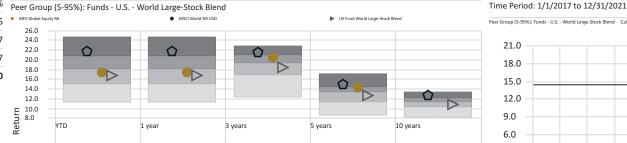
Key InformationMorningstar CategoryUS Fund World Large-Stock BlendMorningstar Rating Overall* * * *Inception Date6/1/2012Expense Ratio0.82Fund Size (Mil)3,602.82Portfolio Date11/30/2021Manager NameMultiple



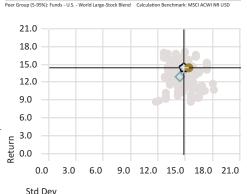
Time Period: 1/1/2017 to 12/31/2021 100M OM -100M -200M 2017 2019 2021 MFS Global Equity R6 *US Fund World Large-Stock Blend Risk-Reward

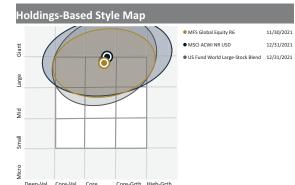
Asset Allocation % •Cash •US Equity •Non-US Equity 46.7 Total 100.0

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	400
MFS Global Equity R6	17.45	3	17.45	3	20.58	2	14.50	2			
MSCI ACWI NR USD	18.54	2	18.54	2	20.38	2	14.40	2	11.85	2	
US Fund World Large-Stock Blend	16.95	3	16.95	3	18.51	3	12.85	3	11.04	3	

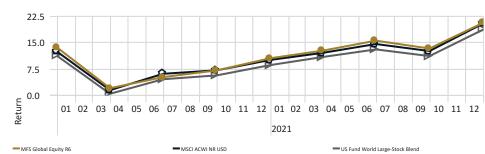




Rolling Returns

Time Period: 1/1/2017 to 12/31/2021

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



Risk - MFS Global Equity R6

Time Period: 1/1/2017 to 12/31/2021

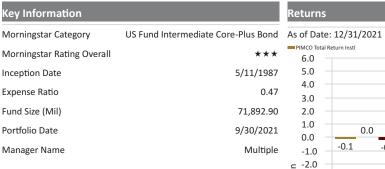
Calculation Benchmark: MSCI ACWI NR USD

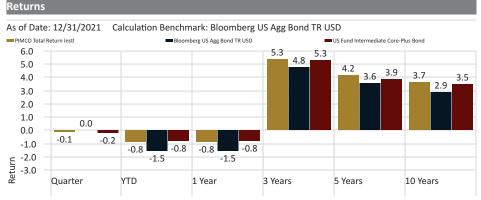
	Inv	Bmk1
Return	14.50	14.40
Std Dev	15.42	14.84
Downside Deviation	2.60	0.00
Alpha	0.07	0.00
Beta	1.01	1.00
R2	94.14	100.00
Sharpe Ratio (arith)	0.87	0.90
Tracking Error	3.74	0.00

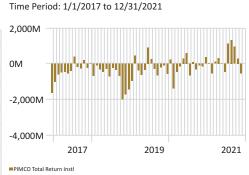
PIMCO Total Return Instl

Monthly Estimated Fund-Level Net Flow

PTTRX



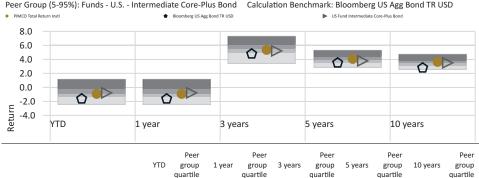




Fixed-Inc Sectors (Morningstar) - PIMCO Total Return Ins



Performance Relative to Peer Group



-0.84

-0.76

4 -1.54

2

5.34

4.79

5.31

Calculation Benchmark: Bloomberg US Agg Bond TR USD

4

2

4.15

3.57

3.89

US Fund Intermediate Core-Plus Bond

4

3

3.68

2 90

3.49

3

3

	7.0						
	6.0						
	5.0				90		
	4.0			—,	>		
	3.0			-			
	2.0						
_ <u>_</u>	1.0						
Return	0.0						
	0.0	1.0	2.0	3.0	4.0	5.0	6.0
	Std Dev						

Morningstar Style Box - PIMCO Total Return Instl

Portfolio Date: 9/30/2021

Morningstar Fixed Income Style Box™ Fixed-Income Stats

Not Available

Average Eff Duration Survey	5.6
Average Eff Maturity Survey	7.8
Average Coupon	2.7
Average Price	106.1

Rolling Returns

PIMCO Total Return Instl

Bloomberg US Agg Bond TR USD

US Fund Intermediate Core-Plus Bond

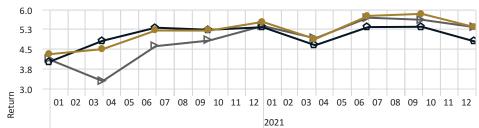
Time Period: 1/1/2017 to 12/31/2021

Rolling Window: 3 Years 3 Months shift

-0.84

-1.54

-0.76



Risk - PIMCO Total Return Instl

Risk-Reward

7.0

Time Period: 1/1/2017 to 12/31/2021

Time Period: 1/1/2017 to 12/31/2021

Calculation Benchmark: Bloomberg US Agg Bond TR USD

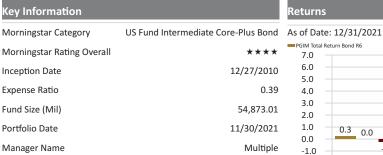
	Inv	Bmk1
Return	4.15	3.57
Std Dev	3.09	3.06
Downside Deviation	0.73	0.00
Alpha	0.67	0.00
Beta	0.96	1.00
R2	88.82	100.00
Information Ratio (geo)	0.54	
Tracking Error	1.03	0.00

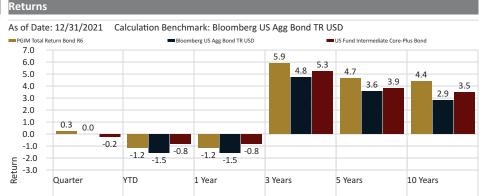
Source: Morningstar Direct, as of December 31, 2021. Information provided herein was obtained from third-party sources deemed reliable. HighMark and its affiliates make no representations or warranties with respect to the timeliness, accuracy, or completeness of the information and bear no liability for any loss arising from its use.

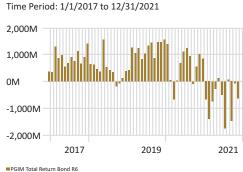
Bloomberg US Agg Bond TR USD

PGIM Total Return Bond R6

Monthly Estimated Fund-Level Net Flow



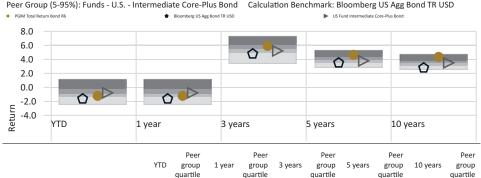




Fixed-Inc Sectors (Morningstar) - PGIM Total Return Bon

Portfolio Date: 11/30/2021 Government 8.9 Government Related Convertible 1.0 29.3 Corporate Bond 4.2 Agency Mortgage-Backed Non-Agency Residential Mortgage-Backed 0.8 9.2 Commercial Mortgage-Backed 19.0 Asset-Backed Cash & Equivalents 1.6 Forward/Future 21.3 Othe 1.5 100.0

Performance Relative to Peer Group



-1.15

-0.76

4 -1.54

2

5.90

4.79

5.31

Calculation Benchmark: Bloomberg US Agg Bond TR USD

4

2

4.72

3.57

3.89

4

3

4.44

2 90

3.49

3

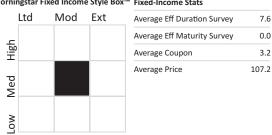
3

7.0						
6.0						
5.0						
4.0			 ⊹	>		
3.0						
2.0						
€ 1.0						
0.0 Lun						
0.0	1.0	2.0	3.0	4.0	5.0	6.0
Std Dev						

Morningstar Style Box - PGIM Total Return Bond R6

Portfolio Date: 11/30/2021

Morningstar Fixed Income Style Box™ Fixed-Income Stats



Rolling Returns

PGIM Total Return Bond R6

Bloomberg US Agg Bond TR USD

US Fund Intermediate Core-Plus Bond

Time Period: 1/1/2017 to 12/31/2021

Rolling Window: 3 Years 3 Months shift

7.0 6.0 5.0 4.0 3.0 Return 01 02 03 04 05 06 07 08 09 10 11 12 01 02 03 04 05 06 07 08 09 10 11 12 2021 - PGIM Total Return Bond R6 Bloomberg US Agg Bond TR USD US Fund Intermediate Core-Plus Bond

Risk - PGIM Total Return Bond R6

Time Period: 1/1/2017 to 12/31/2021

Risk-Reward

Time Period: 1/1/2017 to 12/31/2021

Calculation Benchmark: Bloomberg US Agg Bond TR USD

	Inv	Bmk1
Return	4.72	3.57
Std Dev	4.92	3.06
Downside Deviation	2.69	0.00
Alpha	0.47	0.00
Beta	1.29	1.00
R2	63.39	100.00
Information Ratio (geo)	0.36	
Tracking Error	3.09	0.00

Source: Morningstar Direct, as of December 31, 2021. Information provided herein was obtained from third-party sources deemed reliable. HighMark and its affiliates make no representations or warranties with respect to the timeliness, accuracy, or completeness of the information and bear no liability for any loss arising from its use.

-1.15

-1.54

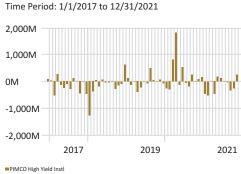
-0.76

PIMCO High Yield Instl

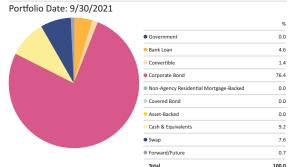
Monthly Estimated Fund-Level Net Flow

Key Information Morningstar Category US Fund High Yield Bond Morningstar Rating Overall Inception Date 12/15/1992 Expense Ratio 0.56 10,908.20 Fund Size (Mil) 9/30/2021 Portfolio Date Multiple Manager Name

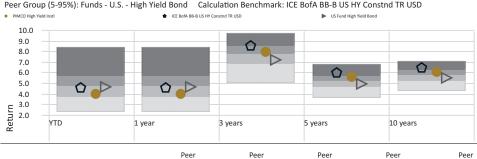
Returns As of Date: 12/31/2021 Calculation Benchmark: ICE BofA BB-B US HY Constnd TR USD ICE BofA BB-B US HY Constnd TR USD 10.0 9.0 8.0 8.0 6.2 _6.5 7.0 6.0 4.6 4.7 4.6 4.7 5.0 4.0 3.0 2.0 0.7 0.7 0.5 0.0 gtrn 1.0 YTD 1 Year 3 Years 5 Years 10 Years Quarter



Fixed-Inc Sectors (Morningstar) - PIMCO High Yield Instl



Performance Relative to Peer Group



group

3

3

quartile

4.05

4.60

4.73

3 years

8.00

8 56

7.26

Calculation Benchmark: ICE BofA BB-B US HY Constnd TR USD

group

3

quartile

group

1

3

quartile

5.62

6.04

4.99

10 years

6.17

6.54

5.56

group

quartile

6.0 —			8		5	
4.0			3			
2.0 —						
Return 0.0 —						
0.0 Std D		4.0	6.0	8.0	10.0	12.0
310 0	EV					

Morningstar Style Box - PIMCO High Yield Instl	Rolling Returns
	ICE BofA BB-B US HY Constnd TR USD US Fund High Yield Bond
	PIMCO High Yield Instl

Rolling Returns

Risk - PIMCO High Yield Instl Time Period: 1/1/2017 to 12/31/2021

Risk-Reward

8.0

Time Period: 1/1/2017 to 12/31/2021

Portfolio Date: 9/30/2021

Morningstar Fixed Income Style Box™ Fixed-Income Stats

Not Available

Average Eff Duration Survey	3.7
Average Eff Maturity Survey	5.7
Average Coupon	5.3
Average Price	104.9

Time Period: 1/1/2017 to 12/31/2021

YTD

4.05

4.60

4.73

group

3

quartile

Rolling Window: 3 Years 3 Months shift 10.0 5.0 0.0 -5.0 Return 01 02 03 04 05 06 07 08 09 10 11 12 01 02 03 04 05 06 07 08 09 10 11 12 2021 ■ ICE BofA BB-B US HY Constnd TR USD - PIMCO High Yield Instl - US Fund High Yield Bond

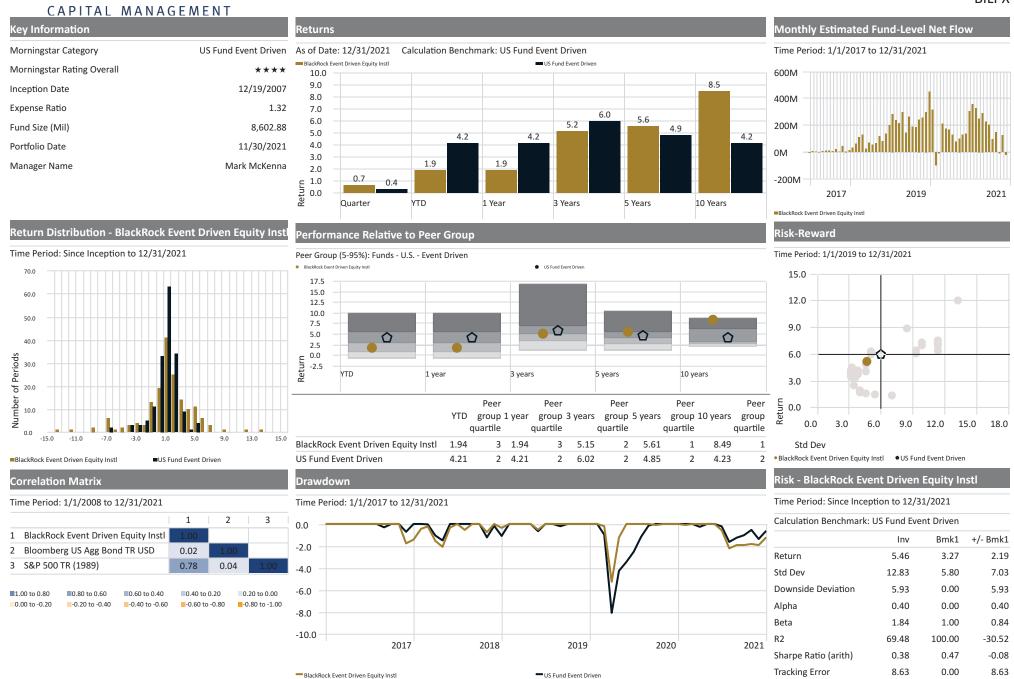
Calculation Benchmark: ICE BofA BB-B US HY Constnd TR USD

Inv Bmk1 Return 5.62 6.04 Std Dev 6.62 7.00 **Downside Deviation** 0.52 0.00 Alpha -0.14 0.00 0.94 1.00 Beta R2 100.00 99.19 Information Ratio (geo) -0.55 Tracking Error 0.72 0.00



BlackRock Event Driven Equity Instl

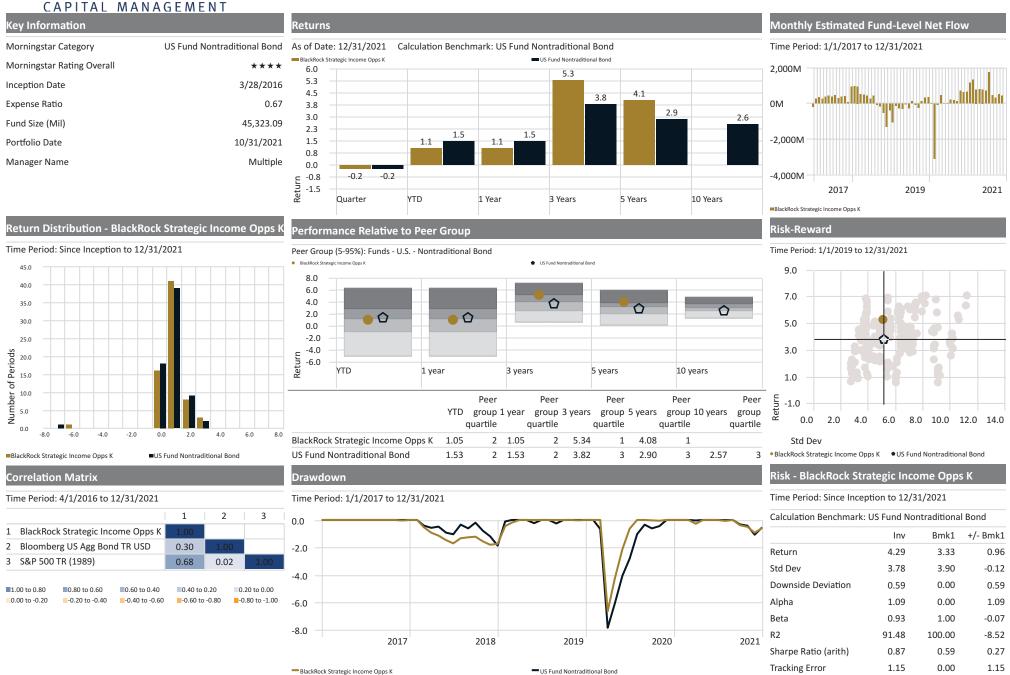
BILPX





BlackRock Strategic Income Opps K

BSIKX





Western Asset Macro Opportunities IS

LAOSX

