Callan

March 31, 2022

North Dakota State Investment Board Legacy Fund

Investment Measurement Service Quarterly Review

Information contained herein includes confidential, trade secret and proprietary information. Neither this Report nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose or disseminated to any other person without Callan's permission. Certain information herein has been compiled by Callan and is based on information provided by a variety of sources believed to be reliable for which Callan has not necessarily verified the accuracy or completeness of or updated. This content may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. This content is for informational purposes only and should not be construed as legal or tax advice on any matter. Any decision you make on the basis of this content is your sole responsibility. You should consult with legal and tax advisers before applying any of this information to your particular situation. Past performance is no guarantee of future results. For further information, please see the Appendix section in your investment measurement service quarterly review report for Important Information and Disclosures.

Table of Contents March 31, 2022

Executive Summary	
Active Management Overview	2
Capital Market Review	3
Asset Allocation and Performance	
Actual vs Target Asset Allocation	19
Quarterly Total Fund Attribution	20
Cumulative Total Fund Attribution	21
Historical Asset Allocation	25
Asset Class Rankings	26
Asset Class Allocation	27
Asset Class Returns	28
Manager Evaluation	
Domestic Equity	
Domestic Equity Composite	32
Parametric Large Cap	33
L.A. Capital Large Cap Growth	34
L.A. Capital Enhanced	35
LSV Large Cap Value	36
Atlanta Capital	37
Riverbridge Small Cap Growth	38
Sycamore Small Cap Value	39
International Equity	
International Equity Composite	41
DFA International Small Cap Value	42
LSV International Value	43
Vanguard Intl Explorer Fund	44
William Blair	45
Private Equity	
Sixth Street TAO	47

Table of Contents March 31, 2022

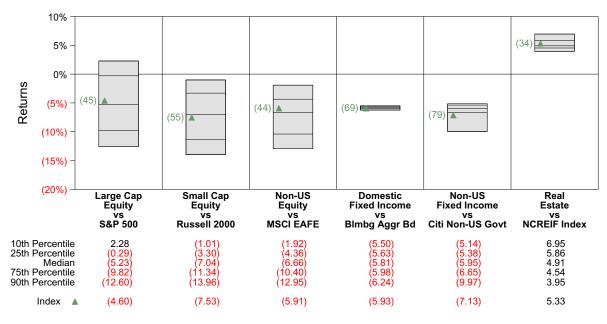
Domestic Fixed Income	
Domestic Fixed Income Composite	49
Ares ND Credit Strategies Fund	50
Cerberus ND Private Credit Fund	51
Declaration Total Return	52
PIMCO Bravo II	53
PIMCO DISCO II	54
Prudential	55
SSgA US Government Credit Bond Index	56
Wells Capital	57
Western Asset Management Company	58
Real Estate	
Invesco Core Real Estate	60
JP Morgan RE Income & Growth	61
Diversified	
Western Asset Management TIPS	63
JP Morgan IIF Infrastructure	64
Grosvenor CIS Fund II	65
Grosvenor CIS Fund III	66
ISQ Global Infrastructure II	67
ISQ Global Infrastructure III	68
Macquarie Infrastructure Fund IV	69
Macquarie Infrastructure Fund V	70
Callan Research/Education	71
Disclosures	74

Market Overview Active Management vs Index Returns

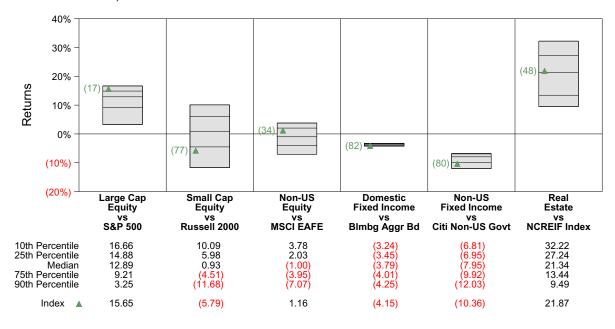
Market Overview

The charts below illustrate the range of returns across managers in Callan's Separate Account database over the most recent one quarter and one year time periods. The database is broken down by asset class to illustrate the difference in returns across those asset classes. An appropriate index is also shown for each asset class for comparison purposes. As an example, the first bar in the upper chart illustrates the range of returns for domestic equity managers over the last quarter. The triangle represents the S&P 500 return. The number next to the triangle represents the ranking of the S&P 500 in the Large Cap Equity manager database.

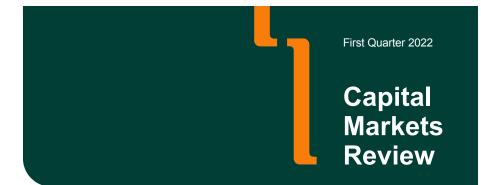
Range of Separate Account Manager Returns by Asset Class One Quarter Ended March 31, 2022



Range of Separate Account Manager Returns by Asset Class One Year Ended March 31, 2022









Geopolitical Upheaval; Unsettled Markets

ECONOMY

Capital markets reacted strongly to the upheaval and uncertainty unleashed by Russia's invasion of Ukraine. Both stocks and bonds dropped in 1Q22, and GDP fell 1.4%, but underlying strength in the U.S. economy should spare the country from a recession.

Global Indices Fall, Driven by Rate Hikes

FIXED INCOME

The Bloomberg
Aggregate fell 5.9%, its
worst quarterly return
since 1980. The Fed raised rates
by 25 bps, with many more hikes
expected. Global indices fell as
well, driven by broad interest rate
increases. Russia was removed
from indices at a price of \$0.

Appealing in Climate of Low Yields

PRIVATE CREDIT

Private credit continues to be attractive in this low-yield environment, and the floating-rate structure of many types of private credit serves as a buffer as interest rates rise. On average, it has generated net IRRs of 8% to 10% for trailing periods ended Sep. 30, 2021.

Quarterly Losses Amid Global Turmoil

INSTITUTIONAL INVESTORS

All institutional investor types saw declines in 1Q22, but most did better than a 60% stocks/40% bonds benchmark. Over 20 years, returns for institutional investors have roughly matched the benchmark returns, and exceeded fixed income and global ex-U.S. equities.

Asset Class Shows Continued Gains

REAL ESTATE/REAL ASSETS

The NCREIF Property Index rose 5.3% during 1Q22. The NCREIF Open-End Diversified Core Equity (ODCE) Index rose 7.1%. While U.S. REITs, as measured by the FTSE Nareit Equity REITs Index, fell 3.9%, they outperformed U.S. equities. Commodities were a rare bright spot.

Market Volatility Tests Managers' Strategies

HEDGE FUNDS/MACs

Hedge funds ended the volatile quarter with mixed results, as equity hedge managers had a difficult time. Event-driven strategies fell, due to a higher weight to equities vs. credit. Macro strategies soared, as commodities spiked. Relative value managers gained, profiting off rate volatility.

War, COVID Weigh on Markets Worldwide

EQUITY

The S&P 500 fell 4.6% in 1Q22, but was down more than 12% early in March before rallying into quarterend. Global equity indices fell as well, as a resurgence of COVID-19 cases in Europe and Asia, specifically in China, weighed on the global recovery.

Where Do Investors Go From Here?

PRIVATE EQUITY

Except for fundraising dollar volume, all other private equity activity measures moderated in 1Q22. It was still a good quarter from a transaction volume perspective, as positive sentiment toward private equity and its ability to capitalize on volatile periods persisted.

DC Index Bounces Back in 4Q After Loss

DEFINED CONTRIBUTION

The Callan DC Index™ rose 5.1% in 4Q21, after falling in 3Q, while the Age 45 Target Date Fund gained 5.5%. TDFs again saw the largest net inflows. Real return/TIPS had larger-than-typical net inflows (+13.6%), indicating participants may be looking to hedge inflation.

Broad Market Quarterly Returns

U.S. Equity Russell 3000



Global ex-U.S. Equity MSCI ACWI ex USA



U.S. Fixed Income Bloomberg Agg



Global ex-U.S. Fixed Income Bloomberg Global Agg ex US



Sources: Bloomberg, FTSE Russell, MSCI

Geopolitical Upheaval and Unsettled Markets

ECONOMY | Jay Kloepfer

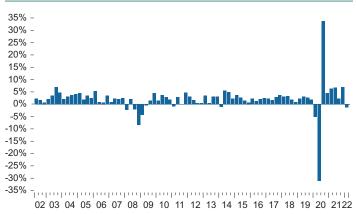
Capital markets abhor uncertainty, and there is no greater human-generated uncertainty than war. The Russian invasion of Ukraine upended expectations for an orderly slowdown in economic growth from the surge in 2021, and for the spike in inflation to subside as pandemic-induced supply chain bottlenecks cleared. Amid this geopolitical upheaval and humanitarian catastrophe, the equity and fixed income markets were both down in 1Q22. How often does that happen? More than we expected. Looking at data back to 1926, there have been 37 quarters in which returns on stocks and bonds were both negative, almost 10% of all guarters over that period. Before now, the most recent quarter was 1Q18, and before that, the 2nd and 3rd quarters of 2008, as the Global Financial Crisis (GFC) began unfolding. In case you were wondering, the S&P 500 plunged 19.6% in 1Q20, while the Bloomberg Aggregate rose 3.1%. The frequency of down quarters for both stocks and bonds has been much lower since 1990 than in the first 60 years of the data set. Looking at annual returns, there have been only two calendar years when stocks and bonds were both down, 1931 and 1969 (with a near-miss in 2018). The point: Over more recent history, stocks and bonds down together is relatively unusual.

The war also hit business and consumer confidence, and the 1Q GDP report surprised all with a 1.4% drop, following a 6.9% surge in 4Q21. The 8.3% swing in growth came from a huge drop in inventory investment and net exports. Imports surged 17.7% while exports declined 5.9%, a sharp reversal from 22.4% growth in 4Q21. The drop in GDP is a surprise because the economy is otherwise healthy, with a strong job market. Final sales to the private sector grew 3.7% in 1Q, up from 2.6% in 4Q21, suggesting strength in aggregate demand. The concern going forward is that the confidence to spend and invest will be tested by rising interest rates, skyrocketing inflation, war uncertainty, and the prospect of a recession.

The Fed raised rates at its March meeting, bringing the Fed Funds rate up to 0.25%-0.50%. Chairman Jerome Powell made a point of debunking a 75 basis point hike at the next

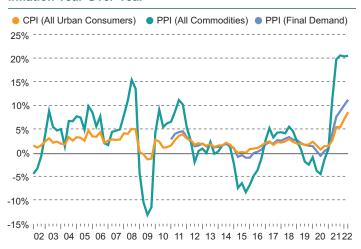
Quarterly Real GDP Growth

(20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

FOMC meeting. The median projection by FOMC members for the Fed Funds rate is 1.90% at the end of 2022, rising to 2.80% in 2023. However, the range of projections (1.4% to 3.2% by year-end) from Committee members reflects a high degree of uncertainty. As of quarter-end, the market was anticipating nine hikes in 2022, three more than expected by the Fed.

The war in Ukraine and the sanctions imposed on Russia are now piling on to supply bottlenecks, with particular concerns about food and energy supplies, and putting into question the assumption that inflation would ease later in 2022 and into 2023.

CPI-U for the U.S. hit 8.5% for the 12 months ending in March, the highest rate since the period ending December 1981. Driving the increase were prices for gasoline, shelter, and food. The energy index rose 32%, with gasoline prices up 48% year over year. The food price index rose 8.8%, and like the broad CPI, it was the biggest surge since 1981. Russia and Ukraine are vital suppliers to regional and global food supplies. In addition to price inflation, the war has raised serious concerns about the 2022 spring planting and harvest later in the year, and the potential for disaster in food-insecure parts of the globe.

The impact of the war is most direct and dramatic in eastern Europe and central Asia (EECA). The economic ties with Russia and Ukraine are extensive for many countries in the EECA bloc. Russia is the largest market for some countries, and the largest source of goods and energy for others. Tourism and foreign direct investment from Russia is substantial, and salary remittances from foreign workers in Russia are a vital source of income for many EECA countries. Poland attracted a substantial number of Ukrainian workers. Even without close ties, countries within the EECA, western Europe, Africa, and the Americas are vulnerable to disruptions in the flow of goods, services, and energy stemming from the conflict.

If recession is often identified by consecutive quarterly declines in GDP, why wouldn't the 1Q22 decline signal a potential downturn? First, aggregate demand remains robust. Second, household balance sheets are healthy. A labor market characterized by high employer demand, low unemployment (3.6% and falling), and rising compensation suggests continuing growth in consumer spending. Business investment will respond to this strong consumer demand. High frequency data show resilient growth in spending on travel and entertainment, and a recovery from the sharp drop in activity during the Omicron wave.

The Long-Term View

	Do	riode E	ndod 1	2/24/24
1Q22	1 Yr			
-5.3	11.9	15.4	14.3	9.5
-4.6	15.6	16.0	14.6	9.4
-7.5	-5.8	9.7	11.0	8.9
-5.9	1.2	6.7	6.3	5.0
-5.4	-1.5	6.8	5.6	
-7.0	-11.4	6.0	3.4	
-6.5	0.0	7.9	7.3	6.7
-5.9	-4.2	2.1	2.2	4.7
0.0	0.1	1.1	0.6	2.0
-11.0	-3.1	4.6	4.7	6.9
-6.1	-7.9	1.3	0.1	3.4
5.3	21.9	8.5	9.6	9.5
-3.9	26.5	9.6	9.8	9.7
2.1	7.5	5.5	4.7	6.6
5.0	48.8	21.3	17.1	15.6
25.5	49.3	9.0	-0.7	1.9
6.9	13.9	9.3	1.6	7.1
3.1	8.5	3.4	2.3	2.4
	-5.3 -4.6 -7.5 -5.9 -5.4 -7.0 -6.5 -5.9 0.0 -11.0 -6.1 5.3 -3.9 2.1 5.0 25.5 6.9	1Q22 1 Yr -5.3 11.9 -4.6 15.6 -7.5 -5.8 -5.9 1.2 -5.4 -1.5 -7.0 -11.4 -6.5 0.0 -5.9 -4.2 0.0 0.1 -11.0 -3.1 -6.1 -7.9 5.3 21.9 -3.9 26.5 2.1 7.5 5.0 48.8 25.5 49.3 6.9 13.9	1Q22 1 Yr 5 Yrs -5.3 11.9 15.4 -4.6 15.6 16.0 -7.5 -5.8 9.7 -5.9 1.2 6.7 -5.4 -1.5 6.8 -7.0 -11.4 6.0 -6.5 0.0 7.9 -5.9 -4.2 2.1 0.0 0.1 1.1 -11.0 -3.1 4.6 -6.1 -7.9 1.3 5.3 21.9 8.5 -3.9 26.5 9.6 2.1 7.5 5.5 5.0 48.8 21.3 25.5 49.3 9.0 6.9 13.9 9.3	-5.3 11.9 15.4 14.3 -4.6 15.6 16.0 14.6 -7.5 -5.8 9.7 11.0 -5.9 1.2 6.7 6.3 -5.4 -1.5 6.8 5.6 -7.0 -11.4 6.0 3.4 -6.5 0.0 7.9 7.3 -5.9 -4.2 2.1 2.2 0.0 0.1 1.1 0.6 -11.0 -3.1 4.6 4.7 -6.1 -7.9 1.3 0.1 5.3 21.9 8.5 9.6 -3.9 26.5 9.6 9.8 2.1 7.5 5.5 4.7 5.0 48.8 21.3 17.1 25.5 49.3 9.0 -0.7 6.9 13.9 9.3 1.6

^{*}Data for most recent period lags. Data as of 9/30/21.

Sources: Bloomberg, Bureau of Economic Analysis, Credit Suisse, FTSE Russell, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

While expectations for economic growth in the U.S. are clearly lower since the Russian invasion, with GDP projections for 2022 down from 4% to 3% or lower, they are still positive. The impact of the war may be more consequential for Europe, with its greater dependence on energy imports. Risk of recession is higher, but not yet the expected case for 2022.

Kristin Bradbury contributed to this commentary.

Recent Quarterly Economic Indicators

	1Q22	4Q21	3Q21	2Q21	1Q21	4Q20	3Q20	2Q20
Employment Cost–Total Compensation Growth	4.5%	4.0%	3.7%	2.9%	2.6%	2.5%	2.4%	2.7%
Nonfarm Business–Productivity Growth	-7.5%	6.3%	-3.9%	3.2%	2.2%	-2.8%	6.2%	10.3%
GDP Growth	-1.4%	6.9%	2.3%	6.7%	6.3%	4.5%	33.8%	-31.2%
Manufacturing Capacity Utilization	78.0%	77.0%	76.1%	75.4%	74.5%	74.0%	71.9%	64.3%
Consumer Sentiment Index (1966=100)	63.1	69.9	74.8	85.6	80.2	79.8	75.6	74.0

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Federal Reserve, IHS Economics, Reuters/University of Michigan

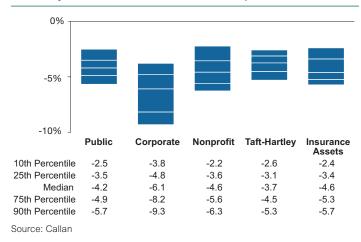
Tough Quarter Amid Global Upheaval, Stock and Bond Drops

INSTITUTIONAL INVESTORS

- All institutional investor types saw lower returns in 1Q22, but most topped equities, fixed income, and a 60% stocks/40% bonds benchmark.
- Taft-Hartley plans fared best, followed by public defined benefit (DB) plans. Corporate DB plans brought up the rear, although the plunge in liabilities may have helped plan funded status.
- All investor types continue to show gains roughly in line with the 60%/40% benchmark over 20 years, although the gap widened a bit this quarter. And all types have topped global ex-U.S. equities and bonds over that same period, although they still lag U.S. equities.
- Strategic conversations remain focused on "Where do we go from here?" Many investors just enjoyed outstanding returns in 2021, but the elation is tempered by sobering capital markets assumptions.
- Inflation and what to do with fixed income continue to be the two primary topics of discussion.
 - · How to structure the overall portfolio to fight inflation
 - What to do to protect bond portfolios with rates rising faster than expected
- After the Global Financial Crisis, many public plans eliminated cost-of-living adjustments (COLAs) to help ensure

- solvency. Improving funded status coupled with generational highs in inflation are bringing COLAs to the forefront again. Retirees want COLAs while active participants in plans with cost sharing want lower contributions to maintain intergenerational equity.
- There is increasing concern about a market drawdown, given high valuations relative to historical averages, rising rates and inflation, and the war in Ukraine.
- More of our clients are back in the office, but uncertainty about return dates for others remains high.

Quarterly Returns, Callan Database Groups



Callan Database Median and Index Returns* for Periods Ended 3/31/22

Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
-4.2	5.5	10.6	9.2	8.5	7.2
-6.1	2.4	8.8	8.0	7.8	6.9
-4.6	4.6	10.3	8.9	8.2	7.2
-3.7	6.5	10.6	9.2	8.7	7.0
-4.6	-0.2	5.3	4.9	4.7	5.3
-4.5	4.8	10.1	8.8	8.2	7.1
-3.9	6.4	10.7	9.4	8.6	7.5
-4.7	4.6	10.1	8.9	8.2	7.0
-4.7	4.3	9.8	8.5	7.9	6.8
-5.1	7.5	12.1	10.6	9.8	7.4
	-4.2 -6.1 -4.6 -3.7 -4.6 -4.5 -3.9 -4.7	-4.2 5.5 -6.1 2.4 -4.6 4.6 -3.7 6.5 -4.6 -0.2 -4.5 4.8 -3.9 6.4 -4.7 4.6 -4.7 4.3	-4.2 5.5 10.6 -6.1 2.4 8.8 -4.6 4.6 10.3 -3.7 6.5 10.6 -4.6 -0.2 5.3 -4.5 4.8 10.1 -3.9 6.4 10.7 -4.7 4.6 10.1 -4.7 4.3 9.8	-4.2 5.5 10.6 9.2 -6.1 2.4 8.8 8.0 -4.6 4.6 10.3 8.9 -3.7 6.5 10.6 9.2 -4.6 -0.2 5.3 4.9 -4.5 4.8 10.1 8.8 -3.9 6.4 10.7 9.4 -4.7 4.6 10.1 8.9 -4.7 4.3 9.8 8.5	-4.2 5.5 10.6 9.2 8.5 -6.1 2.4 8.8 8.0 7.8 -4.6 4.6 10.3 8.9 8.2 -3.7 6.5 10.6 9.2 8.7 -4.6 -0.2 5.3 4.9 4.7 -4.5 4.8 10.1 8.8 8.2 -3.9 6.4 10.7 9.4 8.6 -4.7 4.6 10.1 8.9 8.2 -4.7 4.3 9.8 8.5 7.9

^{*}Returns less than one year are not annualized.

Source: Callan. Callan's database includes the following groups: public defined benefit (DB) plans, corporate DB plans, nonprofits, insurance assets, and Taft-Hartley plans. Approximately 10% to 15% of the database constituents are Callan's clients. All database group returns presented gross of fees. Past performance is no guarantee of future results. Reference to or inclusion in this report of any product, service, or entity should not be construed as a recommendation, approval, affiliation, or endorsement of such product, service, or entity by Callan.

In terms of investment structures, few changes are planned in active vs. passive implementations.

Corporate DB Plans

- Lowered return expectations stress estimated return on asset assumptions for corporate plans.
- For corporate plans with de-risking glidepaths, strong returns led to improved funding and larger fixed income allocations, causing a reduction in expected returns.
- Funding relief from ARPA has some corporate plan sponsors reconsidering LDI in order to increase or at least maintain their allocations to growth assets and expected returns.

Public DB Plans

- 2020-21 gains drove improvements in the funded status of public plans.
- Large public plans are examining whether to have fewer active managers and increasing the allocation to passive in an effort to increase net-of-fee returns.
- Low projected returns mean downward pressure on actuarial discount rates. For many plans it may be an ideal time

- to lower discount rates without having funded status fall to untenable levels.
- However, increased funded status may spur retirees to seek improved COLAs given current inflation.
- Weaker expected returns from liquid markets may spur demand for larger allocations to alternatives as well as discussions of total fund leverage.
- Interest in private credit by public DB plans remains high.

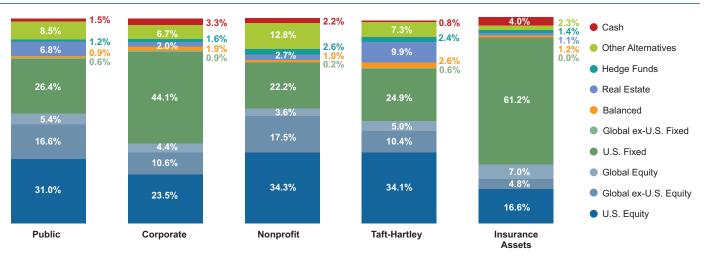
Defined Contribution (DC) Plans

- Fees continue as a top-of-mind issue, with most sponsors benchmarking their fees, according to our DC Survey.
- Target date funds are adding allocations to growth assets across the spectrum of retirement cohorts to increase income-replacement ratios.

Nonprofits

They continue to expand the depth and breadth of their private markets investments in light of both high valuations in public market growth assets and the potential for high inflation to erode the real values of their assets and distributions.

Average Asset Allocation, Callan Database Groups



Note: charts may not sum to 100% due to rounding. Other alternatives include but is not limited to: diversified multi-asset, private credit, private equity, and real assets. Source: Callan

Equity

U.S. Equities

- The S&P 500 Index fell 4.6% in 1Q22, but was down more than 12% early in March before rallying into quarter-end.
- Value stocks sharply outpaced growth across capitalizations, with the spread exceeding 10% in both mid and small caps and just over 8% in large caps.
- Energy (+39%) was the best-performing sector given a 33% spike in WTI crude oil prices. Commodity-linked Materials and Utilities sectors also performed well on a relative basis.
- Communication Services (-12%), Consumer Discretionary (-9%), and Information Technology (-8%) were the worstperforming sectors.
- Uncertainty over rates, inflation, and geopolitical tensions all contributed to a volatile and risk-averse environment.
- Interestingly, the Russell Dynamic Index (-4.3%) outperformed the Russell Defensive Index (-5.9%) during the 1Q downturn.

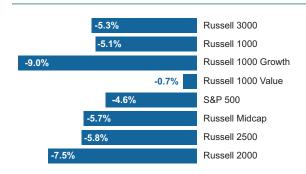
Historical small cap discount relative to large cap

 The Russell 2000 Index continues to underperform the Russell 1000 Index; the small cap index now trails large cap by almost 1,660 basis points cumulatively on a three-year basis and over 2,360 bps on a five-year basis.

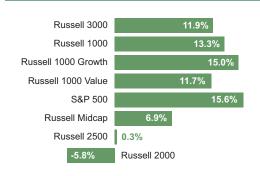
Index concentration

- Index concentration continues despite negative 1Q core index returns and falling earnings contributions.
- Among mega cap tech stocks, Apple and Microsoft now seen as providing downside protection

U.S. Equity: Quarterly Returns



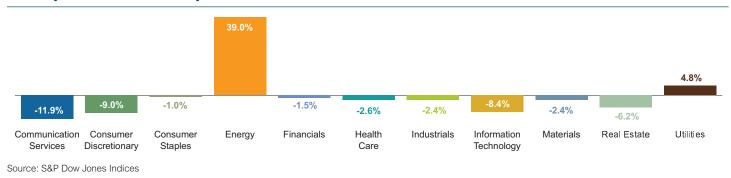
U.S. Equity: One-Year Returns



Sources: FTSE Russell and S&P Dow Jones Indices

 Index concentration continues to cause active managers significant headwinds in the large cap growth space—the Russell 1000 Growth Index has nearly 50% of its capitalization in just the top 10 names (Apple and Microsoft are greater than 10% weights).

Quarterly Performance of Industry Sectors



Global Equity

War in Ukraine stoked market volatility

- In the aftermath of invading Ukraine, Russia faced condemnation and sanctions that crippled its stocks, bonds, and currency and shocked the global markets.
- The fog of war exacerbated inflationary concerns and led to a surge in energy prices, as Russia is the second-largest natural gas provider and third-largest oil producer in the world.
- Energy exporters notably outperformed importers given the soaring prices.

Fears of COVID-19

- A resurgence of COVID-19 cases in Europe and Asia, specifically in China, weighed on the global recovery.
- China's zero-COVID policy has injected doubt into its 2022 projected GDP growth of 5.5%, which is already its lowest annual target in more than 25 years.

Growth vs. value

- Value sectors such as Energy, Materials, and Financials were in favor relative to growth sectors like Consumer Discretionary and Information Technology, due to recession fears and a tightening monetary cycle.
- However, Energy was the worst performer within emerging markets due to the removal of Russia from indices.

U.S. dollar vs. other currencies

With the uncertainty of war, the U.S. dollar strengthened against other major currencies, including the yen, as the Bank of Japan maintained an easing policy.

Value is attractive relative to history

- There are attractive valuations in multiple regions.
- Growth relative to value is more vulnerable as interest rates normalize.
- Global recovery from COVID and deficit in Energy should support value.
- Value sectors are underexposed in international indices relative to history.
- Value outperforms in "heating up" inflationary environments.

Global ex-U.S. Equity: Quarterly Returns





Global ex-U.S. Equity: One-Year Returns (U.S. Dollar)



Source: MSCI

Fixed Income

U.S. Fixed Income

Bonds hit hard as rates rose sharply

- Bloomberg Aggregate worst quarterly return since 1980
- Curve flattened; as of 3/31 5-year U.S. Treasury yield was 10 bps higher than 10-year UST yield (2.42% vs. 2.32%).
- TIPS topped nominal Treasuries, and 10-year breakeven spread widened to 2.84% from 2.56% at year-end.
- Fed raised rates by 25 bps, with many more hikes expected this year.

Credit sectors underperformed

- Investment-grade corporates underperformed durationmatched U.S. Treasuries by 145 bps, RMBS by 71 bps.
- High yield "benefited" from less interest rate sensitivity and relatively higher exposure to the energy sector; excess return vs. U.S. Treasuries was 92 bps.
- Defaults remain low (less than 1%) and yield breeched 6%.

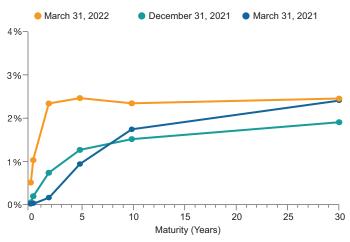
Leveraged loans performed relatively well

Helped by floating rate coupons/low duration

Securitized sectors also performed well

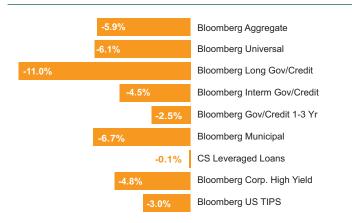
- Consumer ABS was the best within the sector due to its shorter duration profile and solid consumer spending.
- Conduit CMBS traded in line as the economy re-opens.
- Agency MBS saw duration extend by 0.4 year due to higher rates.
- The U.S. yield curve "bear-flattened" as the Fed pivoted to focus on higher-than-expected inflation.
- The U.S. yield curve (2Y/10Y) inverted on the last (intra) day of the quarter, which has not been seen since Aug. 2019.
- Despite rates moving higher this year, could the recent backup indicate a new regime of higher rates, or is the market simply trading to the higher end of this secular range that has persisted for nearly 40 years?

U.S. Treasury Yield Curves



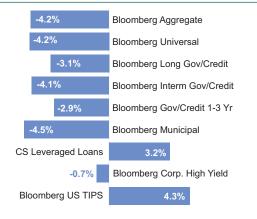
Source: Bloomberg

U.S. Fixed Income: Quarterly Returns



Sources: Bloomberg and Credit Suisse

U.S. Fixed Income: One-Year Returns



Sources: Bloomberg and Credit Suisse

FIXED INCOME (Continued)

Municipal Bonds

Municipal bond returns hurt by rising rates

- Bloomberg Municipal Bond Index suffered its worst quarterly return since 3Q81.
- Lower quality underperformed: BBB -7.1%; AAA -6.1%
- As with U.S. Treasuries, the muni yield curve flattened with 2-year yields rising more than 10-year and 30-year yields

Valuations relatively attractive

- 10-year AAA Muni/10-year U.S. Treasury ratio = 94%
- Up from 68% at year-end; 10-year median = 90%
- Municipal Bond Index after-tax yield = 4.4% (tax rate of 37%)

Supply/demand

- Heavy outflows in 1Q22 following record inflows in 2021
- \$22 billion in outflows in 1Q (one-fifth of 2021 inflows)
- Supply down modestly vs. 1Q21

Credit quality remains stable to improving

- Tax revenues continued to rise and reserve levels are high
- Upgrades outpaced downgrades

Global Fixed Income

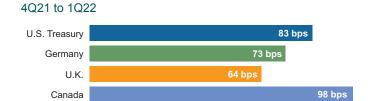
Negative returns driven by broad interest rate increases

 U.S. dollar appreciated against the Japanese yen, euro, and British pound.

Emerging market debt was not spared

- JPM Global Diversified hurt by rising rates in the U.S.
- GBI-EM hurt by rising local rates, but currency appreciation helped in Latin America and Africa.
- Russia removed from indices at a price of \$0 (-100% return).

Change in 10-Year Global Government Bond Yields

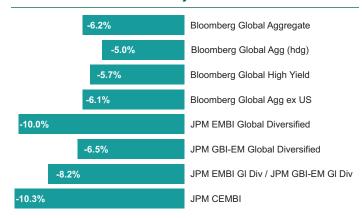


Source: Bloomberg

Japan

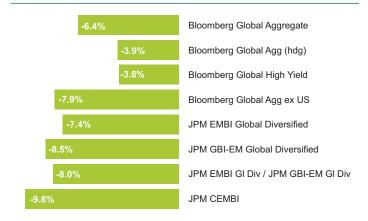
Global Fixed Income: Quarterly Returns

15 bps



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns



Sources: Bloomberg and JPMorgan Chase

Continued Strong Performance Across the Asset Class

REAL ESTATE/REAL ASSETS | Munir Iman

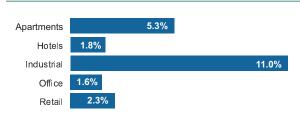
Private Real Estate

- The NCREIF Property Index, a measure of U.S. institutional real estate assets, rose 5.3% during 1Q22. The income return was 1.0% and the appreciation return was 4.3%.
- Industrial led property sector performance with a gain of 11.0%. Office finished last with an increase of 1.6%.
- Regionally, the West led with a 6.5% increase, while the Midwest was the worst performer but still gained 3.5%.
- The NCREIF Open-End Diversified Core Equity (ODCE)
 Index, representing equity ownership positions in U.S. core real estate, rose 7.1% during the quarter.
- Valuations are reflective of strong fundamentals in Industrial and Apartment and continued uncertainty despite a modest recovery in Office and Retail.
- Office and Retail vacancy rates increased slightly during the quarter.
- Net operating income growth turned negative for Office as the Omicron variant delayed many return-to-office plans.
- Net operating income growth continued its gradual increase in Industrial while decreasing slightly in Apartment and Retail.

Public Real Estate

 The FTSE EPRA Nareit Developed REIT Index, a measure of global real estate securities, fell 4.0% during 1Q22.

Sector Quarterly Returns by Property Type



Source: NCREIF

- U.S. REITs, as measured by the FTSE EPRA Nareit Equity REITs Index, dropped 3.9%.
- The FTSE EPRA Nareit Asia Index (USD), representing the Asia/Pacific region, fell 1.0%.
- European REITs, as measured by the FTSE EPRA Nareit Europe Index (USD), fell 7.2%.

Real Assets

- Commodities were a rare bright spot given their inflation-protection properties as well as war-induced supply concerns.
 The Bloomberg Commodity TR Index soared 25.5% and the energy-heavy S&P GSCI climbed 33.1%.
- Gold (S&P Gold Spot Price Index: +6.9%) and listed infrastructure (DJB Global Infrastructure: +3.2%) outperformed global stocks and bonds.
- TIPS (Bloomberg TIPS: -3.0%) fell but outpaced nominal U.S. Treasuries.

Callan Database Median and Index Returns* for Periods Ended 3/31/22

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	15 Years
Real Estate ODCE Style	5.6	5.6	26.2	10.7	9.3	9.8	5.9
NFI-ODCE (value wt net)	7.1	7.1	27.3	10.3	8.9	9.9	6.0
NCREIF Property	5.3	5.3	21.9	9.6	8.5	9.6	7.3
NCREIF Farmland	2.6	2.6	9.7	5.9	6.2	9.6	10.6
NCREIF Timberland	3.2	3.2	11.8	4.7	4.1	5.6	5.2
Public Real Estate							
Global Real Estate Style	-4.1	-4.1	16.8	9.3	9.8	9.2	4.8
FTSE EPRA Nareit Developed	-4.0	-4.0	14.5	5.4	6.5	6.9	2.9
Global ex-U.S. Real Estate Style	-3.7	-3.7	4.4	5.0	8.9	8.4	2.6
FTSE EPRA Nareit Dev ex US	-3.3	-3.3	2.5	1.1	4.7	5.4	1.2
U.S. REIT Style	-4.9	-4.9	26.0	13.3	11.3	10.7	7.3
FTSE EPRA Nareit Equity REITs	-3.9	-3.9	26.5	11.1	9.6	9.8	6.4

*Returns less than one year are not annualized. Sources: Callan, FTSE Russell, NCREIF

Where Do We Go From Here?

PRIVATE EQUITY | Gary Robertson

Private equity had a slower but still active 1Q22. The unsettling shift in the geopolitical and economic environment is creating murkiness regarding the future direction of private equity activity volumes. Fundraising remained strong, with venture capital dominating new commitments and buyouts paling by comparison—an unusual circumstance not seen since the late 1990s. Company-level private transactions fell on average about 23% by dollar volume and 24% by new deal count. Exits declined more than new investments. IPOs faced continuing challenges.

Fundraising ► Based on preliminary data, 1Q22 private equity partnerships holding final closes totaled \$216 billion, up 16% from 4Q21. New partnerships formed dropped 34% to 497, with larger funds remaining dominant. European commitments fell to a markedly low 16% of the total in 1Q. New buyout fund commitments were surprisingly low given its 44% share of commitments for the full year 2021. (Unless otherwise noted, all data come from PitchBook.)

Buyouts ► Funds closed 2,667 investments with \$200 billion in disclosed deal value, a 31% decline in count and a 16% drop in dollar value from 4Q. The largest investment was the \$17.0 billion sponsor-to-sponsor sale of electronic medical records company Athenahealth by Veritas and Elliott to Bain and Hellman & Friedman.

VC Investments ► New investments in venture capital companies totaled 11,495 rounds of financing, down 6%, with \$154 billion of announced value, down 20%. The largest investment was the \$3.0 billion mega 2nd round in Altos Labs, which focuses on cellular rejuvenation, by Foresite.

Exits ► There were 540 private M&A exits of private equitybacked companies, a drop of 41%. Disclosed values declined 33% to \$140 billion. There were 41 private equity-backed IPOs, down 66%, which raised an aggregate \$7 billion, down 76%.

Venture-backed M&A exits totaled 693 with disclosed value of \$46 billion. The number of sales fell 18% from 4Q, and announced value fell 22%. There were 69 VC-backed IPOs, down 60%, and the combined float totaled \$7 billion, an 83% decrease.

Funds Closed 1/1/22 to 3/31/22

Strategy	No. of Funds	Amt (\$mm)	Share
Venture Capital	319	92,441	43%
Growth Equity	35	44,023	20%
Buyouts	99	58,897	27%
Mezzanine Debt	2	8,980	4%
Distressed	5	5,339	2%
Energy	2	810	0%
Secondary and Other	31	4,398	2%
Fund-of-Funds	4	1,234	1%
Totals	497	216,122	100%

Source: PitchBook (Figures may not total due to rounding.)

Private Equity Performance (%) (Pooled Horizon IRRs through 9/30/21*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	7.2	76.0	36.3	27.5	20.6	15.6	11.5	23.8
Growth Equity	4.4	52.3	29.0	24.3	18.1	15.6	14.7	16.4
All Buyouts	4.4	42.8	21.8	20.2	16.1	12.6	14.2	13.7
Mezzanine	3.0	22.2	11.8	12.4	12.2	11.0	10.5	10.4
Credit Opportunities	2.1	21.7	7.0	8.8	9.9	9.0	9.9	9.9
Control Distressed	7.2	42.6	16.6	14.3	13.5	10.8	11.7	11.9
All Private Equity	5.1	49.8	24.8	21.4	16.7	13.3	13.2	14.8
S&P 500	0.6	30.0	16.0	16.9	16.6	10.4	9.5	9.7
Russell 3000	-0.1	31.9	16.0	16.9	16.6	10.4	9.8	9.7

Note: Private equity returns are net of fees. Sources: Refinitiv/Cambridge and S&P Dow Jones Indices *Most recent data available at time of publication

Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the Capital Markets Review and other Callan publications.

Appealing to Investors in Low-Yield Climate

PRIVATE CREDIT | Catherine Beard

Benefiting from low-yield environment

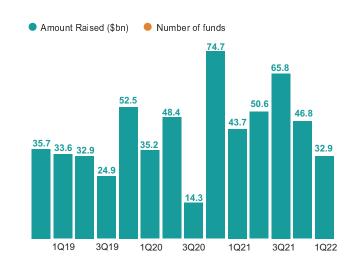
- Yield and income-generating characteristics remain attractive in a low-rate environment.
- Alpha generation can be magnified through strategies that extract a complexity premium.
- Many direct lending assets are floating rate, which can add protection against rising rates.
- Portfolios were resilient during the COVID dislocation due to liquidity injected into the economy; valuations are back to 2019 levels but the space remains crowded.
- Private credit performance varies across sub-asset class and underlying return drivers. On average, the asset class has generated net IRRs of 8% to 10% for trailing periods ended Sep. 30, 2021. Higher-risk strategies performed better than lower-risk strategies.

Fundraising in 2022 seasonally slow

- Private credit fundraising tapered off in 3Q20 due to COVIDrelated disruption but significantly rebounded in 4Q20 and 1H21; 1Q22 has been seasonally slow with fewer funds in the market but with larger fundraise targets.
- Fundraising in the first part of 2022 focused on diversifying strategies such as specialty finance, specialized industry lending, and non-sponsor/opportunistic lending.
- Traditional sponsor-backed strategies are coming to market with evergreen structures for which there is growing demand.
- There is continued strong PC fundraising activity from large credit shops as well as new offerings from traditional fixed income managers.

 Industry consolidation is in full swing with large traditional firms acquiring alternative credit managers, such as T. Rowe Price acquiring Oak Hill Advisors and Alliance Bernstein's acquisition of CarVal.

Private Credit Fundraising (\$bn)





Source: Preqin

Private Credit Performance (%) (Pooled Horizon IRRs through 9/30/21*)

Strategy	Quarter	1 Year	3 Years	5 Years	8 Years	10 Years	15 Years	20 Years
Senior Debt	1.1	11.3	6.9	7.9	7.4	7.4	7.5	7.5
Mezzanine	3.0	22.2	11.8	12.4	11.5	12.2	11.1	10.4
Credit Opportunities	2.1	21.7	7.0	8.8	7.5	9.9	9.0	9.9
Total Private Credit	2.1	19.6	8.1	9.4	8.4	10	9.3	9.8

Sources: Refinitiv/Cambridge

*Most recent data available at time of publication

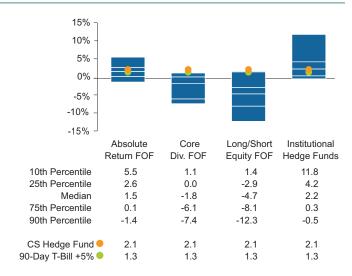
Market Volatility Tests Managers

HEDGE FUNDS/MACs | Joe McGuane

Global market volatility spiked during 1Q22 following Russia's invasion of Ukraine. The S&P 500 fell 4.6%, but was off more than 12% at its lowest point in the quarter. Despite the conflict in Europe, the Federal Reserve moved ahead with a 25 basis point increase in policy rates, its first since 2018. The U.S. Treasury 10-year yield rose by 70 bps to 2.33%. Hawkish monetary policy drove bond yields higher and prices lower.

Hedge funds ended the volatile quarter with mixed results. Equity managers with a focus on energy and industrials had a solid quarter but were not able to offset those with net long exposure to tech, media, and telecom (TMT), which was a drag on performance. Event-driven strategies also fell due to a higher weight to equities vs. credit to start off the year. Macro strategies soared, as commodities spiked. Relative value managers ended slightly higher, as they were able to profit off an increase in rate volatility.

Hedge Fund Style Group Returns



Sources: Callan, Credit Suisse, Federal Reserve

Callan Peer Group Median and Index Returns* for Periods Ended 3/31/22

Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	2.2	8.0	6.3	5.6	6.4	6.7
Callan Fund-of-Funds Peer Group	-1.3	1.2	6.0	5.1	5.1	4.1
Callan Absolute Return FOF Style	1.5	6.5	6.0	4.4	4.9	3.5
Callan Core Diversified FOF Style	-1.8	1.3	6.1	4.7	4.8	3.8
Callan Long/Short Equity FOF Style	-4.7	-2.8	6.6	6.0	5.5	4.9
BB GS Cross Asset Risk Premia 6% Vol Idx	0.6	0.0	-0.4	1.7	3.6	5.1
Credit Suisse Hedge Fund	2.1	7.5	7.3	5.5	4.7	4.2
CS Convertible Arbitrage	-2.5	1.0	6.0	4.4	3.9	3.9
CS Distressed	-0.2	5.6	5.0	4.1	4.7	3.9
CS Emerging Markets	-7.2	-4.9	4.7	4.6	4.6	4.1
CS Equity Market Neutral	-0.1	5.1	2.2	2.0	1.6	-1.3
CS Event-Driven Multi	-3.0	3.5	7.4	5.1	4.3	4.0
CS Fixed Income Arb	-1.0	2.0	3.9	3.8	4.2	3.6
CS Global Macro	16.2	23.9	13.4	8.8	5.8	6.6
CS Long/Short Equity	-3.3	2.3	6.3	5.8	5.6	4.6
CS Managed Futures	12.3	18.9	9.4	5.6	3.1	3.9
CS Multi-Strategy	3.1	8.0	6.6	5.1	6.0	5.1
CS Risk Arbitrage	-0.6	2.7	7.7	5.9	4.1	4.1
HFRI Fund Wtd Composite	0.1	5.3	8.2	7.0	6.9	6.8
90-Day T-Bill + 5%	1.3	5.1	5.8	6.1	5.6	5.8

*Net of fees. Sources: Bloomberg GSAM, Callan, Credit Suisse, Hedge Fund Research

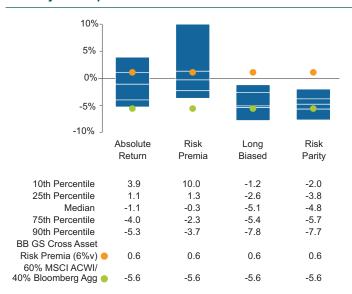
Representing a raw collection of hedge funds reporting performance without implementation costs, the HFRI Fund-Weighted Composite Index lost 1.8% for 1Q. The median manager in the Callan Hedge Fund-of-Funds (FOF) Database Group detracted 1.3%, net of all fees. Serving as a proxy for large, broadly diversified hedge funds with low-beta exposure to equity markets, the median Callan Institutional Hedge Fund Peer Group manager rose 2.2%.

Within the HFRI indices, the best-performing strategy last quarter was Macro (+6.7%), aided by its exposure to commodities. Equity hedge strategies (-4.3%) had a difficult quarter, as those that were overweight to growth performed worse than those with a value bias.

Across the Callan Hedge FOF Database, the median Absolute Return FOF gained 1.5%, as a focus on lower beta strategies performed well. Meanwhile, the Callan Long-Short Equity FOF fell 4.7% as a growth bias was a drag on performance. The median Callan Core Diversified FOF declined 1.8%, as equity positioning and interest rate volatility offset macro outperformance.

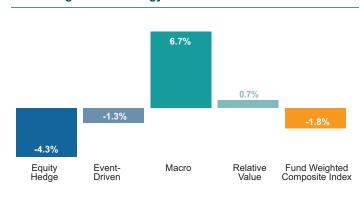
Measuring the quarter's performance of alternative risk premia, the Bloomberg GSAM Risk Premia Index increased 0.6% based upon a 6% volatility target. Within Callan's database of liquid alternative solutions, the median managers of the Callan Multi-Asset Class (MAC) Style Groups generated negative returns for the quarter, gross of fees. The median Callan Long Biased MAC manager fell 5.1%, as exposure to equity and fixed income was a drag on performance. The Callan Risk Parity MAC index, which typically targets an equally riskweighted allocation to the major asset classes with leverage, was down 4.8%. The Callan Risk Premia MAC held up the best, down 0.3%.

MAC Style Group Returns



Sources: Bloomberg, Callan, Eurekahedge, S&P Dow Jones Indices

HFRI Hedge Fund Strategy Returns



Source: HFRI

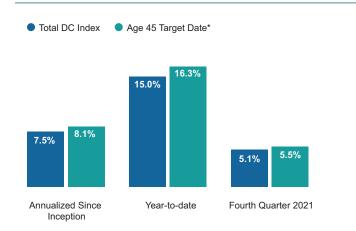
DC Index Bounces Back in 4Q

DEFINED CONTRIBUTION | Patrick Wisdom

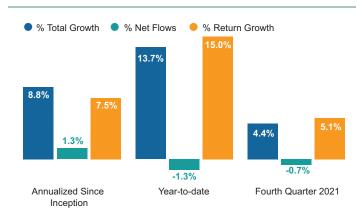
- The Callan DC Index™ gained 5.1% in 4Q21, rebounding from its 3Q21 decline (-0.4%).
- The Age 45 Target Date Fund (analogous to the 2040 vintage) had a slightly higher quarterly return (5.5%), attributable to its larger allocation to equity, which outperformed fixed income during the guarter.
- Balances within the DC Index rose by 4.4% after a 0.7% decline the previous quarter. Investment returns (5.1%) were the sole driver of the growth, offset by net flows (-0.7%).
- Target date funds received 77.9% of net inflows, the largest share for the fourth straight quarter.
- For the second straight quarter, real return/TIPS had largerthan-typical net inflows (+13.6%), indicating that participants may be looking to hedge inflation.
- In 4Q21, investors transferred assets out of less-risky asset classes, as stable value (-15.6%), U.S. fixed income (-8.2%), and money market (-3.4%) experienced net outflows.
- U.S. large cap (-40.4%) and U.S. small/mid cap (-10.4%) saw material net outflows. In contrast, global ex-U.S. equity (+5.1%) saw net inflows, while emerging market equity (+0.1%) experienced relatively little change.
- Turnover (net transfer activity levels within DC plans) in the DC Index remained at 0.19%, consistent with the 3Q level.
- The Index's overall allocation to equity (72.8%) increased from the previous quarter's level (72.2%), and is within reach of the high mark of 4Q07 (72.9%).
- U.S. large cap (27.7%) had the largest percentage increase in allocation from 3Q. The increase came despite net outflows, signaling that the relative outperformance of U.S. equity drove the higher overall allocations.
- U.S. fixed income (5.5%) experienced the largest percentage decrease in allocation.
- The prevalence of a balanced fund (44.1%) decreased to its lowest level since the inception of the Index in 2006.

The Callan DC Index is an equally weighted index tracking the cash flows and performance of over 100 plans, representing nearly \$300 billion in assets. The Index is updated quarterly and is available on Callan's website.

Investment Performance



Growth Sources



Net Cash Flow Analysis (4Q21)

(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	77.9%
Real Return/TIPS	13.6%
Stable Value	-15.6%
U.S. Large Cap	-40.4%
Total Turnover**	0.19%

Data provided here is the most recent available at time of publication.

Source: Callan DC Index

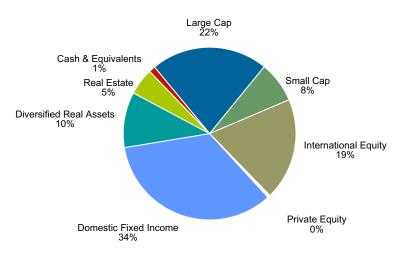
Note: DC Index inception date is January 2006.

- The Age 45 Fund transitioned from the average 2035 TDF to the 2040 TDF in June 2018.
- ** Total Index "turnover" measures the percentage of total invested assets (transfers only, excluding contributions and withdrawals) that moved between asset classes.

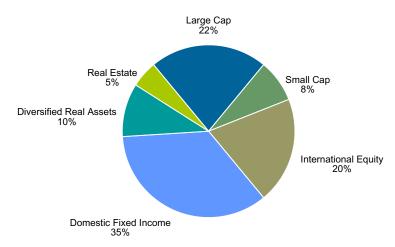
Actual vs Target Asset Allocation As of March 31, 2022

The first chart below shows the Fund's asset allocation as of March 31, 2022. The second chart shows the Fund's target asset allocation as outlined in the investment policy statement.

Actual Asset Allocation



Target Asset Allocation



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Large Cap	1,856,855	21.9%	22.0%	(0.1%)	(5,306)
Small Cap	655,662	7.7%	8.0%	(0.3%)	(21,488)
International Equity	1,614,329	19.1%	20.0%	(0.9%)	(78,544)
Private Equity .	38,989	0.5%	0.0%	`0.5%´	`38,989
Domestic Fixed Income	2,892,048	34.2%	35.0%	(0.8%)	(70,480)
Diversified Real Assets	883,573	10.4%	10.0%	`0.4%´	37,137
Real Estate	422,329	5.0%	5.0%	(0.0%)	(889)
Cash & Equivalents	100,581	1.2%	0.0%	`1.2%´	100,581
Total	8,464,367	100.0%	100.0%		

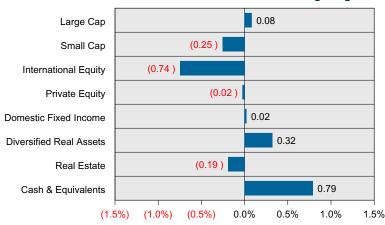
^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 22.0% Russell 1000 Index, 20.0% MSCI EAFE, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index and 5.0% NCREIF Total Index.



Quarterly Total Fund Relative Attribution - March 31, 2022

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.





Actual vs Target Returns

Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended March 31, 2022

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	(5.48%)	(5.13%)	(0.08%)	(0.01%)	(0.09%)
Small Cap	8%	8%	(8.73%)	(7.53%)	(0.10%)	(0.00%)	(0.10%)
International Equity	19%	20%	(8.16%)	(4.81%)	(0.65%)	`0.01%′	(0.64%)
Private Equity .	0%	0%	`2.58%´	`2.58%′	`0.00%	(0.00%)	(0.00%)
Domestic Fixed Incom	e 35%	35%	(5.57%)	(5.93%)	0.12%	(0.00%)	`0.12%′
Diversified Real Asset	s 10%	10%	(1.23%)	0.12%	(0.13%)	`0.01%′	(0.12%)
Real Estate	5%	5%	`8.02%′	5.33%	`0.11%′	(0.02%)	`0.09%´
Cash & Equivalents	1%	0%	0.01%	0.01%	0.00%	0.03%	0.03%
Total			(5.15%) =	(4.43%) +	(0.73%) +	0.01%	(0.71%)

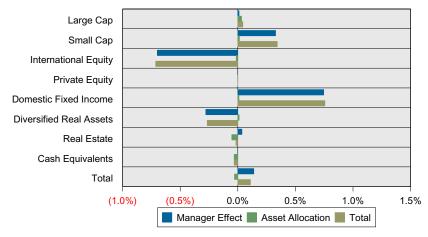
^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.



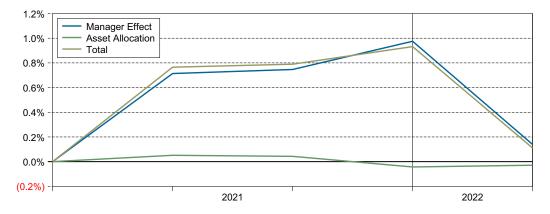
0.4%

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

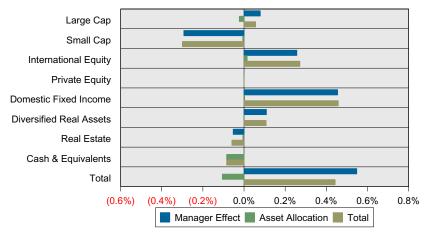
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	13.33%	13.27%	0.01%	0.03%	0.04%
Small Cap	8%	8%	(1.77%)	(5.79%)	0.33%	0.01%	0.34%
International Equity	20%	20%	(0.69%)	`3.04%′	(0.70%)	(0.01%)	(0.71%)
Private Equity ' ´	0%	0%	8.02%	8.02%	`0.00%	(0.00%)	(0.00%)
Domestic Fixed Income		35%	(2.07%)	(4.15%)	0.75%	0.01%	0.76%
Diversified Real Assets		10%	7.01%	9.70%	(0.28%)	0.01%	(0.27%)
Real Estate	4%	5%	23.01%	21.87%	0.04%	(0.05%)	(0.02%)
Cash Equivalents	1%	0%	0.03%	0.03%	0.00%	(0.03%)	_(0.03%)
Total			3.70% =	3.59% -	· 0.14% +	(0.03%)	0.11%

^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.

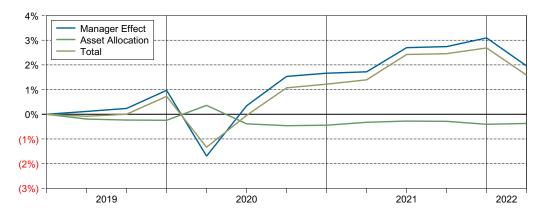


The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

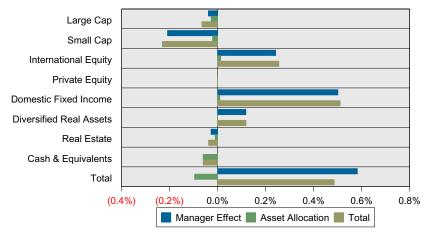
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	19.01%	18.71%	0.08%	(0.02%)	0.06%
Small Cap	8%	8%	8.47%	11.74%	(0.29%)	(0.01%)	(0.30%)
International Equity	20%	20%	9.69%	8.55%	0.26%	0.01%	0.27%
Private Equity ' '	0%	0%	-	-	0.00%	0.00%	0.00%
Domestic Fixed Income	e 35%	35%	3.15%	1.69%	0.46%	0.00%	0.46%
Diversified Real Assets	s 10%	10%	8.12%	6.88%	0.11%	(0.00%)	0.11%
Real Estate	4%	5%	8.40%	9.60%	(0.05%)	(0.01%)	(0.06%)
Cash & Equivalents	1%	0%	0.66%	0.66%	`0.00%´	(0.09%)	(0.09%)
Total			9.32% =	8.88%	+ 0.55% +	(0.10%)	0.44%

^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.

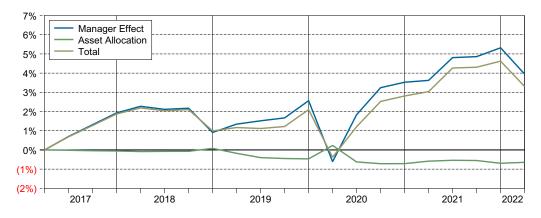


The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

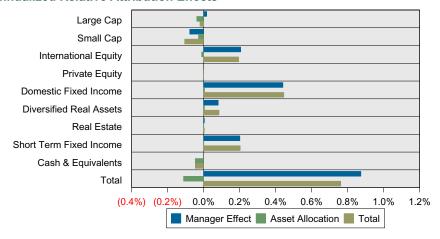
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	22%	22%	15.58%	15.82%	(0.04%)	(0.03%)	(0.07%)
Small Cap	8%	8%	7.37%	9.74%	(0.21%)	(0.02%)	(0.23%)
International Equity	20%	20%	8.20%	7.14%	0.24%	0.01%	0.26%
Private Equity '	0%	0%	-	-	0.00%	0.00%	0.00%
Domestic Fixed Income	e 35%	35%	3.68%	2.14%	0.50%	0.01%	0.51%
Diversified Real Assets	10%	10%	6.79%	5.48%	0.12%	0.00%	0.12%
Real Estate	5%	5%	7.88%	8.54%	(0.03%)	(0.01%)	(0.04%)
Cash & Equivalents	1%	0%	0.99%	0.99%	`0.00%′	(0.06%)	(0.06%)
Total			8.20% =	7.71%	+ 0.58% +	(0.10%)	0.49%

^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.

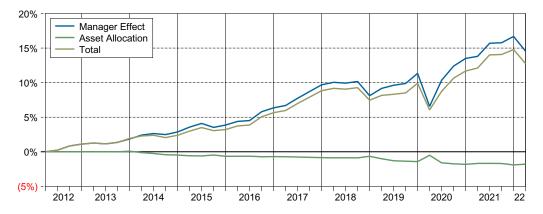


The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Ten Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Ten Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Large Cap	18%	18%	-	-	0.02%	(0.04%)	(0.02%)
Small Cap	6%	6%	-	-	(0.08%)	(0.03%)	(0.11%)
International Equity	16%	16%	-	-	`0.21%´	(0.01%)	`0.19%´
Private Equity .	0%	0%	-	-	0.00%	`0.00%	0.00%
Domestic Fixed Incon		28%	-	-	0.44%	0.01%	0.45%
Diversified Real Asse		8%	-	-	0.08%	0.00%	0.09%
Real Estate	4%	4%	-	-	0.00%	(0.00%)	0.00%
Short Term Fixed Inco		19%	-	-	0.20%	`0.00%	0.20%
Cash & Equivalents	1%	0%	0.56%	0.56%	0.00%	(0.05%)	(0.05%)
Total			6.26% =	5.49%	+ 0.87% +	· (0.11%)	0.76%

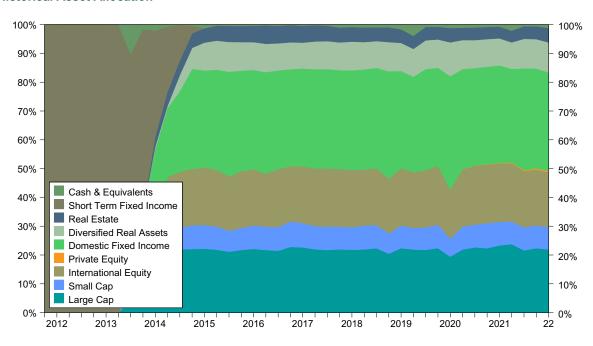
^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.



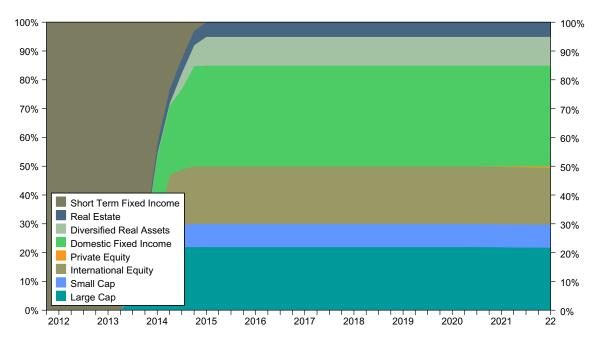
Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, and the fund's historical target asset allocation.

Actual Historical Asset Allocation



Target Historical Asset Allocation

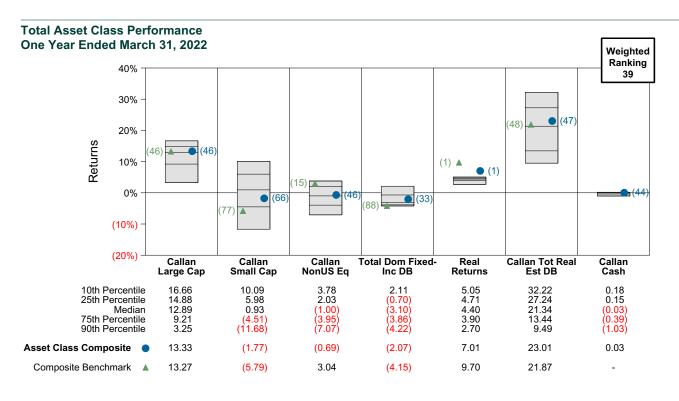


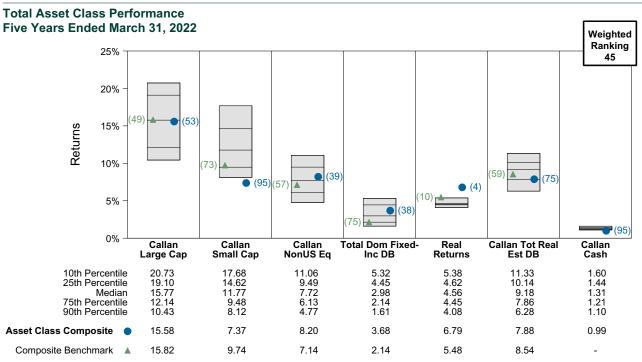
^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.



Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.





^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.



Asset Class Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of March 31, 2022, with the distribution as of December 31, 2021. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Class Allocation

	March 31,	2022			December 31, 2021		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight	
Global Equity	\$4,165,834,939	49.22%	\$89,658,699	\$(300,784,006)	\$4,376,960,246	50.07%	
Domestic Equity	\$2,512,516,231	29.68%	\$33,086,321	\$(166,837,639)	\$2,646,267,549	30.27%	
Large Cap	\$1,856,854,623	21.94%	\$10,191,314	\$(106,839,376)	\$1,953,502,684	22.35%	
L.A. Capital Enhanced	380,600,057	4.50%	(117,595)	(21,932,539)	402,650,191	4.61%	
L.A. Capital Large Cap Growth	561,004,583	6.63%	10,692,732	(56,347,460)	606,659,312	6.94%	
Parametric Large Cap	373,510,999	4.41%	0	(21,625,763)	395,136,762	4.52%	
LSV Large Cap Value	541,738,984	6.40%	(383,822)	(6,933,613)	549,056,419	6.28%	
Small Cap	\$655,661,608	7.75%	\$22,895,006	\$(59,998,263)	\$692,764,865	7.92%	
Atlanta Capital	227,082,751	2.68%	(356.307)	(15,046,629)	242.485.687	2.77%	
Riverbridge Small Cap Growth	206,757,206	2.44%	16,580,850	(34,668,829)	224,845,184	2.57%	
Sycamore Small Cap Value	221,821,652	2.62%	6,670,463	(10,282,805)	225,433,994	2.58%	
International Equity	\$1,614,329,250	19.07%	\$51,775,712	\$(134,812,375)	\$1,697,365,914	19.42%	
Arrowstreet ACWI ex US	358,479,186	4.24%	354,000,000	4,479,186	Ψ1,001,000,014	13.42/0	
DFA Intl SmallCap Value	174,740,645	2.06%	9,000,000	(4,379,127)	170,119,771	1.95%	
LSV Intl Value	466,275,783	5.51%	(110,563,168)	(1,599,537)	578,438,488	6.62%	
			(110,505,106)				
Vanguard Intl Explorer Fund	147,261,930	1.74%		(25,968,245)	173,230,176	1.98%	
William Blair	467,571,707	5.52%	(200,661,120)	(107,344,651)	775,577,478	8.87%	
Private Equity	\$38,989,458	0.46%	\$4,796,667	\$866,008	\$33,326,783	0.38%	
50 South Capital	5,703,424	0.07%	2,840,000	0	2,863,424	0.03%	
Sixth Street TAO	33,286,034	0.39%	1,956,667	866,008	30,463,359	0.35%	
Domestic Fixed Income	\$2,892,048,190	34.17%	\$27,662,058	\$(170,274,587)	\$3,034,660,719	34.71%	
Ares ND Credit Strategies Fd	105,514,507	1.25%	0	2,534,044	102,980,463	1.18%	
BND CDs	44,619,971	0.53%	(196,982)	281,841	44,535,111	0.51%	
Cerberus ND Private Credit Fd	132,488,114	1.57%	0	2,307,199	130,180,915	1.49%	
Declaration Total Return	223,323,194	2.64%	(150,398)	(6,685,689)	230,159,281	2.63%	
PIMCO Bravo II	5,111,141	0.06%	(1,154,202)	169,509	6,095,834	0.07%	
PIMCO DISCO II	55,332,911	0.65%	0	302,013	55,030,898	0.63%	
Prudential	850,727,807	10.05%	6,531,561	(58,608,808)	902,805,054	10.33%	
SSgA US Govt Credit Bd Idx	404,189,834	4.78%	5,984,408	(26,936,792)	425,142,218	4.86%	
•	228,035,257	2.69%	8,886,187	(18,842,530)		2.72%	
Wells Capital Western Asset Management	842,705,453	9.96%	7,761,483	(64,795,374)	237,991,600 899,739,345	10.29%	
Western Asset Management	642,705,455	9.90%	7,701,463	(04,795,574)	099,739,343	10.29%	
Global Real Assets	\$1,305,902,628	15.43%	\$2,784,974	\$20,352,284	\$1,282,765,371	14.67%	
Real Estate	\$422,329,326	4.99%	\$(505,621)	\$31,380,486	\$391,454,460	4.48%	
Invesco Core Real Estate	210,884,568	2.49%	(164,947)	11,636,611	199,412,904	2.28%	
JP Morgan RE Inc & Growth	211,444,758	2.50%	(340,674)	19,743,876	192,041,556	2.20%	
Diversified	\$883,573,303	10.44%	\$3,290,594	\$(11,028,203)	\$891,310,911	10.20%	
Western Asset TIPS	496,182,841	5.86%	(140,010)	(17,727,206)	514,050,057	5.88%	
ISQ Global Infrastructure II	71,607,349	0.85%	3,806,385	Ó	67,800,964	0.78%	
ISQ Global Infrastructure III	7,071,003	0.08%	0	1,667	7,069,336	0.08%	
JP Morgan IIF Infrastructure	105,150,833	1.24%	(2,067,304)	1,895,127	105,323,010	1.20%	
Grosvenor CIS Fund II	52,494,003	0.62%	(6,242,445)	1,067,865	57,668,583	0.66%	
Grosvenor CIS Fund III	18,765,174	0.22%	8,878,426	(613,252)	10,500,000	0.12%	
Macquarie Infrastructure Fund IV	77,538,763	0.92%	(888,978)	3,103,862	75,323,879	0.86%	
Macquarie Infrastructure Fund V	54,763,336	0.65%	(55,479)	1,243,733	53,575,082	0.61%	
Cash	\$100,580,794	1.19%	\$52,605,806	\$5,121	\$47,969,866	0.55%	
Northern Trust Cash Account	80,999,766	0.96%	52,408,825	1,755	28,589,186	0.33%	
Bank of ND	19,581,028	0.93%	196,982	3,366	19,380,680	0.33%	
Total Fund	\$8,464,366,552	100.0%	\$172,711,537	\$(450,701,187)	\$8,742,356,202	100.0%	
				•			



Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended March 31, 2022

	Last	Last	Last 3	Last 5	Last 10
Clobal Equity	Quarter	Year	Years	Years	Years
Global Equity Gross Net Weighted Benchmark	(6.94%)	5.32%	13.64%	-	-
	(7.01%)	4.98%	13.33%	-	-
	(5.30%)	6.05%	13.59%	-	-
Domestic Equity	, ,				
Gross	(6.34%)	9.19%	16.19%	13.39%	-
Net	(6.41%)	8.80%	15.90%	13.14%	-
Weighted Benchmark	(5.75%)	7.92%	16.95%	-	-
Large Cap					
Gross	(5.48%)	13.33%	19.01%	15.58%	-
Net	(5.53%)	13.04%	18.79%	15.38%	-
Russell 1000 Index	(5.13%)	13.27%	18.71%	15.82%	14.53%
L.A. Capital Enhanced - Gross	(5.45%)	14.44%	19.40%	15.76%	-
L.A. Capital Enhanced - Net	(5.48%)	14.30%	19.25%	15.62%	-
Russell 1000 Index	(5.13%)	13.27%	18.71%	15.82%	14.53%
L.A. Capital LargeCap Growth - Gross L.A. Capital LargeCap Growth - Net Russell 1000 Growth Index	(9.36%) (9.41%) (9.04%)	16.48% 16.23% 14.98%	24.02% 23.77% 23.60%	20.24% 20.00% 20.88%	- 17.04%
Parametric Clifton Large Cap - Gross Parametric Clifton Large Cap - Net S&P 500 Index	(5.47%) (5.47%) (4.60%)	14.63% 14.10% 15.65%	18.82% 18.71% 18.92%	15.80% 15.75% 15.99%	- 14.64%
LSV Large Cap Value - Gross LSV Large Cap Value - Net Russell 1000 Value Index	(1.26%) (1.33%) (0.74%)	7.90% 7.60% 11.67%	12.69% 12.38% 13.02%	9.94% 9.63% 10.29%	- 11.70%
Small Cap Gross Net Russell 2000 Index	(8.73%) (8.89%) (7.53%)	(1.77%) (2.40%) (5.79%)	8.47% 7.97% 11.74%	7.37% 7.02% 9.74%	- - 11.04%
Atlanta Capital - Gross	(6.20%)	3.60%	-	-	-
Atlanta Capital - Net	(6.35%)	2.99%	-	-	-
S&P 600 Small Cap Index	(5.62%)	1.23%	13.58%	10.89%	12.56%
Riverbridge Small Cap Growth - Gross Riverbridge Small Cap Growth - Net Russell 2000 Growth Index	(15.70%) (15.88%) (12.63%)	(12.53%) (13.17%) (14.33%)	- - 9.88%	- 10.33%	- - 11.21%
Sycamore Small Cap Value - Gross	(4.59%)	4.04%	-	-	-
Sycamore Small Cap Value - Net	(4.73%)	3.41%	-	-	-
Russell 2000 Value Index	(2.40%)	3.32%	12.73%	8.57%	10.54%
International Equity Gross Net Benchmark(1)	(8.16%)	(0.69%)	9.69%	8.20%	-
	(8.23%)	(0.97%)	9.37%	7.89%	-
	(4.81%)	3.04%	8.55%	7.14%	6.46%
DFA Intl Small Cap Value	(2.59%)	4.40%	8.22%	4.64%	-
World ex US SC Va	(2.92%)	2.15%	8.27%	6.26%	7.01%
LSV Intl Value - Gross	(0.28%)	3.85%	6.77%	5.20%	-
LSV Intl Value - Net	(0.40%)	3.43%	6.35%	4.80%	-
MSCI EAFE Index	(5.91%)	1.16%	7.78%	6.72%	6.27%
Vanguard Intl Explorer Fund	(14.99%)	(9.27%)	5.79%	4.82%	-
BMI, EPAC, <\$2 B	(7.86%)	(4.35%)	7.79%	5.99%	7.22%
William Blair - Gross	(13.86%)	(3.76%)	12.66%	12.14%	-
William Blair - Net	(13.95%)	(4.11%)	12.26%	11.73%	-
MSCI ACWI ex US IMI	(5.60%)	(1.27%)	7.87%	6.92%	5.78%
Private Equity Net	2.58%	8.02%	-	-	-
50 South Capital - Net	0.00%	-	-	-	-
Sixth Street TAO - Net	3.04%	11.50%	-	-	-
Benchmark(2)	(2.41%)	1.46%	-	-	-

⁽¹⁾ MSCI EAFE through 6/30/2016 and MSCI World ex-US thereafter. (2) 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.



Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended March 31, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Domestic Fixed Income					
Gross	(5.57%)	(2.07%)	3.15%	3.68%	-
Net	(5.60%)	(2.18%)	3.04%	3.57%	-
Blmbg Aggregate	(5.93%)	(4.15%)	1.69%	2.14%	2.24%
Ares ND Credit Strategies Fd - Net	2.46%	11.04%	8.08%	-	-
Cerberus ND Private Credit Fd - Net	1.77%	9.46%	9.24%	-	-
S&P/LSTA Leveraged Loan B	0.03%	3.58%	4.64%	4.36%	4.50%
BND CDs - Net	0.63%	2.67%	2.83%	2.91%	-
Declaration Total Return - Net	(2.91%)	(1.07%)	3.28%	3.82%	-
Libor-3 Month	0.15%	0.27%	0.87%	1.33%	0.87%
PIMCO Bravo II - Net(1)	2.81%	23.76%	6.94%	5.22%	-
PIMCO DiSCO II - Net (1)	0.55%	5.17%	5.41%	7.01%	-
Blmbg Aggregate	(5.93%)	(4.15%)	1.69%	2.14%	2.24%
Prudential - Gross	(6.46%)	(2.94%)	2.91%	3.55%	-
Prudential - Net	(6.51%)	(3.14%)	2.70%	3.33%	-
Blmbg Aggregate	(5.93%)	(4.15%)	1.69%	2.14%	2.24%
Wells Capital - Gross	(7.72%)	(3.02%)	5.19%	4.96%	-
Wells Capital - Net	(7.76%)	(3.20%)	4.99%	4.77%	-
Blmbg Credit Baa	(7.88%)	(4.11%)	3.38%	3.70%	3.97%
Western Asset - Gross	(7.15%)	(4.19%)	1.95%	2.80%	-
Western Asset - Net	(7.18%)	(4.30%)	1.84%	2.68%	-
Blmbg Aggregate	(5.93%)	(4.15%)	1.69%	2.14%	2.24%
SSgA US Govt Credit Bd Idx - Gross	(6.27%)	(3.79%)	2.24%	2.52%	-
SSgA US Govt Credit Bd Idx - Net	(6.28%)	(3.80%)	2.22%	2.50%	-
Blmbg Govt/Credit Bd	(6.33%)	(3.85%)	2.12%	2.44%	2.45%

⁽¹⁾ Prior to 7/1/2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning 7/1/2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.



Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended March 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended March 31, 2022

			Last	Last	Last
	Last	Last	3	5	10
	Quarter	Year	Years	Years	Years
Global Real Assets					
Gross	1.59%	11.76%	8.20%	-	-
Net	1.53%	11.47%	7.90%	-	-
Weighted Benchmark	1.84%	13.64%	7.79%	-	-
Real Estate					
Gross	8.02%	23.01%	8.40%	7.88%	_
Net	7.89%	22.47%	7.89%	7.35%	_
NCREIF Total Index	5.33%	21.87%	9.60%	8.54%	9.61%
Invesco Core Real Estate - Gross	5.84%	21.09%	8.30%	7.98%	_
Invesco Core Real Estate - Gross					_
	5.75%	20.69%	7.94%	7.64%	
NCREIF Total Index	5.33%	21.87%	9.60%	8.54%	9.61%
JP Morgan RE Inc & Growth - Gross	10.28%	24.99%	8.50%	7.78%	_
JP Morgan RE Inc & Growth - Net	10.10%	24.30%	7.85%	7.08%	_
NCREIF Total Index	5.33%	21.87%	9.60%	8.54%	9.61%
Diversified					
Gross	(1.23%)	7.01%	8.12%	6.79%	
	* * *	6.82%	7.92%	6.57%	-
Net	(1.27%)				-
Weighted Benchmark	0.12%	9.70%	6.88%	5.48%	-
Western Asset TIPS - Gross	(3.45%)	4.61%	6.43%	5.01%	-
Western Asset TIPS - Net	(3.48%)	4.49%	6.31%	4.89%	-
Benchmark(3)	(3.32%)	4.39%	6.36%	5.20%	3.11%
JP Morgan IIF Infrastructure - Gross	1.80%	4.58%	7.93%	9.01%	_
JP Morgan IIF Infrastructure - Net	1.57%	3.74%	7.13%	8.24%	_
Grosvenor CIS Fund II - Net	2.00%	10.69%	13.09%	12.48%	_
Grosvenor CIS Fund III - Net	(5.68%)	-	-	-	_
Benchmark(1)	4.67%	17.41%	7.27%	5.61%	3.27%
ICO Clab al Infrastruatura II. Nat	0.000/	40.000/	40.000/		
ISQ Global Infrastructure II - Net	0.00% 0.02%	18.83%	18.09%	-	-
ISQ Global Infrastructure III - Net				-	-
Macquarie Infrastructure Fd IV - Net	4.12%	12.94%	9.95%	-	-
Macquarie Infrastructure Fd V - Net	2.32%	3.94%	- 7.070/	=	-
Benchmark(2)	4.67%	17.41%	7.27%	-	-
Cash & Equivalents - Net	0.01%	0.03%	0.66%	0.99%	0.56%
NT Cash Account - Net	0.00%	0.01%	-	-	-
Bank of ND - Net	0.02%	0.08%	-	-	-
90 Day Treasury Bills	0.04%	0.06%	0.81%	1.13%	0.63%
Total Fund					
Gross	(5.15%)	3.70%	9.32%	8.20%	6.26%
Net	(5.20%)	3.46%	9.09%	7.98%	6.05%

^{(2) 50%} CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.
(3) Blmbg Global Inflation-Linked through 10/31/2018 and Blmbg US Govt Inflation Linked Bond Index thereafter.



^{*} Current Quarter Target = 35.0% Blmbg Aggregate, 21.8% Russell 1000 Index, 19.8% MSCI World ex US, 10.0% DRA Weighted Benchmark, 8.0% Russell 2000 Index, 5.0% NCREIF Total Index and 0.5% Private Equity.

⁽¹⁾ CPI-W through 6/30/2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

Domestic Equity Period Ended March 31, 2022

Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a (6.34)% return for the quarter placing it in the 58 percentile of the Total Domestic Equity Database group for the quarter and in the 48 percentile for the last year.
- Domestic Equity's portfolio underperformed the Domestic Equity Target by 0.59% for the quarter and outperformed the Domestic Equity Target for the year by 1.27%.

Quarterly Asset Growth

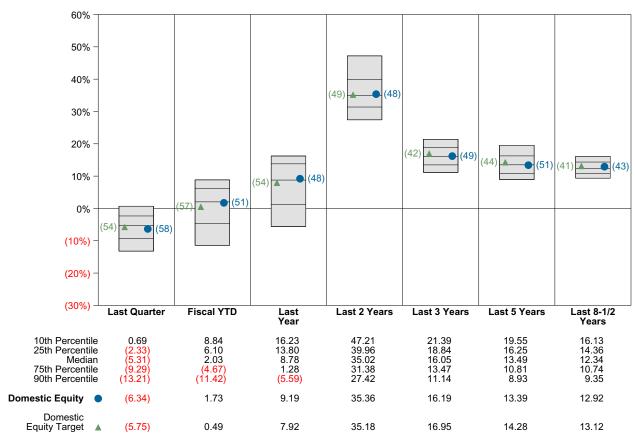
 Beginning Market Value
 \$2,646,267,549

 Net New Investment
 \$33,086,321

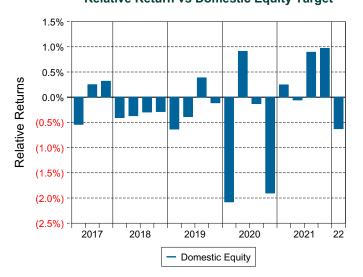
 Investment Gains/(Losses)
 \$-166,837,639

Ending Market Value \$2,512,516,231

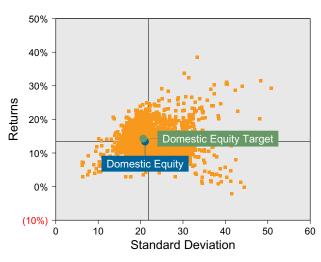
Performance vs Total Domestic Equity Database (Gross)



Relative Return vs Domestic Equity Target



Total Domestic Equity Database (Gross) Annualized Five Year Risk vs Return





Parametric Large Cap Period Ended March 31, 2022

Investment Philosophy

Parametric Clifton utilizes equity futures to gain benchmark exposure in constructing the portfolio it believes provides the greatest likelihood of outperforming the index. In this construction the underlying cash portfolio is invested in a liquid, high quality short duration fixed income portfolio. Over market cycles excess return generated by the short duration portfolio, when added to the performance of futures is expected to allow the strategy to achieve 0.50% to 1.00% of gross excess annual performance.

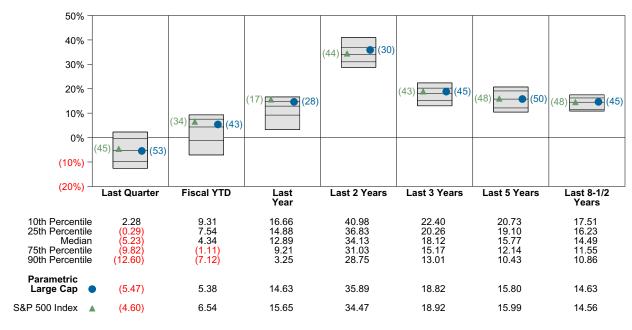
Quarterly Summary and Highlights

- Parametric Large Cap's portfolio posted a (5.47)% return for the quarter placing it in the 53 percentile of the Callan Large Capitalization group for the quarter and in the 28 percentile for the last year.
- Parametric Large Cap's portfolio underperformed the S&P 500 Index by 0.87% for the quarter and underperformed the S&P 500 Index for the year by 1.01%.

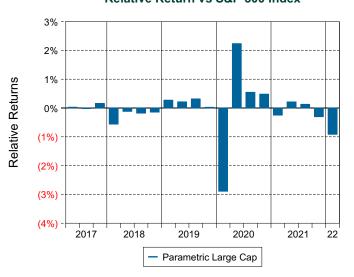
Quarterly Asset Growth

Beginning Market Value	\$395,136,762
Net New Investment	\$0
Investment Gains/(Losses)	\$-21,625,763
Ending Market Value	\$373.510.999

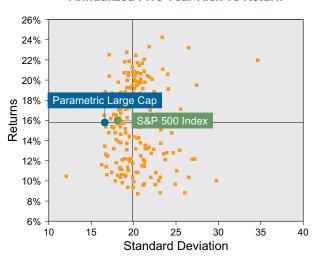
Performance vs Callan Large Capitalization (Gross)



Relative Return vs S&P 500 Index



Callan Large Capitalization (Gross) Annualized Five Year Risk vs Return





L.A. Capital Period Ended March 31, 2022

Investment Philosophy

The LA Capital Structured portfolio is a large growth portfolio benchmarked to the Russell 1000 Growth Index. It is an active assignment meaning that it targets a 2% alpha and constrains its risk budget (tracking error) to 4% relative to the benchmark. LA Capital believes that investment results are driven by Investor Preferences and thus recognize that when preferences shift a different posture related to that factor is warranted.

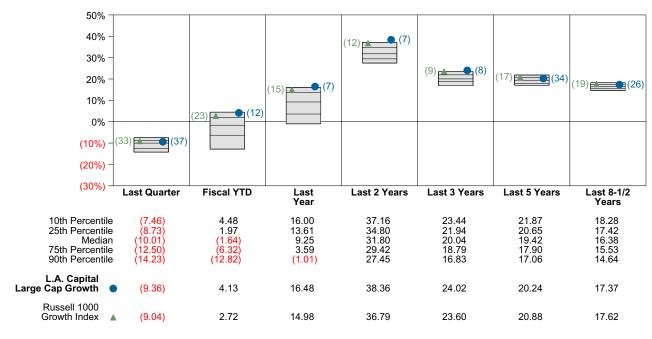
Quarterly Summary and Highlights

- L.A. Capital Large Cap Growth's portfolio posted a (9.36)% return for the quarter placing it in the 37 percentile of the Callan Large Cap Growth group for the quarter and in the 7 percentile for the last year.
- L.A. Capital Large Cap Growth's portfolio underperformed the Russell 1000 Growth Index by 0.32% for the quarter and outperformed the Russell 1000 Growth Index for the year by 1.50%.

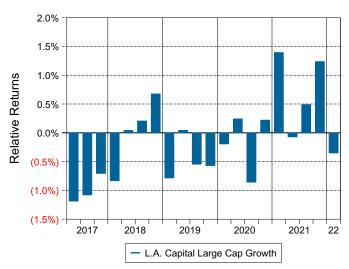
Quarterly Asset Growth

Beginning Market Value	\$606,659,312
Net New Investment	\$10,692,732
Investment Gains/(Losses)	\$-56,347,460
Ending Market Value	\$561,004,583

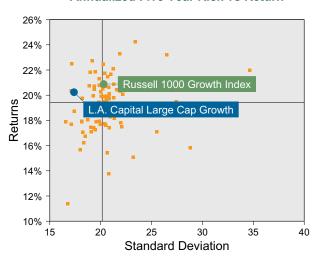
Performance vs Callan Large Cap Growth (Gross)



Relative Return vs Russell 1000 Growth Index



Callan Large Cap Growth (Gross) Annualized Five Year Risk vs Return





L.A. Capital Enhanced Period Ended March 31, 2022

Investment Philosophy

The LA Capital Enhanced portfolio is a large core portfolio benchmarked to the Russell 1000 Index. Characterized as an enhanced index assignment, its objective is to track the benchmark with lower variability. The pension portfolio began in August of 2000 and the insurance portfolio was initiated in April of 2004. Since October of 2006 a small portion of each of the two core accounts was allocated into the Large Cap Alpha Fund with intent to add incremental alpha to the assignment given that the information ratio was expected to be higher.

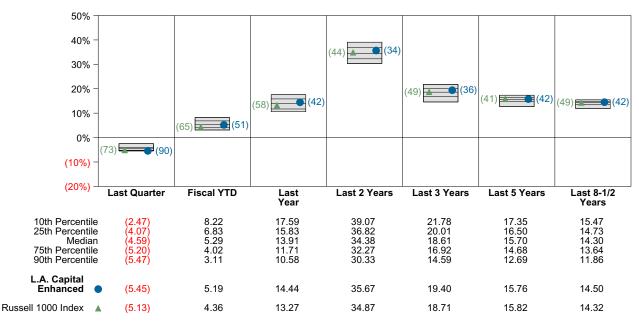
Quarterly Summary and Highlights

- L.A. Capital Enhanced's portfolio posted a (5.45)% return for the quarter placing it in the 90 percentile of the Callan Large Cap Core group for the quarter and in the 42 percentile for the last year.
- L.A. Capital Enhanced's portfolio underperformed the Russell 1000 Index by 0.32% for the quarter and outperformed the Russell 1000 Index for the year by 1.17%.

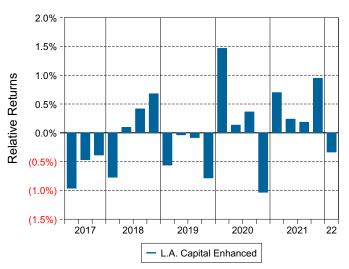
Quarterly Asset Growth

Beginning Market Value	\$402,650,191
Net New Investment	\$-117,595
Investment Gains/(Losses)	\$-21,932,539
Ending Market Value	\$380.600.057

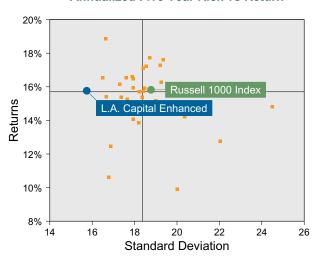
Performance vs Callan Large Cap Core (Gross)



Relative Return vs Russell 1000 Index



Callan Large Cap Core (Gross) Annualized Five Year Risk vs Return





LSV Asset Management Period Ended March 31, 2022

Investment Philosophy

The objective of LSV Asset Management's Large Cap Value Equity (U.S.) strategy is to outperform the Russell 1000 Value by at least 200 basis points (gross of fees) per annum over a 3-5 year period with a tracking error of approximately 4%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 100 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested.

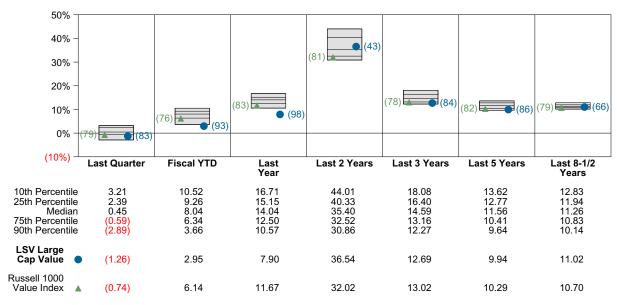
Quarterly Summary and Highlights

- LSV Large Cap Value's portfolio posted a (1.26)% return for the quarter placing it in the 83 percentile of the Callan Large Cap Value group for the quarter and in the 98 percentile for the last year.
- LSV Large Cap Value's portfolio underperformed the Russell 1000 Value Index by 0.53% for the quarter and underperformed the Russell 1000 Value Index for the year by 3.77%.

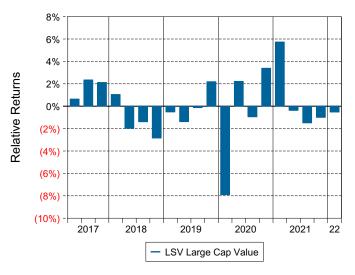
Quarterly Asset Growth

Beginning Market Value	\$549,056,419
Net New Investment	\$-383,822
Investment Gains/(Losses)	\$-6,933,613
Ending Market Value	\$541 738 984

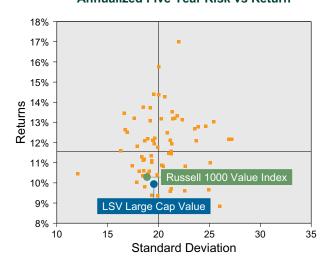
Performance vs Callan Large Cap Value (Gross)



Relative Return vs Russell 1000 Value Index



Callan Large Cap Value (Gross) Annualized Five Year Risk vs Return





Atlanta Capital Period Ended March 31, 2022

Investment Philosophy

Atlanta Capital Managements approach with its small cap product is to focus on high quality companies with an overall portfolio risk exposure tied to the Russell 2000 Index. Key characteristics of this portfolio include: (1)stocks rated B+ or better by S&P, (2) equally weighting 75 stocks, (3) sector concentrations similar to that of the benchmark. A group of ten analysts is in charge of screening the Russell 2000 to identify companies they believe have strong price appreciation potential and good business fundamentals. These analysts present the ideas to the portfolio management team, led by Chip Reed, who makes the final decisions on the inclusion of stocks. In general, stocks are sold from the portfolio if the B+ or better financial rating is no longer met, there is an adverse change in the fundamental business, or because of regular portfolio maintenance to ensure broad diversification.

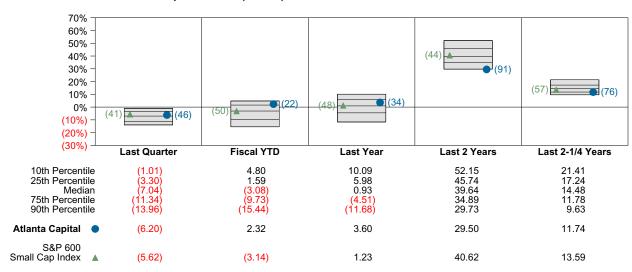
Quarterly Summary and Highlights

- Atlanta Capital's portfolio posted a (6.20)% return for the quarter placing it in the 46 percentile of the Callan Small Capitalization group for the quarter and in the 34 percentile for the last year.
- Atlanta Capital's portfolio underperformed the S&P 600 Small Cap Index by 0.58% for the quarter and outperformed the S&P 600 Small Cap Index for the year by 2.37%.

Quarterly Asset Growth

Beginning Market Value	\$242,485,687
Net New Investment	\$-356,307
Investment Gains/(Losses)	\$-15,046,629
Ending Market Value	\$227,082,751

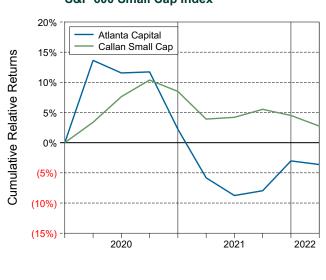
Performance vs Callan Small Capitalization (Gross)



Relative Return vs S&P 600 Small Cap Index



Cumulative Returns vs S&P 600 Small Cap Index





Riverbridge Small Cap Growth Period Ended March 31, 2022

Investment Philosophy

Riverbridge believes earnings power determines the value of a franchise. They focus on companies that are building earnings power and intrinsic value of the company over long periods of time. They also look for high-quality growth companies that demonstrate the ability to sustain strong secular earnings growth, regardless of overall economic conditions.

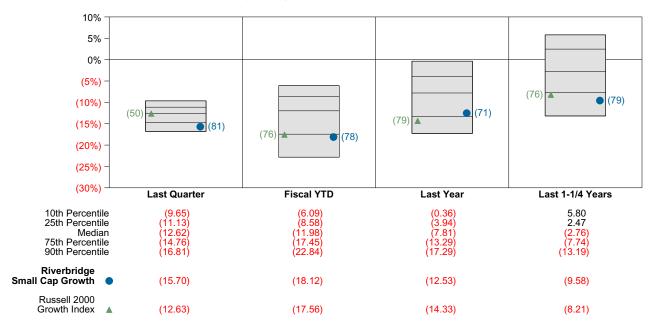
Quarterly Summary and Highlights

- Riverbridge Small Cap Growth's portfolio posted a (15.70)% return for the quarter placing it in the 81 percentile of the Callan Small Cap Growth group for the quarter and in the 71 percentile for the last year.
- Riverbridge Small Cap Growth's portfolio underperformed the Russell 2000 Growth Index by 3.07% for the quarter and outperformed the Russell 2000 Growth Index for the year by 1.80%.

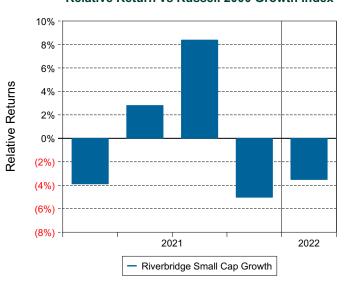
Quarterly Asset Growth

Beginning Market Value	\$224,845,184
Net New Investment	\$16,580,850
Investment Gains/(Losses)	\$-34,668,829
Ending Market Value	\$206 757 206

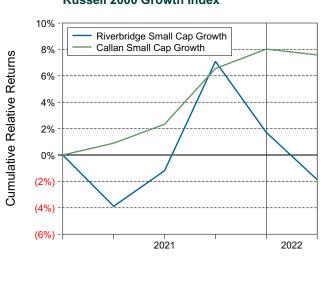
Performance vs Callan Small Cap Growth (Gross)



Relative Return vs Russell 2000 Growth Index



Cumulative Returns vs Russell 2000 Growth Index





Sycamore Small Cap Value Period Ended March 31, 2022

Investment Philosophy

The Victory Small Cap Value Equity investment approach focuses on companies with market capitalizations between \$100 million and \$2 billion that are believed offer above-average total return potential with limited risk. The Small Cap Value Equity investment process seeks to identify high quality, low expectation small cap companies that appear poised for continued or improved earnings. Portfolios typically hold 100-125 stocks with average annual portfolio turnover of 40%. The team will begin to sell when a company's market capitalization exceeds \$4 billion, however they focus on the weighted average market capitalization of the total portfolio and thus may retain exposure to some mid cap companies.

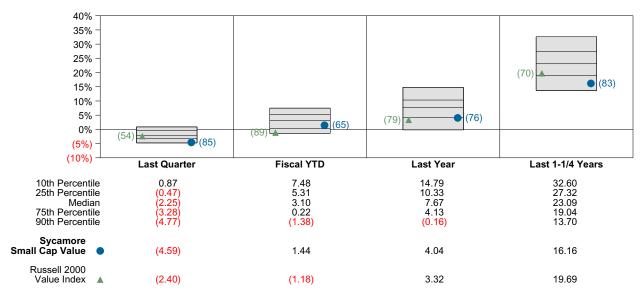
Quarterly Summary and Highlights

- Sycamore Small Cap Value's portfolio posted a (4.59)% return for the quarter placing it in the 85 percentile of the Callan Small Cap Value group for the quarter and in the 76 percentile for the last year.
- Sycamore Small Cap Value's portfolio underperformed the Russell 2000 Value Index by 2.19% for the quarter and outperformed the Russell 2000 Value Index for the year by 0.72%.

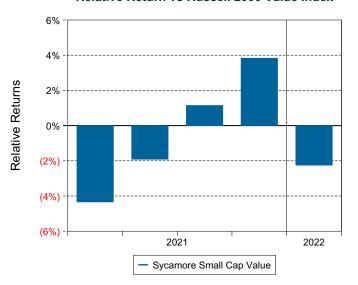
Quarterly Asset Growth

Beginning Market Value	\$225,433,994
Net New Investment	\$6,670,463
Investment Gains/(Losses)	\$-10,282,805
Ending Market Value	\$221,821,652

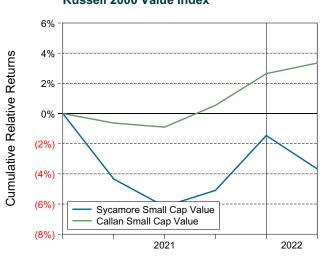
Performance vs Callan Small Cap Value (Gross)



Relative Return vs Russell 2000 Value Index



Cumulative Returns vs Russell 2000 Value Index





International Equity Period Ended March 31, 2022

Quarterly Summary and Highlights

- International Equity's portfolio posted a (8.16)% return for the quarter placing it in the 61 percentile of the Callan Non-US Equity group for the quarter and in the 46 percentile for the last year.
- International Equity's portfolio underperformed the International Equity Target by 3.35% for the quarter and underperformed the International Equity Target for the year by 3.74%.

Quarterly Asset Growth

 Beginning Market Value
 \$1,697,365,914

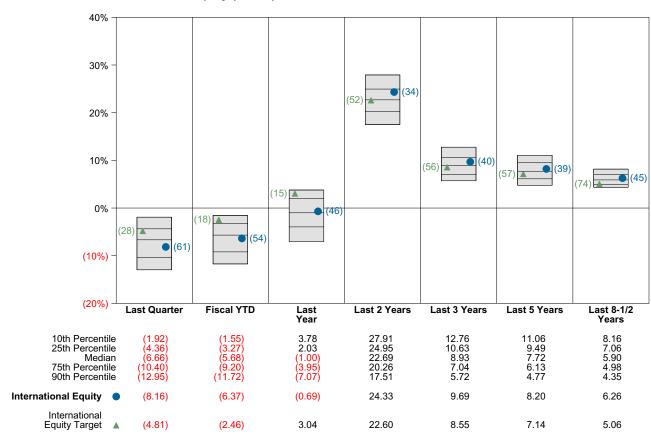
 Net New Investment
 \$51,775,712

 Investment Gains/(Losses)
 \$-134,812,375

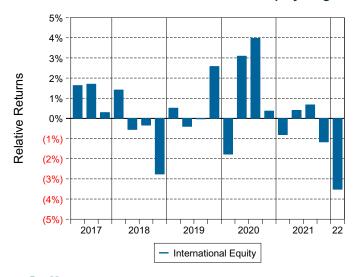
\$1,614,329,250

Ending Market Value

Performance vs Callan Non-US Equity (Gross)



Relative Return vs International Equity Target



Callan Non-US Equity (Gross) Annualized Five Year Risk vs Return





DFA Intl Small Cap Value Period Ended March 31, 2022

Investment Philosophy

The International Small Cap Value Portfolio invests in the stocks of small, non-US developed markets companies that Dimensional believes to be value stocks at the time of purchase. Specifically, it looks at companies that fall within the smallest 8-10% of each country's market capitalization, and who's shares have a high book value in relation to their market value (BtM). It does not invest in emerging markets.

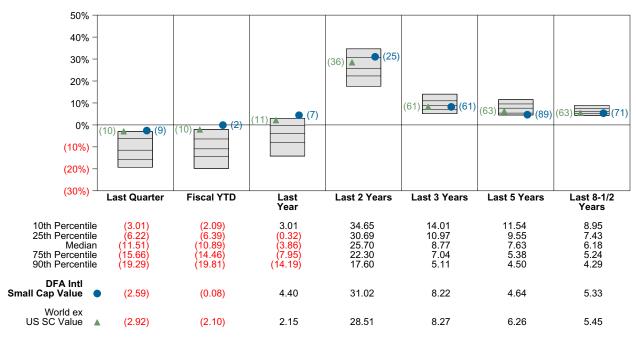
Quarterly Summary and Highlights

- DFA Intl Small Cap Value's portfolio posted a (2.59)% return for the quarter placing it in the 9 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 7 percentile for the last year.
- DFA Intl Small Cap Value's portfolio outperformed the World ex US SC Value by 0.33% for the quarter and outperformed the World ex US SC Value for the year by 2.25%.

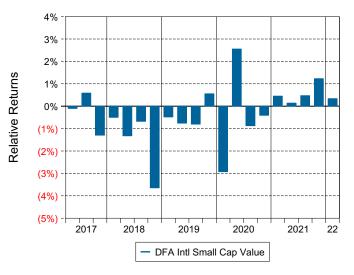
Quarterly Asset Growth

Beginning Market Value	\$170,119,771
Net New Investment	\$9,000,000
Investment Gains/(Losses)	\$-4,379,127
Ending Market Value	\$174,740,645

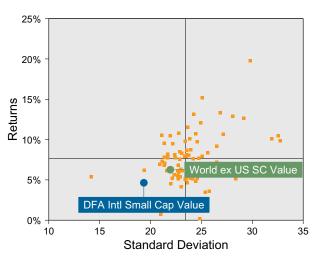
Performance vs Callan International Small Cap Mut Funds (Net)



Relative Return vs World ex US SC Value



Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return





LSV Intl Value Period Ended March 31, 2022

Investment Philosophy

The objective of LSV Asset Management's International Large Cap Value strategy is to outperform the MSCI EAFE Index by at least 250 basis points (gross of fees) per annum over an annualized 3-5 year period with a tracking error of approximately 5-6%. Their stock selection process is a quantitative approach that ranks a broad universe of stocks on a combination of value and momentum factors and seeks to invest approximately 150 stocks in the most attractive securities possible within strict risk parameters to control the portfolio's tracking error relative to the benchmark. The resulting portfolio is broadly diversified across industry groups and fully invested. LSV weights countries at a neutral weight relative to the benchmark country weights. 50% of the portfolio is US dollar hedged.

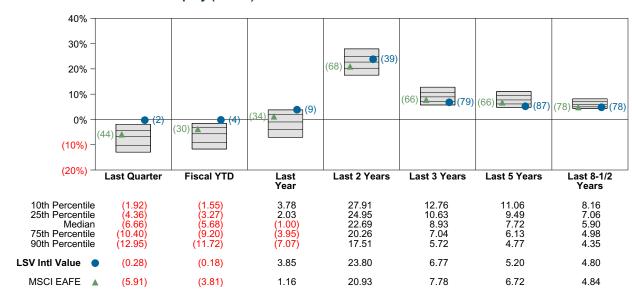
Quarterly Summary and Highlights

- LSV Intl Value's portfolio posted a (0.28)% return for the quarter placing it in the 2 percentile of the Callan Non-US Equity group for the quarter and in the 9 percentile for the last year.
- LSV Intl Value's portfolio outperformed the MSCI EAFE by 5.63% for the quarter and outperformed the MSCI EAFE for the year by 2.69%.

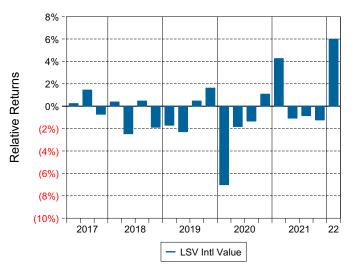
Quarterly Asset Growth

Beginning Market Value	\$578,438,488
Net New Investment	\$-110,563,168
Investment Gains/(Losses)	\$-1,599,537
Ending Market Value	\$466,275,783

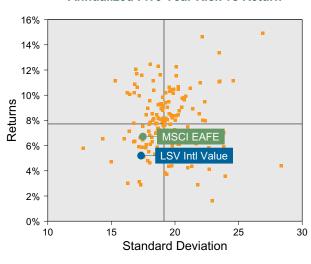
Performance vs Callan Non-US Equity (Gross)



Relative Return vs MSCI EAFE



Callan Non-US Equity (Gross) Annualized Five Year Risk vs Return





Vanguard Intl Explorer Fund Period Ended March 31, 2022

Investment Philosophy

Vanguard International Explorer Fund invests primarily in the equity securities of small-capitalization companies located outside the United States that the advisor believes offer the potential for long-term capital appreciation. The advisor considers, among other things, whether a company is likely to have above-average earnings growth, whether the company's securities are attractively valued, and whether the company has any proprietary advantages.

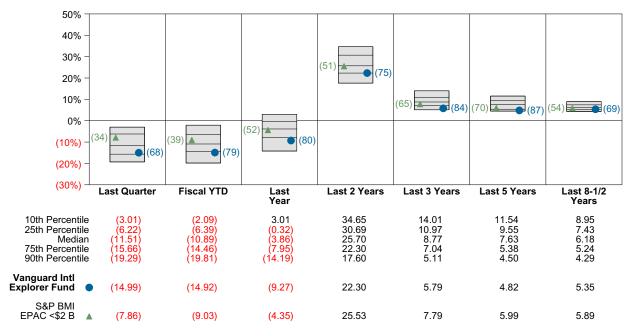
Quarterly Summary and Highlights

- Vanguard Intl Explorer Fund's portfolio posted a (14.99)% return for the quarter placing it in the 68 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 80 percentile for the last year.
- Vanguard Intl Explorer Fund's portfolio underperformed the S&P BMI EPAC <\$2 B by 7.13% for the quarter and underperformed the S&P BMI EPAC <\$2 B for the year by 4.92%.

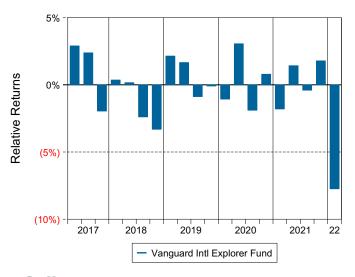
Quarterly Asset Growth

Beginning Market Value	\$173,230,176
Net New Investment	\$0
Investment Gains/(Losses)	\$-25,968,245
Ending Market Value	\$147,261,930

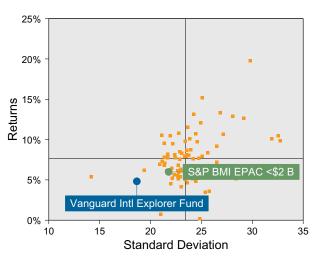
Performance vs Callan International Small Cap Mut Funds (Net)



Relative Return vs S&P BMI EPAC <\$2 B



Callan International Small Cap Mut Funds (Net) Annualized Five Year Risk vs Return





William Blair Period Ended March 31, 2022

Investment Philosophy

One of the basic investment tenets of William Blair & Company has been its focus on quality growth companies. They believe that investing in quality growth companies will generate above average results with generally less risk than the market. This opportunity exists because they believe the market underestimates the durability and rate of growth in companies that have the following characteristics: strong management with a unique vision, competitive advantages that prolong the duration and size of earnings growth, and conservative financing. Internationally, they believe that this philosophy can be combined with strategic flexibility in managing geographic exposure, capitalization, sector emphasis, and relative growth and valuation at the portfolio level in order to provide an appropriate degree of adaptability to cyclical conditions.

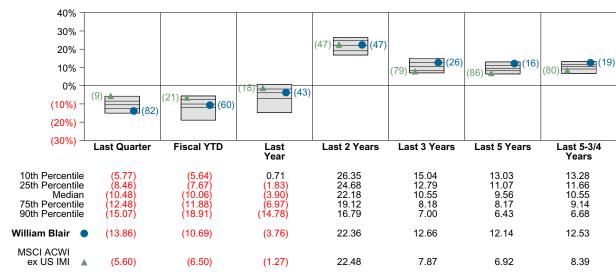
Quarterly Summary and Highlights

- William Blair's portfolio posted a (13.86)% return for the quarter placing it in the 82 percentile of the Callan Non-US All Country Growth Equity group for the quarter and in the 43 percentile for the last year.
- William Blair's portfolio underperformed the MSCI ACWI ex US IMI by 8.26% for the quarter and underperformed the MSCI ACWI ex US IMI for the year by 2.49%.

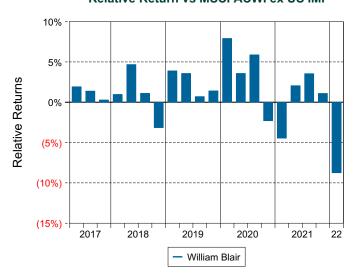
Quarterly Asset Growth

Beginning Market Value	\$775,577,478
Net New Investment	\$-200,661,120
Investment Gains/(Losses)	\$-107,344,651
Ending Market Value	\$467,571,707

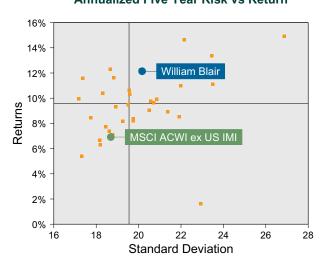
Performance vs Callan Non-US All Country Growth Equity (Gross)



Relative Return vs MSCI ACWI ex US IMI



Callan Non-US All Country Growth Equity (Gross) Annualized Five Year Risk vs Return





Sixth Street TAO Period Ended March 31, 2022

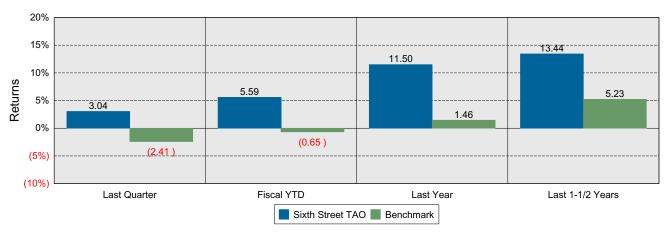
Investment Philosophy

Sixth Street Partners' TAO strategy is an opportunistics, theme-driven multi-strategy credit mandate that seeks to leverage the firm's entire credit platform by investing in theme-driven liquid and less liquid investments across a broad array of credit-oriented opportunities. The strategy invests in opportunities sourced across the firm that feature attractive risk/reward profiles but do not fit the investment mandates of SSP's Special Situations, Direct Lending and Fundamental Strategies platforms, thereby carrying the moniker "Adjacent Opportunities". These opportunities can be an outgrowth of certain conditions: non-control positions with attractive risk-reward profiles; higher return, low money multiples due to short duration situations; and longer duration opportunities with low macroeconomic correlations. The Benchmark is comprised of 50% S&P/LSTA Leveraged Loan B and 50% Blmbg HY Corp 2% Issue.

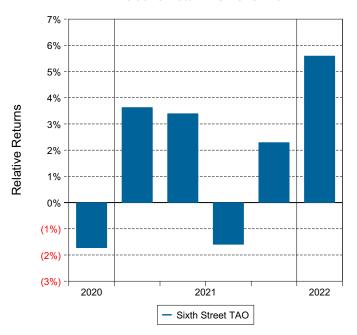
Quarterly Summary and Highlights

 Sixth Street TAO's portfolio outperformed the Benchmark by 5.46% for the quarter and outperformed the Benchmark for the year by 10.04%.

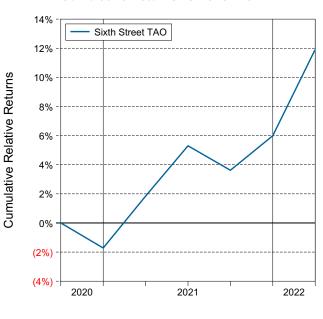
Quarterly Asset Growth	
Beginning Market Value	\$30,463,359
Net New Investment	\$1,956,667
Investment Gains/(Losses)	\$866,008
Ending Market Value	\$33,286,034



Relative Return vs Benchmark



Cumulative Returns vs Benchmark





Domestic Fixed Income Period Ended March 31, 2022

Quarterly Summary and Highlights

- Domestic Fixed Income's portfolio posted a (5.57)% return for the quarter placing it in the 65 percentile of the Total Domestic Fixed-Inc Database group for the quarter and in the 33 percentile for the last year.
- Domestic Fixed Income's portfolio outperformed the Domestic Fixed Income Target by 0.36% for the quarter and outperformed the Domestic Fixed Income Target for the year by 2.08%.

Quarterly Asset Growth

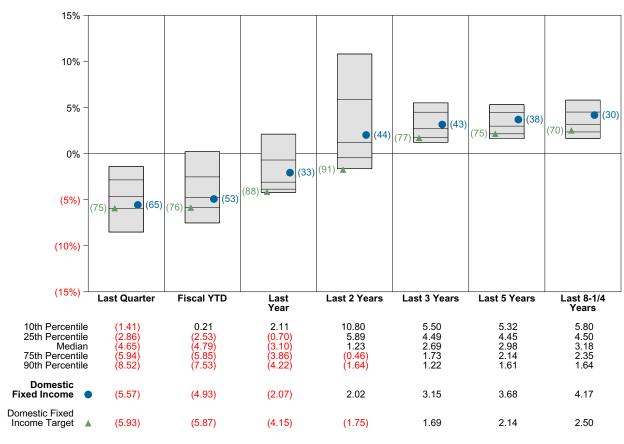
 Beginning Market Value
 \$3,034,660,719

 Net New Investment
 \$27,662,058

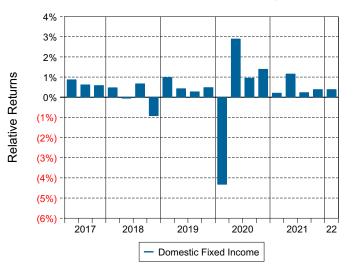
 Investment Gains/(Losses)
 \$-170,274,587

 Ending Market Value
 \$2,892,048,190

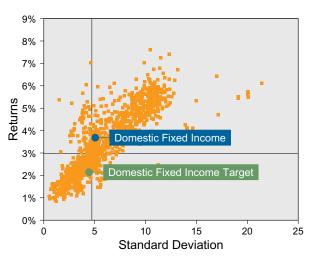
Performance vs Total Domestic Fixed-Inc Database (Gross)



Relative Returns vs Domestic Fixed Income Target



Total Domestic Fixed-Inc Database (Gross) Annualized Five Year Risk vs Return





Ares ND Credit Strategies Fd Period Ended March 31, 2022

Quarterly Summary and Highlights

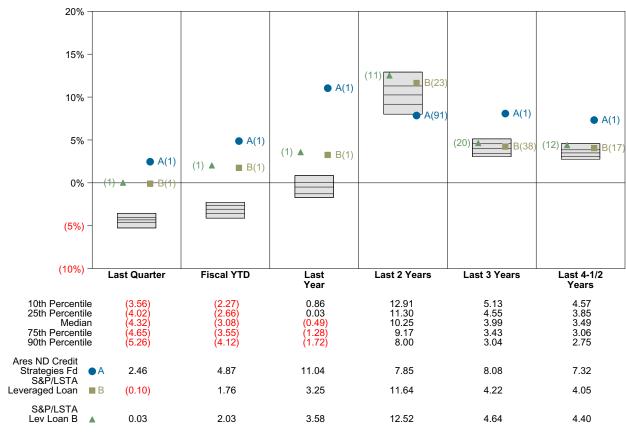
- Ares ND Credit Strategies Fd's portfolio posted a 2.46% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Ares ND Credit Strategies Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 2.43% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 7.45%.

Quarterly Asset Growth

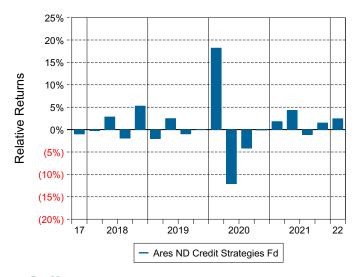
Beginning Market Value \$102,980,463 Net New Investment Investment Gains/(Losses) \$2,534,044 \$105,514,507

Ending Market Value

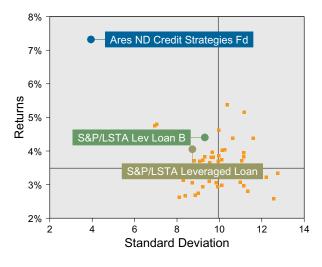
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs S&P/LSTA Lev Loan B



Callan High Yield Mutual Funds (Net) Annualized Four and One-Half Year Risk vs Return





Cerberus ND Private Credit Fd Period Ended March 31, 2022

Investment Philosophy

The investment objective of the LLC is to achieve superior risk-adjusted rates of return primarily through origination of, and investment in, secured debt assets consistent with the Loan Opportunities Strategy of the Cerberus Business Finance lending platform ("CBF", "Cerberus Business Finance" or the "Cerberus Lending Platform"). The Cerberus Lending Platform is a direct origination and lending business focused on providing secured debt primarily to U.S. middle-market companies. The LLC expects to generate both current income and capital appreciation.

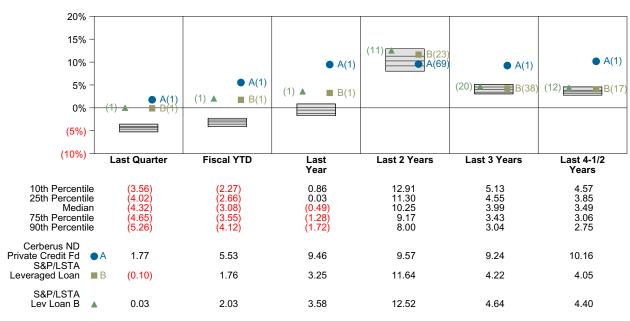
Quarterly Summary and Highlights

- Cerberus ND Private Credit Fd's portfolio posted a 1.77% return for the quarter placing it in the 1 percentile of the Callan High Yield Mutual Funds group for the quarter and in the 1 percentile for the last year.
- Cerberus ND Private Credit Fd's portfolio outperformed the S&P/LSTA Lev Loan B by 1.75% for the quarter and outperformed the S&P/LSTA Lev Loan B for the year by 5.87%.

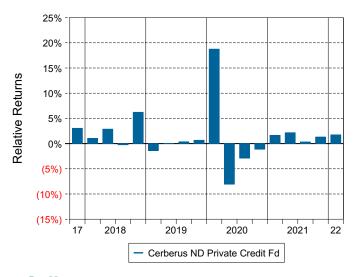
Quarterly Asset Growth

Beginning Market Value	\$130,180,915
Net New Investment	\$0
Investment Gains/(Losses)	\$2,307,199
Ending Market Value	\$132.488.114

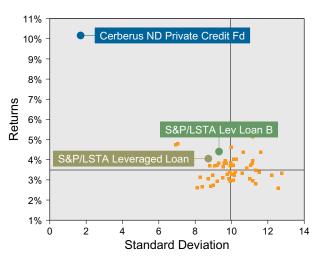
Performance vs Callan High Yield Mutual Funds (Net)



Relative Return vs S&P/LSTA Lev Loan B



Callan High Yield Mutual Funds (Net) Annualized Four and One-Half Year Risk vs Return





Declaration Total Return Period Ended March 31, 2022

Investment Philosophy

The Fund's portfolio holdings consist primarily of RMBS issued by private sector companies (Non-Agency RMBS) and government agencies (Agency MBS) and CMBS issued by private sector companies. Agency MBS includes securities issued by the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac) and the Government National Mortgage Association (Ginnie Mae). Portfolio holdings may range from short tenure senior classes to stressed issues or subordinated securities with substantial risk of non-payment and correspondingly higher yields. Smaller portfolio allocations may include consumer asset-backed securities (ABS), or other structured credit securities and corporate bonds. As a diversification strategy and a potential hedge to credit risk, the Fund may invest in securities which tend to benefit from slow mortgage prepayments and economic growth, such as interest only (IO) MBS.

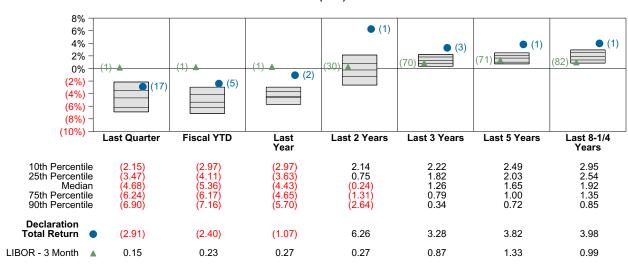
Quarterly Summary and Highlights

- Declaration Total Return's portfolio posted a (2.91)% return for the quarter placing it in the 17 percentile of the Callan Intermediate Fixed Inc Mut Funds group for the quarter and in the 2 percentile for the last year.
- Declaration Total Return's portfolio underperformed the LIBOR - 3 Month by 3.06% for the quarter and underperformed the LIBOR - 3 Month for the year by 1.33%.

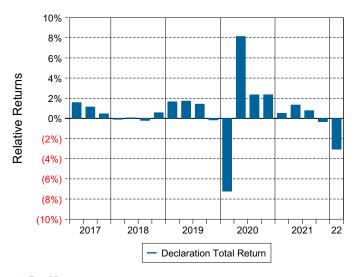
Quarterly Asset Growth

Beginning Market Value	\$230,159,281
Net New Investment	\$-150,398
Investment Gains/(Losses)	\$-6,685,689
Ending Market Value	\$223,323,194

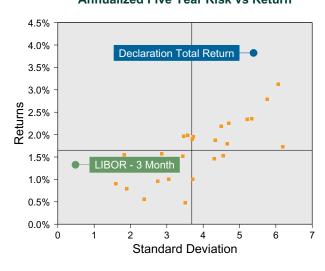
Performance vs Callan Intermediate Fixed Inc Mut Funds (Net)



Relative Return vs LIBOR - 3 Month



Callan Intermediate Fixed Inc Mut Funds (Net) Annualized Five Year Risk vs Return





PIMCO Bravo II Period Ended March 31, 2022

Investment Philosophy

The BRAVO II Fund is a private equity style fund targeting an annualized IRR of 15-20% and multiple of 1.8-2x, net of fees and carried interest with an initial 5-year term. The fund will seek to capitalize on non-economic asset sale decisions by global financial institutions. The fund will have the flexibility to acquire attractively discounted, less liquid loans, structured credit and other assets tied to residential or commercial real estate markets in the U.S. and Europe. **Prior to July 1**, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.

Quarterly Summary and Highlights

- PIMCO Bravo II's portfolio posted a 2.81% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO Bravo II's portfolio outperformed the Blmbg Aggregate by 8.75% for the quarter and outperformed the Blmbg Aggregate for the year by 27.92%.

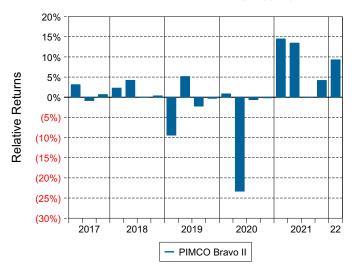
Quarterly Asset Growth

Beginning Market Value	\$6,095,834
Net New Investment	\$-1,154,202
Investment Gains/(Losses)	\$169,509
Ending Market Value	\$5,111,141

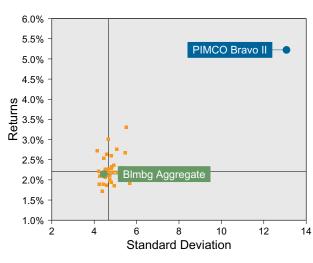
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



Callan Core Bond Mutual Funds (Net) Annualized Five Year Risk vs Return





PIMCO DISCO II Period Ended March 31, 2022

Investment Philosophy

The PIMCO Distressed Senior Credit Opportunities Fund is an opportunistic private-equity style Fund which seeks to provide investors enhanced returns principally through long-biased investments in undervalued senior and super senior structured credit securities that are expected to produce attractive levels of current income and that may also appreciate in value over the long term. The fund will look to capitalize on forced sales by liquidity constrained investors. **Prior to July 1**, 2019, the Legacy Fund participated in these portfolios via the Insurance Pool. Beginning July 1, 2019, its portion of the pool was segregated into its own portfolios. Returns prior to that date reflect the data from the Insurance pool.

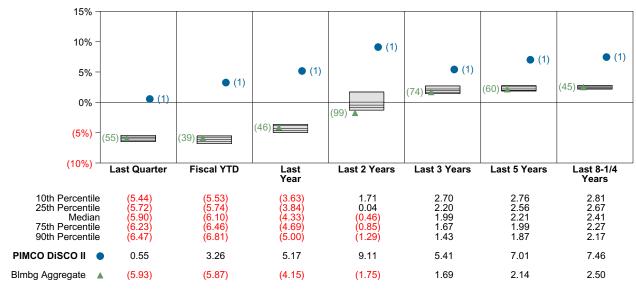
Quarterly Summary and Highlights

- PIMCO DiSCO II's portfolio posted a 0.55% return for the quarter placing it in the 1 percentile of the Callan Core Bond Mutual Funds group for the quarter and in the 1 percentile for the last year.
- PIMCO DiSCO II's portfolio outperformed the Blmbg Aggregate by 6.48% for the quarter and outperformed the Blmbg Aggregate for the year by 9.32%.

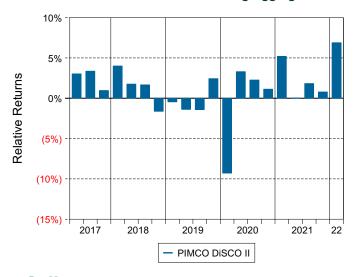
Quarterly Asset Growth

Beginning Market Value	\$55,030,898
Net New Investment	\$0
Investment Gains/(Losses)	\$302,013
Ending Market Value	\$55,332,911

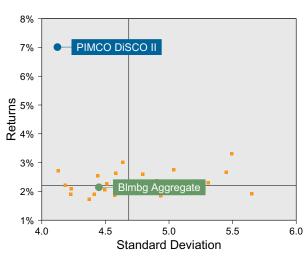
Performance vs Callan Core Bond Mutual Funds (Net)



Relative Return vs Blmbg Aggregate



Callan Core Bond Mutual Funds (Net) Annualized Five Year Risk vs Return





Prudential Period Ended March 31, 2022

Investment Philosophy

PGIM Fixed Income is the primary public fixed income asset management business of Prudential Investment Management, Inc. (PIM). PIM is the largest investment advisor within Prudential Financial, Inc. (Prudential Financial). PIM was registered as an investment advisor with the US Securities and Exchange Commission (SEC) in December of 1984. The Core Plus strategy is an actively managed strategy that seeks +150 bps over the Bloomberg Barclays U.S. Aggregate Bond Index. Portfolio duration is kept within +/- 0.5 years of benchmark. The lead portfolio managers are Mike Collins, Rich Piccirillo and Greg Peters. As of Q2 2017, the strategy had \$24.6 billion in mutual fund assets.

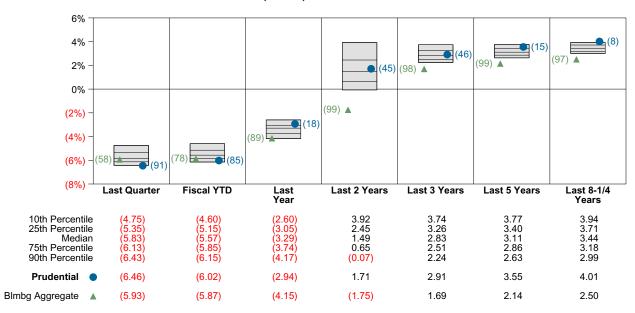
Quarterly Summary and Highlights

- Prudential's portfolio posted a (6.46)% return for the quarter placing it in the 91 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 18 percentile for the last year.
- Prudential's portfolio underperformed the Blmbg Aggregate by 0.52% for the quarter and outperformed the Blmbg Aggregate for the year by 1.22%.

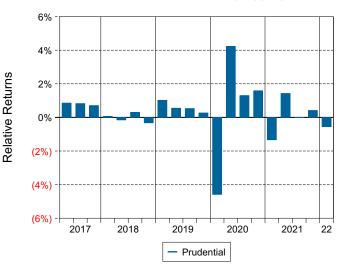
Quarterly Asset Growth

Beginning Market Value	\$902,805,054
Net New Investment	\$6,531,561
Investment Gains/(Losses)	\$-58,608,808
Ending Market Value	\$850,727,807

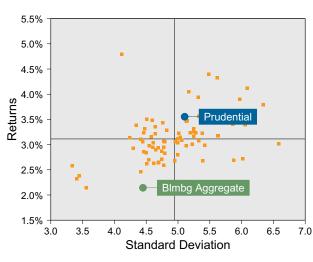
Performance vs Callan Core Plus Fixed Income (Gross)



Relative Return vs Blmbg Aggregate



Callan Core Plus Fixed Income (Gross) Annualized Five Year Risk vs Return





SSgA US Govt Credit Bd Idx Period Ended March 31, 2022

Investment Philosophy

The Fund seeks an investment return that approximates as closely as practicable, before expenses, the performance of the Bloomberg Capital U.S. Government/Credit Bond Index over the long term.

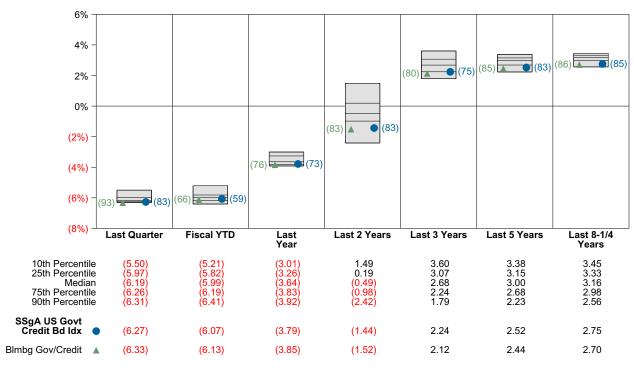
Quarterly Summary and Highlights

- SSgA US Govt Credit Bd Idx's portfolio posted a (6.27)% return for the quarter placing it in the 83 percentile of the Callan Government/Credit group for the quarter and in the 73 percentile for the last year.
- SSgA US Govt Credit Bd Idx's portfolio outperformed the Blmbg Gov/Credit by 0.06% for the quarter and outperformed the Blmbg Gov/Credit for the year by 0.07%.

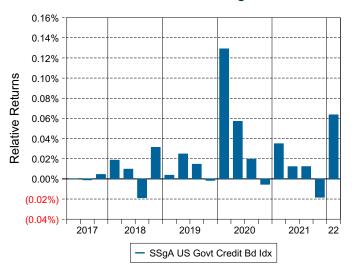
Quarterly Asset Growth

Beginning Market Value	\$425,142,218
Net New Investment	\$5,984,408
Investment Gains/(Losses)	\$-26,936,792
Ending Market Value	\$404,189,834

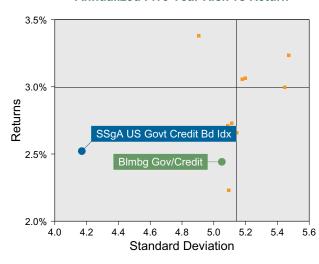
Performance vs Callan Government/Credit (Gross)



Relative Return vs Blmbg Gov/Credit



Callan Government/Credit (Gross) Annualized Five Year Risk vs Return





Wells Capital Period Ended March 31, 2022

Investment Philosophy

The Medium Quality Credit fixed income strategy is designed to maximize total return from the high-grade corporate bond market while maintaining a strategic allocation to the BBB portion of the high yield market. The investment process for this fund starts with a "top-down" strategy. Security selection is determined by in-depth credit research, holding that in-depth knowledge of industries, companies, and their management teams can help identify credit trends that can lead to investment opportunities. Furthermore, a disciplined relative value framework is applied to help determine the optimal position to invest within an industry and within an individual issuer's capital structure.

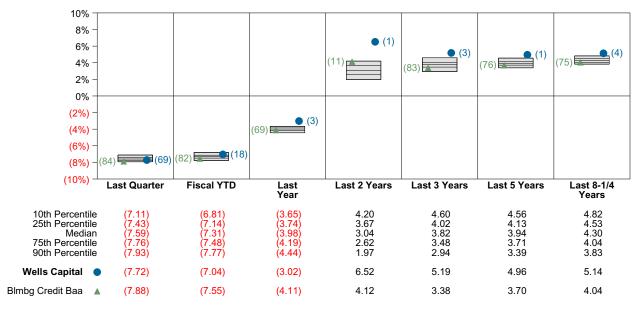
Quarterly Summary and Highlights

- Wells Capital's portfolio posted a (7.72)% return for the quarter placing it in the 69 percentile of the Callan Investment Grade Credit Fixed Inc group for the quarter and in the 3 percentile for the last year.
- Wells Capital's portfolio outperformed the Blmbg Credit Baa by 0.16% for the quarter and outperformed the Blmbg Credit Baa for the year by 1.09%.

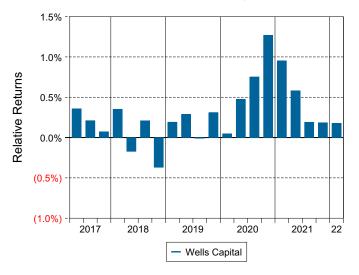
Quarterly Asset Growth

Beginning Market Value	\$237,991,600
Net New Investment	\$8,886,187
Investment Gains/(Losses)	\$-18,842,530
Ending Market Value	\$228,035,257

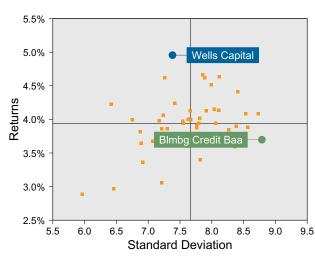
Performance vs Callan Investment Grade Credit Fixed Inc (Gross)



Relative Return vs Blmbg Credit Baa



Callan Investment Grade Credit Fixed Inc (Gross) Annualized Five Year Risk vs Return





Western Asset Management Company Period Ended March 31, 2022

Investment Philosophy

Western Asset designs this portfolio using all major fixed-income sectors with a bias towards non-Treasuries, especially corporate, mortgage-backed and asset-backed securities. Value can be added through sector rotation, issue selection, duration and term structure weighting.

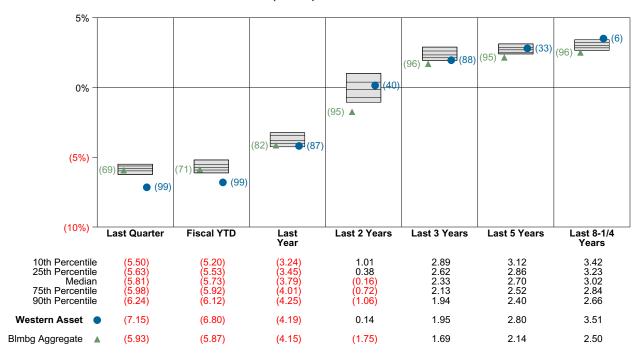
Quarterly Summary and Highlights

- Western Asset's portfolio posted a (7.15)% return for the quarter placing it in the 99 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 87 percentile for the last year.
- Western Asset's portfolio underperformed the Blmbg Aggregate by 1.22% for the quarter and underperformed the Blmbg Aggregate for the year by 0.04%.

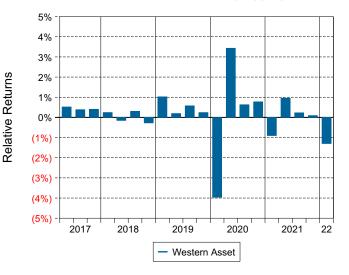
Quarterly Asset Growth

Beginning Market Value	\$899,739,345
Net New Investment	\$7,761,483
Investment Gains/(Losses)	\$-64,795,374
Ending Market Value	\$842,705,453

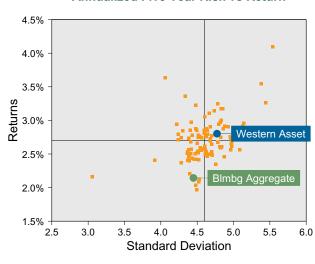
Performance vs Callan Core Bond Fixed Income (Gross)



Relative Return vs Blmbg Aggregate



Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return





Invesco Core Real Estate Period Ended March 31, 2022

Investment Philosophy

IRE's investment philosophy is comprised of two fundamental principles: (1) maximize the predictability and consistency of investment returns and (2) minimize the risk of capital loss. This philosophy forms the cornerstone of the company's real estate investment philosophy.

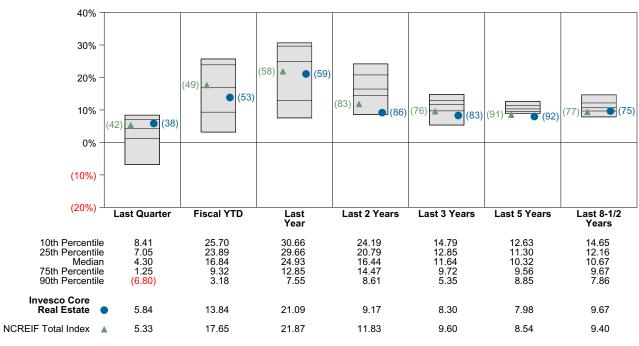
Quarterly Summary and Highlights

- Invesco Core Real Estate's portfolio posted a 5.84% return for the quarter placing it in the 38 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 59 percentile for the last year.
- Invesco Core Real Estate's portfolio outperformed the NCREIF Total Index by 0.51% for the quarter and underperformed the NCREIF Total Index for the year by 0.78%.

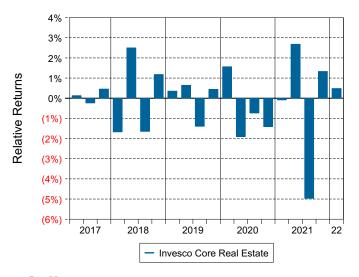
Quarterly Asset Growth

Beginning Market Value	\$199,412,904
Net New Investment	\$-164,947
Investment Gains/(Losses)	\$11,636,611
Ending Market Value	\$210,884,568

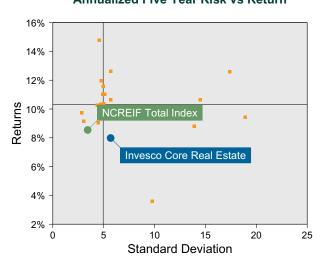
Performance vs Callan Total Domestic Real Estate DB (Gross)



Relative Return vs NCREIF Total Index



Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return





JP Morgan RE Inc & Growth Period Ended March 31, 2022

Investment Philosophy

The J.P. Morgan U.S. Real Estate Income and Growth Fund seeks to construct and opportunistically manage a portfolio of core direct real estate investments, complemented by other real estate and real estate-related assets. The Fund pursues a broadly diversified absolute-return strategy and pursues all property investments on an opportunistic basis. The majority of the Fund's investments will be in direct core properties in the office, industrial, retail and residential sectors.

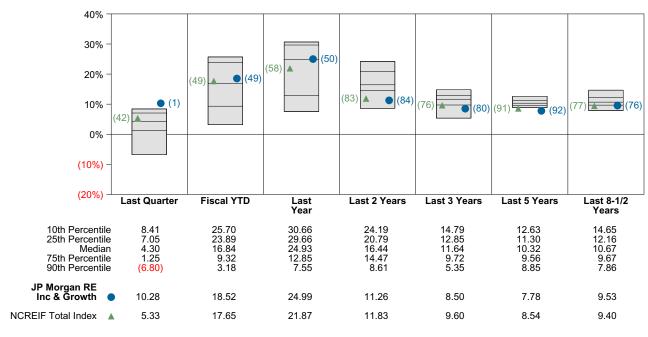
Quarterly Summary and Highlights

- JP Morgan RE Inc & Growth's portfolio posted a 10.28% return for the quarter placing it in the 1 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 50 percentile for the last year.
- JP Morgan RE Inc & Growth's portfolio outperformed the NCREIF Total Index by 4.95% for the quarter and outperformed the NCREIF Total Index for the year by 3.11%.

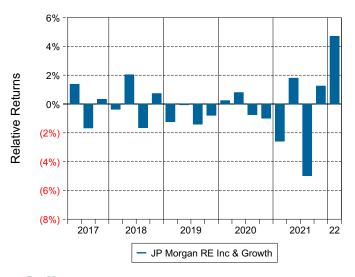
Quarterly Asset Growth

Beginning Market Value	\$192,041,556
Net New Investment	\$-340,674
Investment Gains/(Losses)	\$19,743,876
Ending Market Value	\$211,444,758

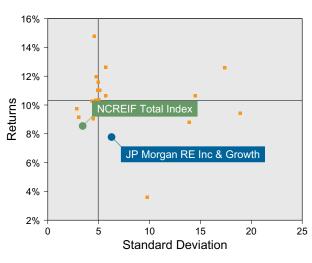
Performance vs Callan Total Domestic Real Estate DB (Gross)



Relative Return vs NCREIF Total Index



Callan Total Domestic Real Estate DB (Gross) Annualized Five Year Risk vs Return





Western Asset TIPS Period Ended March 31, 2022

Investment Philosophy

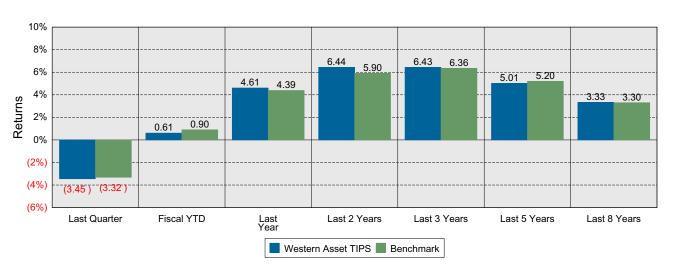
The Western Asset US TIPS Full Discretion strategy is an inflation-protected strategy that aims to maximize total return and add value through duration and curve positioning, sector allocation, and security selection, while approximating benchmark risk. The strategy invests in a diversified portfolio using higher-yielding inflation-protected instruments with a bias toward Treasury Inflation-Protected Securities (TIPS). Opportunistic investments include high-yield, emerging markets, non-dollar securities, commodities and bank loans that may also be employed using derivatives. Benchmark: Bloomberg US TIPS through 12/31/2009; Bloomberg Global Inflation-Linked through 10/31/2018; Bloomberg US Govt Inflation Linked Bond Index thereafter.

Quarterly Summary and Highlights

 Western Asset TIPS's portfolio underperformed the Benchmark by 0.13% for the quarter and outperformed the Benchmark for the year by 0.22%.

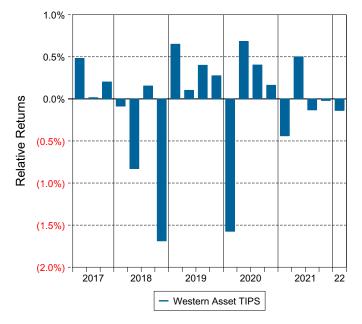
Quarterly Asset Growth

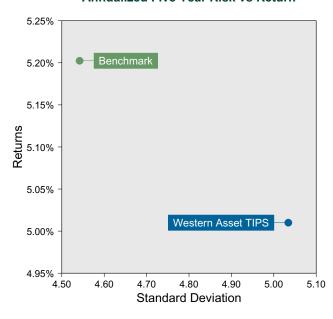
_	
Beginning Market Value	\$514,050,057
Net New Investment	\$-140,010
Investment Gains/(Losses)	\$-17,727,206
Ending Market Value	\$496,182,841



Relative Return vs Benchmark

Annualized Five Year Risk vs Return







JP Morgan IIF Infrastructure Period Ended March 31, 2022

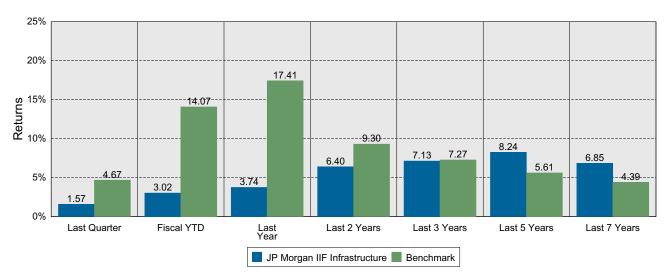
Investment Philosophy

The only open-ended private commingled infrastructure fund in the U.S, the JPMorgan Infrastructure Investments Fund invests in stabilized assets in OECD countries with selected value-added opportunities, across infrastructure industry sub-sectors, including: toll roads, bridges and tunnels; oil and gas pipelines; electricity transmission and distribution facilities; contracted power generation assets; water distribution; waste-water collection and processing; railway lines and rapid rail links; and seaports and airports. The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

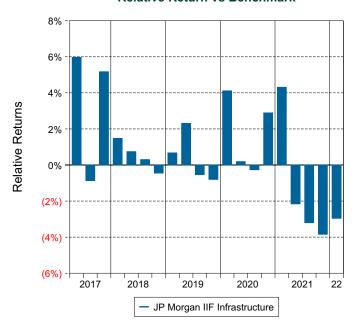
Quarterly Summary and Highlights

 JP Morgan IIF Infrastructure's portfolio underperformed the Benchmark by 3.10% for the quarter and underperformed the Benchmark for the year by 13.67%.

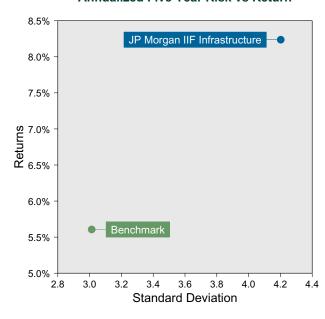
Quarterly Asset Growth		
Beginning Market Value	\$105,323,010	
Net New Investment	\$-1,829,713	
Investment Gains/(Losses)	\$1,657,536	
Ending Market Value	\$105 150 833	



Relative Return vs Benchmark



Annualized Five Year Risk vs Return





Grosvenor CIS Fund II Period Ended March 31, 2022

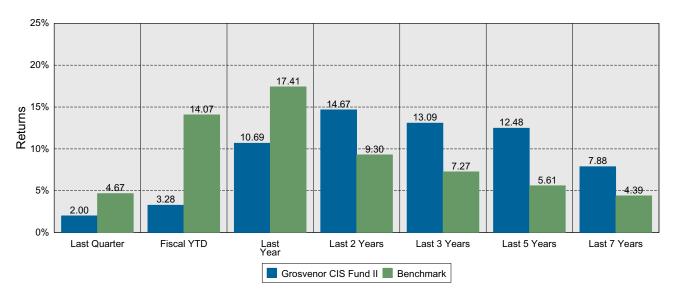
Investment Philosophy

The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). The Benchmark is comprised of CPI-W through June 30, 2018; 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net thereafter.

Quarterly Summary and Highlights

 Grosvenor CIS Fund II's portfolio underperformed the Benchmark by 2.68% for the quarter and underperformed the Benchmark for the year by 6.72%.

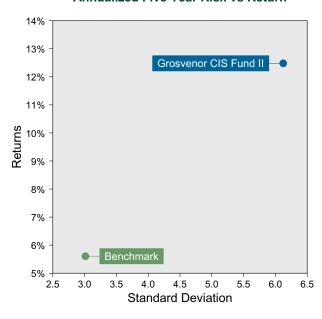
Quarterly Asset Growth		
Beginning Market Value	\$57,668,583	
Net New Investment	\$-6,242,445	
Investment Gains/(Losses)	\$1,067,865	
Ending Market Value	\$52,494,003	



Relative Return vs Benchmark

10% 8% 6% Relative Returns 4% 2% (2%)(4%)(6%) (8%) 2017 2018 2019 2020 2021 22 Grosvenor CIS Fund II

Annualized Five Year Risk vs Return





Grosvenor CIS Fund III Period Ended March 31, 2022

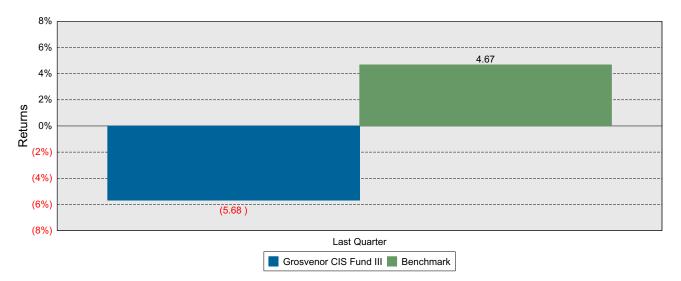
Investment Philosophy

The Customized Infrastructure Strategies LP is a commingled fund focused on providing a comprehensive, diversified solution for investors looking to access the infrastructure asset class. The Fund seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primary core and core plus infrastructure funds (30%), co-investments (40%) and opportunistic secondary fund purchases (30%). The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.

Quarterly Summary and Highlights

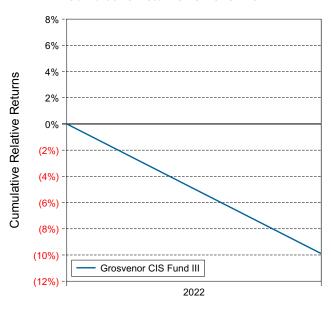
 Grosvenor CIS Fund III's portfolio underperformed the Benchmark by 10.35% for the quarter.

Quarterly Asset Gro	owth
Beginning Market Value	\$10,500,000
Net New Investment	\$8,878,426
Investment Gains/(Losses)	\$-613,252
Ending Market Value	\$18,765,174



Relative Return vs Benchmark

Cumulative Returns vs Benchmark





ISQ Global Infrastructure II Period Ended March 31, 2022

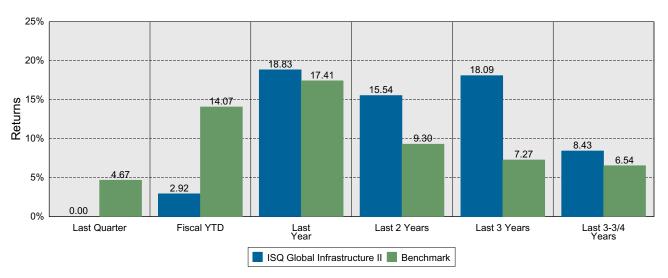
Investment Philosophy

The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia and Latin America. The Fund may also invest in debt Securities that have equity-like returns or an equity component, or are related to its equity investments, including without limitation convertible debt, bank loans and participations and other similar instruments. The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.

Quarterly Summary and Highlights

 ISQ Global Infrastructure II's portfolio underperformed the Benchmark by 4.67% for the quarter and outperformed the Benchmark for the year by 1.42%.

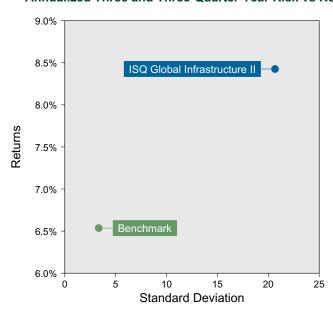
Quarterly Asset Gro	owth
Beginning Market Value	\$67,800,964
Net New Investment	\$3,806,385
Investment Gains/(Losses)	\$0
Ending Market Value	\$71,607,349



Relative Return vs Benchmark



Annualized Three and Three-Quarter Year Risk vs Return





ISQ Global Infrastructure III Period Ended March 31, 2022

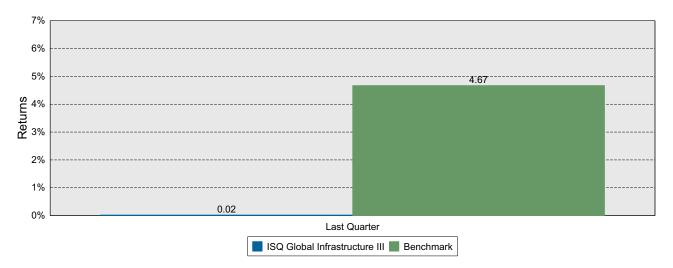
Investment Philosophy

The ISQ Global Infrastructure Fund II seeks to achieve long-term capital appreciation as well as current income through equity and equity related investments in infrastructure and infrastructure related assets located globally, with a focus on North America, Europe, and selected growth economies in Asia and Latin America. The Fund may also invest in debt Securities that have equity-like returns or an equity component, or are related to its equity investments, including without limitation convertible debt, bank loans and participations and other similar instruments. The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.

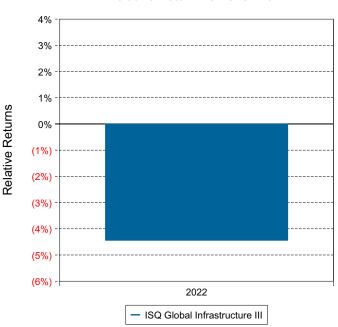
Quarterly Summary and Highlights

 ISQ Global Infrastructure III's portfolio underperformed the Benchmark by 4.65% for the quarter.

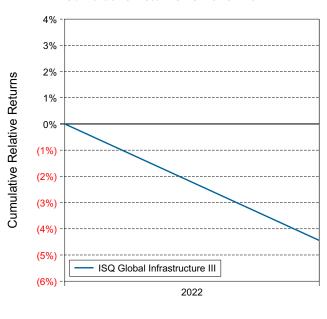
Quarterly Asset Gro	wth
Beginning Market Value	\$7,069,336
Net New Investment	\$0
Investment Gains/(Losses)	\$1,667
Ending Market Value	\$7,071,003



Relative Return vs Benchmark



Cumulative Returns vs Benchmark





Macquarie Infrastructure Fund IV Period Ended March 31, 2022

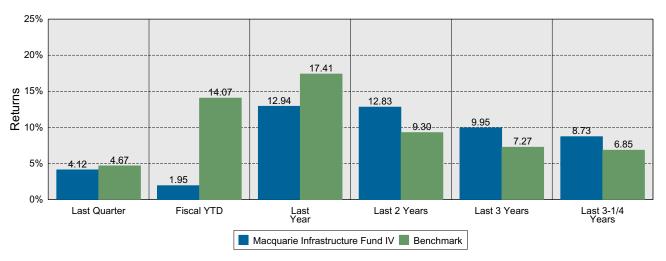
Investment Philosophy

Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.

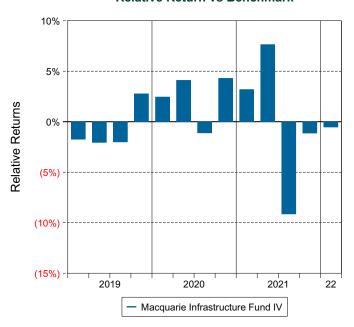
Quarterly Summary and Highlights

 Macquarie Infrastructure Fund IV's portfolio underperformed the Benchmark by 0.55% for the quarter and underperformed the Benchmark for the year by 4.47%.

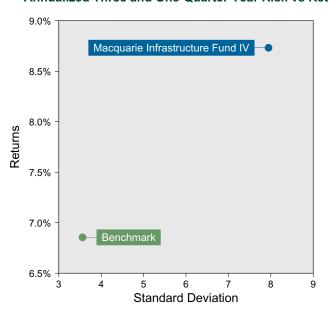
Quarterly Asset Gr	owth
Beginning Market Value	\$75,323,879
Net New Investment	\$-888,978
Investment Gains/(Losses)	\$3,103,862
Ending Market Value	\$77 538 763



Relative Return vs Benchmark



Annualized Three and One-Quarter Year Risk vs Return





Macquarie Infrastructure Fund V Period Ended March 31, 2022

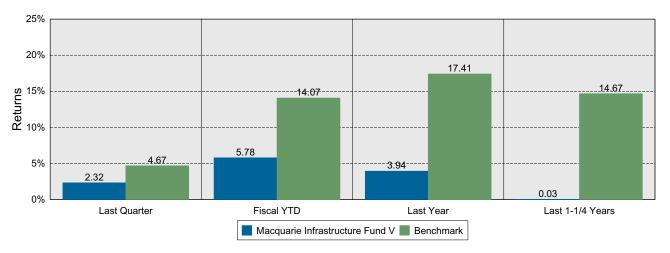
Investment Philosophy

Macquarie's principal investment philosophy is to invest in infrastructure assets that exhibit monopolistic and/or contractual revenue drivers, limited substitution risk and high barriers to entry. The manager has continued to focus on investments where the team's sector expertise and operating experience will provide a competitive advantage in sourcing and due diligence. Furthermore, the manager will also continue to focus on opportunities where its active management capabilities can add value for investors in terms of enhancing returns and the substantial mitigation and/or elimination of material operational risks. The Benchmark is comprised of 50% CPI-U lagged one quarter and 50% NFI-ODCE Equal Weight Net.

Quarterly Summary and Highlights

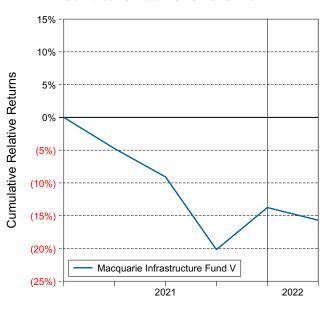
 Macquarie Infrastructure Fund V's portfolio underperformed the Benchmark by 2.35% for the quarter and underperformed the Benchmark for the year by 13.47%.

Beginning Market Value	\$53,575,082
Net New Investment	\$-55,479
Investment Gains/(Losses)	\$1,243,733
Ending Market Value	\$54,763,336



Relative Return vs Benchmark

Cumulative Returns vs Benchmark









1st Quarter 2022

Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

<u>Alternatives Focus: Outlook for Hedge Funds</u> | Joe McGuane analyzes hedge fund performance in 2021 and provides his outlook for the asset class in 2022.

2022-2031 Capital Markets Assumptions | A white paper detailing the process involved in creating our 2022-2031 Capital Markets Assumptions and the reasoning behind them. You can also view our interactive webpage and charticle featuring this year's assumptions.

2022 Defined Contribution Trends Survey | This survey provides extensive information for DC plan sponsors to use in improving and benchmarking their plans.

Callan Periodic Table of Investment Returns & Collection | The

Periodic Table of Investment Returns depicts annual returns for key asset classes, ranked from best to worst performance for each calendar year. Expanding upon our Classic Periodic Table, the Collection offers additional versions focused on equity, fixed income, institutional investors, and alternatives such as real estate, private equity, and hedge funds. Other tables compare the performance of key indices to zero and to inflation.

Blog Highlights

DOL Weighs in on Cryptocurrencies in DC Plans | The U.S. Department of Labor issued a compliance assistance bulletin, which does not carry the force of law, regarding offering cryptocurrency investments in a defined contribution plan, with a number of stern warnings about the potential fiduciary challenges.

Hedge Funds and Ukraine: A Guide for Institutional Investors

| This post provides an analysis of the performance of hedge funds through the end of February, categorized by strategy type, and how they have been grappling with the Ukraine crisis.

Why It Was a Tough 4Q21 for Large Cap Growth Managers |

With rising case counts stemming from the Omicron variant, and concerns about interest rates and inflation, volatility in the markets spiked in 4Q21. For large cap growth investment managers, pro-cyclical positioning generally hurt portfolios given those fears. More than 90% of large cap growth managers underperformed the benchmark for the quarter.

Risky Business Update: Rising Inflation and Continued Uncertainty Challenge Investors | Using our proprietary Capital Markets Assumptions, we found that investors in 2022 needed to take on over five times as much risk as they did 30 years ago to earn the same nominal return.

Quarterly Periodicals

<u>Private Equity Trends, 4Q21</u> | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 4Q21 | A comparison of active managers alongside relevant benchmarks over the long term

Market Pulse Flipbook, 4Q21 | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

<u>Capital Markets Review, 4Q21</u> | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

<u>Hedge Fund Quarterly, 4Q21</u> | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Reporter, 4Q21 | A summary of market activity for real assets and private real estate during the quarter

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

Research Café: How to Navigate Private Equity Fees and Terms (webinar)

May 11, 2022 at 9:30am PT

June Regional Workshop June 7, 2022 – Atlanta

June 9, 2022 - Portland

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

Education: By the Numbers

Unique pieces of research the Institute generates each year

Attendees (on average) of the Institute's annual National Conference

3,700 Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments

July 26-27, 2022 – San Francisco

September 20-22 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events/



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer







List of Callan's Investment Manager Clients

Confidential - For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

Manager Name
abrdn (Aberdeen Standard Investments)
Acadian Asset Management LLC
Adams Street Partners, LLC
AEGON USA Investment Management Inc.
AllianceBernstein
Allianz
Allspring Global Investments
American Century Investments
Amundi US, Inc.
Antares Capital LP
AQR Capital Management
Ares Management LLC
Ariel Investments, LLC
Aristotle Capital Management, LLC
Atlanta Capital Management Co., LLC
AXA Investment Managers
Baillie Gifford International, LLC
Baird Advisors

Manager Name
Barings LLC
Baron Capital Management, Inc.
Barrow, Hanley, Mewhinney & Strauss, LLC
BentallGreenOak
BlackRock
Blackstone Group (The)
BNY Mellon Asset Management
Boston Partners
Brandes Investment Partners, L.P.
Brandywine Global Investment Management, LLC
Brookfield Asset Management
Brown Brothers Harriman & Company
Burgundy Asset Management
Capital Group
Carillon Tower Advisers
CastleArk Management, LLC
Chartwell Investment Partners
ClearBridge Investments, LLC

Manager Name

Cohen & Steers Capital Management, Inc.

Columbia Threadneedle Investments North America

Comgest

Credit Suisse Asset Management, LLC

Crescent Capital Group LP

DePrince, Race & Zollo, Inc.

Dimensional Fund Advisors L.P.

Doubleline

Duff & Phelps Investment Management Co.

DWS

EARNEST Partners, LLC

Epoch Investment Partners, Inc.

Fayez Sarofim & Company

Federated Hermes, Inc.

Fidelity Institutional Asset Management

Fiera Capital Corporation

First Hawaiian Bank Wealth Management Division

First Sentier Investors

Fisher Investments

Franklin Templeton

Fred Alger Management, LLC

GAM (USA) Inc.

Garrett Investment Advisors, LLC

GlobeFlex Capital, L.P.

GoldenTree Asset Management, LP

Goldman Sachs

Golub Capital

Guggenheim Investments

GW&K Investment Management

Harbor Capital Group Trust

Hardman Johnston Global Advisors LLC

Heitman LLC

Hotchkis & Wiley Capital Management, LLC

Impax Asset Management LLC

Income Research + Management Inc.

Insight Investment

Intech Investment Management LLC

Intercontinental Real Estate Corporation

Invesco

J O Hambro Capital Management Limited

Manager Name

J.P. Morgan

Janus

Jennison Associates LLC

Jobs Peak Advisors

Jupiter Asset Management

KeyCorp

Lazard Asset Management

LGIM America

Lincoln National Corporation

Longview Partners

Loomis, Sayles & Company, L.P.

Lord Abbett & Company

LSV Asset Management

MacKay Shields LLC

Macquarie Asset Management

Manning & Napier Advisors, LLC

Manulife Investment Management

Marathon Asset Management, L.P.

McKinley Capital Management, LLC

Mellon

MetLife Investment Management

MFS Investment Management

MidFirst Bank

MLC Asset Management

Mondrian Investment Partners Limited

Montag & Caldwell, LLC

Morgan Stanley Investment Management

MUFG Union Bank, N.A.

Natixis Investment Managers

Neuberger Berman

Newton Investment Management

Ninety One North America, Inc.

Northern Trust Asset Management

Nuveen

P/E Investments

Pacific Investment Management Company

Pantheon Ventures

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management, LP



Manager Name

Peregrine Capital Management, LLC

PFM Asset Management LLC

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polen Capital Management, LLC

Principal Global Investors

Putnam Investments, LLC

RBC Global Asset Management

Regions Financial Corporation

Richard Bernstein Advisors LLC

Robeco Institutional Asset Management, US Inc.

Rothschild & Co. Asset Management US

S&P Dow Jones Indices

Schroder Investment Management North America Inc.

Segall Bryant & Hamill

SLC Management

Smith Graham & Co. Investment Advisors, L.P.

State Street Global Advisors

Strategic Global Advisors, LLC

Manager Name

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

Thornburg Investment Management, Inc.

Timberland Investment Resources, LLC

Tri-Star Trust Bank

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Vulcan Value Partners, LLC

Walter Scott & Partners Limited

WCM Investment Management

Wellington Management Company, LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC

