First Quarter 2024

Capital Markets Review

Callan Institute

Investors, Be Careful for What You Wish

ECONOMY

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Investors spent the 2010s wishing for a return to normal in interest rates. The U.S. economy is not back to this mythical equilibrium but is close. So, we achieved the yearned-for goal of normal interest rates, and the markets should be happy about this achievement. Right? Not so.

Investors Show Gains but Lag Benchmark

INSTITUTIONAL INVESTORS

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Nonprofits performed best, while risk-averse corporate DB plans lagged. Public DB plans are reviewing their fixed-income structures in the new yield environment. Corporate DB plans saw interest rate hedging work. DC plans continue to focus on fees.

Big Rally at the Start of Year in Stocks

EQUITY

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The U.S. equity markets were off to an exceptional start with the S&P 500 posting a YTD gain of 11%, its best first quarter since 2019. Broad global markets also delivered strong returns on the decreasing expected probability of a recession in the U.S. and continued optimism around AI.

Agg Falls as Rates Rose; HY Benefits

FIXED INCOME

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The Bloomberg US Aggregate Bond Index fell 0.8% as rates rose. Investment grade corporates outperformed like-duration Treasuries. Lower quality also outperformed, with high yield corporates and leveraged loans posting the highest returns.

Private, Public Indices Fall on Rate Worries

REAL ESTATE/REAL ASSETS

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Both the NCREIF Property Index and the ODCE dropped, although income returns were positive. REITs trailed equities both in the U.S. and globally. In the U.S., stronger equity returns hurt, while rate concerns led to underperformance in Europe. Asian REITs outperformed.

Huge Drop in Activity From 2021-22 Peak

PRIVATE EQUITY

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Fundraising fell sharply in 2023 from the highs of 2021-22. Buyout activity also declined. There is a bifurcation in VC: An AI “supercycle” is accelerating early-stage deal activity and buoying valuations while late-stage companies struggle with slower growth.

Long-term Returns Top Leveraged Loans

PRIVATE CREDIT

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In 4Q23, private credit gained 3.1%, just above leveraged loans but well below a high yield benchmark. But over longer time periods it has handily outperformed both, with gains of 8.1% over the last 10 years. Investor interest in the asset class continues.

Strong Start to Year and Optimism in ‘24

HEDGE FUNDS/MACs

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All four major hedge fund types had positive performance, and the Callan Institutional Hedge Fund Peer Group rose 4.1%. MACs also saw gains. The market environment should remain positive for the asset class, especially for skilled long/short managers.

DC Index Rallies After Previous 3Q23 Loss

DEFINED CONTRIBUTION

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The Callan DC Index rose in 4Q23 by 9.5% after a loss in 3Q. Investment gains powered the increase. Exposure to equities in plans rose, as U.S. large cap equity saw a jump in allocations. Management fee data showed a drop in fees across the board.

Broad Market Quarterly Returns

U.S. Equity
Russell 3000

▲ **10.0%**

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

▲ **4.7%**

U.S. Fixed Income
Bloomberg Agg

▼ **-0.8%**

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

▼ **-3.2%**

Sources: Bloomberg, FTSE Russell, MSCI

Be Careful for What You Wish

ECONOMY | Jay Kloepfer

Since central bankers began the Zero Interest Rate Policy experiment following the Global Financial Crisis in 2008-09, including a revival of the policy in 2020 post-COVID, the market has bemoaned the lack of meaningful interest rates for debt investors. Investors spent the 2010s wishing for a “return to normal” in interest rates, which means a real return to investing in cash (a small premium over inflation); an upward sloping yield curve; and a 10-year Treasury rate that roughly equals nominal GDP growth.

What does that really mean? In a world of, say, 2% inflation (the Fed’s target), and real GDP growth of 2.0%-3.0% (let’s call it 2.5%), then cash would yield about 2.5%, 10-year Treasuries would yield about 4.5%, both savers and retirees would be satisfied with a positive real return to holding debt, and the economy could function on a real cost of capital that looks like the long-term average.

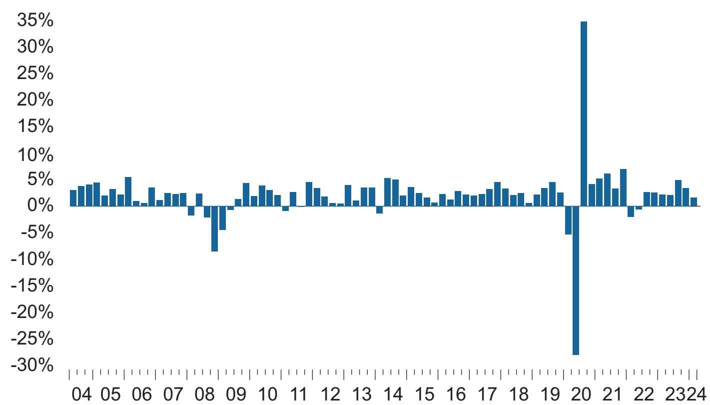
Today inflation is at 3.5% (March 2024), and economic growth has come in hotter than expected, meaning the Fed’s inflation-fighting efforts may not yet be over. The U.S. economy and global capital markets are not back to this mythical equilibrium, but one could argue there is a decent chance of getting there within the next year or so.

So we achieved the yearned-for goal of normal interest rates, and the markets should be happy about this achievement. Right? Not so—almost from the moment we began raising rates in 2022, moving in quick steps toward normalization, the capital markets have priced in an imminent recession and a reversal of interest rates, the very counter to normalization. What gives? Are we (the market) a giant collection of irrational actors? Did we regret our wished-for goal of normal interest rates once we saw what the goal would mean for the cost of debt, for mortgages, for short-term borrowing?

When I say the markets called for a reversal of rate hikes, it means the yield curve inverted, just three months after the Federal Reserve began raising rates. An inverted yield curve is simply the expression of market participants’ belief that interest rates will come down at some point in the future, and it happens when bond investors move into longer-dated debt to pick up a bigger price gain when rates come down. This investor move drives up the price of longer bonds and drives down their yield. Why would investors expect rates to fall? They believe the rate hikes enacted by the Fed will slow the economy enough to cause recession and spur the Fed to start cutting rates to stimulate growth.

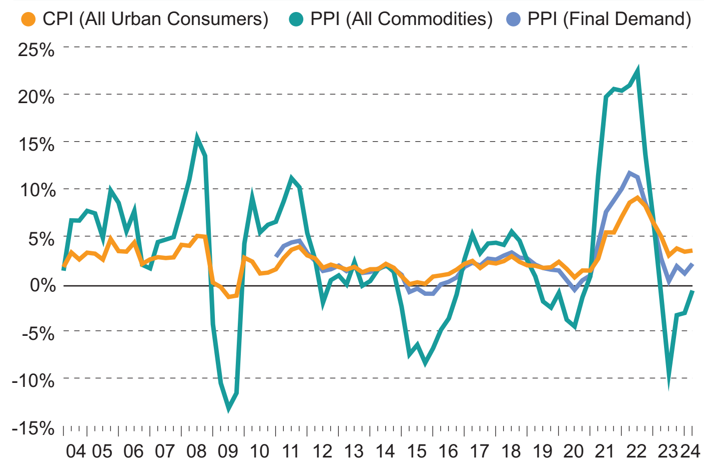
To the casual observer, this explanation of the path from investor expectations to an inverted yield curve to an economic forecast

Quarterly Real GDP Growth (20 Years)



Source: Bureau of Economic Analysis

Inflation Year-Over-Year



Source: Bureau of Labor Statistics

looks like a long way to go. What makes the current situation particularly interesting is that many market participants, simply by virtue of the experience since 2009 and their age, have never lived through inflation greater than 2% and interest rates anywhere near their current level. We can talk about a return to normal, but for many, the 10-year plus period of ZIRP was their "normal."

All forecasters expected the rate hikes begun in 2022 to cause a slowdown and likely a recession by 2023, and most certainly by 2024. GDP growth defied all forecasters and got stronger as 2023 progressed, finishing the year 2.5% higher than 2022. Driving the growth was a phenomenal year in the job market, as almost every industry segment finally surpassed its pre-pandemic peak. 1Q24 GDP growth came in at 1.6%, which is softer than the forecasts that led up to its release, and the first time growth has been below 2% in seven quarters, all the way back to the anomalous GDP losses in 1Q and 2Q in 2022. The Fed's Open Market Committee voted on May 1 to hold the Fed Funds target at 5.25%-5.5%. The Fed directly referenced final sales to domestic purchasers as reason for holding rates steady, as these sales grew at 3%, 3.3%, and 3.1% over the last three quarters (through 1Q24). The Fed has also changed its tone regarding inflation, after inflation rose in the first quarter, with the CPI hitting 3.5% in March. CPI dropped to 3.0% in June 2023, bounced around in the fall and started 2024 at 3.1%, but the persistence of inflation is humbling to the Fed.

The logical conclusion is that the current strength of the economy is both a sign that there is no urgent need to lower rates, and that this strength and the current rate of inflation are not in alignment with the Fed's goal of 2% inflation. So long as progress on inflation remains stalled, it will take longer than expected before the FOMC believes it will be appropriate to lower rates.

The Long-Term View

Index	1Q24	Periods Ended 3/31/24 1 Yr	5 Yrs	10 Yrs	25 Yrs
U.S. Equity					
Russell 3000	10.0	29.3	14.3	12.3	8.0
S&P 500	10.6	29.9	15.0	13.0	7.8
Russell 2000	5.2	19.7	8.1	7.6	8.4
Global ex-U.S. Equity					
MSCI EAFE	5.8	15.3	7.3	4.8	4.6
MSCI ACWI ex USA	4.7	13.3	6.0	4.3	--
MSCI Emerging Markets	2.4	8.2	2.2	2.9	--
MSCI ACWI ex USA Small Cap	2.1	12.8	6.2	4.7	7.2
Fixed Income					
Bloomberg Agg	-0.8	1.7	0.4	1.5	3.8
90-Day T-Bill	1.3	5.2	2.0	1.4	1.9
Bloomberg Long G/C	-2.4	-1.1	-0.6	2.3	5.2
Bloomberg Gl Agg ex US	-3.2	-0.7	-2.5	-1.4	2.3
Real Estate					
NCREIF Property	-1.0	-7.2	3.8	6.4	7.9
FTSE Nareit Equity	-0.2	10.5	4.1	6.6	9.5
Alternatives					
Cambridge PE*	-0.4	4.2	14.6	14.3	13.9
Cambridge Senior Debt*	0.1	11.3	5.9	6.7	--
HFRI Fund Weighted	4.5	11.7	6.9	4.9	6.3
Bloomberg Commodity	2.2	-0.6	6.4	-1.6	2.7
Inflation – CPI-U	1.8	3.5	4.2	2.8	2.6

*Data for most recent period lags. Data as of 3Q23.
Sources: Bloomberg, Bureau of Economic Analysis, FTSE Russell, Hedge Fund Research, MSCI, NCREIF, Refinitiv/Cambridge, S&P Dow Jones Indices

Recent Quarterly Economic Indicators

	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22
Employment Cost: Total Compensation Growth	4.2%	4.2%	4.3%	4.5%	4.8%	5.1%
Nonfarm Business: Productivity Growth	0.3%	3.5%	4.6%	3.3%	-0.3%	2.1%
GDP Growth	1.6%	3.3%	4.9%	2.1%	2.2%	2.6%
Manufacturing Capacity Utilization	76.9%	77.2%	77.7%	78.0%	78.2%	78.5%
Consumer Sentiment Index (1966=100)	78.4	64.9	69.6	62.3	64.6	58.8

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

Investors Show Gains but Still Lag Benchmark

INSTITUTIONAL INVESTORS

- Strong equity gains and a modest rebound in bonds helped all investor types show gains in the one-year period ending 1Q24.
- Given their generally more aggressive portfolios, nonprofits performed best, while risk-averse corporate plans saw lower returns.
- But all investor types significantly lagged a benchmark consisting of 60% S&P 500/40% Bloomberg Aggregate.
- Over longer periods, public defined benefit (DB) plans have performed best.
- Over the last 20 years, investors have seen gains but still lag equities and the 60%/40% benchmark.

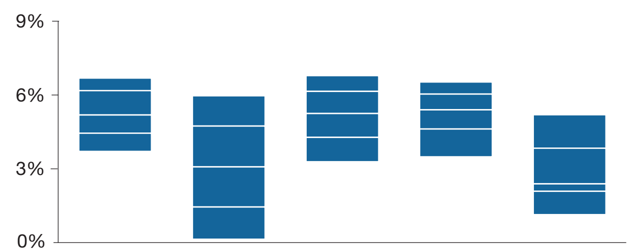
Market environment issues of concern to investors

- On an annual-average over annual-average basis, forecasters from the Federal Reserve Bank of Philadelphia expect real GDP to increase 2.4% in 2024, up 0.7 percentage points from the estimate in the previous survey.
- The yield curve continues to be inverted, implying a recession is on the horizon.
  - Inversion started in July 2022 (20 months) or approximately 600+ days ago
  - Many now saying this indicator may not be as good as it was
  - Election years also tend to do weird things to indicators

Public DB plans

- The median discount rate, according to the most recent NASRA survey, is 7.0%.
- A 7.0% return expectation can be achieved with 50% in fixed income.

Quarterly Returns, Callan Database Groups (3/31/24)



	Public	Corporate	Nonprofit	Taft-Hartley	Insurance Assets
10th Percentile	6.7	6.0	6.8	6.5	5.2
25th Percentile	6.2	4.7	6.2	6.0	3.8
Median	5.2	3.1	5.3	5.4	2.4
75th Percentile	4.5	1.5	4.3	4.6	2.1
90th Percentile	3.7	0.1	3.3	3.5	1.1

Source: Callan

Callan Database Median and Index Returns* for Periods Ended 3/31/24

Database Group	Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Public Database	**5.2**	**13.9**	**4.9**	**8.3**	**7.3**	**7.1**
Corporate Database	**3.1**	**9.1**	**1.1**	**5.4**	**5.7**	**6.5**
Nonprofit Database	**5.3**	**14.3**	**4.8**	**8.2**	**6.9**	**6.9**
Taft-Hartley Database	**5.4**	**13.2**	**4.9**	**7.9**	**7.2**	**6.8**
Insurance Assets Database	**2.4**	**8.6**	**1.8**	**4.4**	**4.1**	**4.7**
All Institutional Investors	**4.9**	**13.0**	**4.3**	**7.7**	**6.8**	**6.9**
Large (>$1 billion)	**4.4**	**11.8**	**4.7**	**8.0**	**7.2**	**7.1**
Medium ($100mm - $1bn)	**5.1**	**13.2**	**4.4**	**7.8**	**6.9**	**6.9**
Small (<$100 million)	**5.2**	**14.2**	**4.2**	**7.5**	**6.6**	**6.6**
60% S&P 500/40% Bloomberg Agg	6.0	18.1	5.9	9.4	8.6	7.6

*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.

– Plans are starting to review their fixed income structures, specifically the need for risk in a higher-rate environment.
– More than a quarter of plans considered increasing their allocations to private real estate, a sharp jump from 3Q23, according to the Callan Consultant Survey.
– Interest in private credit took a big drop in 1Q24. At the same time, nearly 16% of clients are considering cutting allocations to the asset class, the most in survey history.
– There was also a big jump in the share of clients considering cuts to global ex-U.S. equity allocations.
– There was a smaller but still significant decrease in the share of clients considering reductions to U.S. equity.
– No clients planned changes to their fixed income allocations.

Corporate DB plans

– Liabilities decreased as rates rose.
– Interest rate hedging continues to work.
– Funded ratios for some clients improved as the equity markets increased.
– As closed plans' liabilities shorten, intermediate fixed income will continue to gather interest.
– As credit spreads have tightened, it is important to manage or reduce any overweight to credit.
– Corporate DB plans are considering increasing private equity, up from 0% in 3Q23.
– According to the Consultant Survey, the share of plans with a funded status between 91% and 100% dropped dramatically.
– Both the share of clients with funded status under 80% and between 81% and 90% jumped.
– The share over 100% funded stayed relatively in line with previous quarters.

Defined contribution (DC) plans

– Fees are almost always the top concern for plan sponsors. This quarter, for the first time since 1Q18, they tied with another significant issue, in this case investment structure, in our Consultant Survey.

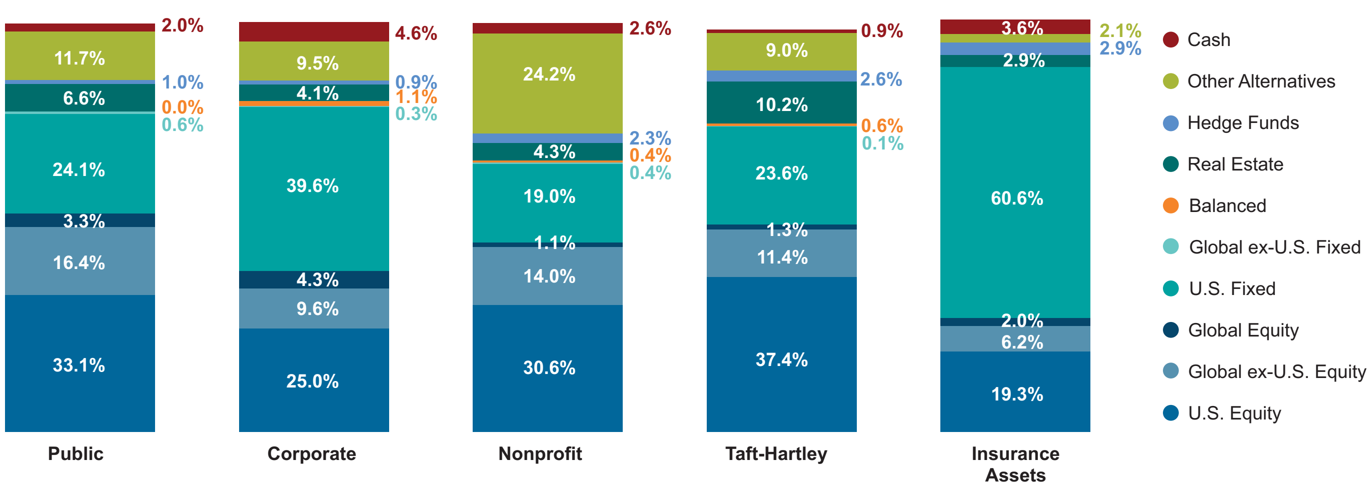
Nonprofits

– For clients that had increased the risk in their fixed income sleeves to gain a higher yield (in the lower-rate environment), they too are reviewing the need for risk in a higher-rate environment.
– Nonprofit clients indicated they planned small adjustments for most alternative asset classes, with the notable exception of hedge funds and private real estate.

Insurance assets

– Insurance companies are still benefiting from higher yields on short-term fixed income.
– Claim costs are higher from experienced inflation.
– Risk-based capital charges must be considered when investing in alternative investments.

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

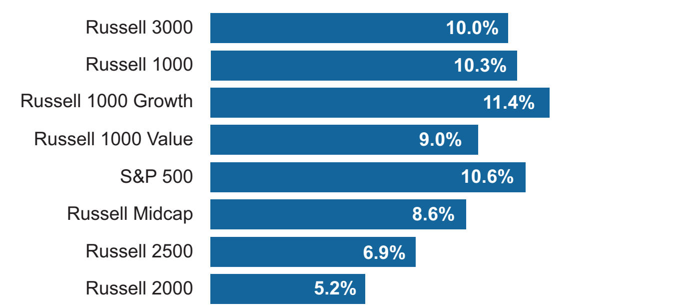
Best first quarter in 5 years

- The U.S. equity markets were off to an exceptional start with the S&P 500 posting a YTD gain of 11%, its best first quarter since 2019. Performance was buoyed by continued optimism around a “soft landing” scenario, strong corporate earnings, and the Fed’s projected interest rate cuts in mid-2024.
- Almost all of the 11 S&P 500 sectors posted gains in 1Q24. Real estate was the only sector that posted losses, challenged by the interest rate environment and continued negative sentiment around office real estate.
- The best-performing sector was Communication Services, which generated a nearly 16% return during the quarter. Energy, Financials, Information Technology, and Industrials also posted double-digit returns.

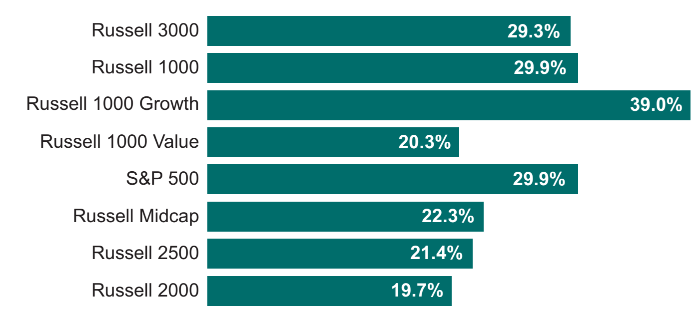
Large cap stocks dominate again

- Growth outpaced value across the market cap spectrum once again, and large cap stocks continued to outperform small cap stocks.
- The “Magnificent Seven” in aggregate continues to outpace the other constituents of the S&P 500 in terms of earnings growth and total returns.
- However, signs point to the broadening of returns within the index including: 1) The narrowing of dispersion in the premium gap of returns/earnings growth; as of 3/31/24, the premium gap of returns/earnings growth between the “Magnificent Seven” and the other 493 stocks in the index was 10%. In recent periods, the gap has been >25%; 2) Only two stocks of the “Magnificent Seven” (Meta and NVIDIA) were among the top 10 performers within the index for the quarter.
- Returns within the “Magnificent Seven” cohort also show signs of disaggregation. Three stocks—Tesla, Apple, and Alphabet—exhibited negative to single-digit returns vs. other constituents, which generated low to high double-digit returns in 1Q24. In 2023, the entire cohort demonstrated positive double- and triple-digit returns.

U.S. Equity: Quarterly Returns (3/31/24)

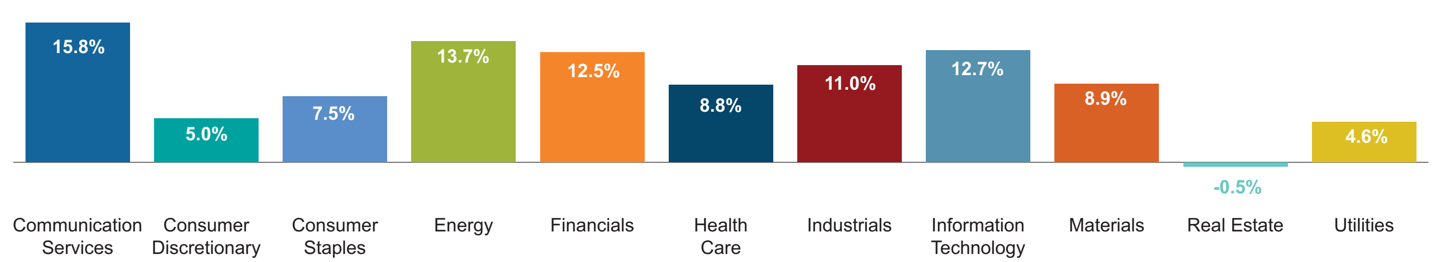


U.S. Equity: One-Year Returns (3/31/24)



Sources: FTSE Russell and S&P Dow Jones Indices

Quarterly Performance of Industry Sectors (3/31/24)



Source: S&P Dow Jones Indices

Global Equities

Another strong quarter for Japan

- Broad markets delivered strong returns on the decreasing expected probability of a recession in the U.S. and continued optimism around artificial intelligence.
- Small caps once again trailed large caps in a higher interest rate environment, which tends to more negatively impact smaller companies with more significant borrowing needs.
- Japan performed well yet again, beating the S&P 500 in 1Q24, driven by continued stock buybacks, economic resiliency, and a weakening yen, which helped exports.

Emerging markets struggle but exporters thrive

- Emerging markets underperformed developed markets as China struggled with increased regulatory scrutiny and a continued economic slowdown.
- Exporting countries such as Peru and Colombia benefited from increasing commodity prices. Turkey also performed well with a return to orthodox monetary policies after experimenting with counterintuitive methodologies.

Value benefits from rising commodity prices

- Energy's volatility continued; after struggling in 4Q23, energy rebounded and helped deliver stronger performance in the commodity-heavy value space.

U.S. dollar gains as rate cut expectations fall

- The U.S. dollar rose in 1Q as investors recalibrated their interest rate expectations, with conventional wisdom now indicating that the U.S. may only enact one rate cut in 2024.

Positive tailwinds

- End of deflation
- Most prolonged stint of consumption gains since mid-1990s
- Increase in exports (positive impact to GDP)
- Reforms support the Japanese equity market through increased M&A and improved corporate governance

Slow growth in China

- Sluggish growth continues, with weak home sales and deflationary pressures.

Market valuation in China

- With Chinese markets now down 60% from a high-water mark in early 2021, Chinese equities are at decade-low allocations in global portfolios.

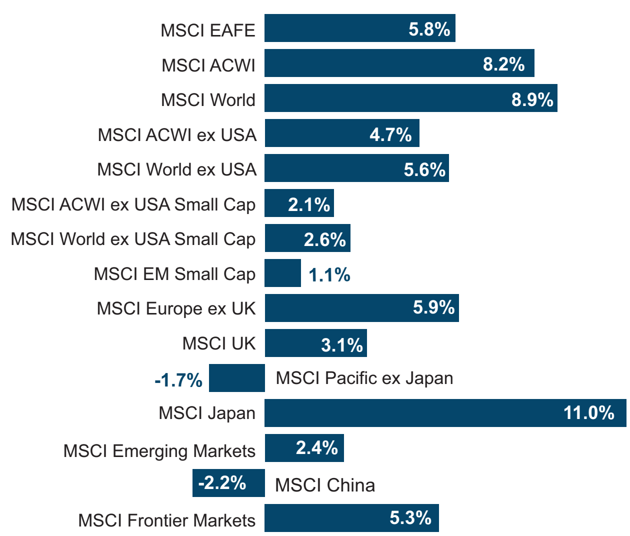
Fast growth in India

- Highest real GDP growth and one of the only major countries with accelerating GDP growth.

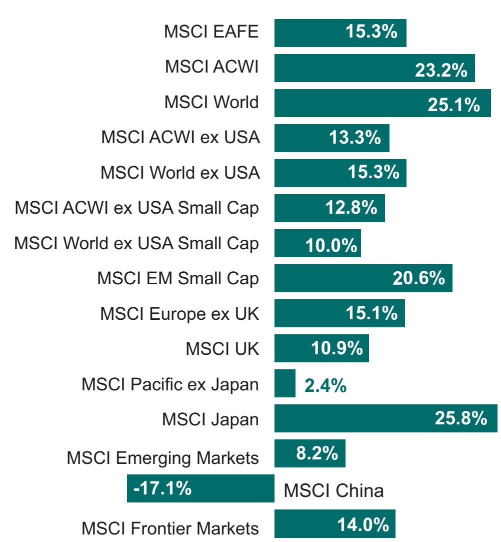
Market valuation in India

- The MSCI India Index traded at 22.1 times forward earnings —above its 10-year average of 18.9 times.

Global ex-U.S. Equity: Quarterly Returns (U.S. Dollar, 3/31/24)



Global ex-U.S. Equity: One-Year Returns (U.S. Dollar, 3/31/24)



Source: MSCI

Fixed Income

U.S. Fixed Income

Big increase in 10-year Treasury yield

- Markets' enthusiasm for multiple rate cuts starting in early 2024 was tempered by stronger-than-expected economic data.
- 10-year U.S. Treasury yield rose from 3.88% as of year-end to close the quarter at 4.21%.
- The yield curve remained inverted but less so than one year ago (2-year/10-year 42 bps vs. 57 one year ago).

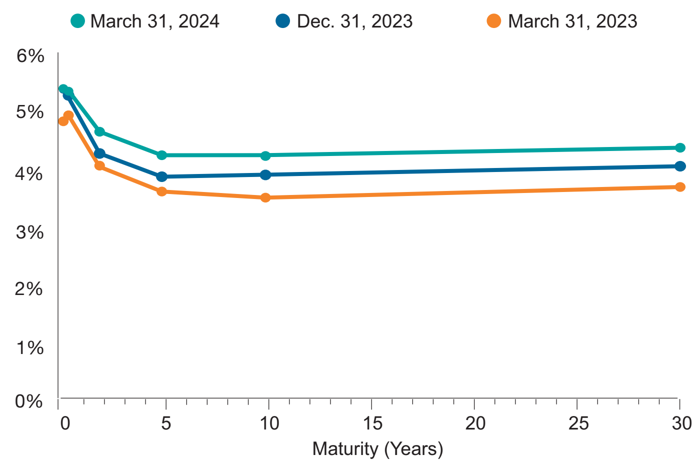
Aggregate falls as rates climb

- The Bloomberg US Aggregate Bond Index fell 0.8% as rates rose.
- Investment grade corporates outperformed like-duration Treasuries, while mortgages underperformed.
- Lower quality also outperformed, with high yield corporates and leveraged loans posting the highest returns.
- Investment grade and high yield corporate spreads are now tighter than one standard deviation from the trailing 10-year average.

Record corporate bond issuance

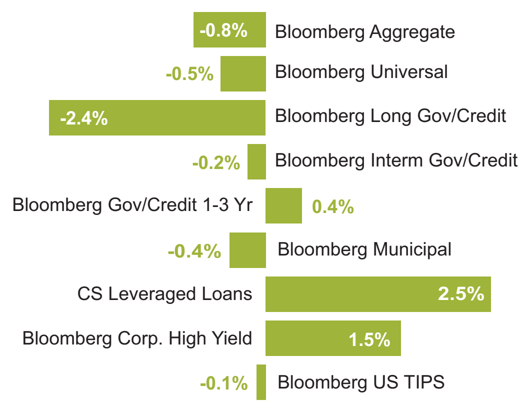
- Highest first quarter of new issuance on record, with $529 billion in investment grade corporates, surpassing 2020's $479 billion.
- High yield quarterly issuance was just as significant with a volume of $85 billion, a level not seen since 2021.
- Both were met with strong investor demand.
- Corporate bond spreads continued to tighten across all qualities amid strong investor demand. Investment grade credit OAS declined 8 bps to 85 bps, while high yield corporates fell 24 bps, crossing the 300 bp level for the first time since January 2022.
- Investment grade credit spreads are now in the lowest 13th percentile over the last 20 years, while high yield bonds are in the 8th percentile. Bank loans are relatively more attractive, with spreads in the 42nd percentile since June 2008.
- However, all-in yields continue to provide high levels of income, with investment grade credit in the 77th percentile

U.S. Treasury Yield Curves



Source: Bloomberg

U.S. Fixed Income: Quarterly Returns (3/31/24)



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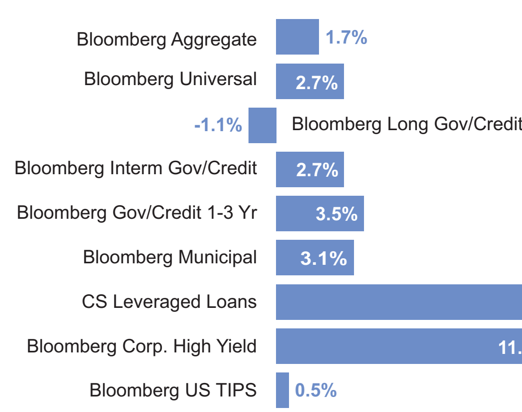


Sources: Bloomberg and Credit Suisse

over the last 20 years, while high yield is in the 58th percentile. Bank loan yields, which are benefitting from the inverted yield curve, are in the 81st percentile since June 2008.

Municipal Bonds

Municipal bonds posted fairly flat returns in 1Q

- Yields rose, but less than for U.S. Treasuries.
- 10-year AAA municipal bond yield closed at 2.52%, up from 2.27% as of year-end.
- 10-year U.S. Treasury yield rose to 4.20% from 3.88%.
- Strong demand easily absorbed robust issuance.

BBBs performed best for quarter and year

- AAA: -0.8%
- AA: -0.6%
- A: +0.1%
- BBB: +0.6%
- High Yield: +1.5%

Valuations vs. U.S. Treasuries remained rich

- 10-year AAA Muni/10-year U.S. Treasury yield ratio 60%
- Well below 10-year median of 86%

Global Fixed Income

Central banks close to rate cuts

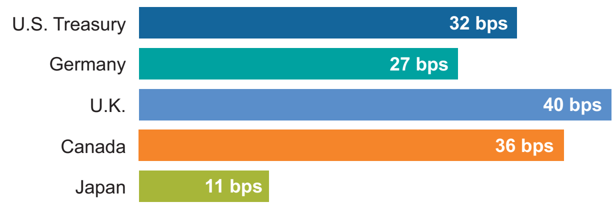
- Central banks largely kept rates on hold but are getting closer to rate cuts as inflation moderates.
- Switzerland was the first to raise rates with a 25 bps increase.
- Japan was the last to exit negative interest rate policy, raising rates from -0.1% to a range of 0.0%-0.1%.

U.S. dollar strengthened

- Major currencies weakened relative to the dollar, a reversal of fortune from 4Q23.
- Hedged investors saw better returns.

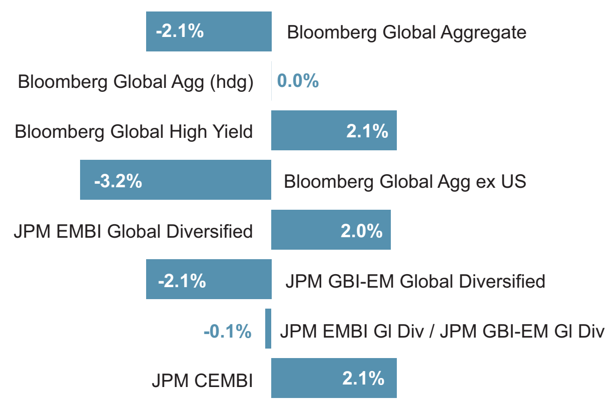
Change in 10-Year Global Government Bond Yields

4Q23 to 1Q24



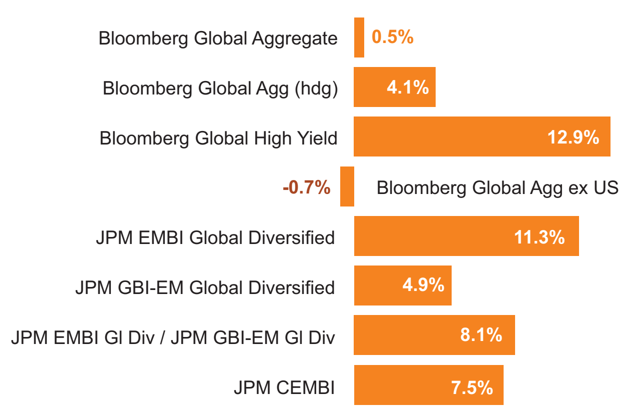
Source: Bloomberg

Global Fixed Income: Quarterly Returns (3/31/24)



Sources: Bloomberg and JPMorgan Chase

Global Fixed Income: One-Year Returns (3/31/24)



Sources: Bloomberg and JPMorgan Chase

Emerging markets were mixed

- Hard currency EM debt performed relatively well, especially high yield. The JPM EMBI Global Diversified Index rose 2.0%, with the high yield component up 4.9%.
- Local currencies generally lost ground to the U.S. dollar, hurting returns for the JPM GBI-EM Global Diversified Index.

Private, Public Indices Fall on Rate Concerns

REAL ESTATE/REAL ASSETS | Munir Iman

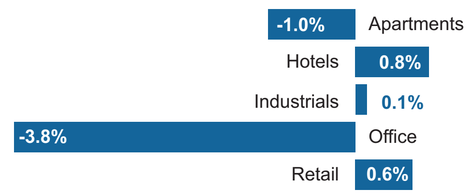
Appreciation returns drive NPI lower

- The NCREIF Property Index, a measure of unlevered U.S. institutional real estate assets, fell 1.0% during 1Q24.
- The income return was 1.2% while the appreciation return was -2.1%.
- Hotels, which represent a small portion of the index, led property sector performance with a gain of 0.8%. Office finished last with a loss of 3.8%.
- Regionally, the South led with a gain of 0.1%, while the West was the worst performer with a drop of 1.4%.
- The NCREIF Open-End Diversified Core Equity (ODCE) Index, representing equity ownership positions in U.S. core real estate, fell 2.4% during 1Q, with an income return of 1.0% and an appreciation return of -3.4%.

U.S. real estate securities

- U.S. REITs (-0.2%) underperformed the S&P 500 (+10.6%). The underperformance was driven by optimism about the broader economy and excitement about artificial intelligence, which drew capital flows away from REITs.
- Earnings growth for U.S. REITs is expected to be in the low single digits due to conservatism and elevated interest rates.
- Cyclical sectors including malls and lodging led U.S. REITs in 1Q, while net lease and storage trailed due to higher interest rate sensitivity and weak pricing power, respectively.

Sector Quarterly Returns by Property Type (3/31/24)



Source: NCREIF

- Dampening inflation, coupled with more dovish Federal Reserve sentiment, sparked a rally to close the year.

Asia/Pacific real estate securities

- The FTSE EPRA Nareit Developed Asia Index (USD) fell 0.2% during the quarter. Strength in higher beta, growth-sensitive Japanese developers was a driver of the region's relative outperformance.
- Hong Kong was the primary underperformer due to concerns over a sustainable pickup in China growth momentum.

European real estate securities

- The FTSE EPRA Nareit Developed Europe Index (USD) dropped by 5.0% during the quarter.
- Europe was the lowest-performing region, driven by signs of stickier inflation driving a repricing of rate cut expectations.
- The less-indebted U.K. outperformed continental Europe.

Callan Database Median and Index Returns* for Periods Ended 3/31/24

Private Real Assets	Quarter	Year to Date	1 Year	3 Years	5 Years	10 Years	20 Years
Real Estate ODCE Style	**-1.8**	**-1.8**	**-11.6**	**2.9**	**3.2**	**6.4**	**6.0**
NFI-ODCE (value-weighted, net)	-2.6	-2.6	-12.0	2.5	2.6	5.8	6.0
NCREIF Property	-1.0	-1.0	-7.2	3.6	3.8	6.4	7.5
NCREIF Farmland	0.7	0.7	3.6	7.4	6.0	7.1	12.2
NCREIF Timberland	2.1	2.1	9.8	11.0	7.0	5.8	7.1
Public Real Estate							
Global Real Estate Style	**-0.7**	**-0.7**	**9.4**	**0.8**	**2.9**	**5.5**	**7.1**
FTSE EPRA Nareit Developed	0.7	0.7	1.6	2.5	3.3	5.5	--
Global ex-U.S. Real Estate Style	**-1.0**	**-1.0**	**8.4**	**-4.2**	**-0.3**	**3.8**	**--**
FTSE EPRA Nareit Dev ex US	-2.0	-2.0	5.9	-5.8	-3.3	0.9	--
U.S. REIT Style	**-0.8**	**-0.8**	**9.9**	**3.7**	**5.3**	**7.3**	**8.3**
FTSE EPRA Nareit Equity REITs	-0.2	-0.2	10.5	4.1	4.1	6.6	7.4

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

Significant Drops in Activity From Peak Years of 2021-22

PRIVATE EQUITY | Ashley Kahn

Fundraising ▶ In 2023, the number of funds raised declined sharply by ~50% from the highs of 2021–22. The 2023 vintage experienced the full impact of the denominator effect, which when combined with slower deal activity and exits, left minimal capital for new commitments.

Buyouts ▶ Buyout activity in 2023 declined by about a third compared to the highs of 2021-22, reflecting high interest rates, a wide bid-ask spread, and lingering effects from the slowdown in the public markets. 3Q23 appears to be the trough in buyout dealmaking, with early 2024 seeing improved liquidity conditions and higher public markets comps. Average deal size has declined; larger buyouts have been more difficult to finance, leading to greater activity for small/mid buyouts and add-on acquisitions.

Venture Capital and Growth Equity ▶ 2023 saw a substantial decline of ~50% in venture capital and growth equity activity, following the highs of 2021. There is a bifurcation by stage: An artificial intelligence "supercycle" is accelerating early-stage deal activity and buoying valuations, while late-stage companies struggle with slower growth, falling valuations, and lack of exit prospects.

A significant amount of capital is tied up in venture-backed companies waiting to go public, which is slowing down new investment activity (e.g., SpaceX, Databricks, Chime, Scale AI, etc.). 2023-24 has witnessed a few high-profile IPOs (Instacart, Klaviyo, and Reddit), but there has not been an IPO above $10 billion since 2021.

Exits ▶ Exits in 2023 have declined dramatically by over 50% compared to their all-time record in 2021. Only 8% of total private equity AUM generated liquidity in 2023 (the lowest level ever, lower even than in the depths of the Global Financial Crisis).

Returns ▶ The strong recovery of the public equity market in 2023 (led by the "Magnificent Seven" technology stocks) has left private equity in its wake. Private equity doesn't recover as quickly as the public markets because the smoothing effect dampens private equity returns in both up and down markets.

Funds Closed 1/1/23 to 12/31/23

Strategy	No. of Funds	Amt ($mm)	Share
Venture Capital	1,584	199,090	21%
Growth Equity	139	103,324	11%
Buyouts	515	471,684	50%
Mezzanine Debt	24	36,050	4%
Distressed/Special Credit	42	46,018	5%
Energy	6	3,296	0%
Secondary and Other	137	74,616	8%
Fund-of-funds	25	5,567	1%
Totals	**1,472**	**552,402**	**100%**

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

Private Equity Performance (%) (Pooled Horizon IRRs through 9/30/23*)

Strategy	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years	20 Years	25 Years
All Venture	-2.4	-8.9	14.8	17.2	17.2	13.4	12.5	20.4
Growth Equity	-0.6	0.8	12.3	14.8	14.3	13.1	13.8	14.3
All Buyouts	0.1	10.2	16.8	15.0	14.6	12.4	14.6	12.8
Mezzanine	1.8	13.0	13.5	11.0	11.1	10.7	11.1	9.9
Credit Opportunities	1.2	8.2	11.1	7.1	7.5	10.1	9.3	9.6
Control Distressed	0.4	5.6	19.4	13.6	11.7	11.5	11.6	11.4
All Private Equity	**-0.4**	**4.2**	**15.4**	**14.8**	**14.3**	**12.5**	**13.6**	**13.0**
S&P 500	-3.3	21.6	10.2	9.9	11.9	11.3	9.7	7.9
Russell 3000	-3.3	20.5	9.4	9.1	11.3	11.1	9.7	8.1

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

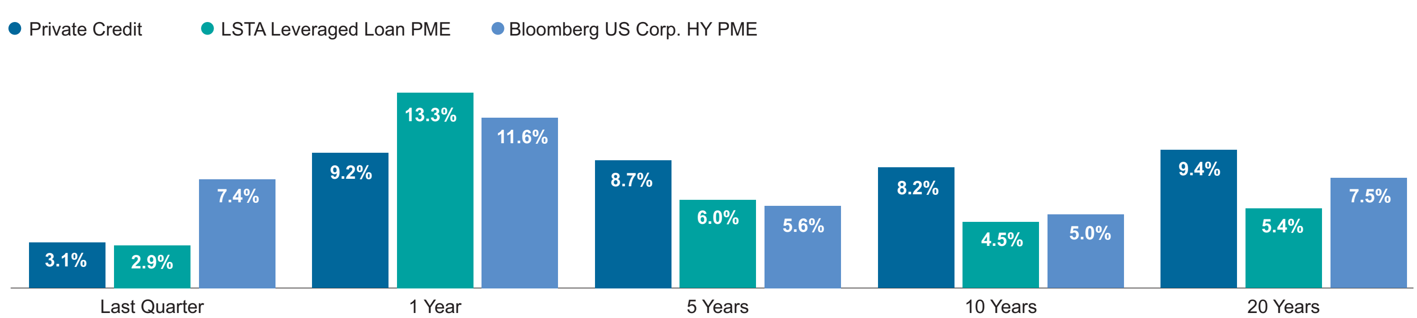
Note: Transaction count and dollar volume figures across all private equity measures are preliminary figures and are subject to update in subsequent versions of the *Capital Markets Review* and other Callan publications.

Long-term Returns Top Leveraged Loans

PRIVATE CREDIT | Cos Braswell

- Private credit performance varies across sub-asset class and underlying return drivers.
- In 4Q23, it gained 3.1%, slightly above a leveraged loan index and well below a high yield benchmark.
- Over the past 10 years, the asset class has generated a net IRR of 8.2%, outperforming leveraged loans and high yield bonds, as of Dec. 31, 2023.
- Higher-risk strategies have performed better than lower-risk strategies.
- Private credit remained in high demand across Callan's investor base, and a number of large defined benefit plans are looking to increase their existing private credit allocations from 2%–3% to 5%–10%.
- While we always work to build out diversified client portfolios, we think there is particularly interesting relative value in upper middle market sponsor-backed lending and asset-based lending.
- We are seeing an uptick in stress for some individual names in direct lending portfolios due to a combination of input cost inflation and increased interest expense.
- Private credit AUM stood at over $1.5 trillion at the end of 2023, with Preqin forecasting the asset class will grow to over $2.5 trillion by 2028 at a 11.13% CAGR from 2023 to 2028.
- Direct lending is expected to grow steadily through 2028 as investors increase their private credit allocations.
- Distressed exposure will grow a bit more slowly, with other strategies such as opportunistic, special situations, and other niche diversifiers growing more quickly.

Private Credit Performance (%) (Pooled Horizon IRRs through 12/31/23*)



Private Credit Performance (%) (Pooled Horizon IRRs by Strategy through 12/31/23*)

Strategy	Quarter	1 Year	5 Years	10 Years	20 Years
Senior Debt	4.2	9.9	7.0	7.1	7.3
Mezzanine	3.3	12.3	11.7	11.1	11.1
Credit Opportunities	2.6	7.9	8.3	7.5	9.2
Total Private Credit	3.1	9.2	8.7	8.2	9.4

Source: LSEG/Cambridge
*Most recent data available at time of publication

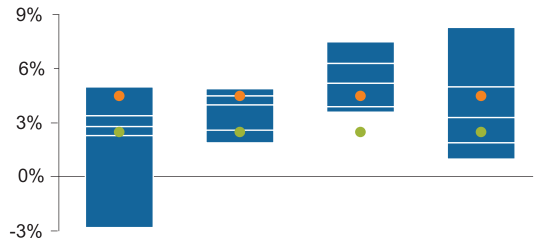
Strong Start to Year For Most Strategies

HEDGE FUNDS/MACs | Joe McGuane

2024 started the year off on a strong note, as risk assets saw a second consecutive double-digit quarter for U.S. equities. Interest rate expectations stayed front-and-center throughout the quarter as lingering inflationary pressures in the U.S. led to a tempering of Fed rate cut expectations for 2024. Positive macro-economic sentiment was further spurred by corporate earnings, and secular themes such as artificial intelligence (AI) growth and related efficiency gains helped move broad markets higher.

Hedge funds started the year off on a strong note, as macro strategies produced their strongest quarter in over 20 years. Macro managers were positioned for moderating inflation, interest rate volatility, and an improving economic outlook. Equity hedge strategies also performed well during 1Q, as managers saw performance coming from the Technology, Energy, and Health Care sectors. Event-driven had a positive quarter, as positions across special situations, distressed, and

Hedge Fund Style Group Returns (3/31/24)



	Absolute Return FOF	Core Div. FOF	Long/Short Equity FOF	Institutional Hedge Funds
10th Percentile	5.0	4.9	7.5	8.3
25th Percentile	3.4	4.5	6.3	5.0
Median	2.8	4.0	5.2	3.3
75th Percentile	2.3	2.6	3.9	1.9
90th Percentile	-2.8	1.9	3.6	1.0
HFRI Fund Wtd Index ●	4.5	4.5	4.5	4.5
90-Day T-Bills +5% ●	2.5	2.5	2.5	2.5

Sources: Callan, Credit Suisse, Federal Reserve

Callan Peer Group Median and Index Returns* for Periods Ended 3/31/24

Hedge Fund Universe	Quarter	1 Year	3 Years	5 Years	10 Years	15 Years
Callan Institutional Hedge Fund Peer Group	**3.3**	**9.3**	**5.8**	**7.2**	**6.1**	**7.6**
Callan Fund-of-Funds Peer Group	**3.9**	**10.1**	**4.2**	**5.6**	**4.4**	**5.6**
Callan Absolute Return FOF Style	**2.8**	**8.2**	**5.2**	**5.1**	**4.2**	**5.3**
Callan Core Diversified FOF Style	**4.0**	**10.2**	**4.3**	**5.6**	**3.8**	**5.4**
Callan Long/Short Equity FOF Style	**5.2**	**13.0**	**1.1**	**6.1**	**5.5**	**6.2**
HFRI Fund Weighted Index	4.5	11.7	4.1	6.9	4.9	5.9
HFRI Fixed Convertible Arbitrage	4.0	7.5	3.9	6.6	5.0	7.7
HFRI Distressed/Restructuring	2.8	9.9	4.1	6.5	4.1	7.0
HFRI Emerging Markets	3.0	9.7	0.2	4.1	3.5	5.3
HFRI Equity Market Neutral	4.1	9.5	5.5	3.8	3.3	3.1
HFRI Event-Driven	2.5	11.7	4.1	6.4	4.7	6.8
HFRI Relative Value	2.5	8.2	4.1	4.6	4.0	6.1
HFRI Macro	6.2	8.5	6.1	6.4	3.7	3.0
HFRI Equity Hedge	5.2	14.3	3.2	7.9	5.7	6.9
HFRI Multi-Strategy	2.0	10.6	0.3	4.6	3.1	5.4
HFRI Merger Arbitrage	0.3	7.2	4.7	5.6	4.6	4.6
90-Day T-Bill + 5%	2.5	10.2	7.6	7.0	6.4	6.0

*Net of fees. Sources: Callan, Credit Suisse, Hedge Fund Research activist positions drove performance. Relative value strategies performed well, as managers profited off interest rate volatility throughout the quarter.

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 rose 3.3%. Within this style group of 50 peers, the average hedged credit manager gained 6.4%, driven by interest rate volatility. Meanwhile, the average hedged equity manager added 5.0%, as those focused on technology, energy, and health care drove performance. The median Callan Institutional hedged rates manager rose 0.7%, largely driven by relative value fixed income trades.

Within the HFRI Indices, the best performing strategy was macro, which gained 6.2%, as managers were positioned for moderating inflation, interest rate volatility, and an improving economic outlook.

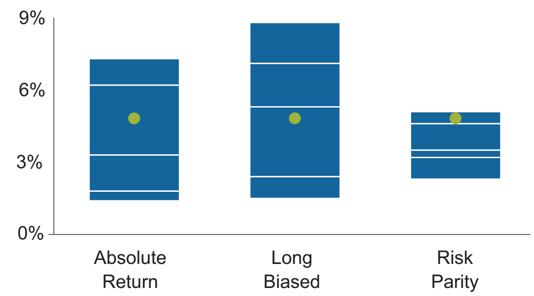
Across the Callan Hedge FOF database, the median Callan Long-Short Equity FOF ended 5.2% higher, as managers with a focus on the technology sector drove performance. Meanwhile, the median Callan Core Diversified FOF rose 4.0%, as equity and event-driven strategies drove performance. Callan Absolute Return FOF gained 2.8%, as higher equity beta strategies were behind this move higher.

Since the Global Financial Crisis, liquid alternatives to hedge funds have become popular among investors for their attractive risk-adjusted returns that are similarly uncorrelated with traditional stock and bond investments but offered at a lower cost.

Within Callan's database of liquid alternative solutions, the Callan MAC Long Biased manager rose 9.0%, as the strong equity rally pushed performance higher. The Callan MAC Risk Parity peer group rose 8.7%, as equities and fixed income drove performance. The Callan MAC Absolute Return peer group rose 3.0%, as broad markets had a strong start to the year.

As it appears interest rates will be higher for longer, this will likely keep return expectations and opportunities for hedge funds elevated. In the current market environment, where both businesses and investors face higher capital costs, this causes a greater focus on capital allocation, rewarding skilled investors for identifying the highest and best uses of scarce capital. The potential for alpha generation through long-short strategies remains strong, as there has been significant dispersion across asset classes and sectors.

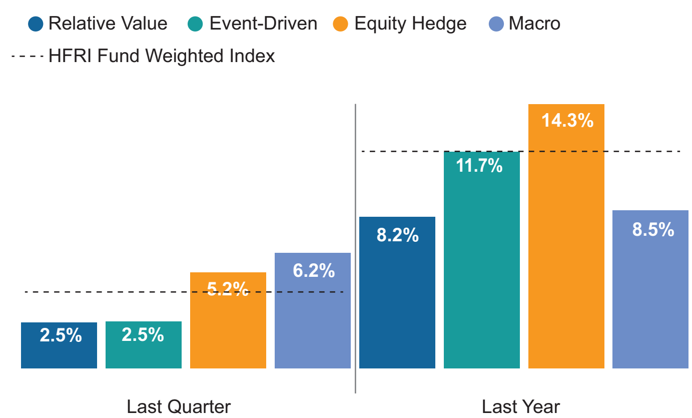
MAC Style Group Returns (3/31/24)



	Absolute Return	Long Biased	Risk Parity
10th Percentile	4.0	10.0	12.0
25th Percentile	3.9	9.2	10.5
Median	3.0	9.0	8.7
75th Percentile	-2.2	7.0	6.9
90th Percentile	-7.5	5.7	5.2
60% ACWI / 40% Bloomberg Agg	4.6	4.6	4.6

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

HFRI Hedge Fund-Weighted Strategy Returns (3/31/24)



Source: HFRI

Index Rallies After Previous Quarter's Loss

DEFINED CONTRIBUTION | Scotty Lee

Performance: One-year gain of 17%

– The Callan DC Index™ gained 9.5% in 4Q23, which brought the Index's trailing one-year gain to 17.2%.

Growth Sources: Investment gains lead to rise in balances

– Balances within the DC Index rose by 9.0% after a 3.2% decrease in the previous quarter. Investment gains (9.5%) were the sole driver of the gain, while net flows (-0.5%) detracted.

Turnover: Net transfers decrease

– Turnover (i.e., net transfer activity levels within plans) slightly fell to 0.24% from the previous quarter's measure of 0.26%. The Index's historical average (0.55%) remained steady.

Net Cash Flow Analysis: TDFs remain in top spot

– Target date funds (TDFs) garnered 90.7% of quarterly net flows. Notably, stable value (-45.1%) saw relatively large outflows for the fifth consecutive quarter.

Equity Allocation: Exposure rises

– The Index's overall allocation to equity (72.5%) rose slightly from the previous quarter's level (71.5%).

Asset Allocation: Capital preservation declines

– U.S. large cap equity (26.9%) and target date funds (34.8%) were among the asset classes with the largest percentage increases in allocation, while stable value (7.4%) had the largest decrease in allocation due to net outflows.

Prevalence of Asset Class: Global equity rises

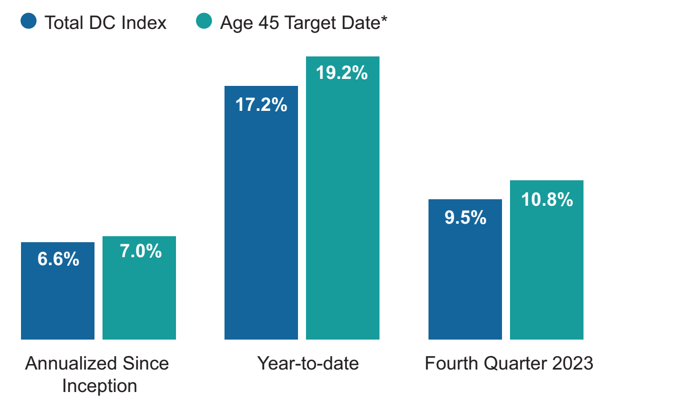
– The prevalence of global equity funds (19.2%) rose by 3.4%. In contrast, the prevalence of U.S. small/mid cap funds (92.9%) fell by 3.3%.

Management Fees: Decline for all plan sizes

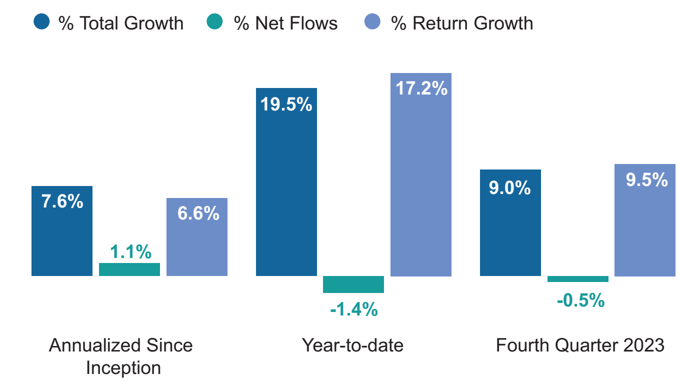
– For plans with assets less than $500 million in assets, the average asset-weighted fee decreased by 3 basis points. Plans with assets between $500 million and $1 billion saw the largest fee decrease of 9 bps, while the fee for plans with more than $1 billion in assets had a decrease of 4 bps.

Underlying fund performance, asset allocation, and cash flows of more than 100 large defined contribution plans representing approximately $400 billion in assets are tracked in the Callan DC Index.

Investment Performance (12/31/23)



Growth Sources (12/31/2)



Net Cash Flow Analysis (4Q23)
(Top Two and Bottom Two Asset Gatherers)

Asset Class	Flows as % of Total Net Flows
Target Date Funds	90.7%
Global ex-U.S. Equity	6.9%
U.S. Small/Mid Cap	-16.9%
Stable Value	-45.1%
Total Turnover**	**0.2%**

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.

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The *Capital Markets Review* is a quarterly macroeconomic indicator newsletter that provides thoughtful insights on the economy and recent performance in the equity, fixed income, alternatives, real estate, and other capital markets.

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Callan was founded as an employee-owned investment consulting firm in 1973. Ever since, we have empowered institutional clients with creative, customized investment solutions that are backed by proprietary research, exclusive data, and ongoing education. Today, Callan advises on more than $3 trillion in total fund sponsor assets, which makes it among the largest independently owned investment consulting firms in the U.S. Callan uses a client-focused consulting model to serve pension and defined contribution plan sponsors, endowments, foundations, independent investment advisers, investment managers, and other asset owners. Callan has six offices throughout the U.S. For more information, please visit www.callan.com.

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