



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: March 31, 2024

Investment Performance Review for

Illinois Police Officer's Pension Investment Fund

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Executive Summary

Executive Summary

- Total assets increased by nearly \$400 million to \$10.4 billion over the quarter, reflecting strong global equity returns, particularly in the U.S., as investor confidence grew regarding the Fed's ability to engineer a so-called "soft landing".
- The S&P 500 returned 10.6% in the first quarter, following on the heels of a strong 4th quarter that saw an 11.7% return, and although market gains were broad-based, the strongest returns came in the tech sector, particularly companies involved in AI. Notable performers included Nvidia and Meta with gains of 82% and 37%, respectively. The strong performance of mega-cap equities with AI exposure contributed significantly to overall market gains and continued a trend of mega-cap, growth stock outperformance.
- The IPOPIF Investment Portfolio returned 4.1% for the quarter, which was closely aligned with the Policy Index return of 4.2%, but below the Broad-Based Policy Index of 4.8%, which reflects its higher equity allocation.
- Since inception in April 2022, the IPOPIF Portfolio has returned 3.8% on an average annualized basis through the end of the 1st quarter, compared to the Policy Index of 3.9% and the Broad-Based Policy Index of 3.4%.
- The IPOPIF Portfolio performed better than its median peer and ranked in the 43rd percentile for the quarter in a representative universe of Public Pensions with assets greater than \$1 billion.
- While the portfolio remains predominately passively invested through the end of the quarter, a shift to actively managed investments began with the gradual funding of international small cap equity managers Acadian, WCM, and LSV, and bank loan managers Ares and Aristotle, totaling 4.7% and 1.5% of the total portfolio, respectively, at quarter-end.
- The IPOPIF investment team actively monitors current asset allocations vs. policy targets and conducts rebalancing trades as appropriate. As of 3/31/24, all asset classes except bank loans and cash were within policy targets. The noted variances were due to activity related to funding new mandates.

Notes:

The broad-Based Policy Index represents a passively invested 70/30 global stock / U.S. bond portfolio.

Investment Landscape

1st quarter summary

THE ECONOMIC CLIMATE

- Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell. **p. 8**
- The U.S. job market has been incredibly resilient, with unemployment rising slightly from 3.7% to 3.8% but labor participation improving from 62.5% to 62.7%. Some economists and investors have begun to partially attribute surprisingly strong labor conditions to substantial immigration (both legal and illegal) in recent years. **p. 14**

PORTFOLIO IMPACTS

- The 10-year U.S. Treasury yield rose 32 basis points to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for. **p. 21**
- Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk markets and investor enthusiasm. **p. 33**

THE INVESTMENT CLIMATE

- Equity markets delivered another quarter of large gains—much of the performance fueled by richer valuations rather than fundamentals. Credit spreads declined further to very low levels, leading to moderate returns for higher risk credit. Many markets appear to be priced to perfection as recession fears subside. **p. 45**
- U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It now seems more likely that inflation ends this year closer to, or above, 3% rather than 2%. **p. 10**

ASSET ALLOCATION ISSUES

- U.S. equities (S&P 500 +10.6%) once again outpaced international developed equities (MSCI EAFE +5.8%) and emerging market equities (MSCI EM +2.4%) during the quarter. The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains across the S&P 500. **p. 28**
- Style factor investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Mega cap companies continue to dominate large cap index performance and affect style behavior. **p. 29**

Equity markets delivered another large rally in Q1, while credit showed mildly positive returns

Stubborn inflation and fewer Fed interest rate cuts seem likely for 2024

What drove the market in Q1?

“U.S. Consumer Prices Heat Up in March; Seen Delaying Fed Rate Cut”

FED FUNDS FUTURES IMPLIED RATES: END OF 2024

Jan 15th	Jan 31st	Feb 15th	Feb 29th	Mar 15th	Mar 31st
3.76%	3.86%	4.37%	4.48%	4.61%	4.66%

Article Source: Reuters, April 10th, 2024

“Resilient U.S. Boosts IMF Forecast for Global Economic Growth”

IMF WORLD ECONOMIC OUTLOOK 2024 GLOBAL GDP FORECAST

Jan 23	April 23	July 23	Oct 23	Jan 24	April 24
3.1%	3.0%	3.0%	2.9%	3.1%	3.2%

Article Source: U.S. News & World Report, January 30th, 2024

“A Persistently Strong Labor Market Delivers Economic Stability”

NONFARM PAYROLL GROWTH

Oct	Nov	Dec	Jan	Feb	Mar
165k	182k	290k	256k	270k	303k

Article Source: Forbes, January 27th, 2024

“Earnings, Big Tech Gave Investors Reasons to Buy U.S. Stocks”

S&P 500 YEAR-OVER-YEAR EARNINGS GROWTH (DECLINE)

Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023
2.3%	-4.7%	-1.7%	-4.2%	4.9%	4.2%

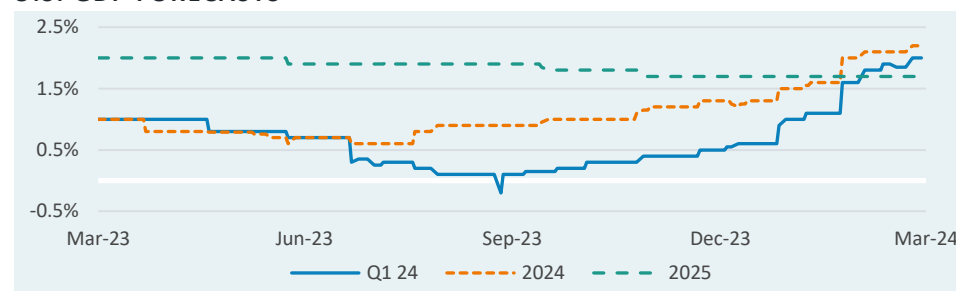
Article Source: Bloomberg, March 2nd, 2024

CPI COMPONENT: SHELTER (YEAR-OVER-YEAR)



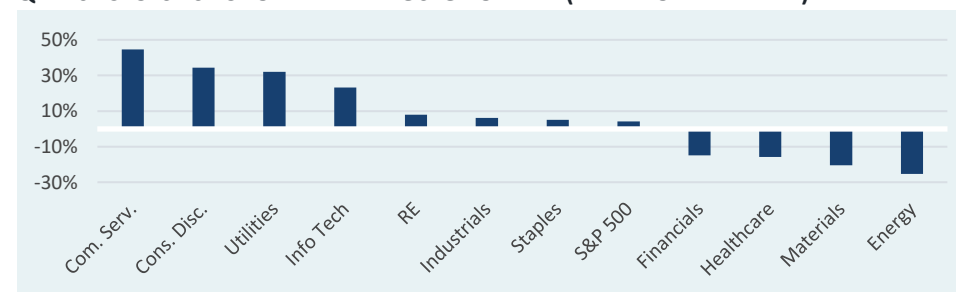
Source: BLS, as of 3/31/24

U.S. GDP FORECASTS



Source: Bloomberg, as of 3/31/24

Q4 2023 U.S. SECTOR EARNINGS GROWTH (YEAR-OVER-YEAR)



Source: FactSet, as of 3/31/24

U.S. economics summary

- Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.
- U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It seems more likely that inflation ends this year closer to, or above, 3% rather than 2%.
- Inflation adjusted consumer spending has remained moderate, at 2.4% YoY in February. Purchases of services have materially outpaced purchases of goods in recent years, a reversal of the historically unprecedented boom in goods purchases that occurred during the pandemic.
- Employment has been incredibly resilient. Unemployment was stable during Q1, while labor participation increased. Some economists and investors have partially attributed labor market gains to substantial immigration (both legal and illegal) in recent years—with millions of immigrants being of working age and seeking work. Given the level of immigration, we expect official labor data has been, and will continue to be, meaningfully impacted.
- Consumer sentiment has jumped significantly on better financial situations of households, expectations that inflation will further ease, and a steadying economy. At the same time, The NFIB Small Business Optimism index deteriorated to the weakest level since 2012. Inflation remains a top concern, and business owners indicated they could not find qualified candidates to fill job openings.

	Most Recent	12 Months Prior
Real GDP (YoY)	3.0% 3/31/24	1.7% 3/31/23
Inflation (CPI YoY, Core)	3.8% 3/31/24	5.6% 3/31/23
Expected Inflation (5yr-5yr forward)	2.3% 3/31/24	2.2% 3/31/23
Fed Funds Target Range	5.25–5.50% 3/31/24	4.75–5.00% 3/31/23
10-Year Rate	4.20% 3/31/24	3.47% 3/31/23
U-3 Unemployment	3.8% 3/31/24	3.5% 3/31/23
U-6 Unemployment	7.3% 3/31/24	6.7% 3/31/23

Inflation

U.S. inflation increased in Q1, following a handful of hotter-than-expected inflation and jobs reports. Headline inflation increased from 3.3% to 3.5% year-over-year in March, while core CPI (ex-food & energy) declined slightly from 3.9% to 3.8%. It seems more likely that inflation ends this year closer to, or above, 3% rather than 2%. Certain goods and services have further moderated in price growth, such as Used Vehicles and Food, while other price trends remain hot such as Housing and Auto Insurance.

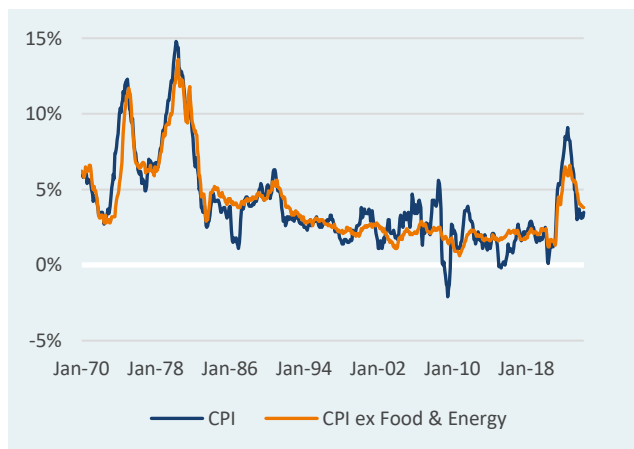
The outsized impact of Shelter—which makes up more than a third of the entire CPI basket—remains a major force keeping inflation elevated. While shelter prices reported by the Bureau

of Labor Statistics have moved closer to real-time price gauges, March’s 0.4% month-over-month increase still reflected an annualized rate of nearly 5%.

Inflation appears to be flattening out rather than continuing lower towards the Federal Reserve 2% target, which has been a catalyst for changing monetary policy expectations. Stubborn inflation combined with strong labor and other economic activity provides little incentive for the Federal Reserve to ease rates. At the beginning of the year the market expected six rate cuts in 2024. That has since fallen to two cuts.

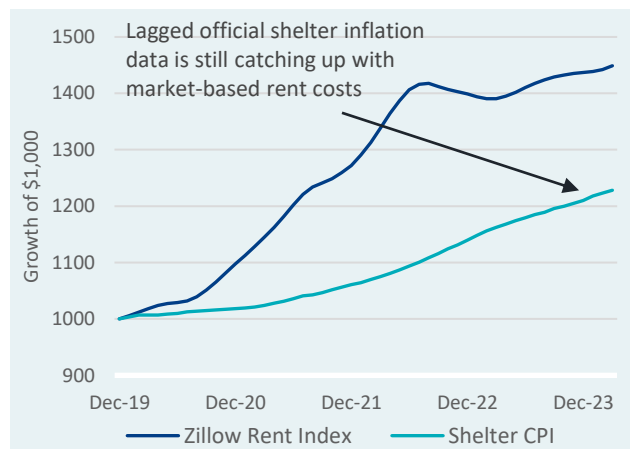
Q1 inflation remains above the Fed’s target, affecting market expectations for a “higher for longer” rate environment

U.S. CPI (YOY)



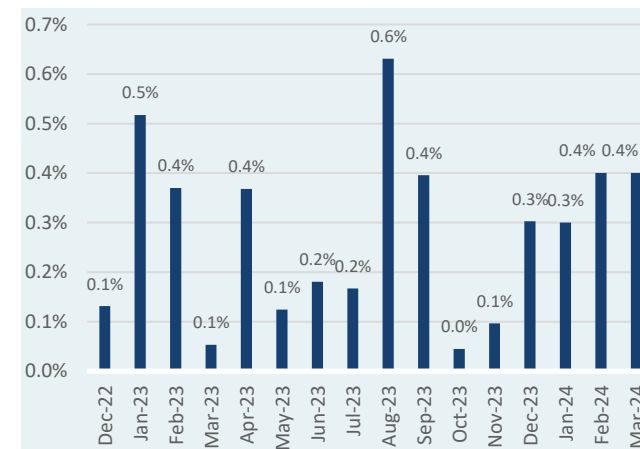
Source: BLS, as of 3/31/24

ZILLOW OBSERVED RENT VS. SHELTER CPI



Source: Zillow Observed Rent Index, FRED, of 3/31/24

MONTHLY PRICE MOVEMENT (CPI)



Source: BLS, as of 3/31/24

GDP growth

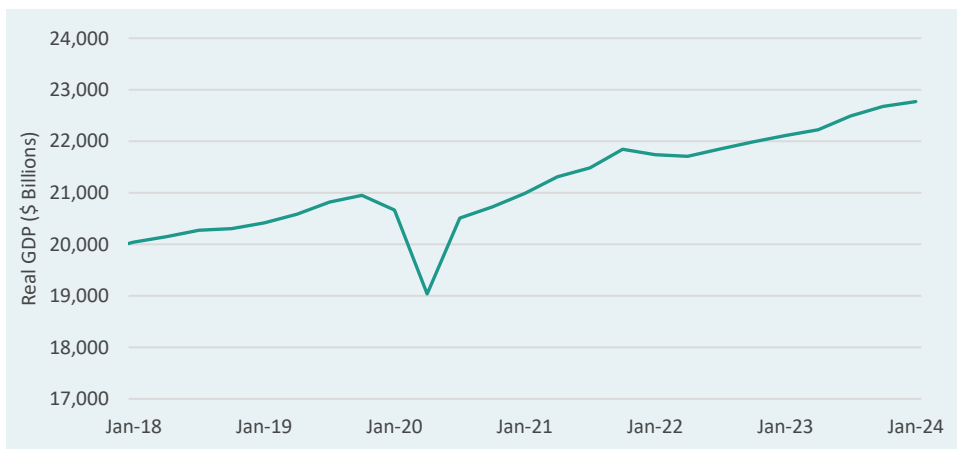
Real GDP growth unexpectedly slowed in Q1 to 1.6% quarter-over-quarter (3.0% year-over-year), falling short of economist forecasts for 2.5% growth. The GDP release reflected positive but decelerating spending by households, slowing exports, and less government expenditures. Residential fixed investment accelerated partly driven by new single-family home construction, while private inventory investment fell.

Slower economic growth in the first quarter appears to have been mostly driven by weakness in exports and imports, as well as a moderation in government spending. Other aspects of the economy such as consumer spending and investment

have slowed in recent quarters but growth remains moderately positive, as high inflation and weaker wage gains have not yet obviously resulted in a decline in spending. The first quarter GDP print marked the first instance of weak economic data after a seemingly months-long series of strong releases, from employment, to consumer sentiment, to spending. This was an abrupt change in direction of the data, and it will be important for investors to monitor whether it marks a true change in trend or is simply a bump in the road with further U.S. strength ahead.

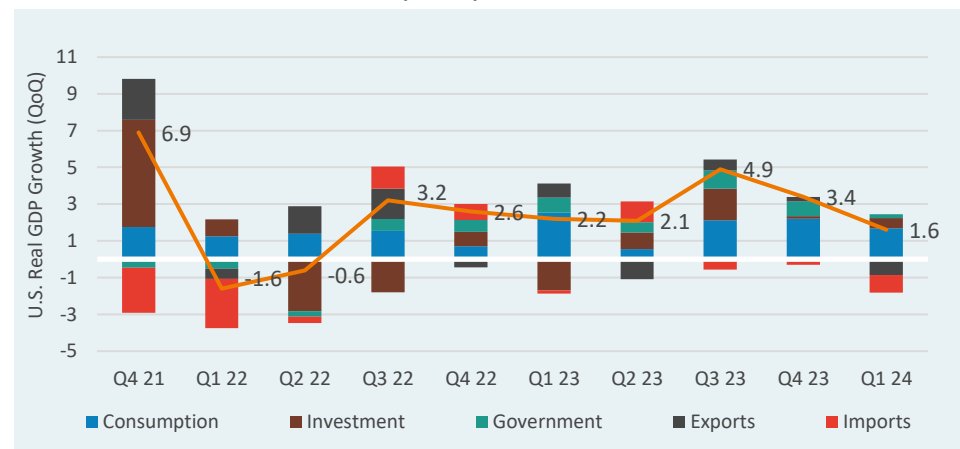
U.S. growth slowed a bit in Q1 but continues to show resilience despite aggressive monetary tightening

U.S. REAL GROSS DOMESTIC PRODUCT



Source: FRED, as of 3/31/24

U.S. REAL GDP COMPONENTS (QOQ)



Source: FRED, as of 3/31/24

The consumer

Inflation adjusted spending has remained moderate, at 2.4% year-over-year in February. Purchases of services have materially outpaced purchases of goods in recent years in terms of growth, since the historically unprecedented boom in goods purchases that occurred during the pandemic. We believe that extreme surge in goods purchases effectively *pulled forward* these purchases from future years, such as in home sales activity, home improvement projects, and recreational vehicle sales, which has led to the recent lull.

but have since fallen back to extremely low levels. The reason for this trend is unclear, though it coincides with a notable improvement in consumer sentiment, which suggests lower savings rates for some households might reflect an improved outlook for the economy and personal finances. However, high prices and cost of living is likely a greater contributing factor. Overall, Americans continue to spend rather freely despite higher costs of goods and services taking up a greater portion of take-home income. This includes nonessential spending such as for travel.

Personal savings rates had been improving through mid-2023

REAL PERSONAL SPENDING



Source: FRED, as of 2/29/24

GOODS VS. SERVICES SPENDING (REAL)



Source: FRED, as of 2/29/24

PERSONAL SAVINGS RATE



Source: FRED, as of 2/29/24

Labor market

The unemployment rate was fairly stable during the quarter, rising slightly from 3.7% to 3.8%. Meanwhile, labor participation improved from 62.5% to 62.7%.

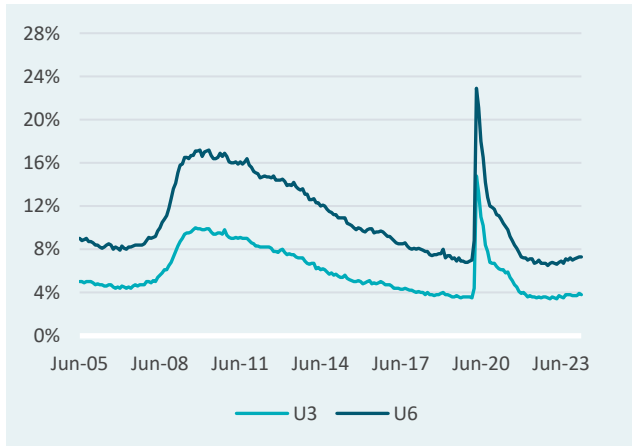
The U.S. job market has been incredibly resilient in the face of higher interest rates, and ongoing employment data releases continue to show outsized labor market gains. Some economists and investors have begun to partially attribute the record labor market gains to substantial immigration (both legal and illegal) into the country in recent years—with millions of immigrants being of working age and seeking employment. Given total immigration estimates, we would

expect that official jobs data, which is based on both phone surveys and also on employer payroll figures, to be meaningfully impacted.

Rebalancing within the labor market continued. The mismatch between the number of *workers available* and the number of *available jobs* was greater than 6 million in early 2022. Nearly two-thirds of that gap has now closed, with steady improvement over the past year.

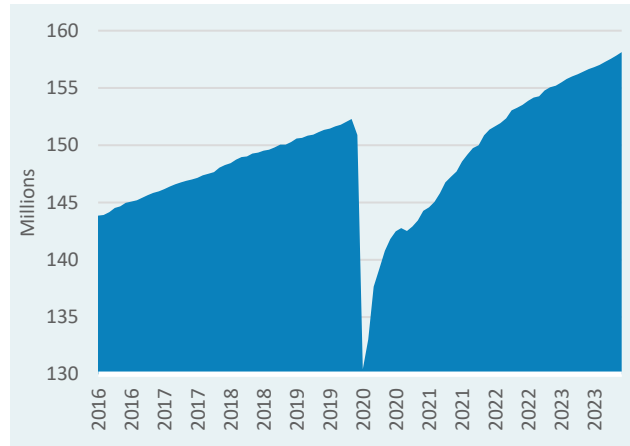
A substantial rise in different types of immigration over recent years may partially describe strong labor data

U.S. UNEMPLOYMENT



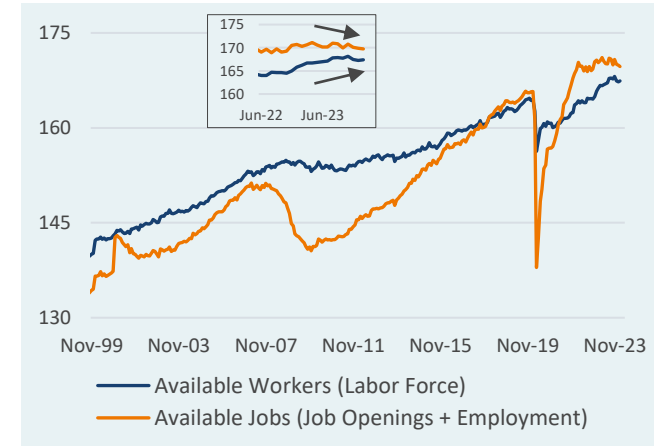
Source: FRED, as of 3/31/24

TOTAL U.S. EMPLOYMENT



Source: FRED, as of 3/31/24

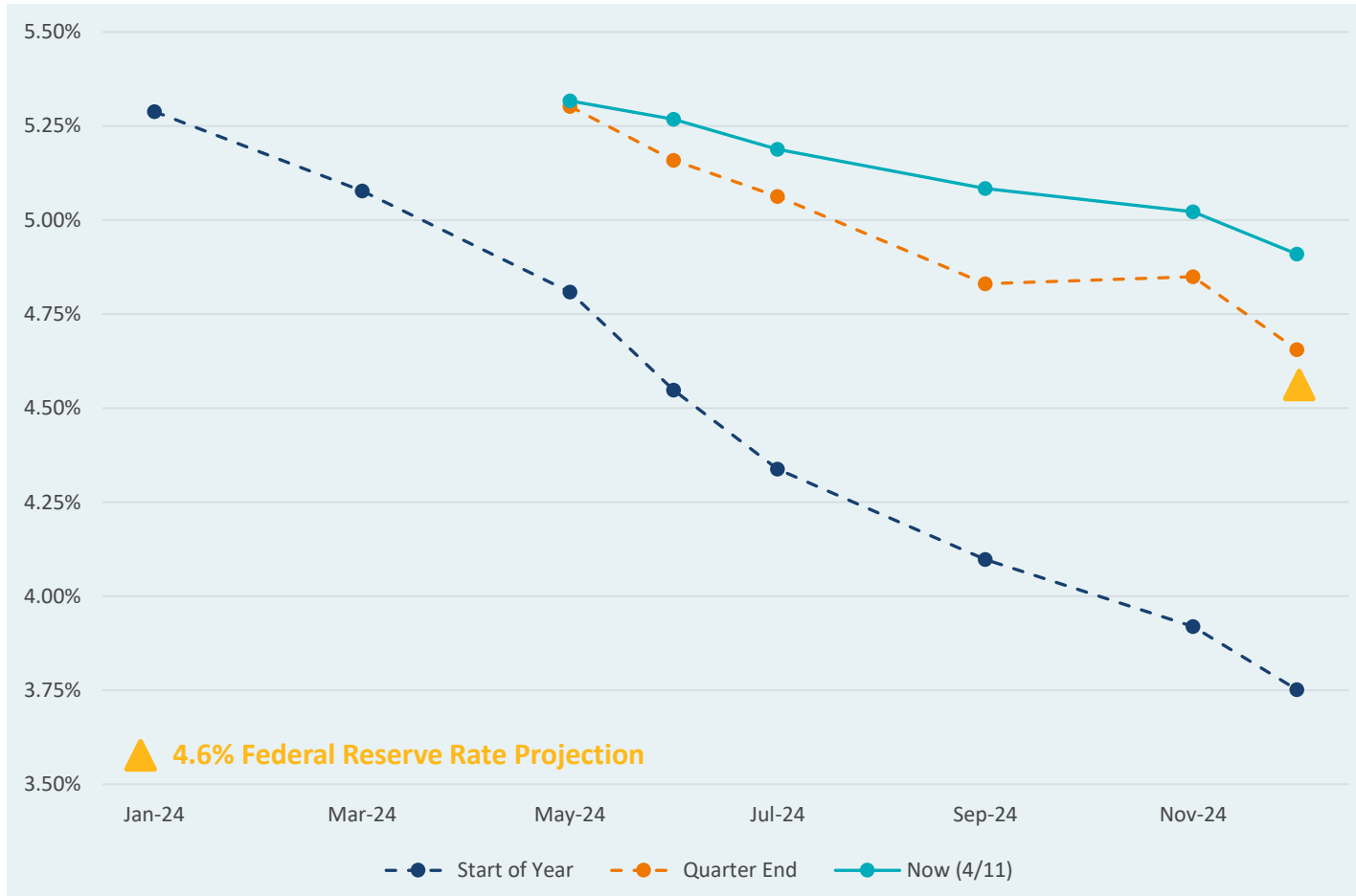
WORKERS AVAILABLE VS. AVAILABLE JOBS



Source: BLS, Verus, as of 2/29/24

Federal Reserve policy

FED FUNDS FUTURES IMPLIED 2024 RATE PATH



Markets started the year pricing in six rate cuts by the end of 2024

Implied pricing now indicates expectations for just two rate cuts, a tighter path relative to the three forecasted rate cuts projected in the Federal Reserve's Summary of Economic Projections

Source: Bloomberg, as of 4/11/24

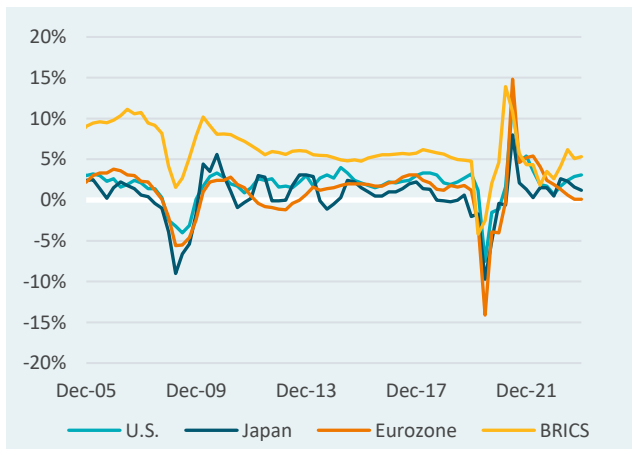
International economics

We believe the global narrative remains intact, and that many economies are set to slow in 2024 but will likely avoid recession. While hotter inflation data in the U.S. has led to changed policy expectations, inflation in international developed economies showed signs of moderation, putting central banks like the European Central Bank (ECB) and Bank of England (BOE) on a path to policy easing. The market is pricing three 25 bps interest rate cuts from the ECB and the BOE by end-of-year.

The IMF's April World Economic Outlook (WEO) communicated a much more balanced economic environment, as steady growth and disinflation has resulted in a lower likelihood of a "hard landing". The IMF sees global growth at 3.2% for 2024 and 2025, with the 2024 growth estimate revised up +0.1% from the January WEO update.

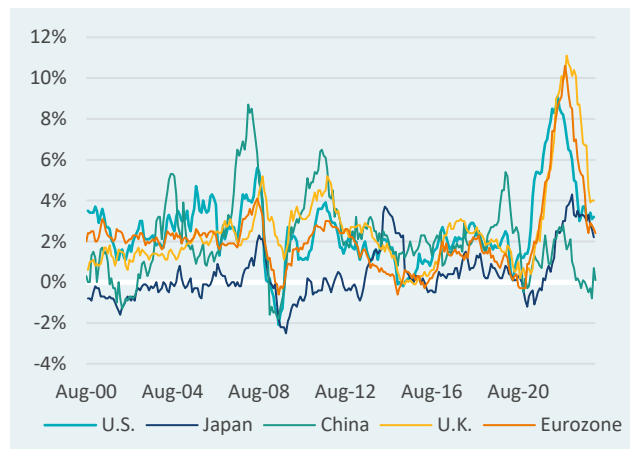
Going forward, we see material downside risks but also potential growth catalysts to the upside. Continuing and escalating conflicts in the Middle East and Eastern Europe have raised fears around energy market disruption, especially when considering that rising oil and natural gas prices were a major contributor to the recent four-decade-high bout of inflation. On the other hand, growth catalysts such as accelerated computing and artificial intelligence offer a broad range of applicability and impact that, although difficult to quantify, could act as a substantial driver of productivity and growth in the future. Additionally, if inflation pressures were to ease more quickly than expected, allowing for easier monetary policies, this may fuel growth and markets forward.

REAL GDP GROWTH (YEAR-OVER-YEAR)



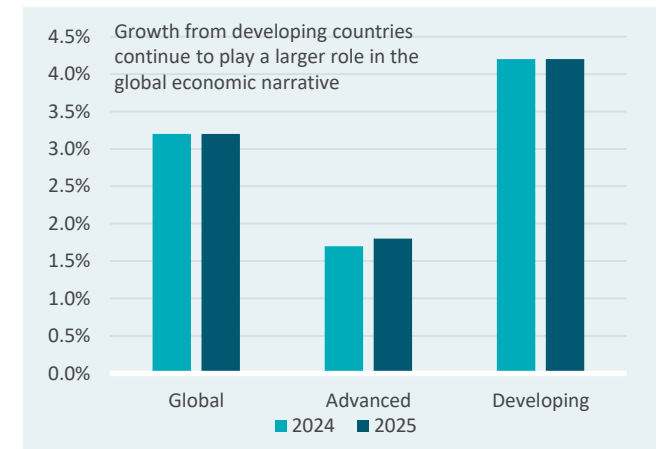
Source: Bloomberg, as of 12/31/23

INFLATION (CPI YEAR-OVER-YEAR)



Source: Bloomberg, as of 3/31/24 – or most recent release

IMF APRIL 2024 GDP FORECASTS



Source: IMF April World Economic Outlook, as of 4/16/24

Equity environment

- U.S. equities (S&P 500 +10.6%) continued an impressive rally during the first quarter, once again outpacing international developed equities (MSCI EAFE +5.8%) and emerging markets (MSCI EM +2.4%). The domestic market has also delivered outperformance over the past year, fueled by the artificial intelligence boom. Telecom (+49.8%) and Technology (+46.0%) saw the biggest gains during the period.
- The U.S. dollar gained in value during Q1, likely buoyed by the higher for longer interest rate narrative. A reassessment of the Federal Reserve policy path for 2024 has improved the outlook for the dollar, as currencies which offer higher interest rates, and relatively attractive prospects for continued higher interest rates, tend to better hold their value. Losses from unhedged Japanese currency exposure has been

extreme (-9.3% over the quarter, -25.2% over the past year, as indicated by the TOPIX Index).

- Style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). Style premia has also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.
- Market-priced volatility (Cboe VIX Index) remained incredibly low during the quarter, ending at 13.0 in March. Historically, market volatility of this level has coincided with strong upward trending risk asset prices and investor enthusiasm.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
U.S. Large Cap (S&P 500)	10.6%		29.9%	
U.S. Small Cap (Russell 2000)	5.2%		19.7%	
U.S. Equity (Russell 3000)	10.0%		29.3%	
U.S. Large Value (Russell 1000 Value)	9.0%		20.3%	
US Large Growth (Russell 1000 Growth)	11.4%		39.0%	
Global Equity (MSCI ACWI)	8.2%	9.6%	23.2%	25.4%
International Large (MSCI EAFE)	5.8%	10.5%	15.3%	22.4%
Eurozone (EURO STOXX 50)	10.3%	13.1%	20.1%	23.6%
U.K. (FTSE 100)	3.0%	4.0%	10.7%	9.1%
Japan (TOPIX)	10.0%	19.3%	24.0%	49.2%
Emerging Markets (MSCI Emerging Markets)	2.4%	4.4%	8.2%	10.7%

Source: Russell Investments, MSCI, STOXX, FTSE, JPX, as of 3/31/24

Domestic equity size & style

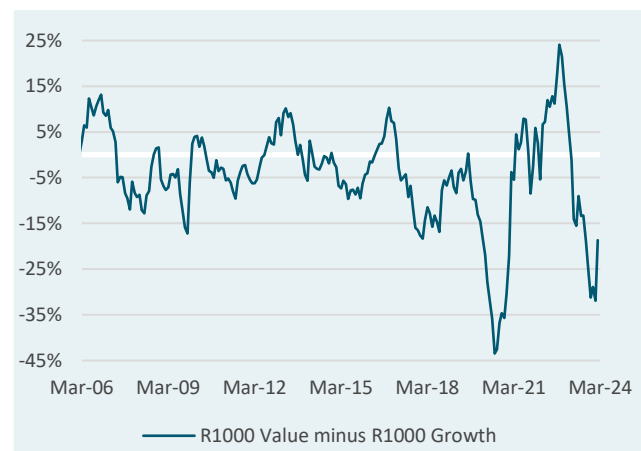
Small cap and value style investing underperformed during Q1. Small cap lagged large cap by -5.1% (Russell 2000 +5.2% vs. Russell 1000 +10.3%). Value underperformed Growth by -2.4% (Russell 1000 Value +9.0% vs. Russell 1000 Growth +11.4%). These style premia also suffered over the past full year. Small cap underperformed large cap by -10.2% while value stocks underperformed growth by -18.7%.

Mega cap companies continue to dominate large cap index performance. The “Magnificent 7” securities, including Amazon, Netflix, Google, Meta, Nvidia, Apple, and Tesla, drove the index into drawdown territory during 2022, contributed to a strong bounce back rally in 2023, then have pushed the index higher still in 2024. However, performance of this group

has been a bit mixed year-to-date, with Apple and Tesla lagging the overall index materially. Index concentration has created headwinds for the performance of active managers, on average, and dominant growth stocks have pushed the overall index towards a higher multiple while depressing dividend yields.

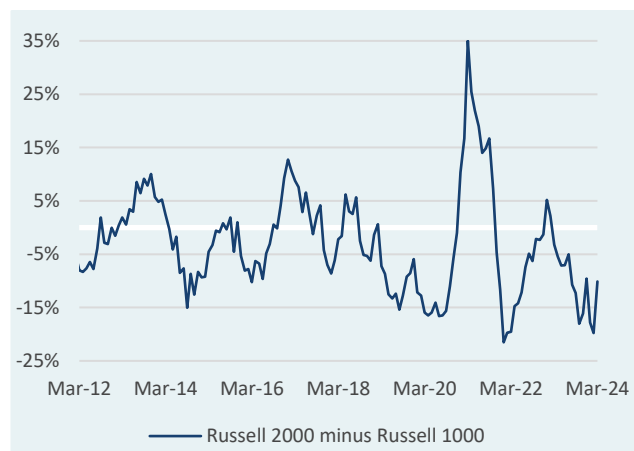
Variability in the behavior of style factors, often driven by idiosyncratic sector moves and broader macro themes, continues to provide evidence that style investing should typically be a longer-term endeavor. Short-term factor timing decisions should in most circumstances be pursued only in the rare occasion of obvious market mispricing and a foreseen catalyst for price correction.

VALUE VS. GROWTH 1-YR ROLLING



Source: FTSE, as of 3/31/24

SMALL CAP VS LARGE CAP 1-YR ROLLING



Source: FTSE, as of 3/31/24

1-YEAR SIZE & STYLE PERFORMANCE

	Value	Core	Growth
Large Cap	20.3%	29.9%	39.0%
Mid Cap	20.4%	22.3%	26.3%
Small Cap	18.8%	19.7%	20.3%

Source: FTSE, as of 3/31/24

International developed equity

International developed shares notched a strong first quarter, although returns trailed domestic equities. The MSCI EAFE index returned +5.8% in unhedged U.S. dollar terms, materially lower than the hedged return of +10.5%. The dollar's advance was likely fueled by higher rate expectations for the Federal Reserve, along with expected policy easing decisions from the European Central Bank and Bank of Japan, both of which are positive for the U.S. dollar (i.e. led to losses for unhedged investors).

Resilient global economic growth has been a tailwind to performance amongst international developed shares. All major regional equities (Eurozone, Japan, and United Kingdom)

saw positive returns over the period.

While performance has been better than expected, future growth catalysts remain uncertain. Falling Eurozone inflation boosted regional risk assets, as inflation fell from 3.1% to 2.4% in March. Easing inflation has taken some pressure off the ECB, resulting in rising expectations for rate cuts in June. In Japan, equities have carried forward positive momentum from 2023, evident by the Nikkei achieving a 34-year high in February. Easy monetary policy from the BOJ continues to provide a boost to local earnings, while poor inflation and wage growth metrics have provided little evidence for the BOJ to quickly move away from their low interest rate policy.

INTERNATIONAL DEVELOPED EQUITY



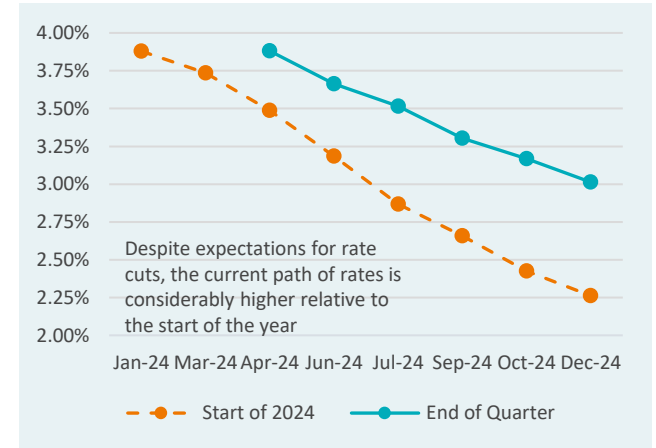
Source: MSCI, as of 3/31/24

NIKKEI 225 INDEX



Source: Bloomberg, Nikkei, as of 3/31/24

ECB RATE EXPECTATIONS



Source: Bloomberg, as of 3/31/24

Emerging market equity

Emerging markets have delivered mild gains year-to-date, rising +2.4%, and are up +8.2% over the past year. Chinese equities have continued to act as a drag the index, down -2.2% in 2024, and -17.1% over the past year.

From a sector perspective, the momentum behind accelerated computing carried into emerging markets, as the information technology sector outperformed (+9.5%), driven by gains from South Korea & Taiwan. Peru, Turkey, and Columbia were the best performing countries in the first quarter, seeing gains of +15.5%, +14.1%, and +12.5% - broadly gaining off strength in oil and copper.

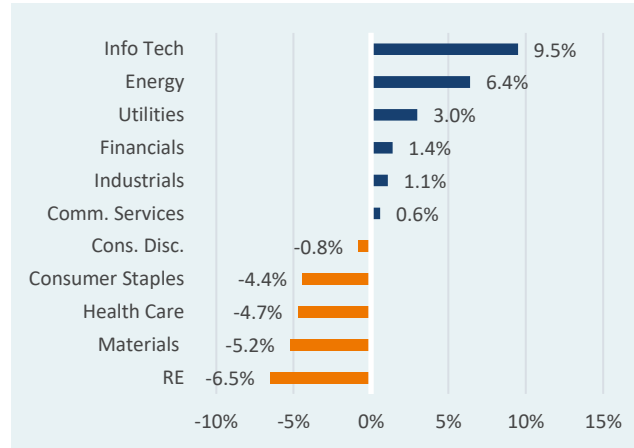
China remains a large question mark among emerging market country exposures, facing significant structural headwinds in the form of a declining population, imbalances in the real estate market, and a reversal in sentiment from the international community which contributed to a broad withdrawal of foreign direct investment, for example. Additionally, many U.S.-based institutional investors have centered on the possibility of top-down government restrictions on China investment that, if imposed, could result in losses to existing exposure as this could cause a way of selling activity. An invasion of Taiwan remains another risk, though we believe the chances of this are remote.

EMERGING MARKET EQUITY



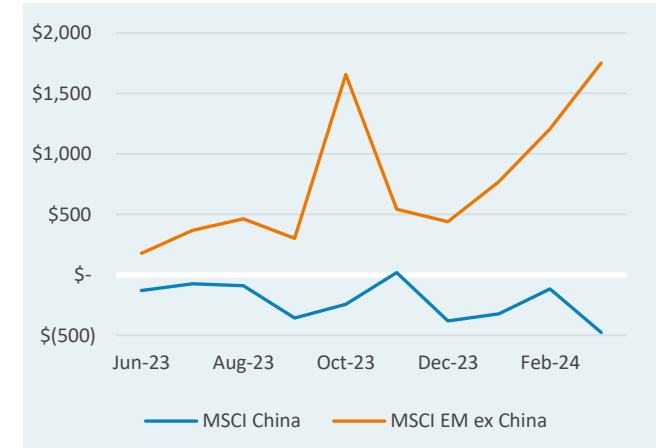
Source: MSCI, as of 3/31/24

MSCI EM Q1 2024 SECTOR RETURNS (USD)



Source: MSCI, J.P. Morgan, as of 3/31/24

ISHARES ETF MONTHLY FUND FLOWS (\$M USD)



Source: BlackRock, Bloomberg, as of 3/31/24

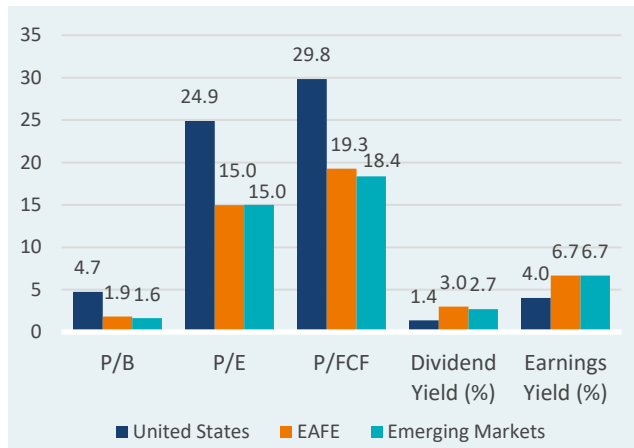
Equity valuations

Valuations drifted upward during the quarter, as the equity rally has been driven partially by higher price multiples. Larger multiples and a greater concentration of growth stocks in the index, which tend to have lower dividend payout ratios, have led the S&P 500 to offer a nearly all-time low dividend yield of 1.4%. In an environment where investors can receive more than a 5% yield from risk-free cash, this is testament to the rising attractiveness of fixed income relative to equities.

Domestic equities are priced at a 40% premium over international developed markets, and have shown little sensitivity so far to investors'

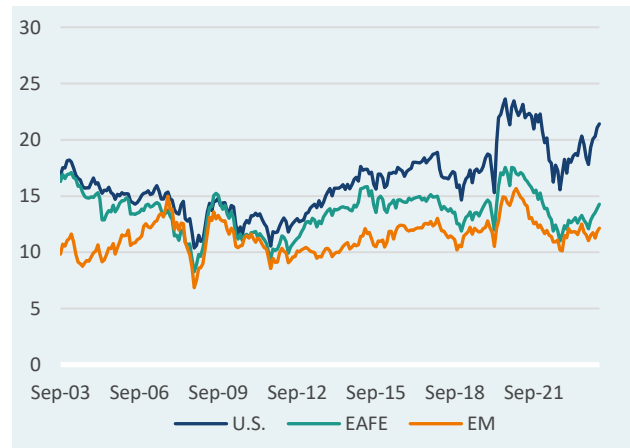
repricing of the interest rate path in 2024. Future stock market returns must come from either: corporate earnings growth, expansion of stock multiples (meaning stocks become more expensive), higher dividend yields (an increase in dividend payments), or higher inflation (assuming businesses pass this on by raising prices in line with inflation). In the current environment of already high stock multiples, a very low dividend yield, and high corporate profit margins, the likelihood of seeing another decade of performance like investors have received over the past ten years seems low.

MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 3/31/24

FORWARD PRICE/EARNINGS RATIO



Source: MSCI, Bloomberg, as of 3/31/24

S&P 500 HISTORICAL DIVIDEND YIELD



Source: S&P, Bloomberg, as of 3/31/24

Fixed income environment

- The 10-year U.S. Treasury yield rose 32 basis points from 3.88% to 4.20% during Q1 on broad acknowledgment that disinflation trends have stalled and that the Federal Reserve may not cut rates in 2024 as significantly as markets had hoped for. Yields across the Treasury curve increased, with shorter-term rates rising more than longer-term.
- Domestic high-quality, duration-sensitive bonds experienced slight losses during the quarter, while most credit indices saw positive returns. High yield gained +1.5% (Bbg U.S. Corporate High Yield), while bank loans rose +2.5% (S&P/LSTA Leveraged Loan). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) declined by -1.7% during the quarter as both rising interest rates and concerns about inflation detracted from performance.
- The U.S. yield curve has remained inverted since June 6th, 2022, marking the longest yield curve inversion on

record. This is indicated by the 10-year minus 2-year Treasury yield—ending the quarter at -39bps, down slightly from -35bps in Q4. While the yield curve has historically been a reliable predictor of recession, economic growth remains robust.

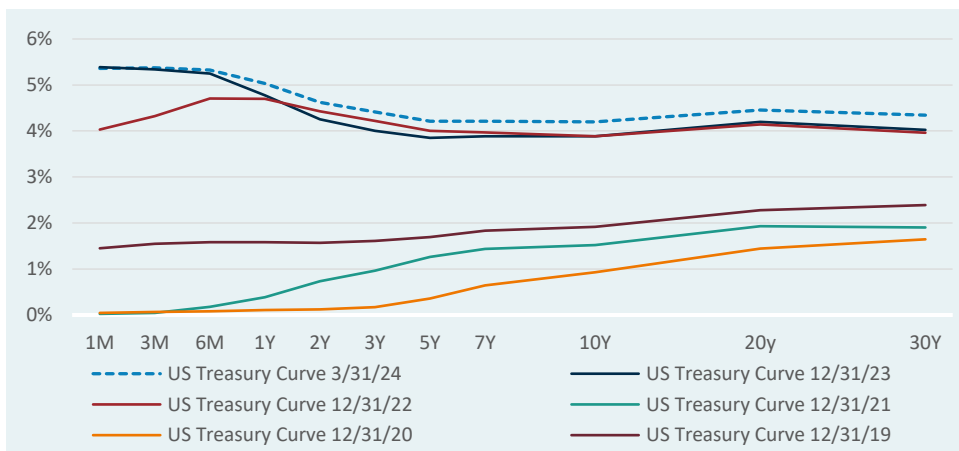
- Although default activity remains low, volumes increased as slowing economic growth and rising borrowing costs acted as headwinds. During the period, \$20.6 billion of bank loan and high yield bonds were affected by default or distressed exchanges, up from \$15.8 billion in the prior quarter. Notable company defaults included Jo-Ann’s (Retail), Hornblower (Travel & Leisure), and RobertShaw (Technology).
- Structured credit hedge funds, which focus on credit sectors such as CLOs, ABS (auto, credit card, etc), MBS, and CMBS, continue to deliver strong returns relative to traditional high yield and remain competitive versus leveraged loan indices.

	QTD Total Return	1 Year Total Return
Core Fixed Income (Bloomberg U.S. Aggregate)	(0.8%)	1.7%
Core Plus Fixed Income (Bloomberg U.S. Universal)	(0.5%)	2.7%
U.S. Treasuries (Bloomberg U.S. Treasury)	(1.0%)	0.1%
U.S. Treasuries: Long (Bloomberg U.S. Treasury 20+)	(3.8%)	(7.3%)
U.S. High Yield (Bloomberg U.S. Corporate HY)	1.5%	11.2%
Bank Loans (S&P/LSTA Leveraged Loan)	2.5%	12.4%
Emerging Market Debt Local (JPM GBI-EM Global Diversified)	(2.1%)	4.9%
Emerging Market Debt Hard (JPM EMBI Global Diversified)	2.0%	11.3%
Mortgage-Backed Securities (Bloomberg MBS)	(1.0%)	1.4%

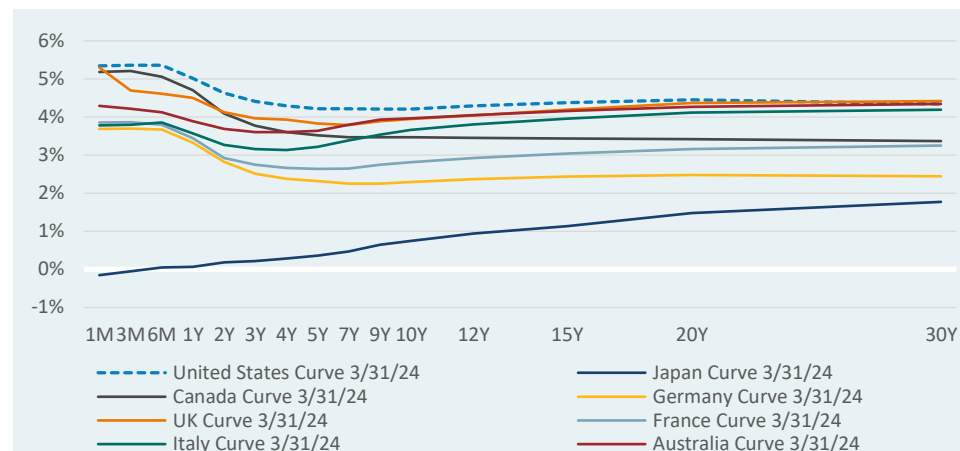
Source: Bloomberg, as of 3/31/24

Yield environment

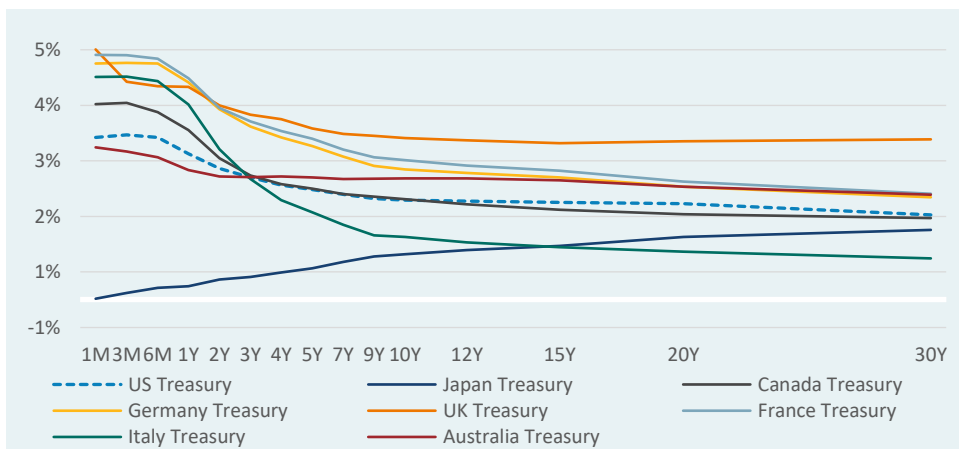
U.S. YIELD CURVE



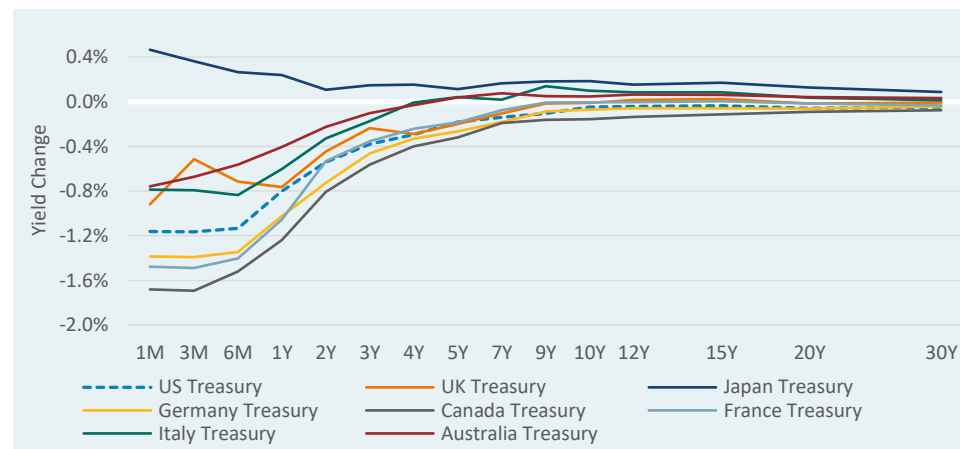
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 3/31/24

Credit environment

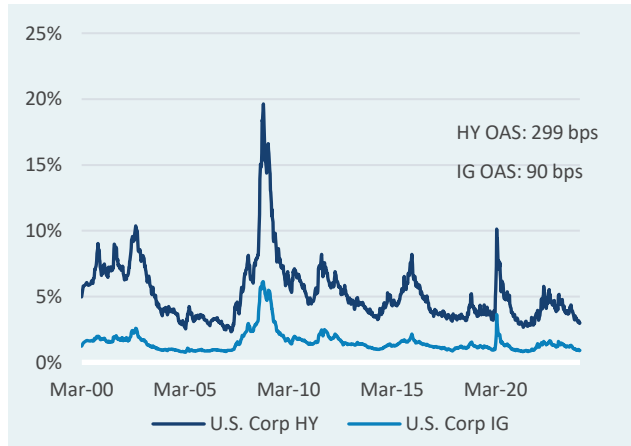
During the first quarter, credit markets delivered mixed returns with lower-quality credits such as high yield bonds and bank loans leading. Bank loans rose +2.5% (CS Leveraged Loans), while high yield bonds increased by +1.5% (Bbg U.S. Corporate High Yield). Longer duration investment grade corporate bonds (Bloomberg U.S. Long Corporate Credit) fell by -1.7% as pressure from both rising interest rates and higher expected inflation acted as a headwind to performance.

Returns across credit ratings were mixed during Q1. Higher-quality BB-rated bonds returned +1.3% compared to +1.0% for B-rated and +1.3% for and CCC-rated bonds, respectively. Lower-quality bank loans experienced strong returns with CCC-rated loans rising by +6.0%,

compared to +2.5% and +1.9% for BB- and B-rated loans, respectively,

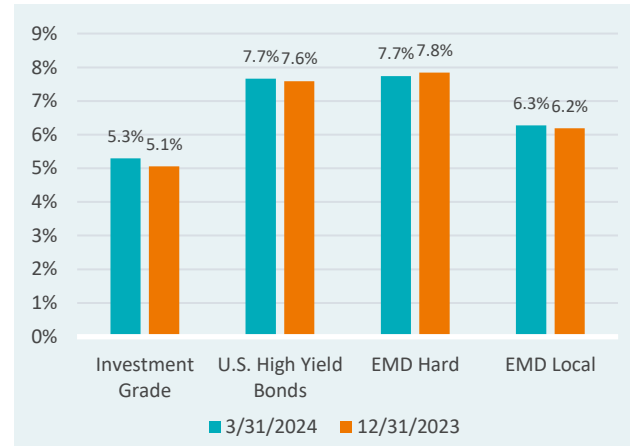
Credit spreads were slightly narrower during the quarter as stronger-than-expected economic growth eased concerns related to potential recession. Lower-quality high yield bond spreads fell by 0.2% to roughly 3.2%, while investment grade spreads decreased by roughly 0.1% to 1.2%. Broadly, spreads remain below their long-term historical averages, which suggests that investors are staying confident about the ability of those businesses to service debt. That said, slower U.S. economic growth could lead to wider credit spreads as investors might seek safety in higher quality assets.

SPREADS



Source: Barclays, Bloomberg, as of 3/31/24

YIELD TO WORST



Source: Bloomberg, J.P. Morgan as of 3/31/24

CREDIT SPREAD (OAS)

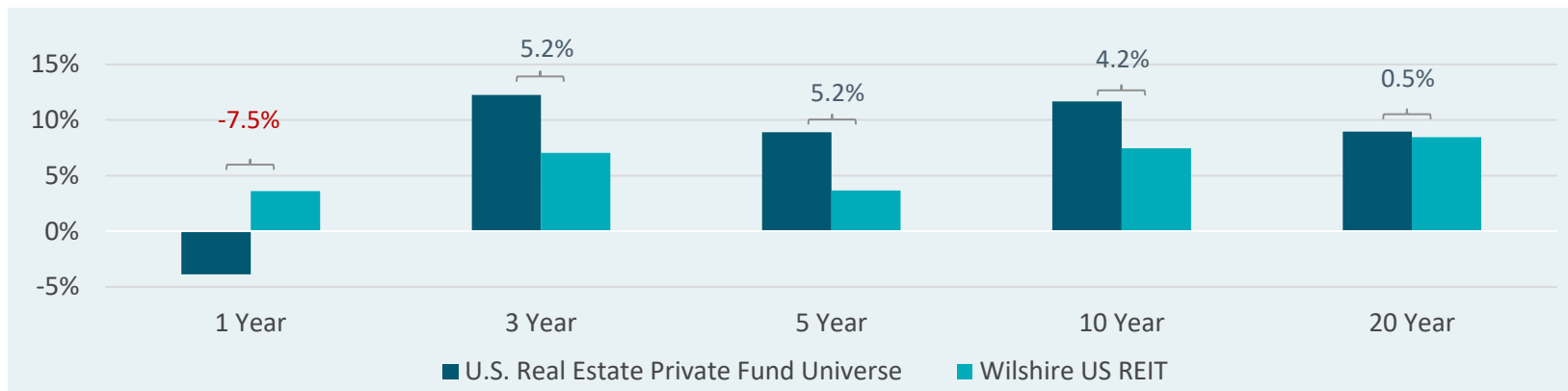
Market	3/31/24	3/31/23
Long U.S. Corp	1.1%	1.6%
U.S. Inv Grade Corp	0.9%	1.4%
U.S. High Yield	3.1%	4.6%
U.S. Bank Loans*	3.9%	3.7%

Source: Barclays, Credit Suisse, Bloomberg, as of 3/31/24

*Discount margin (4-year life)

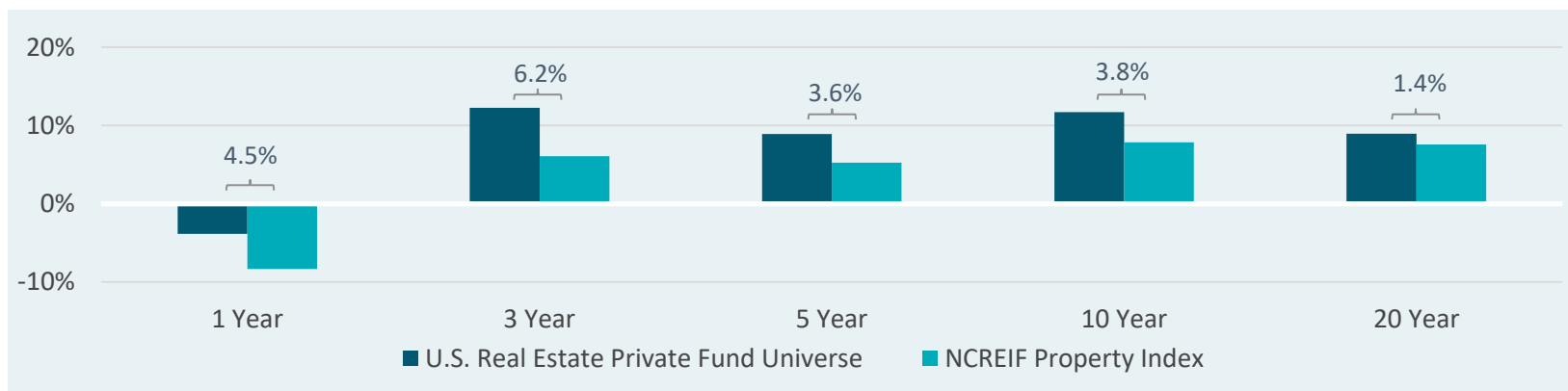
Private vs. liquid and core real estate performance

U.S. PRIVATE REAL ESTATE FUNDS VS. LIQUID UNIVERSE



U.S. Private R.E. funds outperformed the Wilshire U.S. REIT Index across most time periods, aside from the 1-year

U.S. PRIVATE REAL ESTATE FUNDS VS. CORE FUNDS



U.S. Private R.E. Funds outperformed the NCREIF Property Index across all time periods

Sources: Refinitiv PME: U.S. Real Estate universes as of September 30, 2023. Public Market Equivalent returns resulted from identical cash flows invested into and distributed from respective liquid real estate universes.

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	3.2	10.6	10.6	29.9	11.5	15.1	13.0
S&P 500 Equal Weighted	4.5	7.9	7.9	19.4	8.2	12.4	10.9
DJ Industrial Average	2.2	6.1	6.1	22.2	8.7	11.3	11.8
Russell Top 200	2.9	10.8	10.8	32.4	12.0	16.1	13.7
Russell 1000	3.2	10.3	10.3	29.9	10.5	14.8	12.7
Russell 2000	3.6	5.2	5.2	19.7	(0.1)	8.1	7.6
Russell 3000	3.2	10.0	10.0	29.3	9.8	14.3	12.3
Russell Mid Cap	4.3	8.6	8.6	22.3	6.1	11.1	9.9
Style Index							
Russell 1000 Growth	1.8	11.4	11.4	39.0	12.5	18.5	16.0
Russell 1000 Value	5.0	9.0	9.0	20.3	8.1	10.3	9.0
Russell 2000 Growth	2.8	7.6	7.6	20.3	(2.7)	7.4	7.9
Russell 2000 Value	4.4	2.9	2.9	18.8	2.2	8.2	6.9

INTERNATIONAL EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
MSCI ACWI	3.1	8.2	8.2	23.2	7.0	10.9	8.7
MSCI ACWI ex US	3.1	4.7	4.7	13.3	1.9	6.0	4.3
MSCI EAFE	3.3	5.8	5.8	15.3	4.8	7.3	4.8
MSCI EM	2.5	2.4	2.4	8.2	(5.1)	2.2	2.9
MSCI EAFE Small Cap	3.7	2.4	2.4	10.4	(1.4)	4.9	4.7
Style Index							
MSCI EAFE Growth	2.3	7.0	7.0	13.3	2.8	7.8	5.9
MSCI EAFE Value	4.4	4.5	4.5	17.3	6.6	6.4	3.5
Regional Index							
MSCI UK	4.5	3.1	3.1	10.9	7.7	5.1	2.9
MSCI Japan	3.0	11.0	11.0	25.8	3.7	7.8	6.7
MSCI Euro	4.1	8.4	8.4	17.4	6.9	9.0	4.7
MSCI EM Asia	3.0	3.4	3.4	6.3	(6.5)	2.8	4.5
MSCI EM Latin American	1.0	(4.0)	(4.0)	22.6	10.5	3.7	1.7

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
Bloomberg US TIPS	0.8	(0.1)	(0.1)	0.5	(0.5)	2.5	2.2
Bloomberg US Treasury Bills	0.5	1.3	1.3	5.3	2.6	2.0	1.4
Bloomberg US Agg Bond	0.9	(0.8)	(0.8)	1.7	(2.5)	0.4	1.5
Bloomberg US Universal	1.0	(0.5)	(0.5)	2.7	(2.1)	0.7	1.8
Duration							
Bloomberg US Treasury 1-3 Yr	0.4	0.3	0.3	2.9	0.0	1.1	1.1
Bloomberg US Treasury Long	1.2	(3.3)	(3.3)	(6.1)	(8.0)	(2.8)	1.2
Bloomberg US Treasury	0.6	(1.0)	(1.0)	0.1	(2.7)	(0.1)	1.0
Issuer							
Bloomberg US MBS	1.1	(1.0)	(1.0)	1.4	(2.8)	(0.4)	1.1
Bloomberg US Corp. High Yield	1.2	1.5	1.5	11.2	2.2	4.2	4.4
Bloomberg US Agency Interm	0.4	0.2	0.2	3.2	(0.6)	0.8	1.2
Bloomberg US Credit	1.2	(0.4)	(0.4)	4.1	(1.9)	1.4	2.5

OTHER

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Index							
Bloomberg Commodity	3.3	2.2	2.2	(0.6)	9.1	6.4	(1.6)
Wilshire US REIT	1.5	(0.0)	(0.0)	12.4	4.5	4.4	6.7
CS Leveraged Loans	0.8	2.5	2.5	12.4	5.8	5.3	4.6
S&P Global Infrastructure	4.6	1.3	1.3	4.1	5.5	4.9	5.2
Alerian MLP	4.9	14.7	14.7	37.3	29.2	10.4	2.9
Regional Index							
JPM EMBI Global Div	2.1	2.0	2.0	11.3	(1.4)	0.7	3.0
JPM GBI-EM Global Div	(0.0)	(2.1)	(2.1)	4.9	(1.6)	0.1	(0.3)
Hedge Funds							
HFRI Composite	2.5	4.9	4.9	12.1	4.3	7.0	5.0
HFRI FOF Composite	1.3	3.9	3.9	9.4	2.8	5.0	3.6
Currency (Spot)							
Euro	(0.2)	(2.2)	(2.2)	(0.6)	(2.8)	(0.8)	(2.4)
Pound Sterling	(0.1)	(0.9)	(0.9)	2.2	(2.9)	(0.6)	(2.7)
Yen	(1.1)	(6.9)	(6.9)	(12.1)	(10.0)	(6.1)	(3.8)

Source: Morningstar, HFRI, as of 3/31/24

Definitions

Bloomberg US Weekly Consumer Comfort Index - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.lanqerresearch.com)

University of Michigan Consumer Sentiment Index - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)

NFIB Small Business Outlook - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<http://www.nfib-sbet.org/about/>)

NAHB Housing Market Index - the housing market index is a weighted average of separate diffusion indices for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula $(\text{Good-Poor} + 100)/2$ to the present and future sales series and $(\text{High/Very High-Low/Very Low} + 100)/2$ to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

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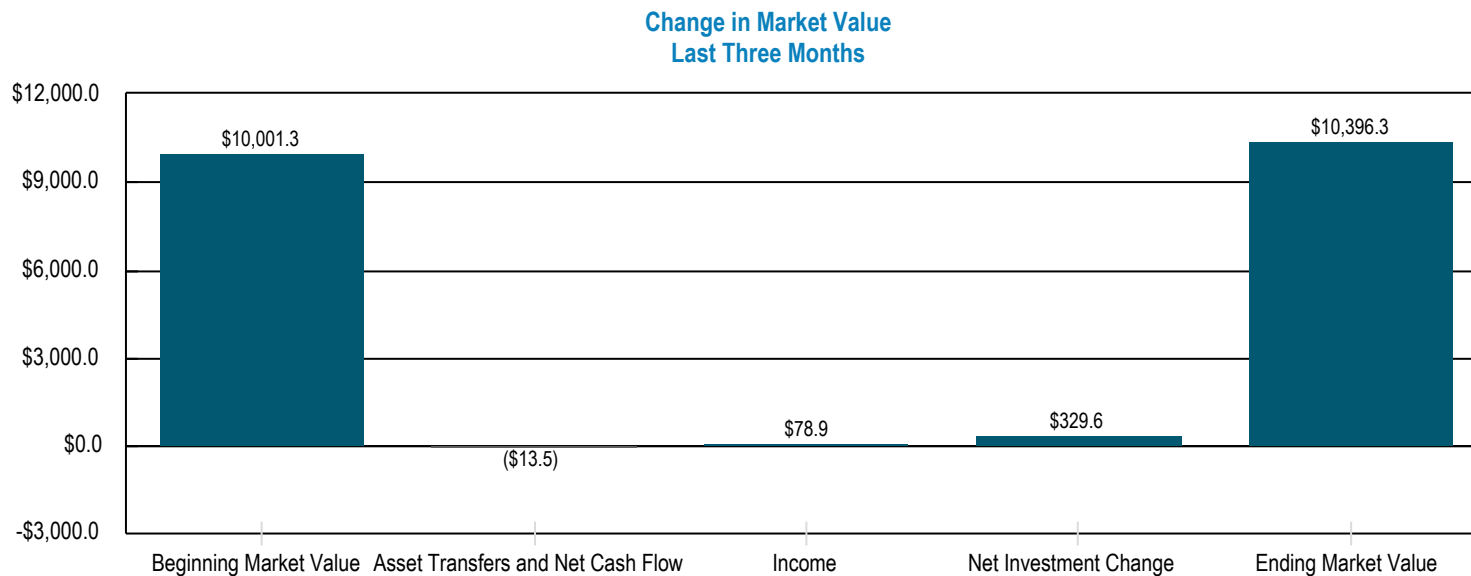
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Investment Performance

Total Fund
Portfolio Reconciliation

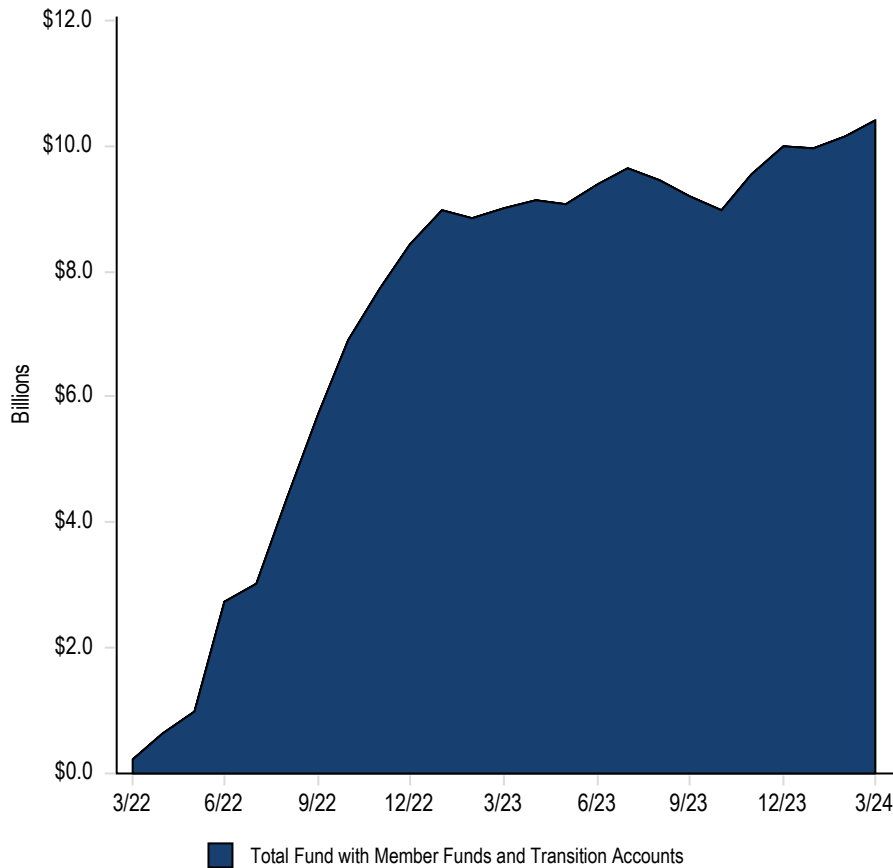
Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024

Portfolio Reconciliation		
	Quarter-To-Date	Fiscal Year-To-Date
Beginning Market Value	\$10,001,345,755	\$9,387,424,024
Asset Transfers and Net Cash	-\$13,487,843	\$25,384,024
Income	\$78,854,828	\$231,604,258
Net Investment Change	\$329,635,981	\$751,936,415
Ending Market Value	\$10,396,348,721	\$10,396,348,721

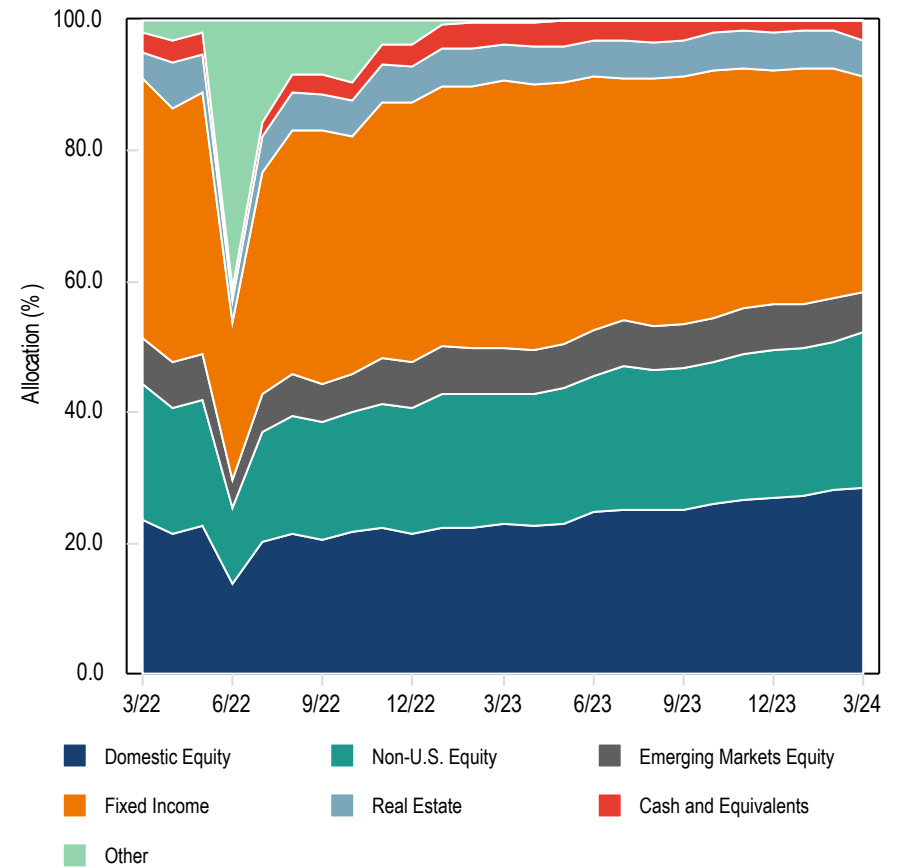


The portfolio reconciliation includes the Member Funds and Transition Account. Income excludes Member Funds and Transition Account. Income is calculated using the actual dividend and income received from separate accounts and estimated income and dividends for commingled funds. The income and dividends for RhumbLine Russell 1000 Index, RhumbLine Russell 2000 Index, SSgA US TIPS Index and Cash are sourced from State Street custodial reports. The income and dividends for the SSGA commingled funds, Acadian and Ares are an estimate based on the current yield for bond funds and the dividend yield for equity funds. SSGA can use dividend and income to cover fund expenses, so the actual income that flows to the IPOPIF may be different than reported. Income for the Principal RE fund is based on a monthly income spreadsheet received from Principal via email. Income for Aristotle, LSV and WCM are sourced monthly from manager statements.

Market Value History



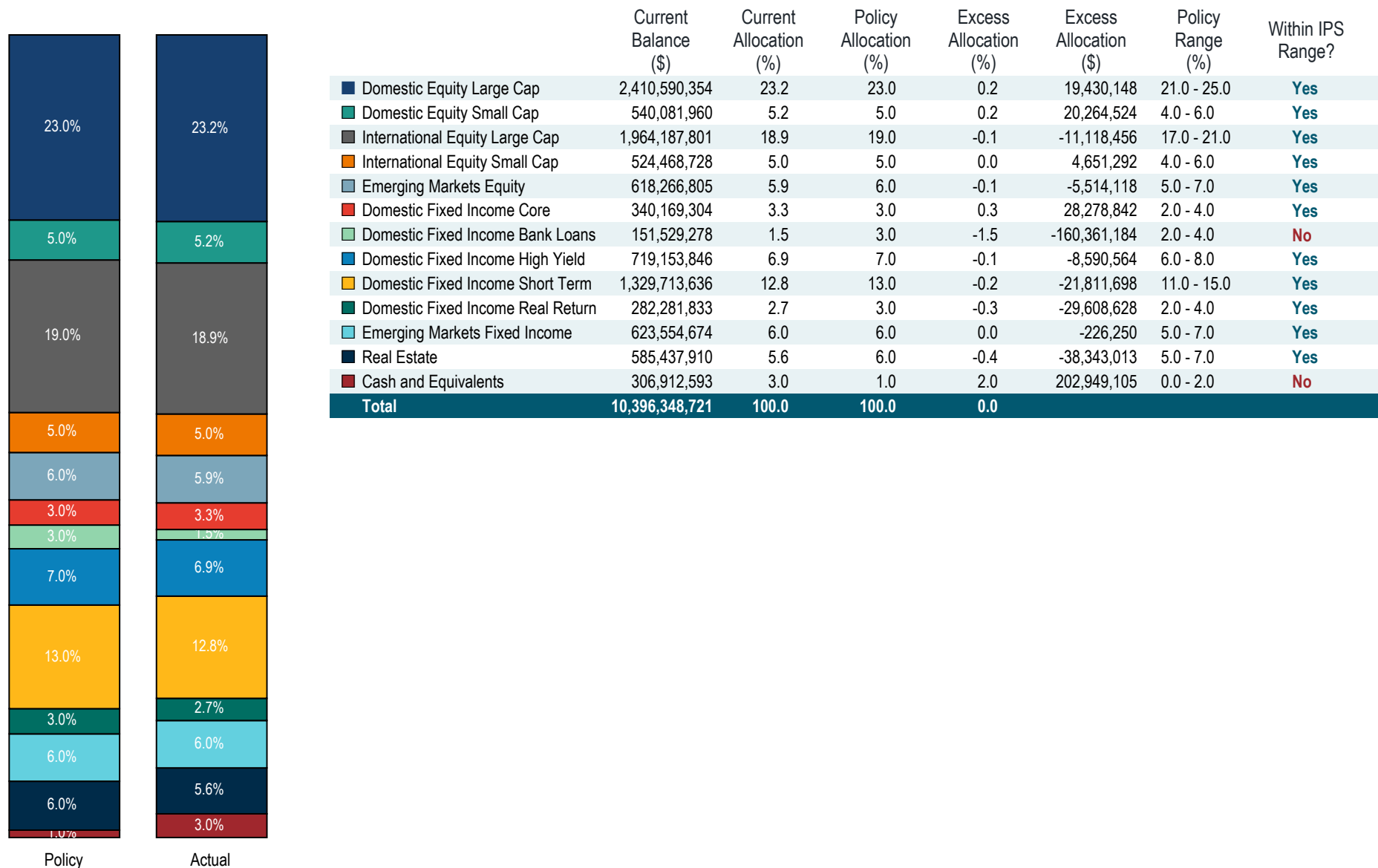
Asset Allocation History



*Market value and asset class history includes Transition Accounts and Member Funds as represented by the Other category in the asset allocation history chart. The large allocation to the Other Category for 6/22 reflects assets in transition associated with the 6/24/22 Transfer Date.

IPOPIF Investment Portfolio
Asset Allocation vs. Policy

Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024



Asset Allocation reflects interim policy targets and excludes the Transition Account and Member Funds. Assets in transition from High Yield to Bank Loans make up 1.5% of Cash and Equivalents.

Total Fund
Executive Summary (Net of Fees)

Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	Since Inception	Inception Date
Total Fund with Member and Transition Accounts	10,396,348,721	100.0	4.1	4.1	10.5	13.5	4.0	03/01/22
<i>Policy Index</i>			4.2	4.2	10.7	14.0	4.0	
<i>Policy Index- Broad Based</i>			4.8	4.8	11.6	15.7	3.5	
IPOPIF Investment Portfolio	10,396,348,721	100.0	4.1	4.1	10.5	13.5	3.8	04/01/22
<i>Policy Index</i>			4.2	4.2	10.7	14.0	3.9	
<i>Policy Index- Broad Based</i>			4.8	4.8	11.6	15.7	3.4	
Growth	6,057,595,648	58.3	6.7	6.7	14.1	19.6	5.4	04/01/22
<i>Growth Benchmark</i>			6.8	6.8	14.4	19.9	5.3	
Income	1,494,237,798	14.4	1.7	1.7	9.3	11.5	2.2	04/01/22
<i>Income Benchmark</i>			1.7	1.7	9.1	11.2	3.3	
Real Assets	585,437,910	5.6	-0.8	-0.8	2.8	4.1	-3.1	04/01/22
<i>Real Assets Benchmark</i>			-1.0	-1.0	1.9	2.8	-6.7	
Risk Mitigation	2,258,975,931	21.7	0.3	0.3	3.6	3.3	1.3	04/01/22
<i>Risk Mitigation Benchmark</i>			0.3	0.3	3.7	3.3	1.2	
IPOPIF Pool Fixed Income Transition	101,434	0.0						
Member Accounts	-	0.0						

The composition of blended benchmarks are located on the Data Sources and Methodology page.

Total Fund
Executive Summary (Net of Fees)

Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	2023	Since Inception	Inception Date
Total Fund with Member and Transition Accounts	10,396,348,721	100.0	4.1	4.1	10.5	13.5	13.7	4.0	03/01/22
<i>Policy Index</i>			4.2	4.2	10.7	14.0	14.2	4.0	
<i>Policy Index- Broad Based</i>			4.8	4.8	11.6	15.7	16.8	3.5	
<i>All Public Plans > \$1B-Total Fund Rank</i>			43	43	17	20	11	33	
IPOPIF Investment Portfolio	10,396,348,721	100.0	4.1	4.1	10.5	13.5	13.7	3.8	04/01/22
<i>Policy Index</i>			4.2	4.2	10.7	14.0	14.2	3.9	
<i>Policy Index- Broad Based</i>			4.8	4.8	11.6	15.7	16.8	3.4	
<i>All Public Plans > \$1B-Total Fund Rank</i>			43	43	17	20	11	32	
Growth	6,057,595,648	58.3	6.7	6.7	14.1	19.6	19.4	5.4	04/01/22
<i>Growth Benchmark</i>			6.8	6.8	14.4	19.9	19.5	5.3	
RhumbLine Russell 1000 Index	2,410,590,354	23.2	10.3	10.3	19.5	29.8	26.5	13.3	03/15/22
<i>Russell 1000 Index</i>			10.3	10.3	19.6	29.9	26.5	13.4	
<i>eV US Large Cap Core Equity Rank</i>			53	53	48	40	23		
RhumbLine Russell 2000 Index	540,081,960	5.2	5.2	5.2	13.7	19.6	16.8	5.8	03/15/22
<i>Russell 2000 Index</i>			5.2	5.2	13.8	19.7	16.9	6.1	
<i>eV US Small Cap Core Equity Rank</i>			67	67	53	48	55		
SSgA Non-US Developed Index	1,964,187,801	18.9	5.8	5.8	12.1	15.8	18.3	9.3	03/10/22
<i>MSCI World ex U.S. (Net)</i>			5.6	5.6	11.9	15.3	17.9	8.9	
<i>eV EAFE Core Equity Rank</i>			45	45	44	35	34		
International Developed Small Cap Equity	524,468,728	5.0	2.0	2.0	9.0	9.7	12.9	-0.5	04/01/22
<i>MSCI World ex U.S. Small Cap Index (Net)</i>			2.6	2.6	9.5	10.0	12.6	-0.6	
SSgA Non-US Developed SC Index	77,605,127	0.7	2.6	2.6	9.6	10.3	12.9	2.5	03/10/22
<i>MSCI World ex U.S. Small Cap Index (Net)</i>			2.6	2.6	9.5	10.0	12.6	2.3	
<i>eV EAFE Small Cap Core Rank</i>			64	64	59	55	65		
Acadian ACWI ex US Small-Cap Fund	259,485,712	2.5	-	-	-	-	-	5.1	01/30/24
<i>MSCI AC World ex USA Small Cap (Net)</i>			-	-	-	-	-	4.6	
<i>eV ACWI ex-US Small Cap Equity Rank</i>			-	-	-	-	-		
WCM International Small Cap Growth Fund	125,225,054	1.2	-	-	-	-	-	0.4	03/01/24
<i>MSCI AC World ex USA Small Growth Index (Net)</i>			-	-	-	-	-	2.2	
<i>eV ACWI ex-US Small Cap Equity Rank</i>			-	-	-	-	-	91	
LSV International Small Cap Value Equity Fund	62,152,835	0.6	-	-	-	-	-	3.6	03/01/24
<i>S&P Developed Ex-U.S. SmallCap (Net)</i>			-	-	-	-	-	4.2	
<i>eV EAFE Small Cap Value Rank</i>			-	-	-	-	-	67	
SSgA Emerging Markets Equity Index	618,266,805	5.9	2.3	2.3	6.7	7.7	9.6	-0.3	03/10/22
<i>MSCI Emerging Markets (Net)</i>			2.4	2.4	7.2	8.2	9.8	0.6	
<i>eV Emg Mkts Equity Rank</i>			58	58	59	65	64		

The composition of blended benchmarks are located on the Data Sources and Methodology page. Principal USPA does not show a Since 4/1/2022 return because the fund was inception on 4/6/2022.

Total Fund
Executive Summary (Net of Fees)

Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	2023	Since Inception	Inception Date
Income	1,494,237,798	14.4	1.7	1.7	9.3	11.5	12.8	2.2	04/01/22
<i>Income Benchmark</i>			1.7	1.7	9.1	11.2	12.6	3.3	
SSgA High Yield Corporate Credit	719,153,846	6.9	1.5	1.5	9.4	11.5	13.8	3.5	03/18/22
<i>Spliced SSgA U.S. High Yield Index</i>			1.5	1.5	9.3	11.1	13.5	3.5	
<i>eV US High Yield Fixed Inc Rank</i>			52	52	26	25	11		
SSgA EMD Hard Index Fund	623,554,674	6.0	2.1	2.1	9.1	11.4	11.2	2.2	03/14/22
<i>Spliced SSgA EMD Hard Index</i>			2.0	2.0	8.9	11.3	11.1	2.3	
<i>Emerging Markets Bond Rank</i>			46	46	43	40	52		
Bank Loans	151,529,278	1.5	-	-	-	-	-	1.0	03/01/24
<i>Credit Suisse Leveraged Loan Index</i>			-	-	-	-	-	0.8	
Ares Institutional Loan Fund	50,475,620	0.5	-	-	-	-	-	1.0	03/01/24
<i>Credit Suisse Leveraged Loan Index</i>			-	-	-	-	-	0.8	
<i>eV US Float-Rate Bank Loan Fixed Inc Rank</i>			-	-	-	-	-	36	
Aristotle Institutional Loan Fund	101,053,658	1.0	-	-	-	-	-	1.1	03/01/24
<i>Credit Suisse Leveraged Loan Index</i>			-	-	-	-	-	0.8	
<i>eV US Float-Rate Bank Loan Fixed Inc Rank</i>			-	-	-	-	-	19	
Real Assets	585,437,910	5.6	-0.8	-0.8	2.8	4.1	5.6	-3.1	04/01/22
<i>Real Assets Benchmark</i>			-1.0	-1.0	1.9	2.8	4.7	-6.7	
SSgA REITs Index	426,151,714	4.1	-0.4	-0.4	7.3	10.4	13.9	-4.2	03/16/22
<i>Dow Jones U.S. Select REIT Total Return Index</i>			-0.4	-0.4	7.3	10.5	14.0	-4.1	
<i>eV US REIT Rank</i>			20	20	27	19	35		
Principal USPA	159,286,196	1.5	-2.0	-2.0	-7.9	-9.6	-10.7	-7.9	04/06/22
<i>NCREIF ODCE</i>			-2.6	-2.6	-9.4	-12.0	-12.7	-8.1	

The composition of blended benchmarks are located on the Data Sources and Methodology page. Principal USPA does not show a Since 4/1/2022 return because the fund was inception on 4/6/2022.

Total Fund
Executive Summary (Net of Fees)

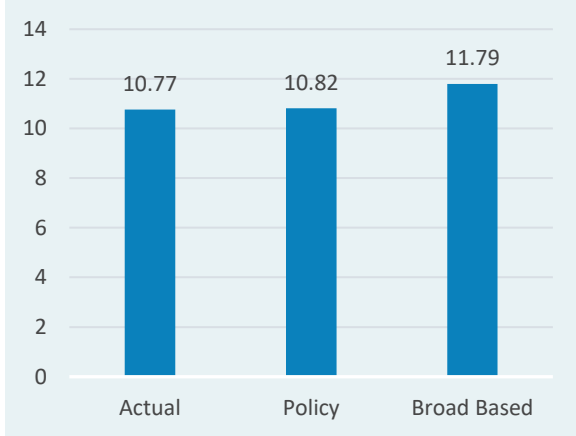
Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	2023	Since Inception	Inception Date
Risk Mitigation	2,258,975,931	21.7	0.3	0.3	3.6	3.3	5.0	1.3	04/01/22
<i>Risk Mitigation Benchmark</i>			<i>0.3</i>	<i>0.3</i>	<i>3.7</i>	<i>3.3</i>	<i>4.9</i>	<i>1.2</i>	
SSgA Core Fixed Income Index	340,169,304	3.3	-0.7	-0.7	2.5	1.7	5.6	-1.8	03/17/22
<i>Blmbg. U.S. Aggregate Index</i>			<i>-0.8</i>	<i>-0.8</i>	<i>2.6</i>	<i>1.7</i>	<i>5.5</i>	<i>-1.8</i>	
<i>eV US Core Fixed Inc Rank</i>			<i>84</i>	<i>84</i>	<i>84</i>	<i>81</i>	<i>66</i>		
SSgA Short-Term Gov't/Credit Index	1,329,612,202	12.8	0.4	0.4	3.8	3.5	4.6	1.6	03/17/22
<i>Bloomberg U.S. Gov/Credit 1-3 Year Index</i>			<i>0.4</i>	<i>0.4</i>	<i>3.9</i>	<i>3.5</i>	<i>4.6</i>	<i>1.6</i>	
<i>eV US Short Duration Fixed Inc Rank</i>			<i>76</i>	<i>76</i>	<i>76</i>	<i>78</i>	<i>81</i>		
SSgA US TIPS Index	282,281,833	2.7	0.9	0.9	4.0	3.3	4.6	0.6	03/17/22
<i>Blmbg. U.S. TIPS 0-5 Year</i>			<i>0.8</i>	<i>0.8</i>	<i>3.9</i>	<i>3.2</i>	<i>4.6</i>	<i>0.8</i>	
<i>eV US TIPS / Inflation Fixed Inc Rank</i>			<i>9</i>	<i>9</i>	<i>6</i>	<i>5</i>	<i>21</i>		
Cash	306,912,593	3.0	1.3	1.3	3.9	5.5	5.0	3.5	03/22/22
<i>90 Day U.S. Treasury Bill</i>			<i>1.3</i>	<i>1.3</i>	<i>4.0</i>	<i>5.2</i>	<i>5.0</i>	<i>3.8</i>	
IPOPIF Pool Fixed Income Transition	101,434	0.0							
Member Accounts	-	0.0							

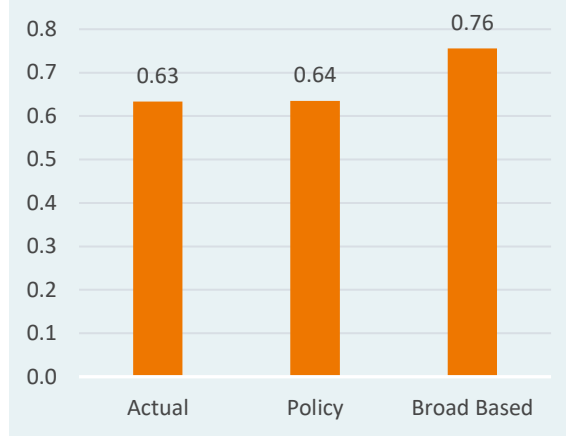
The composition of blended benchmarks are located on the Data Sources and Methodology page. Principal USPA does not show a Since 4/1/2022 return because the fund was inception on 4/6/2022.

Portfolio Characteristics

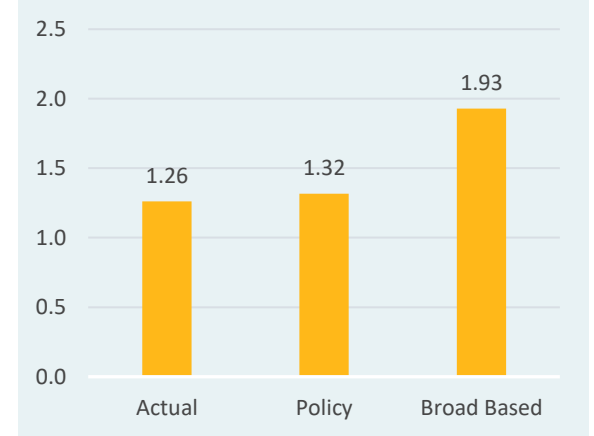
TOTAL PLAN RISK (EXPECTED VOLATILITY)



EQUITY BETA (ACWI IMI)



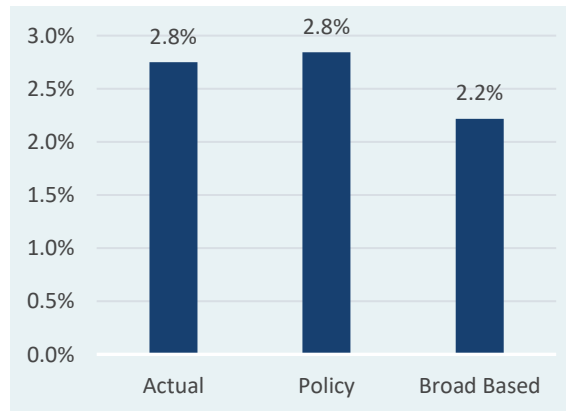
EFFECTIVE DURATION



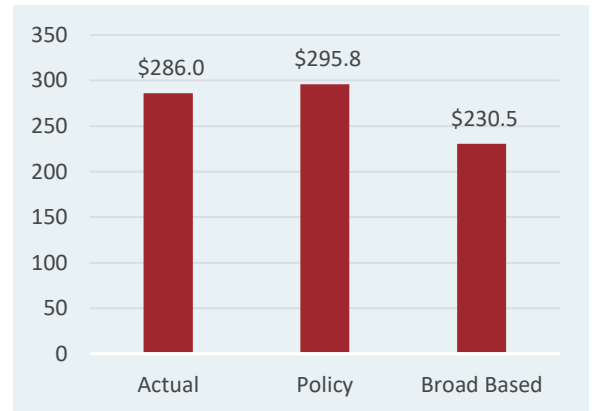
CREDIT SPREAD DURATION



ESTIMATED PORTFOLIO INCOME YIELD*



ESTIMATED PORTFOLIO INCOME (\$ MILLIONS)*



*Income Yield and Income are estimated based on dividend yields and coupon rates applied to benchmark weights and does not include factors such as dividend re-investment rates.

Source: Barra One using index holdings as representative proxies

IPOPIF Investment Portfolio
Investment Fund Fee Analysis

Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024

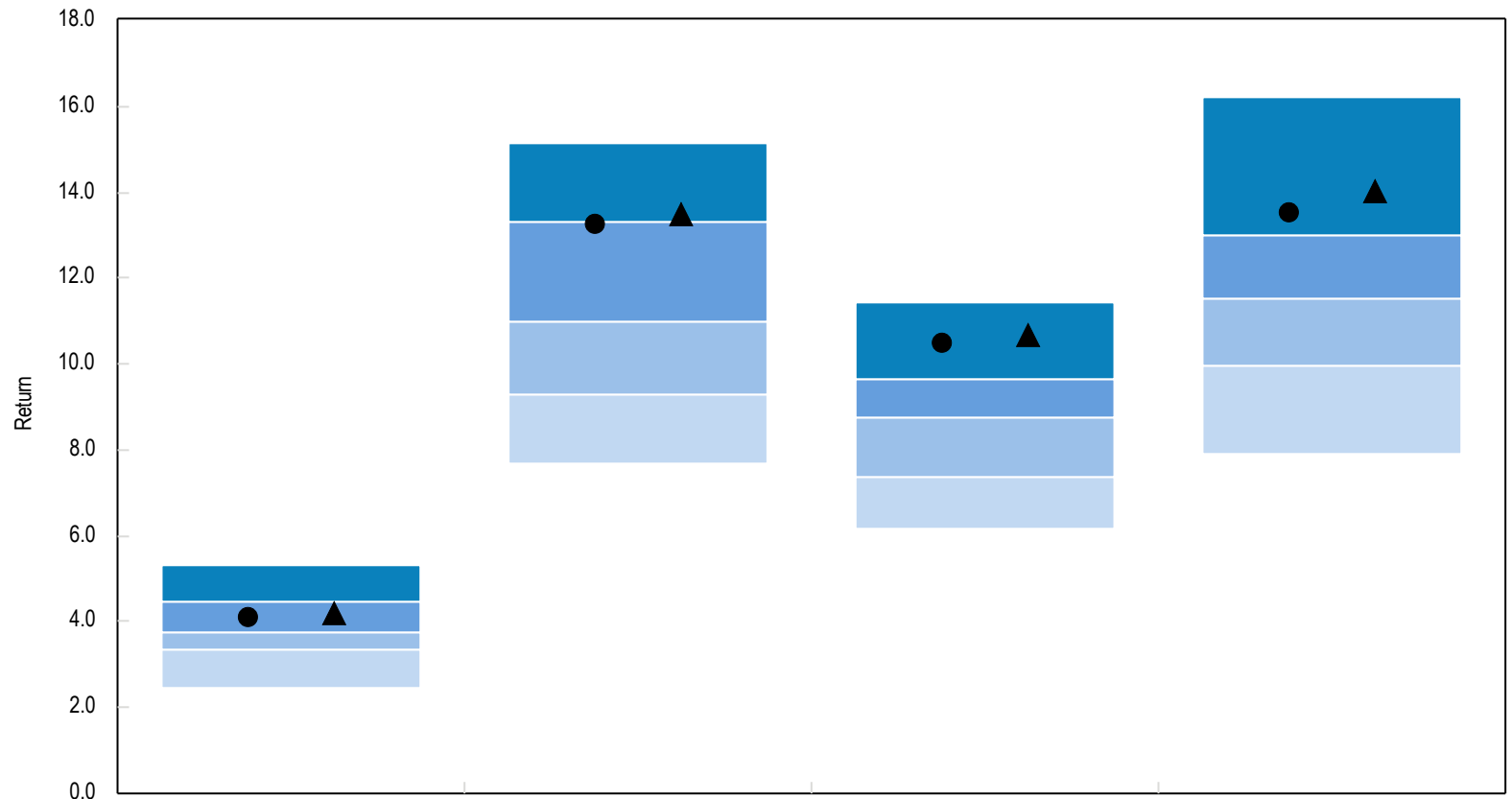
Name	Asset Class	Vehicle Type	Market Value	% of Portfolio	Estimated Fee Value	Expense Fee (%)
RhumbLine Russell 1000 Index	Domestic Equity	Separate Account	\$2,410,590,354	23.1869	\$120,530	0.005
RhumbLine Russell 2000 Index	Domestic Equity	Separate Account	\$540,081,960	5.1949	\$27,004	0.005
SSgA Non-US Developed Index	Non-U.S. Equity	Commingled Fund	\$1,964,187,801	18.8931	\$157,135	0.008
SSgA Non-US Developed SC Index	Non-U.S. Equity	Commingled Fund	\$77,605,127	0.7465	\$6,208	0.008
Acadian ACWI ex US Small-Cap Fund	Non-U.S. Equity	Commingled Fund	\$259,485,712	2.4959	\$1,577,171	0.608
WCM International Small Cap Growth Fund	Non-U.S. Equity	Commingled Fund	\$125,225,054	1.2045	\$876,575	0.700
LSV International Small Cap Value Equity Fund	Non-U.S. Equity	Commingled Fund	\$62,152,835	0.5978	\$572,223	0.921
SSgA Emerging Markets Equity Index	Emerging Markets Equity	Commingled Fund	\$618,266,805	5.9470	\$204,028	0.033
SSgA High Yield Corporate Credit	Fixed Income	Commingled Fund	\$719,153,846	6.9174	\$237,321	0.033
SSgA EMD Hard Index Fund	Fixed Income	Commingled Fund	\$623,554,674	5.9978	\$205,773	0.033
Ares Institutional Loan Fund	Bank Loans	Commingled Fund	\$50,475,620	0.4855	\$126,189	0.250
Aristotle Institutional Loan Fund	Bank Loans	Commingled Fund	\$101,053,658	0.9720	\$403,899	0.400
SSgA REITs Index	Real Estate	Commingled Fund	\$426,151,714	4.0991	\$34,092	0.008
Principal USPA	Real Estate	Commingled Fund	\$159,286,196	1.5321	\$1,274,290	0.800
SSgA Core Fixed Income Index	Fixed Income	Commingled Fund	\$340,169,304	3.2720	\$27,214	0.008
SSgA Short-Term Gov't/Credit Index	Fixed Income	Commingled Fund	\$1,329,612,202	12.7892	\$106,369	0.008
SSgA US TIPS Index	Fixed Income	Separate Account	\$282,281,833	2.7152	\$22,583	0.008
Cash	Cash and Equivalents	Commingled Fund	\$306,912,593	2.9521		
IPOPIF Investment Portfolio			\$10,396,348,721	100.0000	\$5,978,603	0.058

Total Fund
Cash Flow by Manager - Last Three Months

Illinois Police Officers' Pension Investment Fund
Period Ending: March 31, 2024

Name	Beginning Market Value	Contributions	Distributions	Net Cash Flows	Income	Fees	Net Investment Change	Ending Market Value
RhumbLine Russell 1000 Index	\$2,185,860,986	\$27,023	-	\$27,023	\$8,033,813	-\$27,023	\$216,695,555	\$2,410,590,354
RhumbLine Russell 2000 Index	\$513,495,227	\$6,103	-	\$6,103	\$1,839,021	-\$6,103	\$24,747,712	\$540,081,960
SSgA Non-US Developed Index	\$1,755,146,583	\$109,036,067	-	\$109,036,067	\$13,163,961	-\$36,067	\$86,877,258	\$1,964,187,801
SSgA Non-US Developed SC Index	\$498,873,912	\$10,143	-\$421,000,000	-\$420,989,857	\$2,534,450	-\$10,143	-\$2,803,234	\$77,605,127
Acadian ACWI ex US Small-Cap Fund	-	\$251,000,000	-	\$251,000,000	\$1,012,513	-	\$7,473,199	\$259,485,712
WCM International Small Cap Growth Fund	-	\$125,000,000	-	\$125,000,000	\$61,034	-	\$164,020	\$125,225,054
LSV International Small Cap Value Equity Fund	-	\$60,000,000	-	\$60,000,000	\$408,940	-	\$1,743,895	\$62,152,835
SSgA Emerging Markets Equity Index	\$692,811,070	\$59,324	-\$91,000,000	-\$90,940,676	\$4,751,557	-\$59,324	\$11,704,178	\$618,266,805
SSgA High Yield Corporate Credit	\$990,838,603	\$85,687	-\$285,000,000	-\$284,914,313	\$15,704,417	-\$85,687	-\$2,389,174	\$719,153,846
SSgA EMD Hard Index Fund	\$610,563,951	\$52,296	-	\$52,296	\$8,242,006	-\$52,296	\$4,748,716	\$623,554,674
Ares Institutional Loan Fund	-	\$50,000,000	-	\$50,000,000	\$31,547	-	\$444,072	\$50,475,620
Aristotle Institutional Loan Fund	-	\$100,000,000	-	\$100,000,000	\$1,081,019	-\$27,360	-	\$101,053,658
SSgA REITs Index	\$427,884,594	\$8,526	-	\$8,526	\$4,298,249	-\$8,526	-\$6,031,129	\$426,151,714
Principal USPA	\$162,472,199	-	-	-	\$1,819,695	-	-\$5,005,698	\$159,286,196
SSgA Core Fixed Income Index	\$382,924,869	\$8,068	-\$40,000,000	-\$39,991,932	\$3,370,315	-\$8,068	-\$6,125,880	\$340,169,304
SSgA Short-Term Gov't/Credit Index	\$1,324,082,026	\$28,659	-	\$28,659	\$9,833,109	-\$28,659	-\$4,302,933	\$1,329,612,202
SSgA US TIPS Index	\$279,889,804	\$6,088	-	\$6,088	\$688,415	-	\$1,697,526	\$282,281,833
Cash	\$176,400,789	\$870,774,739	-\$742,241,311	\$128,533,429	\$1,976,864	-	\$1,511	\$306,912,593
IPOPIF Pool Fixed Income Transition	\$101,143	-	-	-	\$346	-	-\$55	\$101,434
Member Accounts	-	-	-	-	\$3,557	-	-\$3,557	-
Total Fund with Member Funds and Transition Accounts	\$10,001,345,755	\$1,566,102,724	-\$1,579,241,311	-\$13,138,586	\$78,854,828	-\$349,257	\$329,635,981	\$10,396,348,721

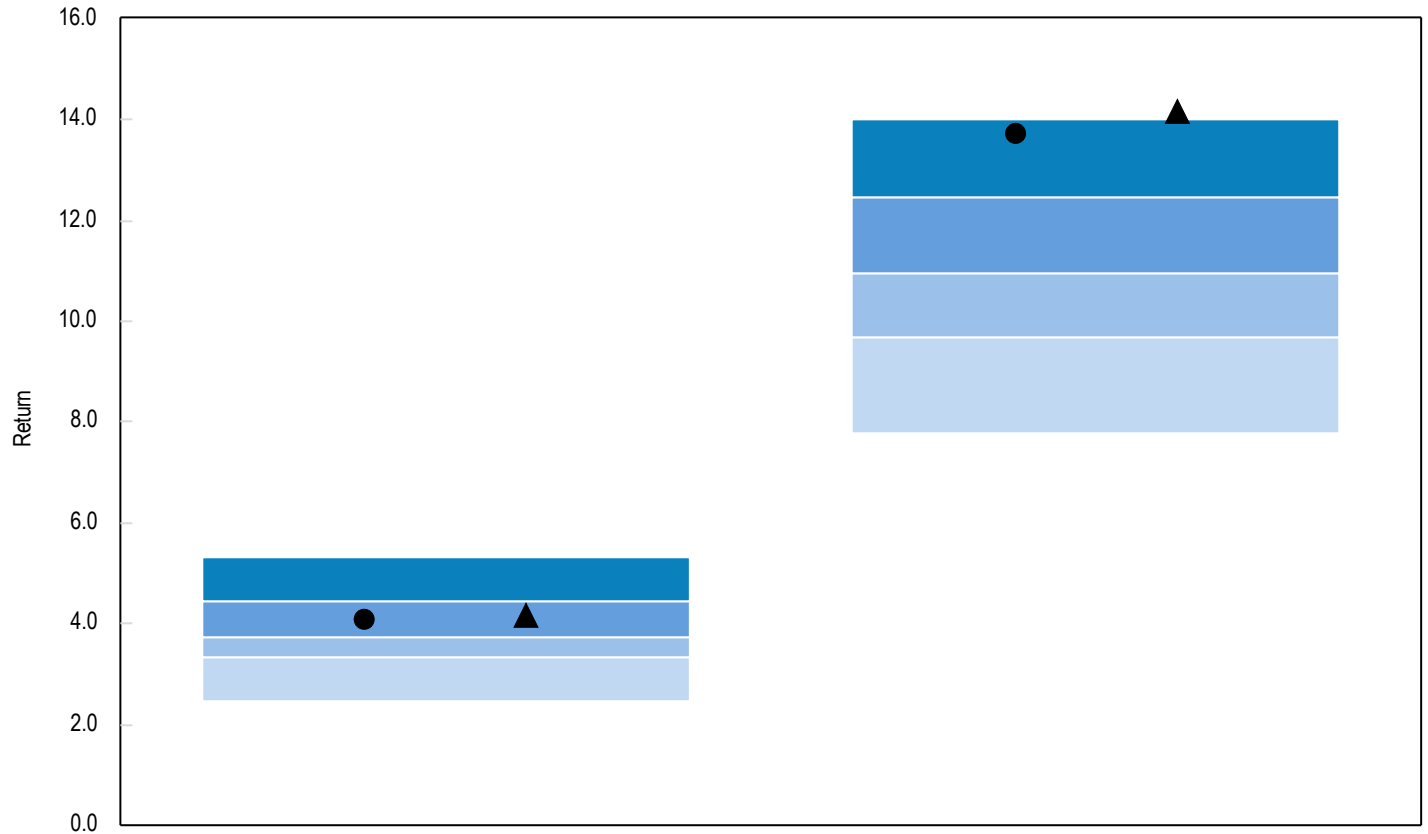
IPOPIF Investment Portfolio vs. All Public Plans > \$1B-Total Fund



	Quarter	2 Quarters	3 Quarters	1 Year
● IPOPIF Investment Portfolio	4.1 (43)	13.3 (26)	10.5 (17)	13.5 (20)
▲ Policy Index	4.2 (34)	13.5 (21)	10.7 (15)	14.0 (15)
5th Percentile	5.3	15.1	11.4	16.2
1st Quartile	4.5	13.3	9.6	13.0
Median	3.7	11.0	8.8	11.5
3rd Quartile	3.3	9.3	7.4	10.0
95th Percentile	2.5	7.7	6.2	7.9
Population	91	64	55	48

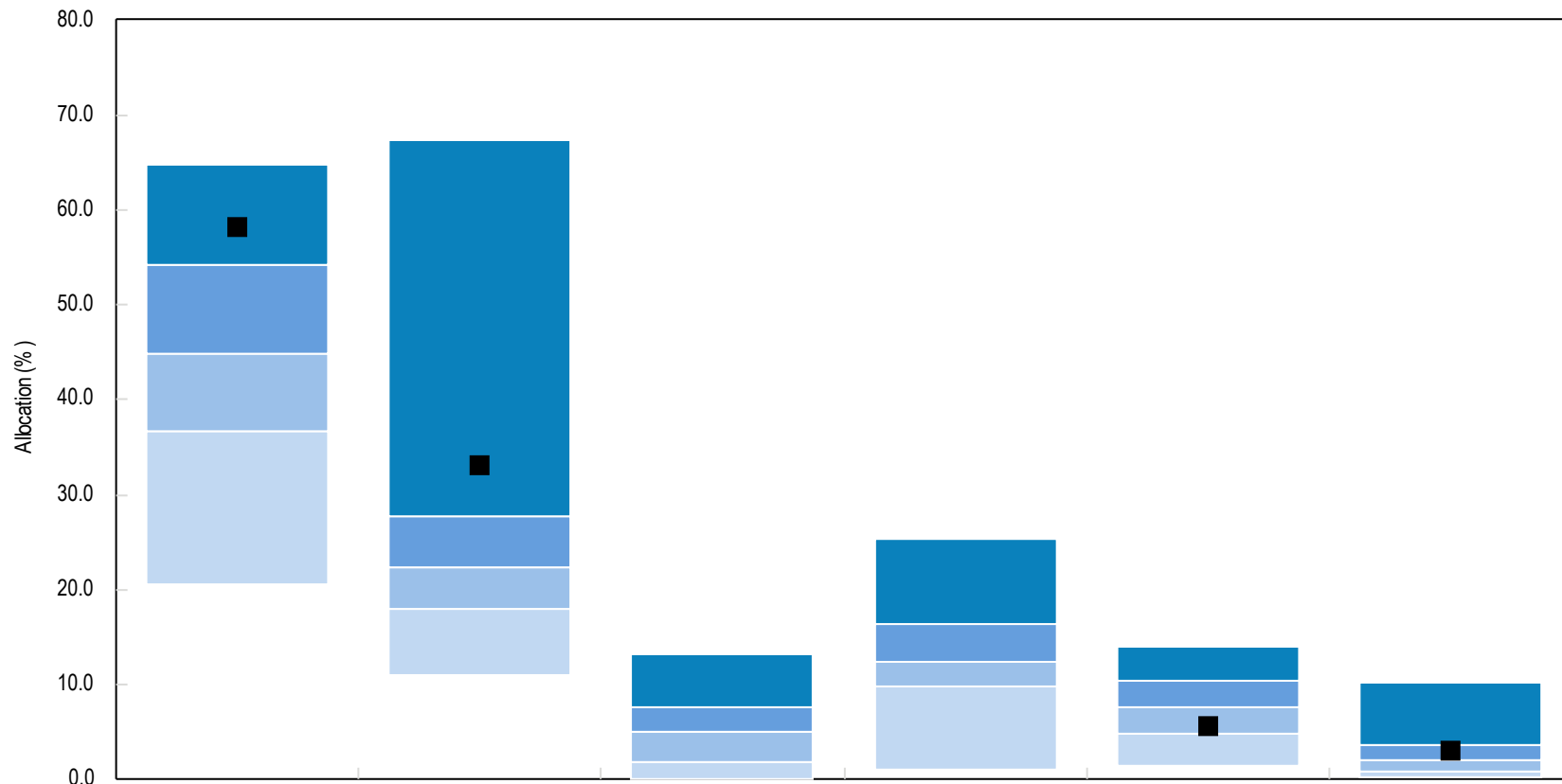
Parentheses contain percentile rankings. Performance shown for IPOPIF Investment Fund which excludes the Transition Account and Member Funds.

IPOPIF Investment Portfolio vs. All Public Plans > \$1B-Total Fund



	YTD	2023
● IPOPIF Investment Portfolio	4.1 (43)	13.7 (11)
▲ Policy Index	4.2 (34)	14.2 (5)
5th Percentile	5.3	14.0
1st Quartile	4.5	12.5
Median	3.7	10.9
3rd Quartile	3.3	9.7
95th Percentile	2.5	7.8
Population	91	76

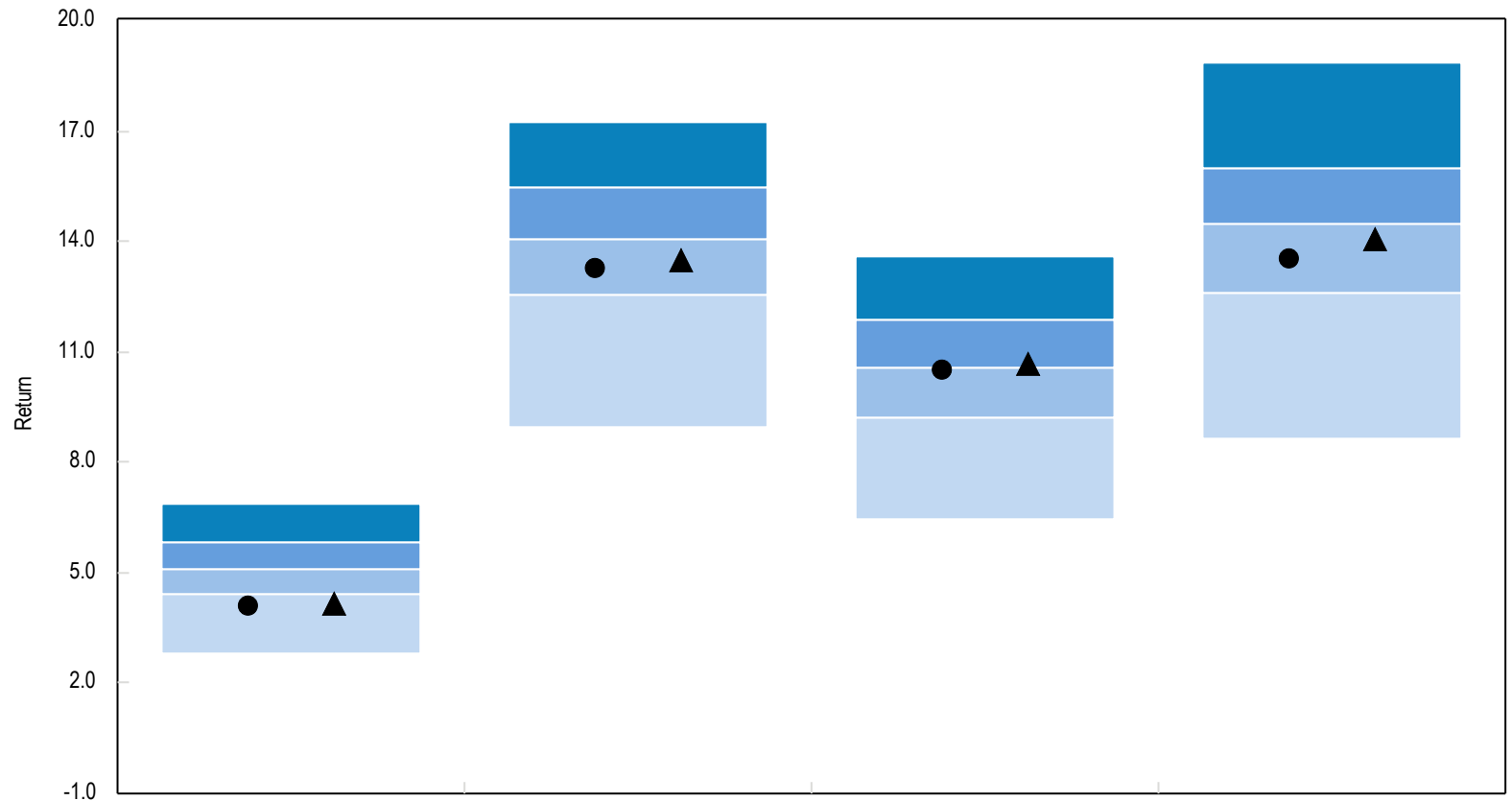
Total Plan Allocation vs. All Public Plans > \$1B-Total Fund
As of March 31, 2024



	Total Equity 58.3 (17)	Total Fixed Income 33.2 (12)	Hedge Funds -	Private Equity -	Total Real Estate 5.6 (69)	Cash & Equivalents 3.0 (33)
■ IPOPIF Investment Portfolio						
5th Percentile	64.9	67.4	13.3	25.4	14.0	10.2
1st Quartile	54.2	27.7	7.5	16.3	10.3	3.6
Median	44.9	22.4	5.1	12.4	7.6	2.0
3rd Quartile	36.6	18.0	1.8	9.8	4.7	0.8
95th Percentile	20.5	10.9	0.0	1.0	1.4	0.1
Population	140	147	47	76	114	122

Parentheses contain percentile rankings. Excludes Transition Account and Member Funds. Real Assets contains Core Real Estate and REITs.

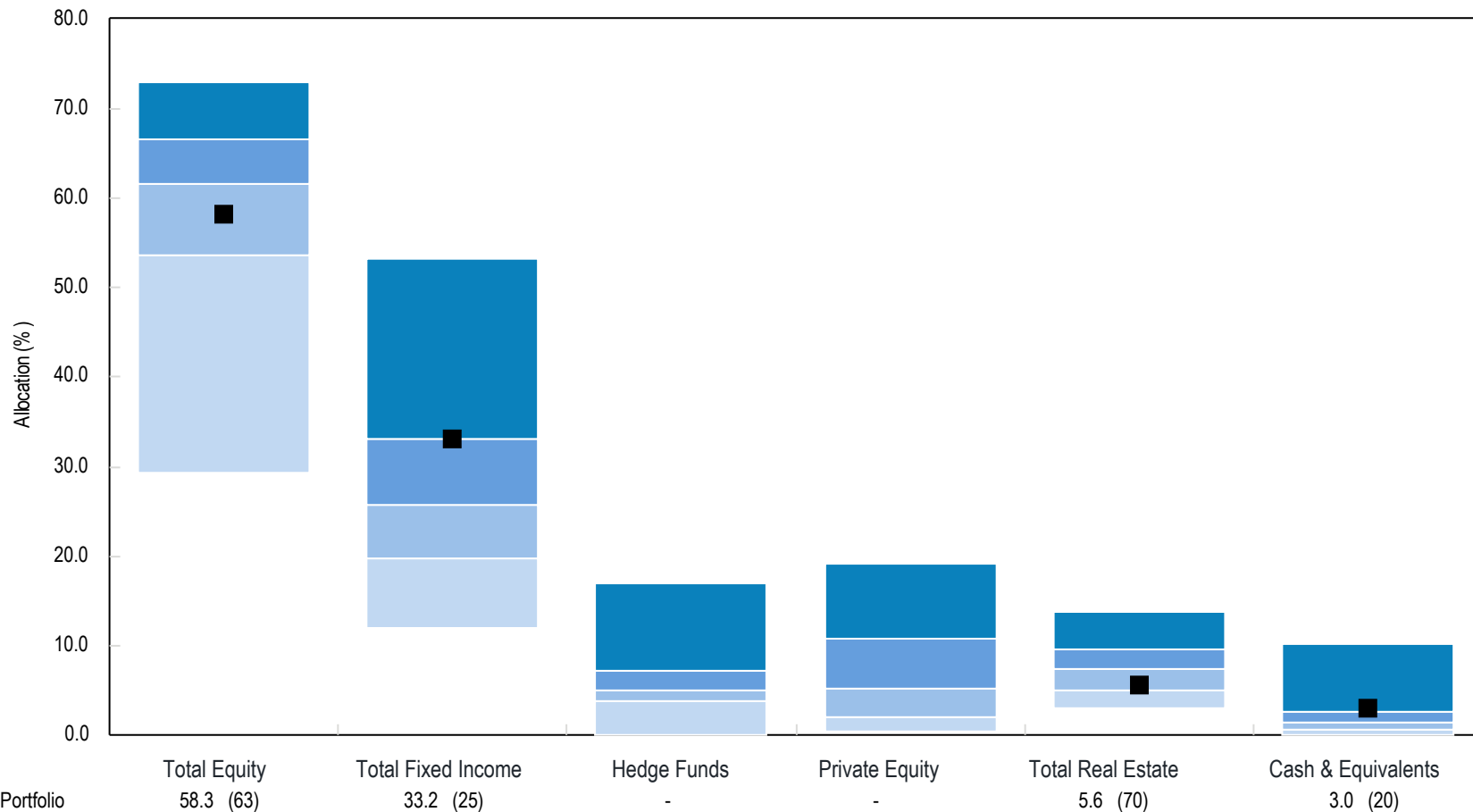
IPOPIF Investment Portfolio vs. All Public Plans < \$1B-Total Fund



	Quarter	2 Quarters	3 Quarters	1 Year
● IPOPIF Investment Portfolio	4.1 (84)	13.3 (67)	10.5 (52)	13.5 (63)
▲ Policy Index	4.2 (82)	13.5 (63)	10.7 (47)	14.0 (56)
5th Percentile	6.9	17.3	13.6	18.8
1st Quartile	5.8	15.5	11.8	16.0
Median	5.1	14.1	10.6	14.5
3rd Quartile	4.4	12.6	9.2	12.6
95th Percentile	2.8	9.0	6.5	8.7
Population	554	529	506	499

Parentheses contain percentile rankings. Performance shown for IPOPIF Investment Fund which excludes the Transition Account and Member Funds.

Total Plan Allocation vs. All Public Plans < \$1B-Total Fund
As of March 31, 2024



	Total Equity	Total Fixed Income	Hedge Funds	Private Equity	Total Real Estate	Cash & Equivalents
■ IPOPIF Investment Portfolio	58.3 (63)	33.2 (25)	-	-	5.6 (70)	3.0 (20)
5th Percentile	73.0	53.3	16.9	19.2	13.8	10.1
1st Quartile	66.6	33.1	7.2	10.8	9.5	2.7
Median	61.6	25.7	5.0	5.1	7.4	1.4
3rd Quartile	53.6	19.7	3.9	2.0	5.1	0.7
95th Percentile	29.3	11.9	0.0	0.4	3.1	0.1
Population	574	600	77	162	385	524

Parentheses contain percentile rankings. Excludes Transition Account and Member Funds. Real Assets contains Core Real Estate and REITs.

Total Fund Data Sources and Methodology Page

Illinois Police Officers' Pension Investment Fund Period Ending: March 31, 2024

Performance Return Calculations

Performance is calculated using Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Manager Line Up

Manager	Inception Date	Data Source
RhumbLine Russell 1000 Index Fund	3/15/2022	State Street
RhumbLine Russell 2000 Index Fund	3/15/2022	State Street
SSgA Non-US Developed Index Fund	3/10/2022	State Street
SSgA Non-US Developed SC Index Fund	3/10/2022	State Street
Acadian ACWI ex US Small-Cap Fund	1/30/2024	State Street
WCM International Small Cap Growth Fund	3/1/2024	State Street
LSV International Small Cap Value Equity Fund	3/1/2024	State Street
SSgA Emerging Markets Equity Index Fund	3/1/2022	State Street
SSgA High Yield Corporate Credit	3/18/2022	State Street

Manager	Inception Date	Data Source
SSgA EMD Hard Index Fund	3/14/2022	State Street
Ares Institutional Loan Fund	3/1/2024	State Street
Aristotle Institutional Loan Fund	3/1/2024	State Street
Principal USPA	4/6/2022	State Street
SSgA REITs Index Fund	3/10/2022	State Street
SSgA Core Fixed Income Index Fund	3/17/2022	State Street
SSgA Short-Term Gov't/Credit Index Fund	3/17/2022	State Street
SSgA US TIPS Index Fund	3/17/2022	State Street
Cash	3/22/2022	State Street

Policy Index Composition

As of 3/1/2024	Policy Index	Growth	Income	Real Assets	Risk Mitigation
Russell 1000	23%	39.7%			
Russell 2000	5%	8.6%			
MSCI World ex U.S.	18%	31.0%			
MSCI World ex U.S. Small Cap	5%	8.6%			
MSCI Emerging Markets	7%	12.1%			
Bloomberg US Corporate High Yield Index	8.5%		53.1%		
JPM EMBI Global Diversified Index	6%		37.5%		
Credit Suisse Leveraged Loan Index	1.5%		9.4%		
NFI-ODCE Equal-Weighted Index	2%			33.3%	
Dow Jones US Select REIT Index	4%			66.7%	
Bloomberg US Aggregate Index	3%				15.0%
Bloomberg 1-3 Year Gov/Credit Index	13%				65.0%
Bloomberg US TIPS 0-5 Year	3%				15.0%
90 Day US Treasury Bill Index	1%				5.0%

As of 5/1/2023	Policy Index	Growth	Income	Real Assets	Risk Mitigation
Russell 1000	23%	39.7%			
Russell 2000	5%	8.6%			
MSCI World ex U.S.	18%	31.0%			
MSCI World ex U.S. Small Cap	5%	8.6%			
MSCI Emerging Markets	7%	12.1%			
Bloomberg US Corporate High Yield Index	10%		62.5%		
JPM EMBI Global Diversified Index	6%		37.5%		
NFI-ODCE Equal-Weighted Index	2%			33.3%	
Dow Jones US Select REIT Index	4%			66.7%	
Bloomberg US Aggregate Index	3%				15.0%
Bloomberg 1-3 Year Gov/Credit Index	13%				65.0%
Bloomberg US TIPS 0-5 Year	3%				15.0%
90 Day US Treasury Bill Index	1%				5.0%

As of 1/1/2023	Policy Index	Growth	Income	Real Assets	Risk Mitigation
Russell 1000	18%	36.0%			
Russell 2000	5%	10.0%			
MSCI World ex U.S.	15%	30.0%			
MSCI World ex U.S. Small Cap	5%	10.0%			
MSCI Emerging Markets	7%	14.0%			
Bloomberg US Corporate High Yield Index	10%		62.5%		
JPM EMBI Global Diversified Index	6%		37.5%		
NFI-ODCE Equal-Weighted Index	2%			33.3%	
Dow Jones US Select REIT Index	4%			66.7%	
Bloomberg US Aggregate Index	7%				25.0%
Bloomberg 1-3 Year Gov/Credit Index	15%				53.6%
Bloomberg US TIPS 0-5 Year	3%				10.7%
90 Day US Treasury Bill Index	3%				10.7%

As of 3/31/2022	Policy Index	Growth	Income	Real Assets	Risk Mitigation
Russell 3000	23%	46.0%			
MSCI ACWI ex USA IMI	20%	40.0%			
MSCI Emerging Markets IMI	7%	14.0%			
Bloomberg US Corporate High Yield Index	10%		62.5%		
50% JPM EMBI GD/50% JPM GBI EM GD	6%		37.5%		
NCREIF Property Index	2%			33.3%	
Dow Jones US Select REIT Index	4%			66.7%	
Bloomberg US Aggregate Index	7%				25.0%
Bloomberg 1-3 Year Gov/Credit Index	15%				53.6%
Bloomberg US TIPS 0-5 Year	3%				10.7%
90 Day US Treasury Bill Index	3%				10.7%

Custom Benchmark Composition

Benchmark	Time period	Composition
Policy Index -Broad Benchmark	4/1/2022 - Present	70% MSCI ACWI IMI (Net) and 30% Bloomberg Global Multiverse.
Spliced SSgA EMD Hard Benchmark	7/1/2023 - Present	100% JPM EMBI Global Diversified Index
Spliced SSgA EMD Hard Benchmark	3/14/2022 - 6/30/222	100% JPM EMBI Global Core Index
Spliced SSgA U.S. High Yield Index	12/1/2022 - Present	100% ICE BofA US High yield Master II Constrained
Spliced SSgA U.S. High Yield Index	4/1/2022 - 11/30/2022	100% Bloomberg U.S. High Yield Very Liquid Index

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: $\text{Portfolio Return} - [\text{Risk free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk free Rate})]$.

Benchmark R squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book to Market: The ratio of book value per share to market price per share. Growth managers typically have low book to market ratios while value managers typically have high book to market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

Correlation: A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price to Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price to earnings ratios whereas value managers hold stocks with low price to earnings ratios.

R Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

Sharpe Ratio: A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

Sortino Ratio: Measures the risk adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

Standard Deviation: A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

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