INPRS

INDIANA PUBLIC RETIREMENT SYSTEM

2024

The Indiana Public Retirement System is a component unit and a pension trust fund of the State of Indiana.

ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2024

Prepared through the joint efforts of INPRS's team members. Available online at www.in.gov/inprs

2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT

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INPRS is a component unit and a pension trust fund of the State of Indiana.

INPRS is a trust and an independent body corporate and politic. The system is not a department or agency of the state, but is an independent instrumentality exercising essential governmental functions (IC 5-10.5-2-3).

	FUNDS MANAGED BY INPRS	ABBREVIATIONS USED
	Defined Benefit	**DB Fund**
1.	Public Employees' Defined Benefit Account	PERF DB
2.	Teachers' Pre-1996 Defined Benefit Account	TRF Pre-'96 DB
3.	Teachers' 1996 Defined Benefit Account	TRF '96 DB
4.	1977 Police Officers' and Firefighters' Retirement Fund	77 Fund
5.	Judges' Retirement System	JRS
6.	Excise, Gaming and Conservation Officers' Retirement Fund	EG&C
7.	Prosecuting Attorneys' Retirement Fund	PARF
8.	Legislators' Defined Benefit Fund	LE DB
	Defined Contribution	**DC Fund**
9.	Public Employees' Defined Contribution Account	PERF DC
10.	My Choice: Retirement Savings Plan for Public Employees	PERF MC DC
11.	Teachers' Defined Contribution Account	TRF DC
12.	My Choice: Retirement Savings Plan for Teachers	TRF MC DC
13.	Legislators' Defined Contribution Fund	LE DC
	Other Post Employment Benefit	**OPEB Fund**
14.	Special Death Benefit Fund	SDBF
15.	Retirement Medical Benefits Account Plan	RMBA
	Custodial	**Custodial Fund**
16.	Local Public Safety Pension Relief Fund	LPSPR

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INPRS
INDIANA PUBLIC RETIREMENT SYSTEM

2024 ANNUAL COMPREHENSIVE FINANCIAL REPORT

For the Fiscal Year Ended June 30, 2024

Investment Section

$42.4 Billion

Fair value of defined benefit assets

$7.2 Billion

Fair value of defined contribution assets

7.44%

Annualized time-weighted rate of return on defined benefit investments

INPRS

INDIANA PUBLIC RETIREMENT SYSTEM

August 27, 2024

Board of Trustees
Indiana Public Retirement System
One North Capitol Avenue
Indianapolis, IN 46204

Dear Trustees:

Verus is pleased to provide the Board of Trustees of the Indiana Public Retirement System ("INPRS") with an overview of the market environment and a summary of recent developments for the fiscal year ended June 30, 2024.

Market Environment

Risk assets have delivered strong performance over the past year, with the front half of 2024 acting as a continuation of 2023. Expectations for a recession fell by the wayside, as economic growth proved to be resilient. The "soft landing" narrative was strengthened, as inflation has slowed down, while the economy has continued to grow. In more recent months, some economic data has shown signs of cooling, specifically in the labor market. However, it appears that much of this slowdown may be a return to normalcy that reflects pre-pandemic conditions, instead of a labor market that would precede a coming recession. Expectations for interest rate cuts were far more ambitious a year ago, but markets have now solidified expectations that the Federal Reserve will begin cutting interest rates before the end of the year, providing a tailwind to both equities and fixed income.

Risk assets outside of the United States continued to lag the domestic market. Developed economies largely experienced stagnation, as the Eurozone saw very low GDP growth, the U.K. emerged from recession, and the Japanese economy contracted. Despite poor growth, falling inflation allowed the European Central Bank to cut interest rates in June, which provided a tailwind for risk assets. In emerging economies, China has remained a prominent story, with population decline and a tumbling housing market threatening its future growth prospects. Two main emerging market countries have outperformed most risk assets: Taiwan continues to benefit from its exposure to semiconductors amid growing AI investment, while India has delivered strong economic growth across its economy.

U.S. Equity

Domestic shares expanded upon the previous year's outperformance during the first half of 2024, beating both developed and emerging market equities. The S&P 500 index advanced +24.6% over the past year as U.S. equities prove to be the best performing asset class. Concerns have bubbled up over increasing absolute and relative valuations, leading to some fears of a correction. However, domestic stocks have climbed further as investment in artificial intelligence (AI) boosted earnings expectations, and lower inflation has led to expectations for a handful of interest rate cuts in the fall.

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Index concentration remains an important story in U.S. equity markets, with the S&P 500 Equal Weighted Index significantly lagging the flagship index, returning just +11.8% over the last year. However, there appears to have been a split within the "Magnificent Seven", with some notable companies outperforming the rest. Nvidia is still the headline story of the AI investment boom, returning +192.1% over the last year, while delivering earnings growth of +629%. While none of the other companies have matched the success of Nvidia, Meta (+76.1%), Google (+52.3%), Amazon (+48.2%) and Microsoft (+32.3%) have all outperformed the index while delivering strong earnings growth. Apple (+9.2%) and Tesla (-24.4%) have both lagged after reporting revenue declines in Q1.

These Magnificent Seven movements have had substantial implications on size and style investing, which have both seen significantly widening gaps from the previous year. Over the last year, Growth has returned +33.5%, significantly outperforming the +13.1% gain from Value. Small cap (Russell 2000 Index) has also failed to deliver excess returns, gaining just +10.1% over the last year, lagging the +23.9% gain posted by the large cap Russell 1000 Index.

Investors will be watching earnings closely, especially those of technology companies that have gained due to rosy expectations around artificial intelligence. With forward valuations hovering around one standard deviation above the 10-year average, markets are pricing in double-digit earnings growth over the next couple years. Markets are hoping for earnings to meet these expectations, and for companies involved in AI investment to start showing strong profitability across those products and services.

International Equity

International equities posted gains in the first half of 2024, although these markets were unable to match the remarkable performance of U.S. equities. Emerging markets barely outperformed international developed shares, which benefitted from higher exposure to semiconductor stocks, and a more growth-oriented set of companies. The MSCI EM Index has returned +12.5% over the last year, just over the +11.6% gain of the MSCI EAFE Index.

International developed shares performed well, despite some very material weaknesses in the macroeconomic picture. Japanese equities, the largest country weight in the MSCI EAFE index, saw the strongest performance, with the TOPIX returning +12.7% in unhedged currency terms, and +32.5% in hedged currency terms. The Japanese Yen has declined -10.2% relative to the dollar over the past six months, which played a part in boosting exports that become cheaper with a weakening currency. High earnings growth, as well as the end of negative interest rate policy and deflation, have provided a tailwind to Japanese equity markets over the last year. In Europe, falling inflation and an interest rate cut in June lifted an equity market that had otherwise been held back by very low growth. In the past year, the Euro Stoxx 50 returned +12.0% in unhedged currency terms, and +16.3% in hedged currency terms.

Emerging market equities narrowly outperformed international developed equities, while lagging the United States, returning +12.5% in unhedged currency terms, and +15.8% in hedged currency terms, over the last year. Technology exposure is responsible for much of the growth in emerging

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markets. Taiwan, the second-largest weight in the MSCI EM Index, holds a 70% weight in Information Technology. This provided a substantial tailwind, since the MSCI Taiwan Index returned +41.4% over the past year as TSMC (who alone makes up 50% of the MSCI Taiwan Index) is the world's largest manufacturer of semiconductors, producing chips for companies including Nvidia and Apple. India has also performed well, with the MSCI India Index posting a +34.9% gain. India's GDP has been growing on an average pace of 6-7% per year, with policies supportive of economic growth and strong positioning within global supply chains.

Fixed Income

Fed policy expectations continued to dominate risk asset behavior over the past year. One year ago, markets were expecting four interest rate cuts by the end of 2024. At the end of 2023, the market expected four rate cuts to occur in the first half of 2024, with two more in the second half of the year. Instead, there have been no rate cuts, with just two or three priced in before the end of 2024. Interest rates staying higher for longer has been a headwind for long-duration assets over the past year (Bloomberg U.S. Treasury Long -5.6%), as the two-year yield moved from 4.90% to 4.77%, and the ten-year yield moved from 3.84% to 4.40%.

As of June, it had been 11 months since the Federal Reserve implemented its final interest rate hike. Comments made by FOMC members have suggested that higher interest rates have had a material impact on economic activity and have been effective at slowing inflation. With inflation down to 3.0% for CPI and 2.6% for Core PCE (the Fed's preferred inflation gauge), and cooling labor market numbers, investors are looking to the Fed's September meeting as the first rate cut of this cycle.

Core fixed income (Bloomberg U.S. Aggregate) has risen just +2.6% over the past year, as yield increases have outweighed the benefits of the higher rate environment. The shorter end of the curve fared much better than the long end, returning +4.5% throughout the same period. Investors were compensated by taking credit risk, as emerging market debt in hard currency terms (+9.2%), high yield (+10.4%), and Bank Loans (+11.1%) all provided excess returns to investors as spreads have contracted throughout much of the last year. Emerging market debt in local currency terms gained just +0.7%, the only major credit sub-index to underperform treasuries, which gained +5.5%.

Credit conditions have held up surprisingly well over the past year, with default activity slowing down as fears around weaker economic growth have been fading. Spreads continued to contract, with high-yield and investment grade option adjusted spreads moving from 390 bps to 309 bps and 123 bps to 94 bps, respectively. More recently, default activity has slowed down to $37B in default/distressed exchanges taking place in the first half of 2024, which was -14% lower than the same period last year. Eighty percent of that default activity has come from bank loans, which is the largest gap between the two asset classes in the last ten years. High yield default rates are down to 1.8%, materially lower than the long-term average of 3.4%.

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Commodities

After fiscal year 2023's -9.6% decline in commodity prices, some of those losses were regained, with the Bloomberg Commodity Index rising +5.0% over the last year. A large driver of these gains was an increase in Energy prices, with Brent Crude Oil contracts increasing +21.6% over the past year. Early in the year, OPEC+ agreed to cut production, and while the group are considering increasing production again later in the year, the market is expecting inventory to decline due to the high demand of summer months. Grains, the second largest weight in the index, declined -19.7% over the first half of the year, as favorable weather has led to an increase in supply, while demand for U.S. crops has declined in favor of cheaper Brazilian crops. Industrial Metals (+13.0%), Precious Metals (+22.5%), Softs (+17.7%), and Livestock (+2.4%) make up the other half of the index, providing a boost in performance to the overall commodity complex.

Outlook

The last year has been very strong for risk assets, as artificial intelligence investment led to a rally in mega cap technology companies, and broader fears of a recession began to flame out at the beginning of 2024. It's looking more and more likely that the Federal Reserve was successful in engineering a soft landing, something that has arguably only been done once before, in the mid-1990s. There are some signs of late cycle behavior, with high asset valuations, tight credit spreads, and fairly strong economic growth. However, falling inflation and a steepening yield curve as interest rates are cut are traditionally indicative of a trough in the business cycle. If some of these characteristics take place without a recession, it could give way for a "reset" to the beginning of a new cycle, where easing policy can create conditions for a period of sustained growth.

While growth has been resilient and there are expectations for interest rates cuts, both domestic equity and credit markets appear to be priced very optimistically. Equity markets are priced for very high earnings growth, which creates downside risks in the case that efficiency gains in AI do not live up to expectations or prove to be very costly and with a longer time horizon to profitability. There have also been some signs of consumer weakness in lower-income segments, as many families are still struggling to adjust to higher price levels and have not seen commensurate gains in wages. Credit spreads are historically low, and a decrease in profitability among companies could result in some equity-like volatility, should a broader contraction take place. Internationally, the Eurozone continues to face poor growth, despite interest rate cuts, while poor demographic trends in China still weigh on investor sentiment. While investors have seen strong returns over the past fiscal year, material risks remain and high valuations could create an environment for a some downside mean reversion, should signs of weakness begin to show and optimistic forecasts not come to fruition.

Plan Activity

During the 2024 fiscal year, Verus and INPRS' staff collaborated on many different initiatives. Together we began implementing structural changes as a result of various projects completed during the 2023 fiscal year and new legislation in the state of Indiana. The process involved the issuance of a request for proposal ("RFP") for several investment mandates and services.

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Verus worked with INPRS staff on a comprehensive project to evaluate the market for transition managers. The transition managers will facilitate any future portfolio changes while striving to minimize transaction costs and mitigate financial and operational risk. In early 2024, a new international equity strategy was added to the portfolio after the release of a RFP, multiple virtual meetings, thorough analysis of finalist funds, and an on-site visit by INPRS staff. Additionally, Verus and INPRS issued RFPs for proxy voting services, as well as U.S. small cap and global inflation-linked bond investment management services.

Verus also assisted INPRS with several tasks specific to fixed income. The first was to evaluate the role credit plays in portfolio construction and reassess INPRS credit exposure given the high interest rate environment. The second project, which will be completed next fiscal year, examined the current opportunistic credit benchmark with the goal of reaffirming that the benchmark is appropriate given the objectives of the asset class.

Additional ongoing work involved public market asset class reviews, annual fee benchmarking, investment and operational due diligence on existing managers, investment policy statement revisions, and natural collaboration with staff on a smaller projects and issues.

Conclusion

Verus values our relationship with INPRS, and we appreciate the privilege of working with the Board and staff in designing policies and supporting decisions aimed at meeting the Plan's investment objectives. We remain confident in the direction of the Portfolio given the System's demographics, fiscal strength, and well-designed investment strategy. We look forward to continuing our partnership as we navigate ever-changing capital markets.

Sincerely,

Jeffrey J. MacLean
Chief Executive Officer

INPRS's Defined Benefit Investment Imperatives

Established in fiscal year 2012, three long-term imperatives were identified as vital to the continued health of the System's defined benefit plans and serve as a guide for the investment team. Every strategic, tactical, and operational decision must have an expectation of positively contributing to at least one of these imperatives.

1. **Achieve the long-term rate of return assumption.** Effective fiscal year 2013, INPRS's Board set the long-term rate of return assumption at 6.75 percent. Following the fiscal year 2021 Asset-Liability Study, the Board approved 6.25 percent as the appropriate long-term return assumption. For the System to maintain a healthy funded status, it is essential to achieve this rate of return over the long-term (defined as 10+ years in INPRS's Investment Policy Statement).

2. **Accomplish the first imperative as effectively and efficiently as possible.** While it is important to establish an asset allocation that is expected to meet the target rate of return over a long-time horizon, as fiduciaries, it is also important to maintain focus on maximizing the return per unit of risk, limiting return volatility, and maximizing cost efficiency.

3. **Maintain enough liquidity to make retirement payments on time.** As the System matures, retirement payments will be a greater cash outflow each year. As a result, it is critical to maintain an appropriate level of liquidity to ensure payments are made on time and without causing undue stress to the investment portfolio.

The Fiscal Year in Review (Defined Benefit Portfolio)[2]

The Economic Environment

Global economic growth was generally better than expected and resilient despite elevated inflation. In the U.S., recession fears faded, as it became clear over time that pandemic-era fiscal transfers were a longer lasting benefit to the consumer than originally estimated. Consumer spending remained robust, and with it, a resilient economy with a tight labor market. Outside of the U.S., developed economies were also growing more than expected, albeit at a much lower level.

The Fed's largest and fastest hiking cycles conducted over the last two years is believed to have a lagged effect on the economy. Overshooting (hiking too much) or undershooting (hiking too little) in either direction is not optimal, but the ability to thread the needle can prove difficult in real time. As the market digested the Fed's difficult balancing act, consensus was the Fed would hold interest rates steady for the remainder of calendar year 2023; in other words, "wait and see", was the best approach given the uncertainty of the flow through effect of higher interest rates on the economy.

Heading into calendar year 2024, markets believed the Fed would pivot and begin cutting interest rates, as monetary policy tightness would eventually lead to slowing economic growth. Once again, the market was wrong, economic growth remained robust, and the consumer resilient. Toward fiscal year-end 2024, economic growth was solid, and month-over-month inflation readings trended down after a series of monthly releases suggested inflation may be sticky. Market participants have coalesced around a few cuts for the remainder of the year, a meaningful difference compared to the beginning of the year.

The Fed cutting while inflation is elevated and before growth weakness emerges is unusual. Some participants believe this means the Fed has shifted and is now erring on the side of supporting economic growth as opposed to subduing inflation, which remains elevated and above target. Outside of the U.S., two central banks have already begun monetary easing despite elevated inflation readings: the Eurozone and Canada. Depending on the level of inflation, economic growth, and the assessment of the balance between the two, other central banks, including the U.S., may follow.

Inflation uncertainty remains elevated and, with it, bond volatility. The U.S. 10-year treasury yield ended the fiscal year at 4.36%, 0.55% higher compared to one year ago. Solid economic growth above expectation, falling inflation, and an equity-earnings rebound that has become more broad-based across sectors has been great for equities: global equity markets returned 18.4 percent and volatility is near record lows.

Performance Summary

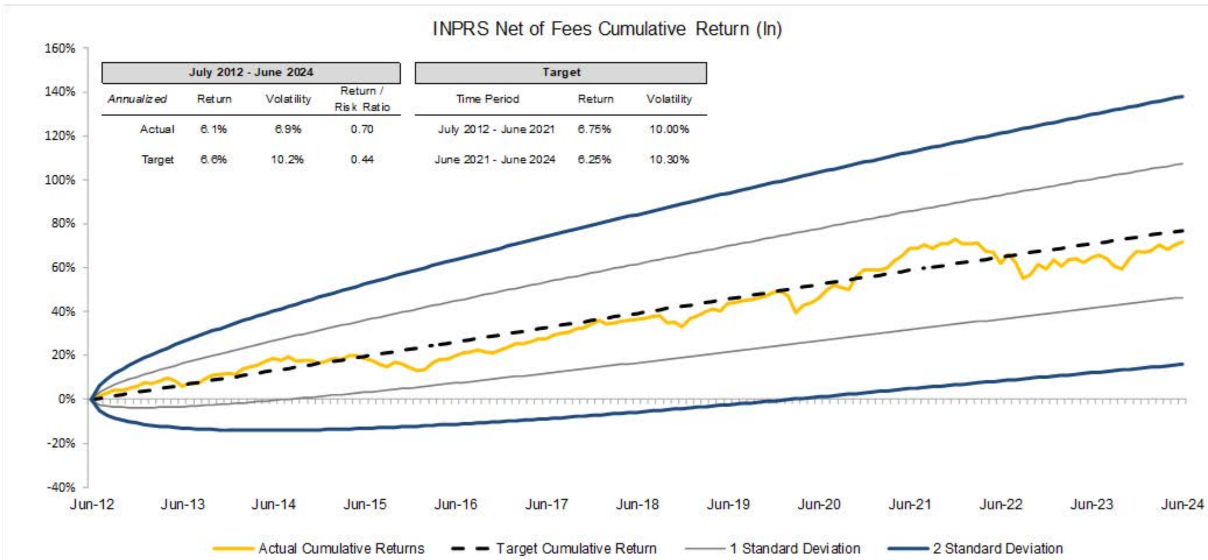
The consolidated defined benefit assets returned 7.4 percent net of all fees over the fiscal year, above the 6.25 target return, and ended with a fair market value of $42.4 billion.

Based on the research of various asset classes and their historical performance in different economic environments over time, it was determined in 2012 that a new risk-balanced framework better fit our first two imperatives. Developed from this research, the following chart illustrates the projected range of outcomes for INPRS's asset allocation around the former 6.75 percent and current 6.25 percent return targets (represented by the black dotted line). This visual is intended to track the cumulative performance of the actual portfolio

[2] *Rates of return and market values are specific to INPRS's portfolio are based on calculations made by INPRS's custodian, Bank of New York Mellon, and are presented using a time-weighted rate of return methodology based upon fair value.*

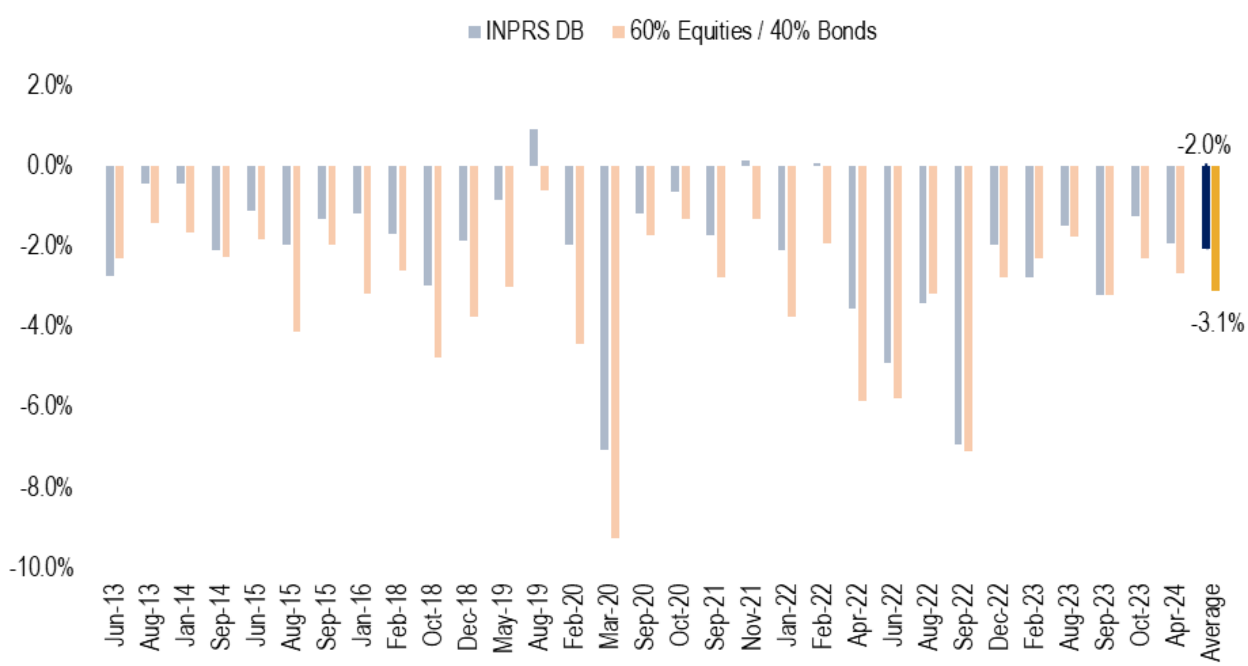
(shown by the yellow solid line) versus those expectations. We expect the yellow line to be within the outer blue lines, but most often, within the gray inner lines. The return path of the yellow line has consistently hovered around expectations, which we think demonstrates the benefit of a risk-balanced approach to asset allocation. After the portfolio's drawdown in 2022, the yellow line converged towards the long-term expectation as markets recovered. Since inception of the revised strategy in 2012, the portfolio has generated an annual return of 6.13 percent.

INPRS Defined Benefit Net of Fee Cumulative Return



Due to our long-term focus, it is crucial to consistently monitor the portfolio's performance across different market conditions. Diversification is a key strategy to reduce the impact of changing economic environments. To measure the success of economic diversification, we analyzed historical data from months since July 2012 when global equities experienced losses of 2 percent or worse. The chart below demonstrates that INPRS's defined benefit portfolio has consistently performed favorably in comparison to such market downturns. As anticipated, our portfolio experienced significantly lower losses on average than a 60 percent equity and 40 percent bond portfolio. This reinforces the effectiveness of our diversification approach and aligns with our expectations.

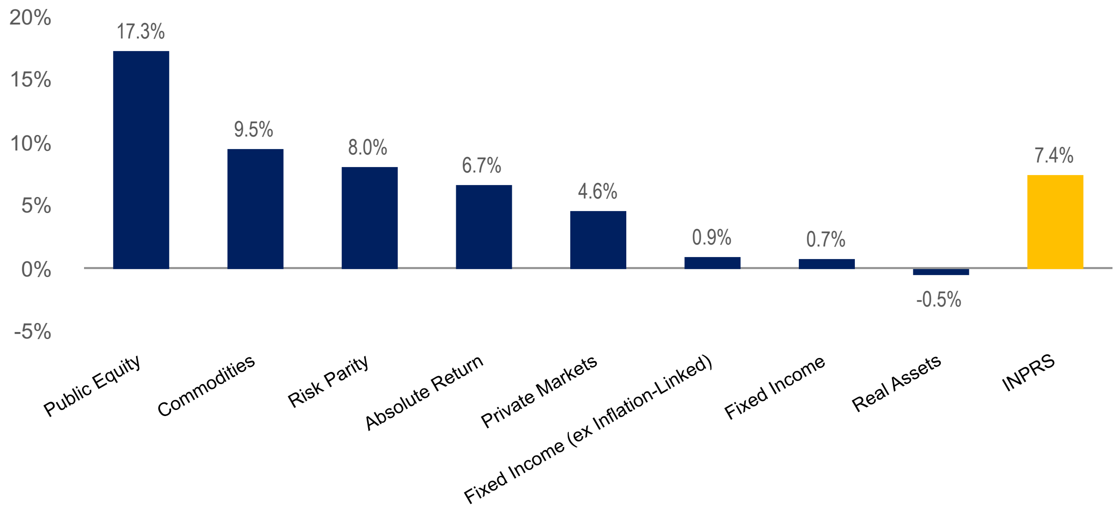
Defined Benefit Performance During Equity Drawdowns >2% Since July 2012



Performance Attribution

For the second year in a row, Public Equity portfolio outperformed other asset classes, which can be explained by strong economic growth and rising earnings. Commodities were up 9.5 percent, after delivering a negative return last year. Absolute return was up a solid 6.7 percent. Private Markets were up 4.6 percent, slightly higher than last year's return. Fixed income assets were barely positive for the year after falling last year, and Real Assets were down again this year, albeit not by much.

1-Year Defined Benefit Asset Class Returns as of June 30, 2024



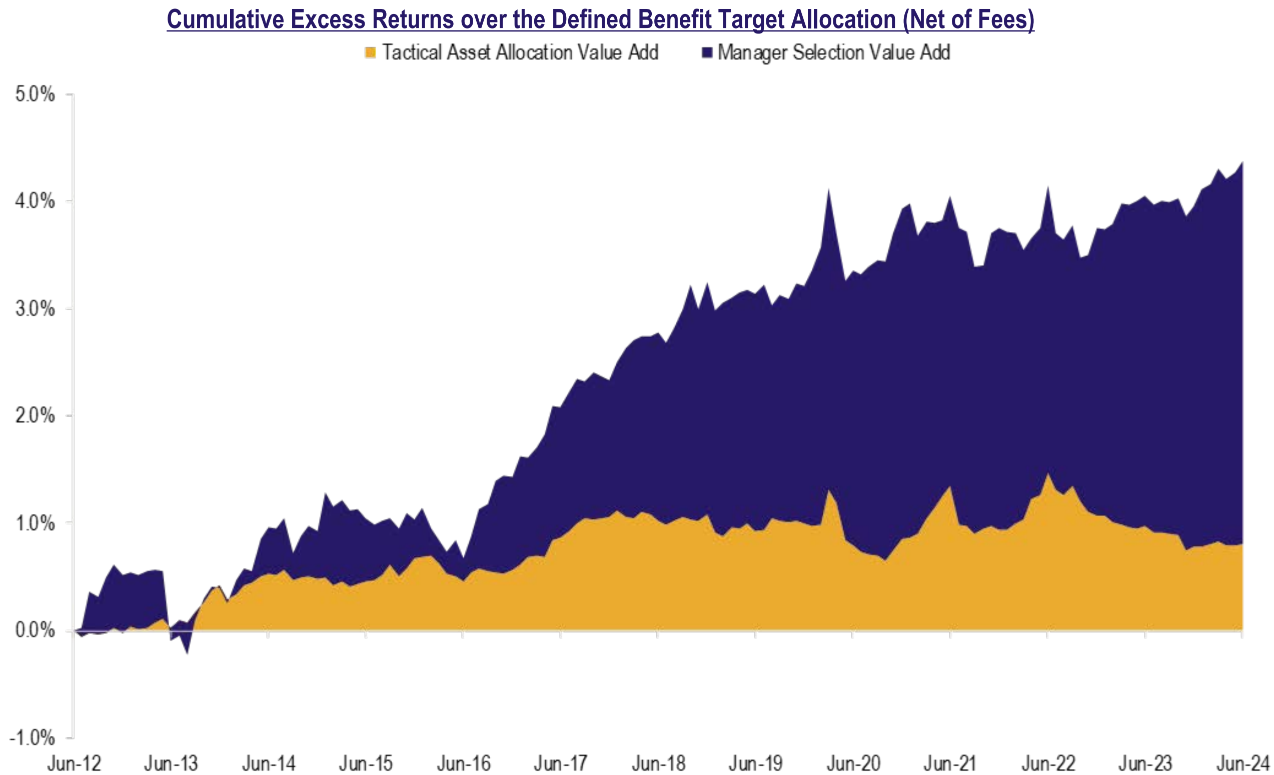
The investment philosophy behind the design of the portfolio is to be diversified across economic environments. To illustrate this concept, the below table categorizes assets by their economic bias. Commodities and public equities, for example, tend to perform well in higher growth environments. Between the two, commodities perform well during higher inflation environments whereas equities tend to underperform. Fixed income tends to perform well in lower growth environments, but inflation-linked bonds tend to perform well in higher inflation environments. The risk parity approach is to create a balanced mix between these assets so that there is no economic bias in performance. In fiscal year 2024, the environment was great for equities and commodities and not so good for fixed income assets. By design, Risk Parity's return was between equities and fixed income.

DB Public Asset Class Returns as of June 30, 2024

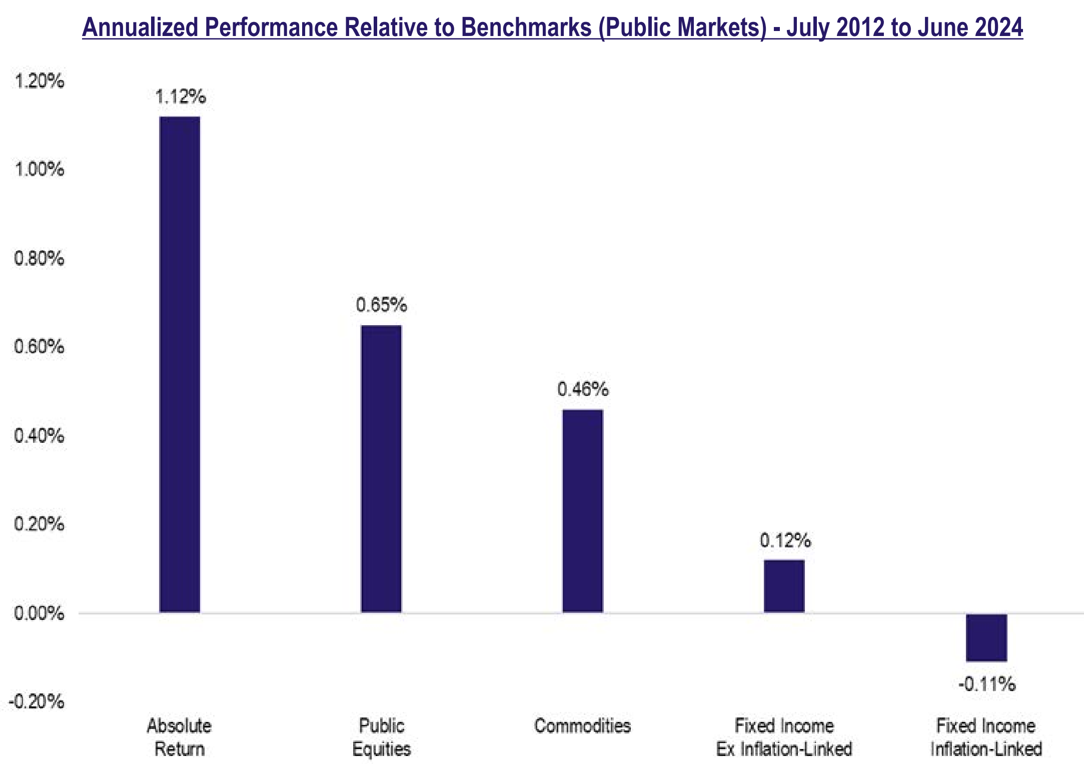
Asset Class Returns	Economic Environmental Bias	FY 2024	Since July 2012
Commodities	Higher Growth/Higher Inflation	9.52%	-2.53%
Public Equity	Higher Growth/Lower Inflation	17.30%	10.01%
Fixed Income (Inflation-Linked)	Lower Growth/Higher Inflation	0.73%	2.48%
Fixed Income (ex Inflation-Linked)	Lower Growth/Lower Inflation	0.85%	2.17%
Risk Parity	Balanced Across Environments	7.96%	3.47%

Performance Relative to the Benchmark

In Fiscal Year 2024, our investment team achieved a return that exceeded the Passive Target with Notional benchmark by 0.34 percent, after accounting for all fees. The benchmark is designed to represent the portfolio's performance if it had maintained target weights in each asset class throughout the entire year and invested solely in passive strategies like index funds. The value added in fiscal year 2024 came primarily from the team's manager selection, which positively contributed to the portfolio's performance. Our consistent outperformance since July 2012 has resulted in approximately $1.3 billion in added value (comprising asset allocation and manager selection) compared to a portfolio consisting solely of passive investments.

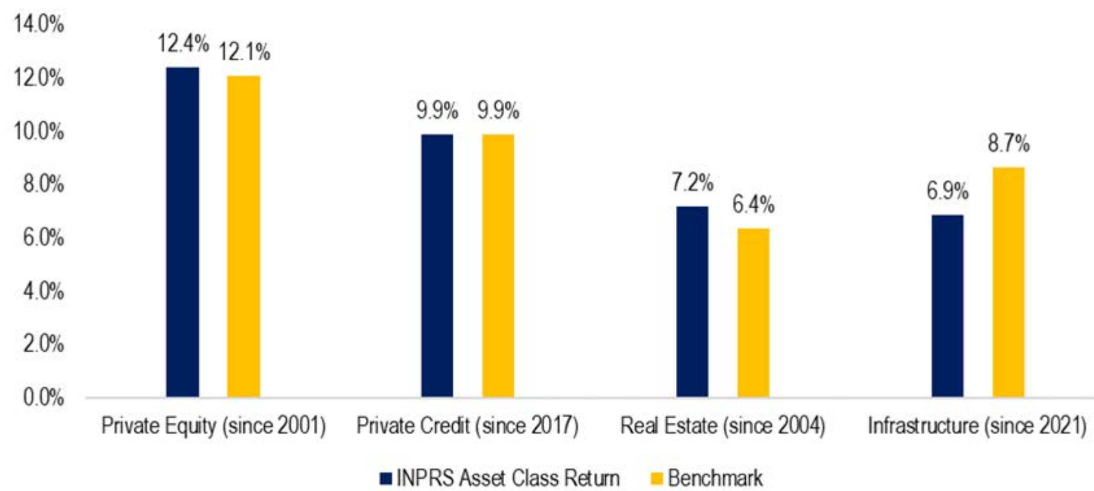


Breaking that result down further, you can see that manager selection has created a large portion of the outperformance over the past ten years because most public asset classes have outperformed their benchmarks.



INPRS's investments in private markets and real assets are not included in the value-add chart above because the managers in these asset classes control the timing of cash flows and, thus, we believe a different measure better captures their performance relative to a benchmark (i.e. internal rate of return or IRR). The chart below gives some perspective on their outperformance since inception.

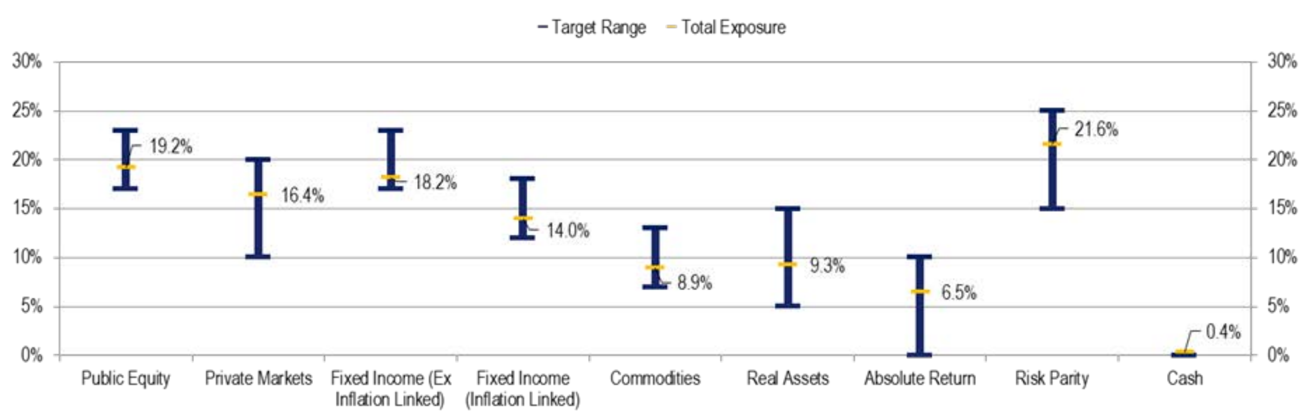
Annualized Performance (IRR) Relative to Benchmarks (Private Markets)
Since Inception of Each Asset Class[3]



Current Portfolio Exposures

As previously mentioned, INPRS set out on a course seeking more balance across economic and market environments starting in fiscal year 2012 with the approval of a new asset allocation strategy. Despite slight revisions to the asset allocation during the last asset-liability study in fiscal year 2021, the outcome reaffirmed the path of diversification that INPRS had previously chosen and continues to pursue. The allocation as of June 30, 2024 can be found in the chart below.

Defined Benefit Asset Allocation as of June 30, 2024



[3] As of June 30, 2024. Based on the first capital calls made by INPRS: Private Equity inception date is 5/14/2001; Private Credit inception date is 10/17/2017; Real Estate inception date is 2/26/2004; and Infrastructure inception date is 7/30/2021. The Private Equity custom benchmark is comprised of the following components lagged one quarter plus 3.00%: 60% Russell 2000 Index, 20% EAFE Small Cap Index, 15% CS High Yield Index, and 5% CS Western European High Index (Hedged). The Private Credit custom benchmark is comprised of the following components lagged one quarter plus 1.50%: 50% Credit Suisse Leveraged Loan Index, 33% S&P BDC Index, and 17% Morningstar European Leveraged Loan Index. The Real Assets custom benchmark is comprised of the following components lagged one quarter: 70% FTSE NAREIT All Equity REITs and 30% BB US CMBS Index.

Liquidity

The investment team maintains a liquidity metric designed to evaluate the System's capacity to manage illiquidity risk at any given moment. This is done by measuring cash flow risk, comparing the liquid assets and anticipated cash inflows over the next five years against the projected cash outflows (such as retirement disbursements, plan expenditures, etc.) within the same period.

Through rigorous stress testing, our investment team is confident in the sufficiency of liquidity, even under various adverse market conditions. As of June 30, 2024, INPRS's liquid assets and forecasted inflows stand at 2.5 times the estimated outflows for the next five years. This emphasis on liquidity management has empowered INPRS to maintain substantial exposure to less liquid asset classes. Currently, 32.1 percent is allocated across private markets, real assets, and absolute return, each of which fulfills a distinct role within the allocation framework.

INPRS's Defined Contribution Investment Imperatives

Known as the defined contribution account of the Public Employees Hybrid retirement plan, the defined contribution account of the Indiana State Teachers Hybrid retirement plan, the My Choice: Retirement Savings Plan ("My Choice"), and the Legislator's Defined Contribution Plan, the defined contribution plans at INPRS provide members the ability to select their own asset allocation from a line-up of investment options approved by the Board. Established in fiscal year 2017, three long-term imperatives that are vital to the continued health of the System's defined contribution plans have served as the guide for the investment team.

1. **Provide a simple and diversified default option ("Allocate it for me" – Target Date Options)**. Effective fiscal year 2011, INPRS's Board changed the default investment option for the ASA and My Choice plans to target date funds. This fund line-up was established to provide members with an auto-pilot allocation that targets an appropriate risk and return profile for their particular time horizon and automatically becomes more conservative as they approach retirement. Given how many members rely on INPRS to manage their asset allocation for them by defaulting to this option, it is crucial that we construct a target date fund line-up that is easy to understand yet sophisticated enough to help members achieve their savings goals.

2. **Provide a simple and diversified menu of stand-alone options ("Allocate it myself" – Core and Specialty Options)**. For those members that want to select an allocation that is different than those offered in the target date funds, INPRS offers investment options for individual asset classes. This line-up of options allows members to construct an asset allocation that better suits their specific needs and objectives.

3. **Leverage the defined benefit asset base to provide low cost investment options**. One reason the multiple retirement plans under INPRS's management were originally consolidated was to reduce fees for all plans. As a result, it is critical that we maintain focus on utilizing the large asset base across the defined benefit and defined contribution plans to continually drive costs lower.

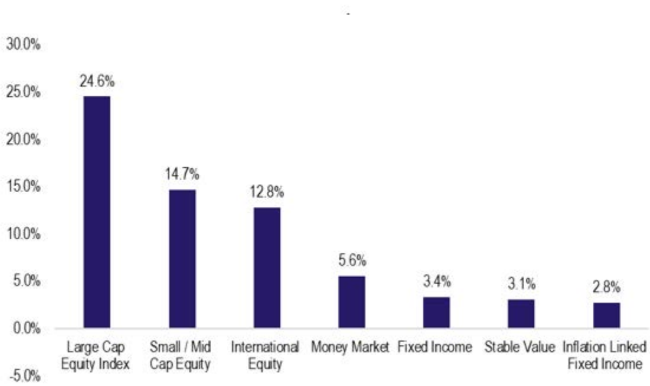
Performance Attribution

The defined contribution lineup is constructed using the basic building blocks of an asset allocation, which include various equity and fixed income portfolios. As such, INPRS's investment options were influenced by the same forces mentioned in the defined benefit section above. The large cap equity index emerged as the top performer in the defined contribution lineup, with an impressive return of 24.6 percent, while the small/mid cap equity and international equity portfolios also registered strong performances with returns of 14.7 percent and 12.8 percent, respectively. In contrast, the fixed income and inflation-linked fixed income funds underperformed, returning 3.4 percent and 2.8 percent, respectively. INPRS's money market fund outperformed fixed income, returning 5.6 percent, while stable value returned 3.1 percent.

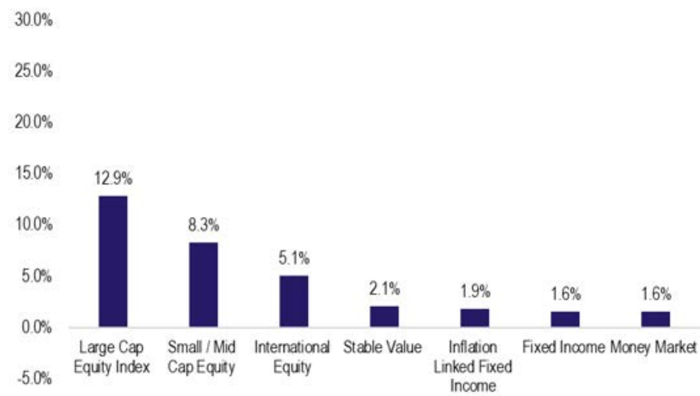
Over a longer time period going back to July 2011, each stand-alone investment option has generated positive performance (right chart below). As expected, the higher-risk equity options have been the best performers while the fixed income related options have provided steady, positive returns.

Defined Contribution Investment Option Returns as of June 30, 2024[4]

DC Stand-Alone Investment Options 1-Year Return (Net of Fees)



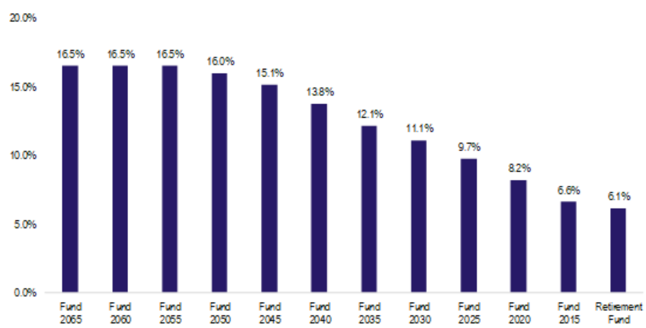
DC Stand-Alone Investment Options July 2012 – June 2024 (Net of Fees)



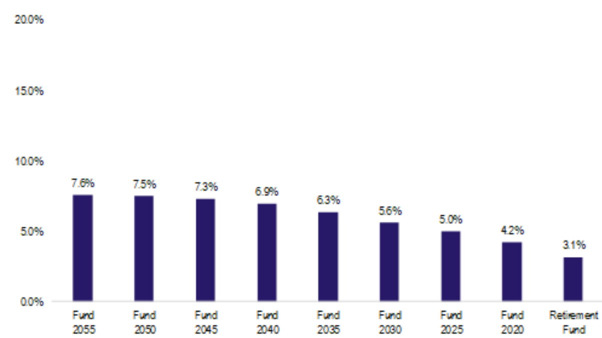
Given that INPRS's target date funds are constructed using different mixes of the INPRS stand-alone investment options, each such fund's return is merely an amalgamation of the returns shown above. The target date funds further from retirement have historically shown higher returns due to a larger equity allocation. The following charts illustrate these performance differences for INPRS's Target Date Funds.

Defined Contribution Target Date Fund Returns as of June 30, 2024

Target Date Funds 1-Year Return (Net of Fees)



Target Date Funds July 2012 - June 2024 (Net of Fees)

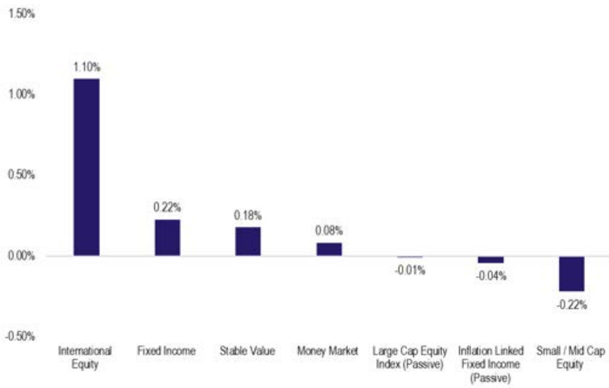


INPRS's active management strategy continued to demonstrate its effectiveness, with four of the five funds outperforming their benchmarks since 2012. Most notably, the International Equity fund outperformed its benchmark by 1.10 percent. Additionally, the Stable Value, Fixed Income, and Money Market funds surpassed their benchmarks, underscoring the success of active management3. On the other hand, the Small/Mid Cap Equity fund underperformed its benchmark by 0.22 percent. The Target Date funds continued their trend of outperformance across the glide path, further affirming the effectiveness of including diversified active management within the funds.

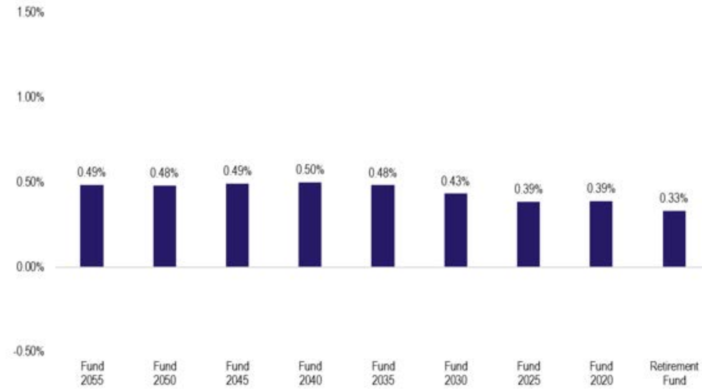
[4] The following DC investment options are only passively managed: Large Cap Equity Index Fund and Inflation-Linked Fixed Income Fund.

Defined Contribution Annualized Performance Relative to Benchmarks
as of June 30, 2024

DC Standalone Investment Options
Outperformance vs. Benchmarks (Net of Fees)
July 2012 – June 2024



Target Date Funds
Outperformance vs. Benchmarks (Net of Fees)
July 2012 – June 2024



Positioned for Uncertainty

For the second year in a row, U.S. economic growth was better than expected, and the downward inflation trend happened mostly as expected. Underneath this environment, the S&P 500 has delivered a total return over the last two fiscal years of 49%, while U.S. aggregate bonds have delivered 1.7%. Consequently, institutional portfolios that rely heavily on equity risk to drive portfolio returns had strong performance while others, such as the INPRS' portfolio, delivered a positive but lower return. While diversification away from equities felt costly, so too was diversification within equities. The U.S. once again outperformed international markets and, within the U.S., a handful of stocks that have benefited from large capital investment in artificial intelligent infrastructure drove the U.S. equity market higher.

Going forward, the consensus is that economic growth will slow from the current level, inflation will continue towards 2.0%, and the Fed will have successfully engineered a soft landing through a moderate number of rates cuts. Like in any year, there is uncertainty in how economic events will unfold, and just like any year, consensus may be wrong. Because we don't know what economic environment will come, the INPRS's portfolio is designed to be diversified across multiple economic environments. We believe this type of investment philosophy and design provides the best chance of meeting the long-term return target most smoothly for our beneficiaries and stakeholders.

Sincerely,

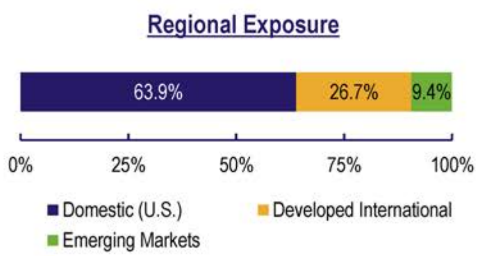
Scott B. Davis, CFA

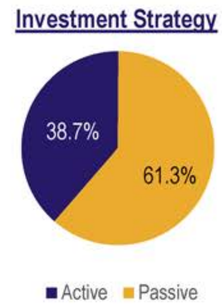
Chief Investment Officer

Asset Class Summaries

Public Equity[1]

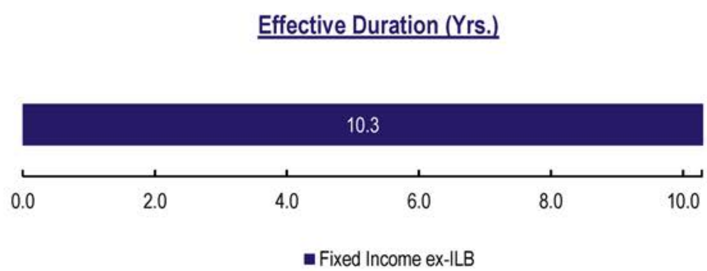
The public equity portfolio seeks to provide long-term capital appreciation and income through exposure to public equity securities. INPRS uses a variety of external managers to create a globally diversified portfolio within the asset class. Historically, public equities have performed well in environments when actual economic growth came in higher than expectations and/or when actual inflation came in lower than expectations.

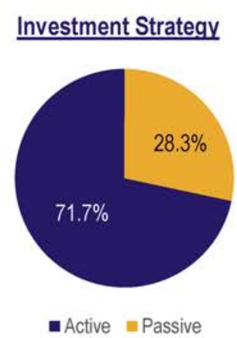




Fixed Income (ex Inflation Linked)[2]

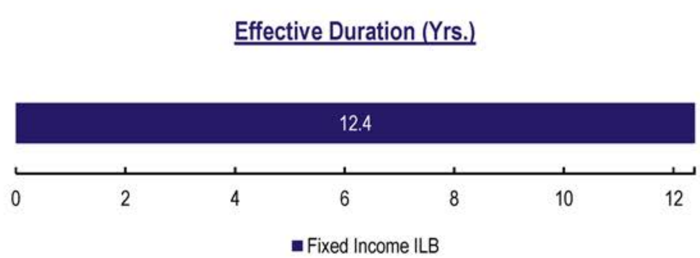
The fixed income - ex inflation-linked portfolio seeks to provide current income and long-term risk-adjusted return, in excess of the custom benchmark ("Benchmark"), through the investment in debt securities. A focus is placed on preservation of capital. To minimize the probability of substantial principal loss, INPRS staff seeks to reduce the volatility of the portfolio and enhance return from both contractual income and capital appreciation--in part, by investing in certain actively managed strategies.

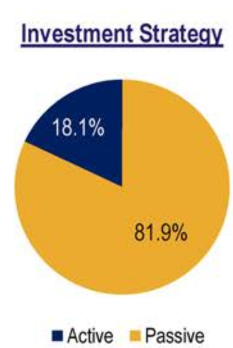




Fixed Income (Inflation-Linked)[2]

The fixed income - inflation-linked portfolio seeks to provide a long-term risk-adjusted return similar to that of the custom global inflation index ("Benchmark") and to, more broadly, provide protection against unanticipated inflation.



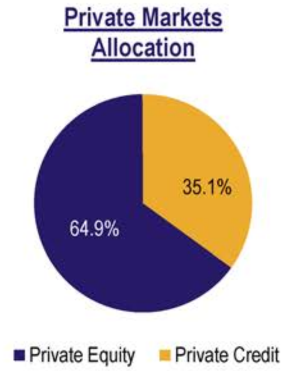


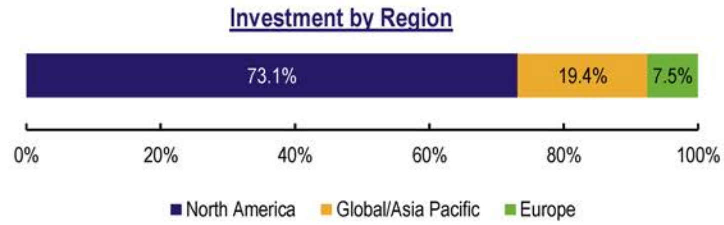
[1] Notional portfolio data provided by portfolio managers and BNY Mellon, INPRS's Custodian
[2] Notional portfolio data provided by MSCI Barra One and BNY Mellon, INPRS's Custodian

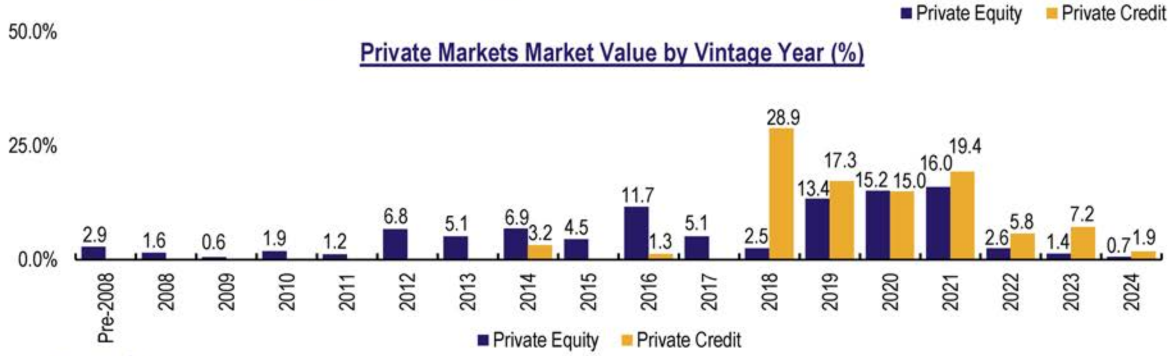
Asset Class Summaries, continued

Private Markets[3]

The private markets portfolio is comprised of Private Equity and Private Credit. More information on these asset classes is listed below.

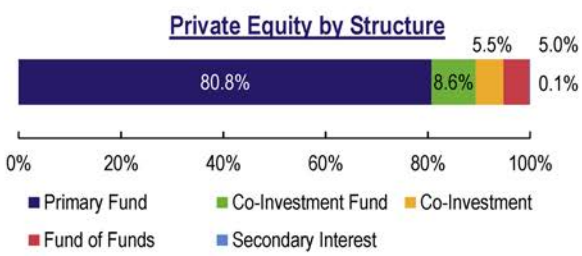


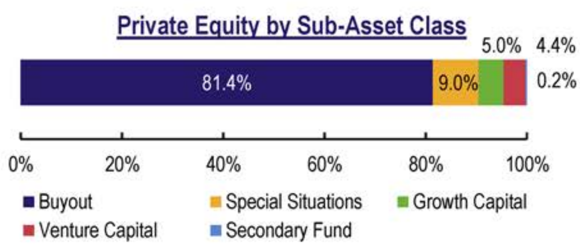




Private Equity[3]

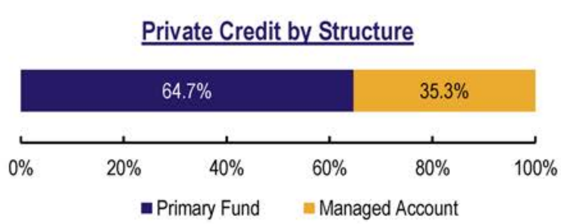
The private equity portfolio seeks to provide attractive risk-adjusted returns by investing in opportunities not typically available through public markets. These investments have historically delivered returns that are higher than public markets while attempting to reduce risk through diversification.

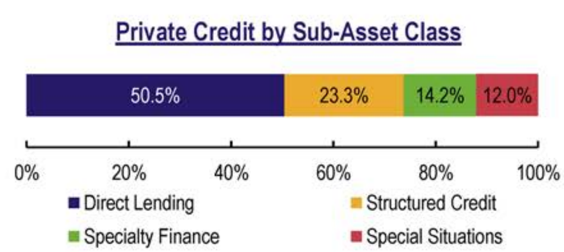




Private Credit[3]

The private credit portfolio seeks to provide attractive risk-adjusted returns by acquiring the debt of private companies. Private credit, which is characterized by predictable and contractual returns, is relatively low risk compared to other alternative asset classes and offers a viable alternative to fixed income investing. These investments also seek to decrease the volatility of the investment portfolio through diversification.

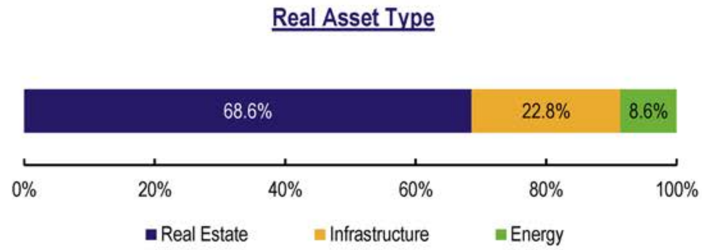




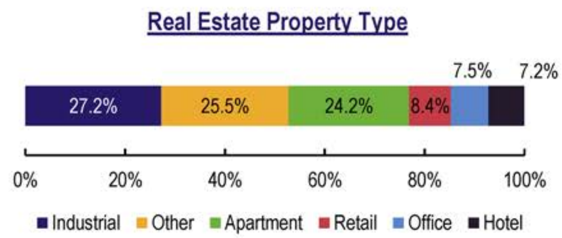
[3] Portfolio data provided by Aksia, INPRS's Private Markets consultant

Real Assets[4]

The real assets portfolio is comprised of real estate and infrastructure and seeks to provide attractive risk-adjusted returns by providing stable current income and preserving investment capital. The portfolio should also reduce volatility by providing a hedge against inflation and through the diversification benefits provided by real asset investments. The real asset portfolio is mostly comprised of investments in private real estate and infrastructure partnerships (energy is a sector of infrastructure), and the underlying exposures are a mix of debt and equity holdings.

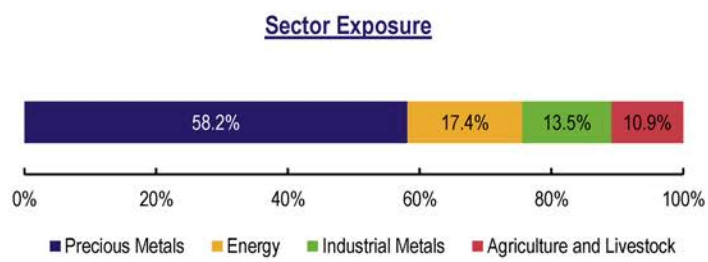


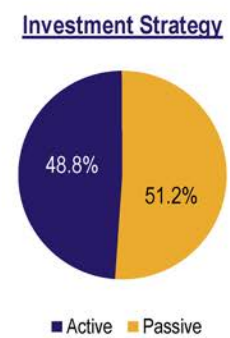
Breakdown of Real Estate:



Commodities[5]

The commodities portfolio seeks to provide long-term risk-adjusted returns by preserving investment capital and lowering overall volatility. The portfolio should also act as a hedge against unanticipated inflation. Commodity investments have historically delivered returns that are less correlated with equity and fixed income markets which may provide an opportunity to enhance returns and/or reduce volatility.



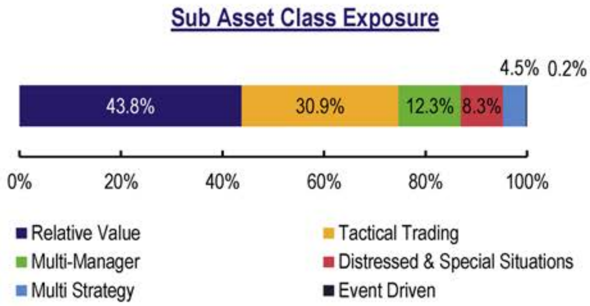


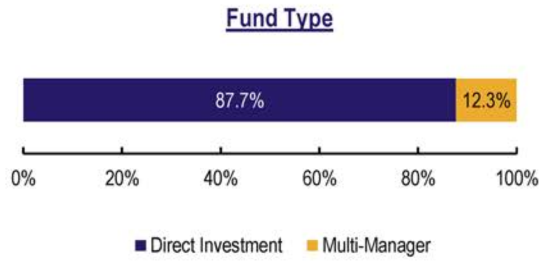
[4] Portfolio data provided by Mercer, INPRS's Real Assets consultant
[5] Portfolio portfolio data provided by portfolio managers and BNY Mellon, INPRS's Custodian

Asset Class Summaries, continued

Absolute Return[6]

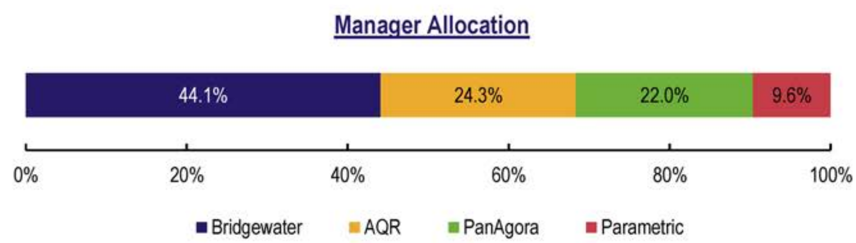
The absolute return portfolio seeks to enhance the long-term risk adjusted returns of the plan by delivering alpha, providing diversification benefits, and preserving capital. Absolute return strategies generate returns by exploiting mispricing and inefficiencies in global capital markets, while attempting to reduce exposures to primary market factors (e.g. interest rates and equities) through various hedging techniques.





Risk Parity[7]

The objective of the risk parity portfolio is to provide a consistent return across a broad set of macroeconomic environments at the highest achievable risk-adjusted return. A risk parity portfolio is constructed through the lens of risk allocation as opposed to capital allocation, which results in a higher risk allocation to equities in a traditional portfolio. Therefore, relative to a traditional portfolio, risk parity is less dependent on favorable equity returns to drive performance and should garner more consistent returns from multiple asset classes. This risk-balanced approach to asset allocation is a long-term investment strategy that leads to more consistent returns over multiple economic cycles.



[6] Portfolio data provided by Aksia, INPRS's Absolute Return consultant
[7] Portfolio data provided by BNY Mellon, INPRS's Custodian

Outline of Investment Policies

Objective and Guiding Principles

The Indiana Public Retirement System's (INPRS) Board serves as the ultimate fiduciary of INPRS. The Board establishes investment policies while the State of Indiana enacts guidelines on the investment of the System's assets. At all times, INPRS must invest its assets according to the "Prudent Investor" standard.

The Investment Policy Statement (IPS) ensures that INPRS will maintain funding for each retirement fund to pay the benefits or actuarially determined liabilities over time in a cost-effective manner. It is a dynamic document and periodic reviews are undertaken. The Investment Policy Statement was last revised on September 8, 2023.

Core tenets of the IPS are:

- Set investment policies that the Board judges to be appropriate and prudent.
- Develop clear, distinctive roles and responsibilities of the Board, staff and each service provider.
- Serve as a guide for continual oversight of the invested assets.
- Establish formal criteria to measure, monitor and evaluate the performance results of the investment managers.
- Communicate investment policies, directives and performance criteria to the external and internal stakeholders.

Consolidated Defined Benefit Assets Objectives and Structure

The Board recognizes that the allocation of defined benefit assets is the most important factor of investment returns over long periods of time. An asset liability study is conducted every five years to analyze the expected returns of various global asset classes, projected liabilities, risks associated with alternative asset mix strategies and their effect on the projected fair value of assets, funded status and contributions to the funds. With a long-term investment focus, the current defined benefit portfolio was invested across diverse asset classes.

To maximize the probability of achieving the target rate of return over a 30-year time horizon, INPRS's Board of Trustees approved a new asset allocation on May 7, 2021 that included the increased use of leverage. The explicit leverage enables the Plan to obtain additional investment exposure, which results in an asset allocation that exceeds 100% of invested assets. Beginning in fiscal year 2022, the plan's target allocation for total exposure is 115%. Further details of INPRS's leverage policy are available in the IPS:

Global Asset Class:	Current Target Allocation	Current Target Range
Public Equity	20.0 %	17.0 to 23.0 %
Private Markets	15.0	10.0 to 20.0
Fixed Income - Ex Inflation-Linked	20.0	17.0 to 23.0
Fixed Income - Inflation-Linked	15.0	12.0 to 18.0
Commodities	10.0	7.0 to 13.0
Real Assets	10.0	5.0 to 15.0
Absolute Return	5.0	0.0 to 10.0
Risk Parity	20.0	15.0 to 25.0

Defined Contribution Assets Objectives and Structure

The defined contribution plans are structured to provide members with a choice of diverse investment options that offer a range of risk and return characteristics appropriate for members. Members can self-direct their investment options or leave their contributions invested in the default target date retirement fund. The investment options undergo periodic reviews by the Board. The defined contribution investments are outlined in Investment Results - Consolidated Defined Contribution Assets. Additional DC Fund Facts are available online at: https://www.in.gov/inprs/publications/investment-fact-sheets/.

Other Funds

Other plans under the administration of the Board include the Special Death Benefit Fund (SDBF), Retirement Medical Benefits Account Plan (RMBA) and Local Public Safety Pension Relief Fund (LPSPR). The assets of SDBF and RMBA are invested in intermediate U.S. government and U.S. credit bonds. The assets of LPSPR are invested in short-term money market instruments, including but not limited to, commercial paper and securities issued or guaranteed by the U.S. government.

Notes to the Investment Schedules

Accompanying Notes to the Actual and Benchmark Returns

- Returns are time-weighted based on calculations made by the System's custodian, Bank of New York Mellon.
- Returns are net of fees.
- Defined Benefit asset class custom benchmark descriptions are as follows:

Global Asset Class	Benchmark Description
Public Equity	Benchmark comprised of MSCI All Country World Investable Market Net Index prior to June 2023 and MSCI All Country World ex China Investable Market Net Index since July 2023.
Private Markets	Benchmark comprised of two custom benchmarks for Private Equity and Private Credit. 100% Private Equity from July 2008-September 2017, 96% Private Equity and 4% Private Credit from October 2017- June 2021, and 77% Private Equity and 23% Private Credit from July 2021 - Present. October 2017 marked the inception of Private Credit. Private Equity Benchmark is comprised of the following components, lagged one quarter: 60% Russell 2000 Index, 20% MSCI EAFE Small Cap Index, 15% CS High Yield Index, and 5% Credit Suisse Western European High Yield Index (Hedged) plus 3.00%. Private Credit Benchmark is comprised of the following components, lagged one quarter: 50% CS Leverage Loan Index, 33% S&P Business Development Company ("BDC") Index, and 17% CS Western European Leveraged Loan Index plus 1.50%.
Fixed Income - Ex Inflation-Linked	Benchmark comprised of 28.6% BB US Long Government, 28.6% FTSE WGBI ex-US ex-China 25% Japan Cap (USD Hedged), 14.3% JPM GBI ex-China EM, 14.3% JPM EMBI ex-China, 5.7% CS Leveraged Loan Total Return Index, 3.6% BofA ML US High Yield Total Return Index, 3.6% BofA ML Non-Financial Developed Markets High Yield Constrained Total Return Index, 1.4% Morningstar Europe Leveraged Loan Index.
Fixed Income - Inflation-Linked	Benchmark comprised of 34.5% ICE BofA ML Treasury Inflation-Linked 15+ years, 34.5% BB US Treasury Inflation Notes 1-10 years, 17.2 % BlackRock: Bloomberg Global Inflation Linked 1 and 13.8% Custom weighted mix of country indices within the Barclays Capital World Government Inflation-Linked Bond Index, 100% Hedged to USD (Country weights: 50% US, 20% UK, 4% Canada, 10% France, 10% Germany, 2% Sweden, and 4% Australia).
Commodities	Benchmark comprised of 50% Bloomberg Commodity Excess Return Index and 50% Bloomberg Gold Excess Return.
Real Assets	Benchmark comprised of two benchmarks for Real Estate and Infrastructure. 100% Real Estate from February 2015 – June 2021, 87.5% Real Estate and 12.5% Infrastructure from July 2021 – June 2022, and 78% Real Estate and 22% Infrastructure from June 2022 – Present. July 2021 marked the inception of Infrastructure. Real Estate benchmark comprised of the following components: 70% FTSE NAREIT All Equity REITS and 30% Barclays CMBS. Infrastructure benchmark is 100% Global Property Research Index.
Absolute Return	Benchmark comprised of 40% HFRI Macro (Total) Index, 45% HFRI Relative Value (Total) Index, 5% HFRI Event Driven Index, 10% HFRI Fund of Funds Composite Index.
Risk Parity	Benchmark comprised of 60% MSCI ACWI IMI Index (equities) and 40% Bloomberg Global Aggregate Index (bonds).
Cash + Cash Overlay	Benchmark comprised of the allocation to sub-asset class targets for the cash overlay starting in April 2016; prior to that, the 3-month LIBOR was the benchmark for cash.
Consolidated Defined Benefit Assets	The target index weights for each asset class benchmark are set by the target asset allocation. The return for Risk Parity, Real Assets, and Private Markets are equal to the asset class returns and not the benchmark.

- Defined Contribution Target Date Fund benchmarks are comprised of performance data using a passive strategy with the same asset allocation glide path of each Target Date Fund.
- Defined Contribution Target Date Fund 2065 was added to the investment line-up May 1, 2020. Historical performance for the 5-year period is not available.
- Defined Contribution International Equity Fund benchmark is comprised of MSCI ACWI ex US Index prior to January 2019, MSCI ACWI ex US IMI Index from February 2019 – June 2023, and MSCI ACWI ex US ex China IMI from July 2023 – Present.

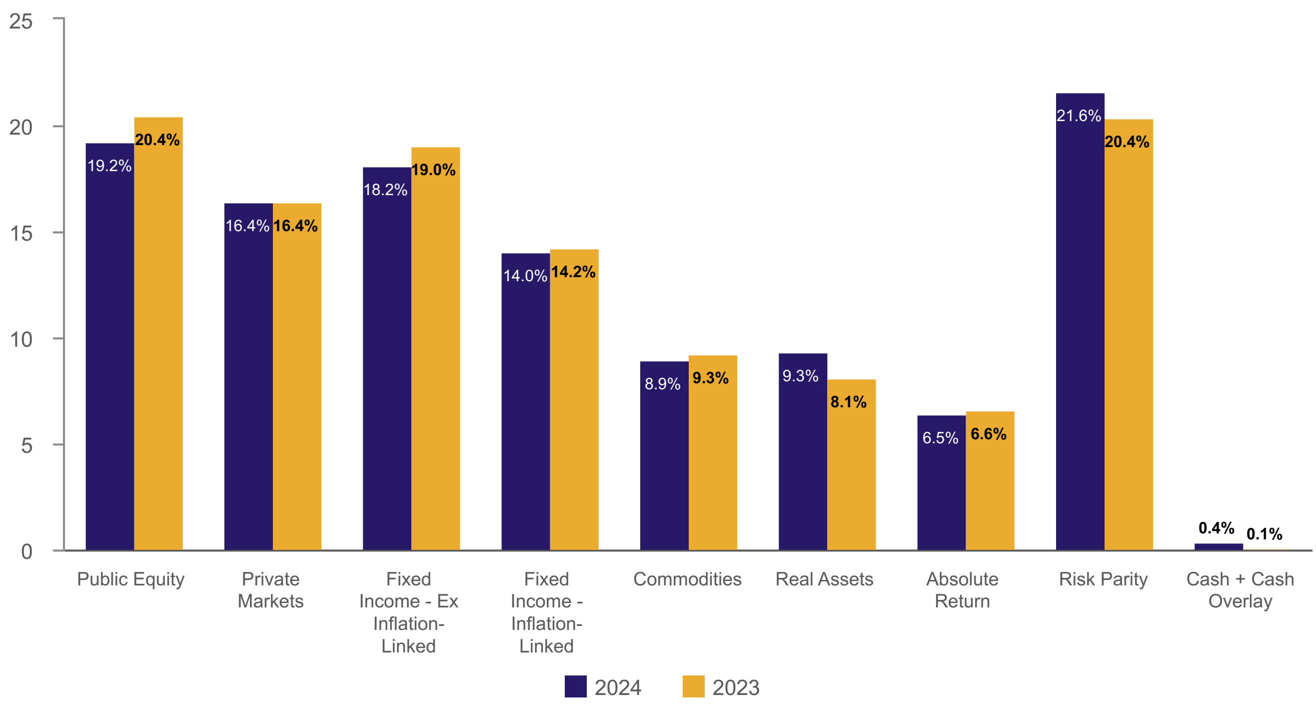
Asset Allocation Summary: June 30, 2024 Actual vs. June 30, 2023 Actual

The Total Consolidated Defined Benefit Investments shown below are grouped by global asset classes approved in the Investment Policy Statement, whereas the investments in the Statement of Fiduciary Net Position are grouped in assets and liabilities according to GASB and the security type assigned to each investment.

(dollars in thousands)	June 30, 2024			Allowable Range for Investments	June 30, 2023	
Global Asset Class	Amount[1]	Percent	Target %		Amount	Percent
Public Equity	$ 8,137,806	19.2 %	20.0 %	17.0 to 23.0 %	$ 8,129,954	20.4 %
Private Markets	6,952,723	16.4	15.0	10.0 to 20.0	6,530,975	16.4
Fixed Income - Ex Inflation-Linked	7,688,828	18.2	20.0	17.0 to 23.0	7,573,894	19.0
Fixed Income - Inflation-Linked	5,939,495	14.0	15.0	12.0 to 18.0	5,653,470	14.2
Commodities	3,776,541	8.9	10.0	7.0 to 13.0	3,690,114	9.3
Real Assets	3,937,614	9.3	10.0	5.0 to 15.0	3,236,138	8.1
Absolute Return	2,735,734	6.5	5.0	0.0 to 10.0	2,642,593	6.6
Risk Parity	9,132,069	21.6	20.0	15.0 to 25.0	8,113,999	20.4
Cash and Cash Overlay	170,611	0.4	N/A	N/A	25,836	0.1
Consolidated Defined Benefit Assets	**$ 42,356,363**	**114.4 %**	**115.0 %**		**$ 39,758,306**	**114.7 %**

[1] *The defined benefit plans target allocation for total exposure is 115%. Asset Classes are presented using exposure/notional amounts for Public Equity, Fixed Income - Ex Inflation-Linked, and Commodities.*

Percent of Total Investments by Asset Class



Time-Weighted Rate of Return by Asset Class vs. Benchmark Returns [1]

For the Year Ended June 30, 2024

Global Asset Class	Actual Return	Benchmark Return	Actual Over / (Under) Benchmark
Public Equity	17.3 %	17.5 %	(0.2)%
Private Markets	4.6	19.6	(15.0)
Fixed Income - Ex Inflation-Linked	0.9	0.8	—
Fixed Income - Inflation-Linked	0.7	0.5	0.2
Commodities	9.5	6.9	2.7
Real Assets	(0.5)	6.7	(7.2)
Absolute Return	6.7	7.6	(0.9)
Risk Parity	8.0	12.7	(4.7)
Cash and Cash Overlay	6.6	7.0	(0.3)
Consolidated Defined Benefit Assets	**7.4 %**	**6.5 %**	**1.0 %**

Historical Time-Weighted Investment Rates of Return

For the Years Ended June 30

(dollars in thousands)	Fair Value of Assets	Rate of Return [1]	Target Return
2024	$ 42,356,363	7.4 %	6.25 %
2023	39,758,306	2.5	6.25
2022	36,082,903	(6.6)	6.25
2021	38,561,657	25.5	6.75
2020	30,657,831	2.6	6.75
2019	30,370,574	7.4	6.75
2018	28,475,760	9.3	6.75
2017	26,364,510	8.0	6.75
2016	24,775,551	1.2	6.75
2015	24,629,820	—	6.75

[1] *See Accompanying Notes to the Actual and Benchmark Returns.*

Time-Weighted Rates of Return by Asset Class vs Benchmark Returns [1]

As of June 30, 2024

Global Asset Class	1-Year	Annualized 3-Years	Annualized 5-Years
Public Equity	17.3 %	4.3 %	10.7 %
Benchmark	17.5	4.4	10.2
Private Markets	4.6	6.0	12.5
Benchmark	19.6	8.5	13.1
Fixed Income - Ex Inflation - Linked	0.9	(5.8)	(1.1)
Benchmark	0.8	(4.4)	(0.7)
Fixed Income - Inflation - Linked	0.7	(3.2)	2.0
Benchmark	0.5	(3.2)	2.3
Commodities	9.5	4.9	5.5
Benchmark	6.9	4.5	4.2
Real Assets	(0.5)	5.5	7.1
Benchmark	6.7	2.5	4.0
Absolute Return	6.7	5.6	5.8
Benchmark	7.6	3.8	5.6
Risk Parity	8.0	(4.3)	2.3
Benchmark	12.7	2.4	6.5
Cash + Cash Overlay	6.6	(1.3)	(0.1)
Benchmark	7.0	(1.0)	4.3
Consolidated Defined Benefit Assets	7.4	0.9	5.8
Target Index	6.5	0.9	5.5

[1] *See Accompanying Notes to the Actual and Benchmark Returns.*

Statistical Performance

As of June 30, 2024

Statistic	1-Year	Annualized 3-Years	5-Years	10-Years
Time-Weighted Rate of Return	7.4 %	0.9 %	5.8 %	5.4 %
Standard Deviation	8.0	9.5	9.3	7.3
Sharpe Ratio [1]	0.3	(0.2)	0.4	0.6
Beta [2]	0.5	0.5	0.5	0.4
Correlation [2]	0.9	0.9	0.9	0.9

1 Risk Free Proxy is the FTSE 3 Month T-Bill.

2 Market Proxy is the S&P 500.

Definition of Key Terms:

Standard Deviation: A statistic used to measure the dispersion in a distribution. Dispersion is measured relative to the mean, or average of the distribution. The greater the dispersion, the higher the risk associated with the pattern of observations. One standard deviation describes two-thirds of the observations in a normal or bell-shaped distribution. In an asset allocation context, standard deviation is a conventional proxy for risk or volatility.

Sharpe Ratio: Ratio used to measure risk-adjusted performance. The Sharpe Ratio is calculated by subtracting a risk-free rate (proxy) from the rate of return for a portfolio and dividing the result by the standard deviation of the portfolio returns. The Sharpe Ratio provides insight on excess risk held in the portfolio. The greater a portfolio's Sharpe Ratio, the better its risk-adjusted performance has been. A negative Sharpe Ratio indicates that a risk-less asset would perform better than the security being analyzed.

Beta: A measure of the volatility, or systematic risk, of a security or portfolio in comparison to the market as a whole. Beta is the tendency of a security's return to respond to swings in the market. A Beta of less than one indicates less volatility than the market. A Beta of greater than one indicates greater volatility than the market.

Correlation: A statistical measure of how two securities move in relation to each other. A correlation of positive 1.0 indicates similar magnitude and direction of change. A correlation of negative (1.0) indicates similar magnitude, but opposite direction. A correlation of zero indicates the relationship is purely random.

Investment Results - Consolidated Defined Contribution Assets

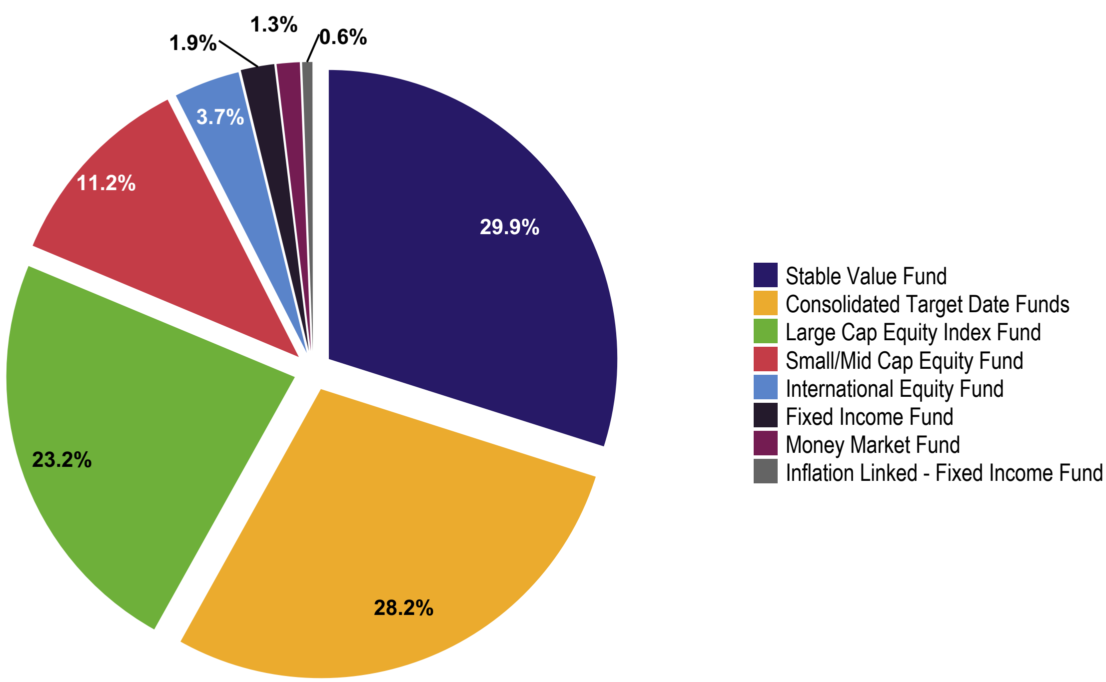
Assets by Investment Option

As of June 30, 2024

The Total Consolidated Defined Contribution Investments shown below are grouped by asset classes approved in the Investment Policy Statement, whereas the investments in the Statement of Fiduciary Net Position are grouped in assets and liabilities according to GASB and the security type assigned to each investment.

(dollars in thousands)

Investment Option	Plan Assets	Percent of Total Self-Directed Investments
Stable Value Fund	$ 2,159,982	29.9 %
Consolidated Target Date Funds	2,036,567	28.2
Large Cap Equity Index Fund	1,676,757	23.2
Small/Mid Cap Equity Fund	807,388	11.2
International Equity Fund	270,751	3.7
Fixed Income Fund	140,207	1.9
Money Market Fund	95,375	1.3
Inflation Linked - Fixed Income Fund	39,840	0.6
Total Defined Contribution Assets	**$ 7,226,867**	100.0 %



Rate of Return by Investment Option vs. Benchmark Returns [1]

For the Year Ended June 30, 2024

Investment Option	1-Year	Annualized 3-Year	Annualized 5-Year
Target Date Funds:			
Fund 2065	16.5 %	3.6 %	n/a
2065 Fund Index	16.3	3.4	n/a
Fund 2060	16.5	3.6	9.5
2060 Fund Index	16.3	3.4	9.0
Fund 2055	16.5	3.6	9.5
2055 Fund Index	16.3	3.4	9.0
Fund 2050	16.0	3.3	9.4
2050 Fund Index	15.8	3.2	8.9
Fund 2045	15.1	3.0	8.9
2045 Fund Index	15.0	2.8	8.4
Fund 2040	13.8	2.5	8.4
2040 Fund Index	13.7	2.3	7.8
Fund 2035	12.1	1.9	7.5
2035 Fund Index	12.0	1.7	6.9
Fund 2030	11.1	1.5	6.7
2030 Fund Index	10.9	1.3	6.2
Fund 2025	9.7	1.0	6.2
2025 Fund Index	9.7	0.9	5.7
Fund 2020	8.2	0.5	5.2
2020 Fund Index	8.1	0.4	4.7
Fund 2015	6.6	(0.1)	4.2
2015 Fund Index	6.6	(0.2)	3.7
Retirement Fund	6.1	(0.2)	3.5
Retirement Fund Index	6.0	(0.3)	3.1
All Other Funds:			
Stable Value Fund	3.1	2.5	2.4
Federal Reserve 3 Yr Constant Maturity	*4.5*	*3.3*	*2.2*
Large Cap Equity Index Fund	24.6	10.0	15.0
S&P 500 Index	*24.6*	*10.0*	*15.1*
Small/Mid Cap Equity Fund	14.7	(1.7)	8.9
Russell Small Cap Completeness Index	*15.0*	*(1.8)*	*9.1*
International Equity Fund	12.8	0.8	6.7
MSCI ACWI ex US IMI Index	*12.7*	*0.5*	*5.8*
Fixed Income Fund	3.4	(2.7)	0.2
Bloomberg Barclays U.S. Aggregate Bond Index	*2.6*	*(3.0)*	*(0.2)*
Money Market Fund	5.6	3.2	2.2
Citigroup 3 Month T-Bill Index	*5.6*	*3.2*	*2.2*
Inflation - Linked Fixed Income Fund	2.8	(1.3)	2.1
Bloomberg Barclays U.S. TIPS Index	*2.7*	*(1.3)*	*2.1*

[1] *See Accompanying Notes to the Actual and Benchmark Returns.*

Historical Annual Interest Crediting Rates

For the Years Ended June 30

Interest crediting rates are used to calculate a return on contributions made by members who are exiting the fund prior to attaining eligibility for a pension benefit payment. Interest rates are approved by the Board on an annual basis.

	Annual Interest Crediting Rate			
	77 Fund	JRS	EG&C	PARF
2024	3.64 %	3.64 %	3.64 %	3.64 %
2023	1.98	1.98	1.98	1.98
2022	1.43	1.43	1.43	1.43
2021	1.11	1.11	1.11	1.11
2020	2.59	2.59	2.59	2.59
2019	2.78	2.78	2.78	2.78
2018	2.40	2.40	2.40	2.40
2017	1.82	1.82	1.82	1.82
2016	1.87	1.87	1.87	1.87
2015	2.69	2.69	2.69	2.69

Top 10 Holdings

For the Year Ended June 30, 2024

Equity Holdings by Fair Value [1]

(dollars in thousands)

Company	Shares	Fair Value
MICROSOFT CORP	319,913	$ 142,985
APPLE INC	613,920	129,304
NVIDIA CORP	1,038,391	128,283
ALPHABET INC	469,424	85,768
AMAZON.COM INC	386,588	74,708
TAIWAN SEMICONDUCTOR MANUFACTURING	2,356,000	70,154
SAP SE	250,900	50,962
BP PLC	1,339,325	48,350
META PLATFORMS INC	92,510	46,645
SAMSUNG ELECTRONICS CO LTD	756,712	44,803

Fixed Income Holdings by Fair Value [1]

(dollars in thousands)

Description	Coupon Rate	Maturity Date	Par Value	Fair Value
U.S. Treasury Bond	4.750 %	11/15/43	$ 259,800	$ 267,299
U.S. Treasury - CPI Inflation Index Bond	2.125	2/15/41	242,423	240,346
U.S. Treasury - CPI Inflation Index Bond	1.375	2/15/44	218,543	187,309
U.S. Treasury - CPI Inflation Index Bond	0.750	2/15/42	226,847	177,203
U.S. Treasury - CPI Inflation Index Bond	0.625	2/15/43	221,691	166,468
U.S. Treasury - CPI Inflation Index Bond	0.750	2/15/45	216,481	162,144
U.S. Treasury Bond	4.500	2/15/44	161,000	158,635
U.S. Treasury - CPI Inflation Index Bond	2.125	2/15/40	154,501	152,921
U.S. Treasury - CPI Inflation Index Bond	1.000	2/15/46	190,603	148,715
U.S. Treasury - CPI Inflation Index Bond	1.000	2/15/48	168,158	128,740

[1] *A complete list of portfolio holdings is available upon request.*

Investment Fees

Investment Management Fees

For the Year Ended June 30, 2024

Private Markets and Real Asset managers provide account valuations on a net of fee basis. While management fees are disclosed in the Investment Management Fees schedule, for greater transparency, INPRS makes a good faith effort to provide realized carried interest and expenses that would not otherwise be disclosed. INPRS's consultants Aksia and Mercer provided additional fee information on a calendar year basis as of December 31, 2023 resulting in reported realized carried interest and expenses for Private Markets of $142.2 million and Real Assets of $44.3 million. Reported realized carried interest and expenses exclude funds where data was not provided by the general partners.

(dollars in thousands)

Asset Class		Fees Paid
Consolidated Defined Benefit Assets		
Public Equity[1]	$	12,754
Private Markets		47,894
Fixed Income - Ex Inflation-Linked[1]		37,051
Fixed Income - Inflation-Linked[1]		6,446
Commodities[1]		10,205
Real Assets		35,045
Absolute Return[1]		74,012
Risk Parity		22,853
Cash + Cash Overlay		227
Total Consolidated Defined Benefit Assets		**246,488**
Defined Contribution Assets		8,249
OPEB Assets		35
Total Investment Management Fees	**$**	**254,772**

[1] *Includes both management fees and performance-based fees*

Brokers' Commission Fees

For the Year Ended June 30, 2024

(dollars in thousands)

Broker		Fees Paid		Total Shares
Morgan Stanley & Co. Inc.	$	881	$	67,324
Goldman Sachs & Co.		843		4,058
J P Morgan Securities Ltd., New York		702		43,647
J P Morgan Securities Ltd., London		125		23,917
Jefferies & Co. Inc.		119		14,598
Newedge USA LLC		119		7
Merrill Lynch International Equities		92		37,437
Pershing LLC, Jersey City		71		4,457
Instinet Clearing Services Inc.		55		8,723
UBS Equities, London		49		16,547
Top Ten Brokers' Commission Fees		**3,056**		220,715
Other Brokers		1,509		1,679,019
Total Brokers' Commission Fees	**$**	**4,565**	**$**	**1,899,734**

Investment Professionals

As of June 30, 2024

Consolidated Defined Benefit Assets

Custodian

Bank of New York Mellon

Consultants

Aksia (Absolute Return, Private Equity, and Private Credit)

Mercer (Real Assets)

Verus (General: Defined Benefit)

Public Equity Managers

Acadian Asset Management

Altrinsic Global Advisors, LLC

Arrowstreet Capital, LP

Baillie Gifford & Company

BlackRock Inc.

Leading Edge Investment Advisors

Parametric

RhumbLine Advisers

TimesSquare Capital Management, LLC

Private Markets Managers

352 Capital

400 Capital Management

A.M. Pappas & Associates

ABRY Partners

Accel-KKR

Actis Capital

Advanced Technology Ventures

Advent International

Aisling Capital

AlpInvest Partners

Apax Partners

Apollo Global Management

ARCH Venture Partners

Ares Management

Ascribe Capital

Atalaya Capital Management

Austin Ventures

Bain Capital Partners

Barings

Baring Private Equity Asia (BPEA)

Bertram Capital

Black Diamond Capital Management

BlackFin Capital Partners

Blackstone Group

Bregal Sagemount

Brentwood Associates

Butterfly Equity Partners

Caltius Capital Management

Cardinal Partners

Carlyle Group

Centerfield Capital Partners

Cerberus Capital Management

Charterhouse Capital Partners

CID Capital

Cinven

Coller Capital

Columbia Capital

Crescent Capital Group

Crestview Partners

CVC Capital Partners

Doll Capital Management (DCM)

Escalate Capital Partners

Falcon Investment Advisors

Forbion Capital Partners

Fortress Investment Group

Francisco Partners

Gamut Capital Management

Gilde Buyout Partners

Globespan Capital Partners

Goldman Sachs Asset Management

GSO Capital Partners

H2 Equity Partners

Hamilton Lane

HarbourVest

Hellman & Friedman

Herkules Capital

High Road Capital Partners

Horsley Bridge

HPS Investment Partners

Insight Partners

Intermediate Capital Group (ICG)

JFM Management

Kailai Investments

Kennedy Lewis Investment Management

Khosla Ventures

Kohlberg Kravis Roberts & Co (KKR)

Leonard Green & Partners

Lexington Partners

Lion Capital

MBK Partners

Merit Capital Partners

Mill Road Capital

Neuberger Berman

New Enterprise Associates

New Mountain Capital

Oak Hill Capital Management

Oak Investment Partners

Oaktree Capital Management

Opus Capital Venture Partners

Parthenon Capital Partners

Pathlight Capital

Peninsula Capital Partners

Platinum Equity

Portfolio Advisors

Private Markets Managers, continued

- Rho Capital Partners
- RJD Partners
- SAIF Management
- Scale Venture Partners
- Silver Cup
- Silver Lake Partners
- Sixth Street Partners
- SLR Capital Partners
- Stellex Capital
- StepStone Group
- Stride Consumer Partners
- SVB Capital
- Sumeru Equity Partners
- Sun Capital Partners
- TA Associates
- TCG
- TCW Capital Partners
- Technology Crossover Ventures
- Technology Partners
- Terra Firma Capital Partners
- TowerBrook Financial
- TPG Capital
- Trilantic Capital Partners
- Trinity Ventures
- Triton Partners
- True Ventures
- TSG Consumer Partners
- Veritas Capital Management
- Veronis Suhler Stevenson (VSS)
- Vestar Capital Partners
- Vintage Venture Partners
- Vision Capital
- Vista Equity Partners
- Walden Group of Venture Capital Funds
- Warburg Pincus
- Waterfall Asset Management
- Weston Presidio Capital
- WL Ross & Co.
- Xenon Private Equity
- York Capital Management

Fixed Income - Ex Inflation-Linked Managers

- Goldman Sachs Asset Management, LP
- Oak Hill Advisors, LP
- Oak Tree Capital Management, LP
- Pacific Investment Management Company (PIMCO)
- Parametric
- State Street Global Advisors

Fixed Income - Inflation-Linked Managers

- BlackRock Inc.
- Bridgewater Associates, Inc.
- Northern Trust Global Investments

Commodities Managers

- CoreCommodity Management
- Gresham Investment Management, LLC
- Wellington Management Company, LLP

Real Asset Managers

- Abacus Capital Group, LLC
- Ambrose Property Group
- Angelo Gordon LP
- Ardian
- Asana Partners, LP
- Bain Capital Partners
- Barings
- Basalt Infrastructure Partners LLP
- Blackstone Group
- Carlyle Group
- CenterSquare Investment Management
- DigitalBridge
- EnCap Investments
- Energy Capital Partners
- Exeter Property Group, LLC
- First Reserve Corporation
- GSO Capital Partners
- H/2 Capital Partners
- H.I.G. Capital
- Hackman
- Harrison Street Real Estate Capital, LLC
- ICG
- iCON Infrastructure
- InfraVia
- JDM Partners
- Kayne Anderson
- Kohlberg Kravis Roberts & Co (KKR)
- LimeTree Capital Advisors
- Longpoint Realty Partners
- Macquarie Asset Management
- Mack Real Estate Group
- Mesa West Capital
- NGP Energy Capital Management
- Noble Investment Group
- Panda Power Funds
- Prologis
- Related Fund Management LLC
- Rockpoint Group LLC
- Stockbridge Capital Group
- TA Realty Associates
- Walton Street Capital, LLC
- Warwick Energy Investment Group
- White Deer Management

Absolute Return Managers

AHL Partners (Man Group)
Aeolus Capital Management
Blackstone Group
Bridgewater Associates, Inc.
D.E. Shaw & Co
Garda Capital Partners
Hudson Structured Capital Management
King Street Capital Management
Kirkoswald Capital Partners LLP
Mariner Investments Group LLC
Perella Weinberg Partners
Rokos Global Macro
Two Sigma Advisers
Voloridge Management
Whitebox Advisors

Risk Parity Managers

AQR Capital Management
Bridgewater Associates, Inc
PanAgora
Parametric

Cash Overlay Managers

Parametric

Defined Contribution Assets and Other Funds

Consultant

Capital Cities, LLC (General: Defined Contribution)

Custodian

Bank of New York Mellon

Large Cap Equity Index Fund Managers

BlackRock Inc.

International Equity Fund Managers

Acadian Asset Management
Altrinsic Global Advisors, LLC
Arrowstreet Capital, LP
Baillie Gifford & Company
BlackRock Inc.

Small/Mid Cap Equity Fund Managers

RhumbLine Advisers
TimesSquare Capital Management, LLC

Fixed Income Fund Managers

Loomis Sayles & Company, LP
Northern Trust Global Investments
Pacific Investment Management Company (PIMCO)
Wellington Management Company, LLP

Inflation-Linked Fixed Income Fund Managers

Northern Trust Global Investments

Stable Value Fund Managers

Galliard Capital Management (Fund Advisor)
Income Research + Management (Fund Sub-Advisor)
Jennison Associates (Fund Sub-Advisor)
Dodge & Cox (Fund Sub-Advisor)
TCW (Fund Sub-Advisor)

Money Market Fund Manager

Bank of New York Mellon

Special Death Benefit Fund

Northern Trust Global Investments

Retirement Medical Benefit Account

State Street Global Advisors

Local Public Safety Pension Relief Fund

Bank of New York Mellon