

Municipal Employees' Retirement System of Louisiana

August 17, 2023

Board Meeting

Agenda

1. Economic and Market Update
2. Performance Report as July 31, 2023
3. Fiscal Year Road Map
4. Disclaimer

Economic and Market Update

Data as of June 30, 2023

Commentary

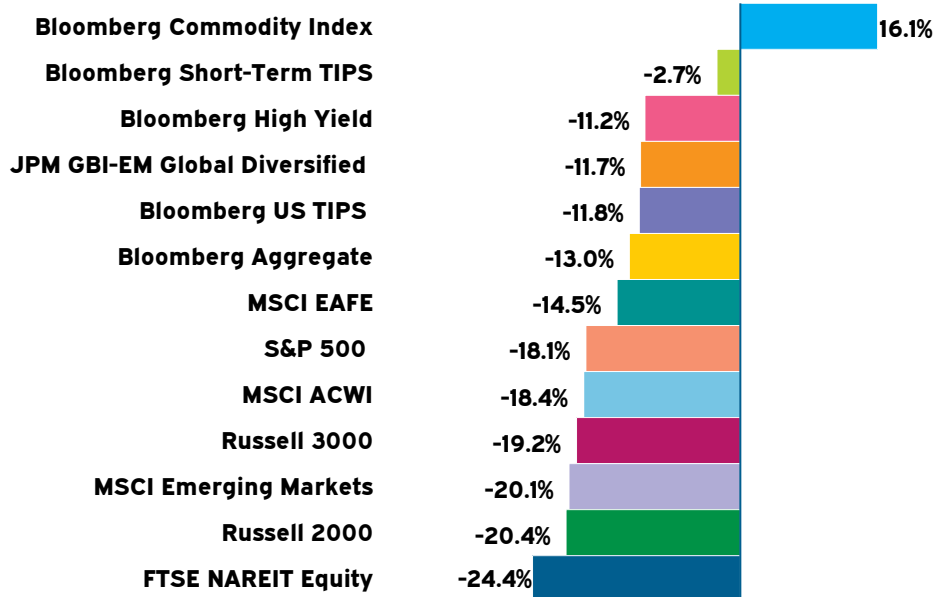
→ Asset returns were positive in June with US and Non-US equities posting gains, while most fixed income sectors sold-off on expectations for further interest rate hikes later this year. Except for commodities, most public market asset classes remain up for the year.

- Although the Fed skipped a rate-hike in June, Fed comments signaled further rate hikes in the 2H 2023; the US economy appears to be resilient supporting domestic demand and low unemployment.
- US equity markets (Russell 3000) rose in June (+6.8%) adding to YTD gains (+16.2%). Some of the largest technology names drove positive results. Growth stocks continued to outpace value stocks, particularly in the large cap space.
- Non-US developed equity markets rose in June (MSCI EAFE 4.6%) falling behind US equities in 2023 (+16.2% versus +11.7%). A strengthening US dollar weighed on returns.
- Emerging market equities rose in June (+3.8%) supported by positive returns in China (+4.0%). They significantly trail developed market equities YTD returning +4.9%, due partly to higher US-China tensions.
- Rates generally rose in June leading to bond markets declining, with the broad US bond market (Bloomberg Aggregate) falling 0.4% for the month. It remains positive (+2.1%) year-to-date, though, on declining inflation and expectations for the Fed to end their rate hikes soon.

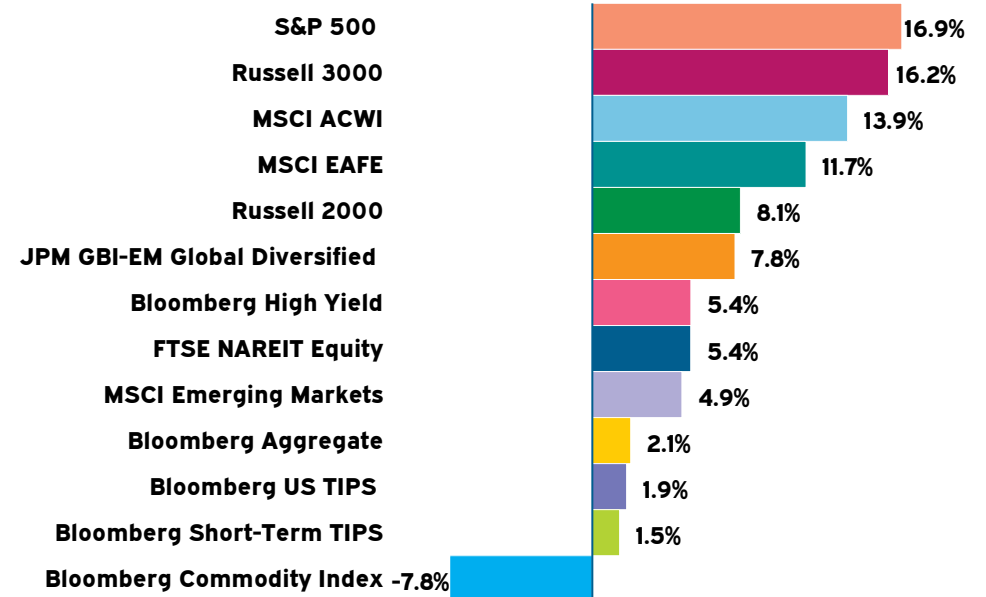
→ This year, the paths of inflation and monetary policy, slowing global growth and the war in Ukraine will all be key.

Index Returns¹

2022



Calendar YTD

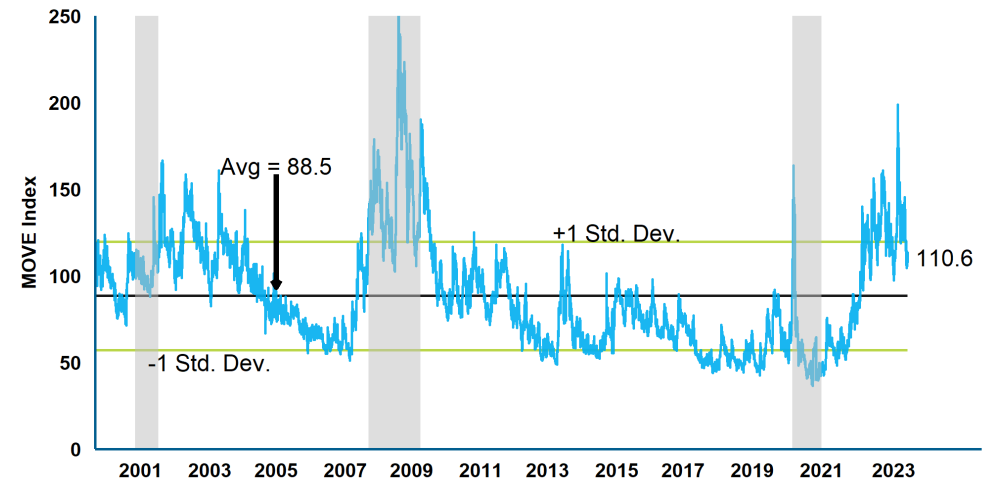
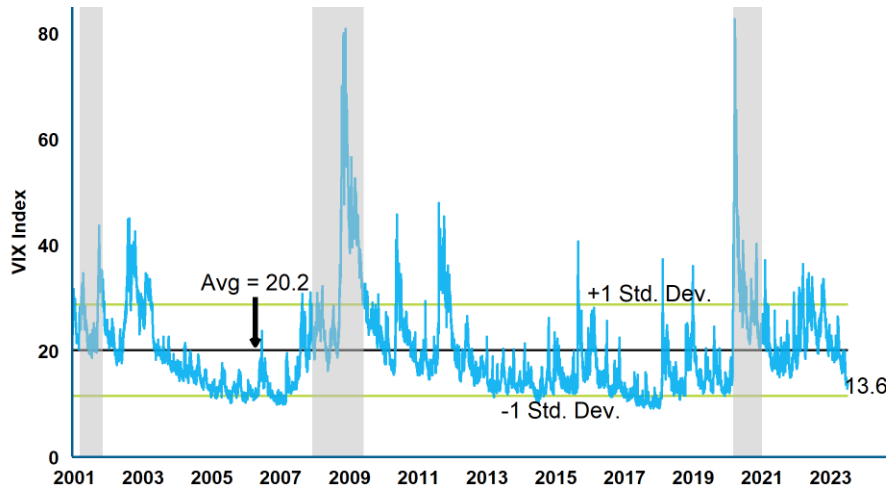


→ After a particularly difficult 2022, most public market assets are up thus far in 2023, building on gains from the fourth quarter of last year.

→ Risk sentiment has been supported by expectations that policy tightening could be ending soon, as inflation continues to fall, and growth has slowed.

¹ Source: Bloomberg and FactSet. Data is as of June 30, 2023.

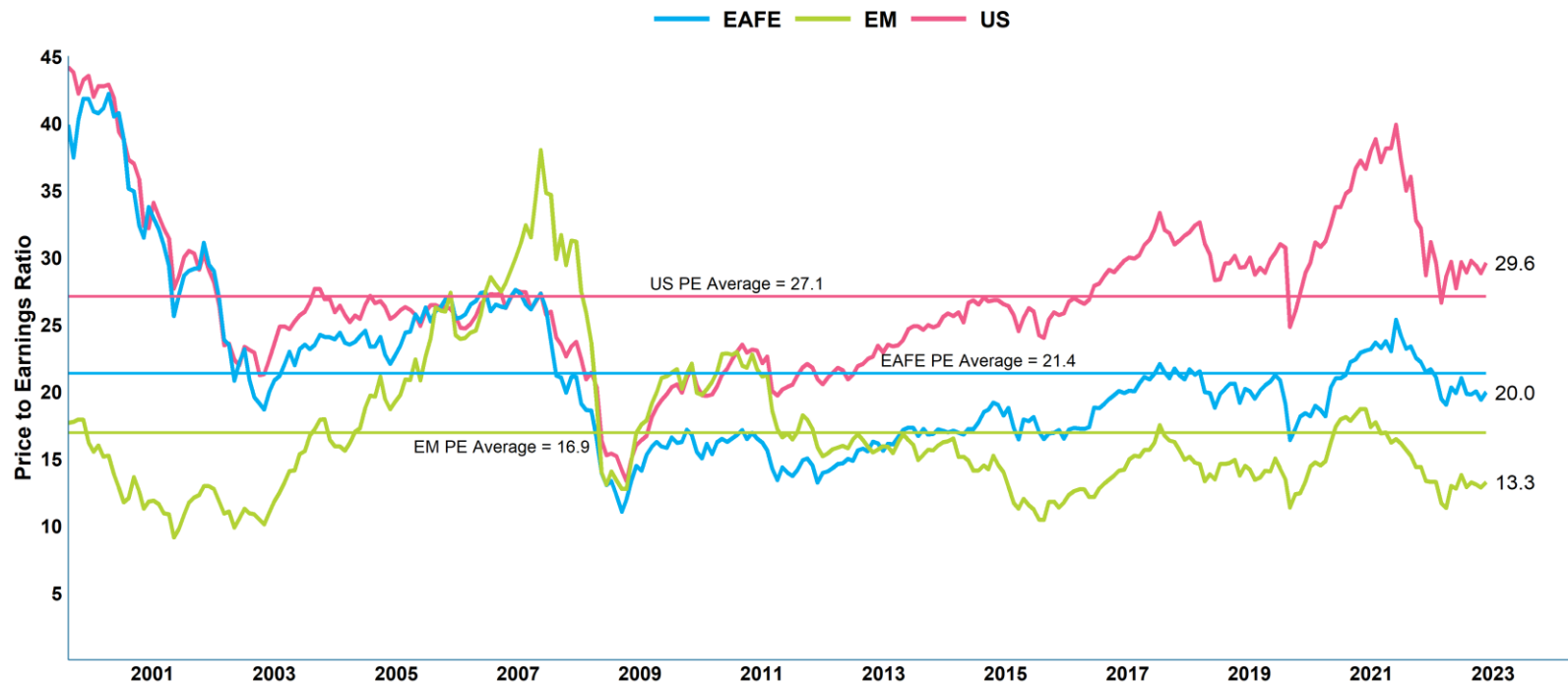
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) declined in June and remains low as investors continue to anticipate the end of the Fed's policy tightening.
- In comparison, the bond market remains on edge after last year's historic losses and continued volatility in interest rates this year due to policy uncertainty and issues in the banking sector. The MOVE (fixed income volatility) remains well above (110.6) its long-run average (88.4), but off its recent peak during the heart of the banking crisis.

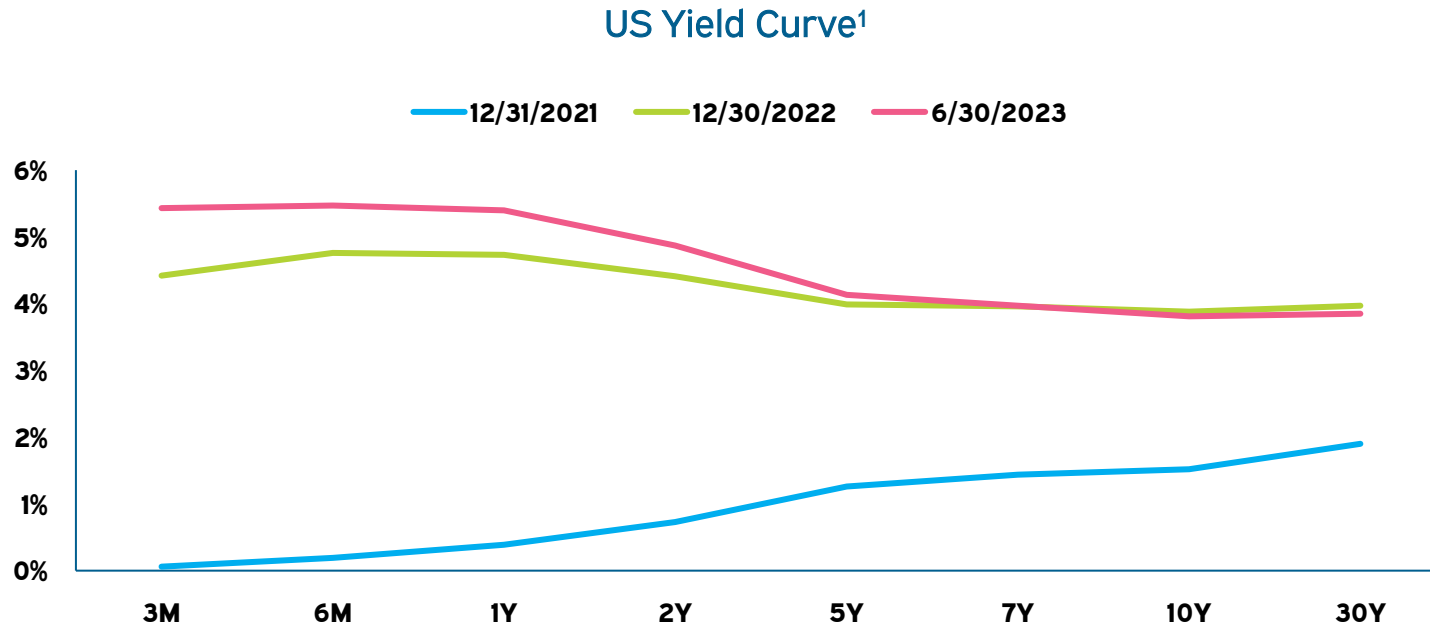
¹ Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of June 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and June 2023.

Equity Cyclically Adjusted P/E Ratios¹



- After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- International developed market valuations are below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of June 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.

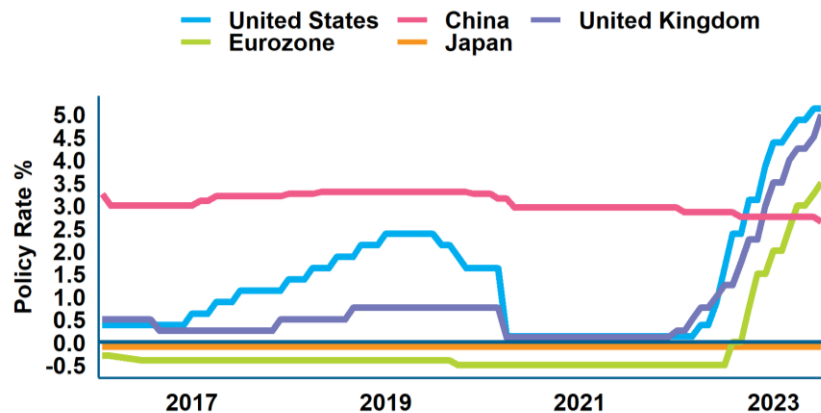


- Interest rates have started rising again across the curve given policy maker guidance that policy rates are likely to rise further and potentially stay longer at the terminal rate than market participants expect. The rise in rates was particularly acute at the very front-end (< 1 year). Maturities from two years out also drifted higher as market participants considered the possibility of additional policy rate increases as economic data (mainly inflation and labor markets) remains strong.
- The yield curve remains inverted with the spread between two-year and ten-year Treasuries finishing the month at -1.06%. The more closely watched measure (by the Fed) of the three-month and ten-year Treasuries spread also remained inverted at -1.62%. Inversions in the yield curve have often preceded recessions.

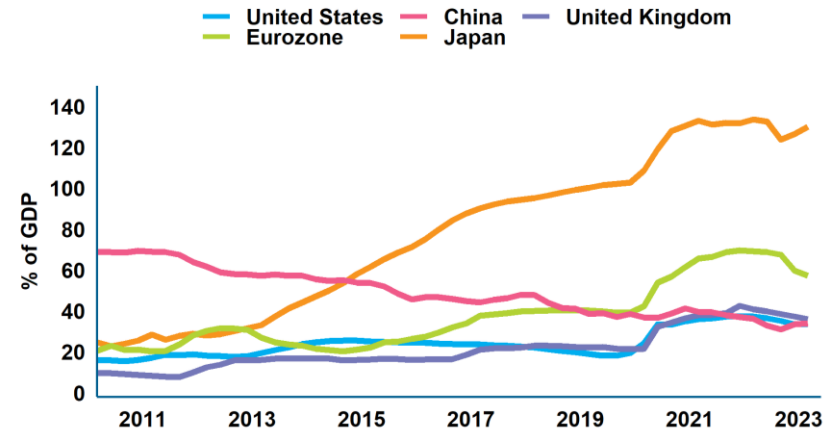
¹ Source: Bloomberg. Data is as of June 30, 2023.

Central Bank Response¹

Policy Rates



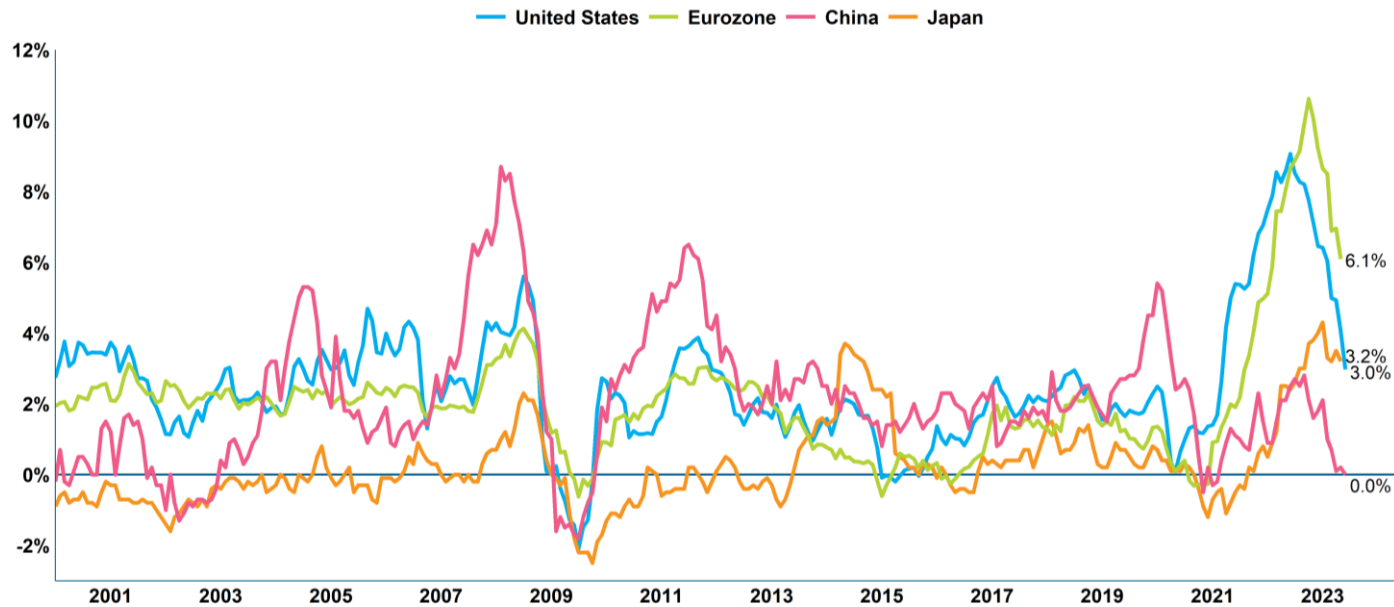
Balance Sheet as % of GDP



- In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation, with the US taking the most aggressive approach. Slowing inflation and growth have led to expectations for reductions in policy tightening going forward.
- In May the Fed raised rates another 25 basis points to a range of 5.0% to 5.25%. After month-end, the FOMC paused its tightening campaign but hinted that one or two additional rate hikes could come later this year.
- In China, the central bank has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- Looking ahead, risks remain for a policy error as central banks attempt to balance multiple goals, bringing down inflation, maintaining financial stability, and supporting growth.

¹ Source: Bloomberg. Policy rate data is as of June 30, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of March 31, 2023.

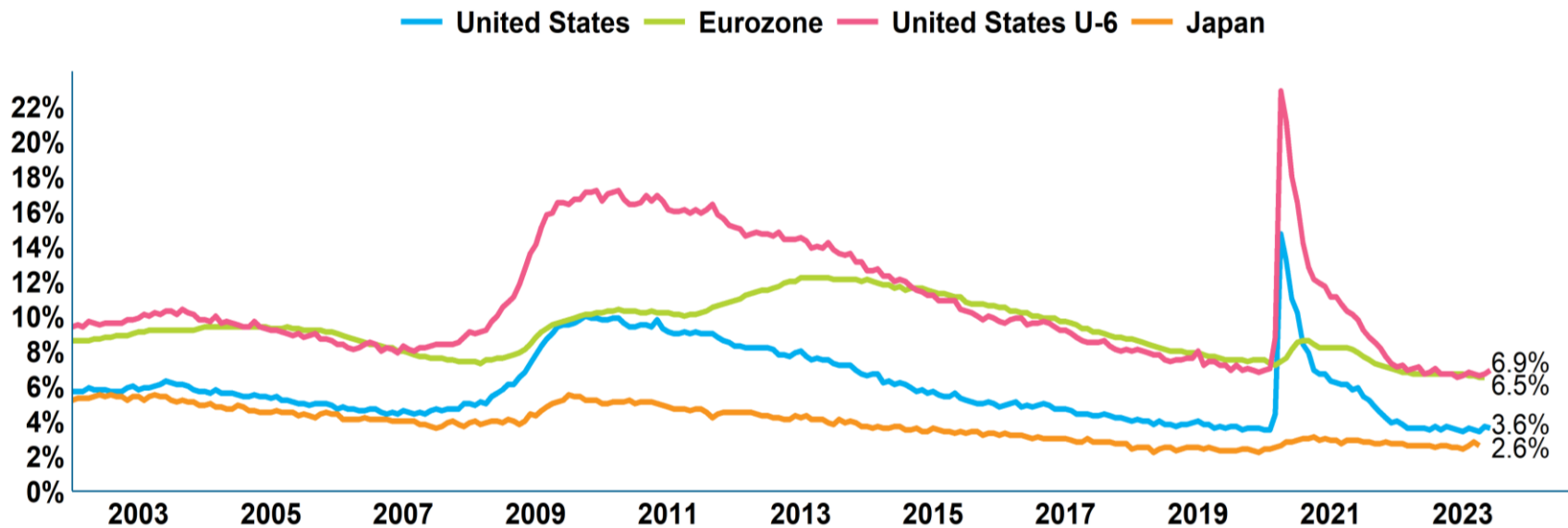
Inflation (CPI Trailing Twelve Months)¹



- Inflation pressures continued to decline globally due to the easing of supply chain issues from the pandemic, declining energy prices, and tighter monetary policy.
- In the US, inflation fell to 3.0% at month-end, while eurozone inflation also fell (6.1% from 7.0%) a level well off its peak. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.
- Inflation remains lower in China and Japan. In China, inflation levels were only slightly above 0% at month-end as the reopening of their economy has led to an uneven economic recovery.

¹ Source: Bloomberg. Data is as June 30, 2023. The most recent Japanese inflation data is as of May 2023.

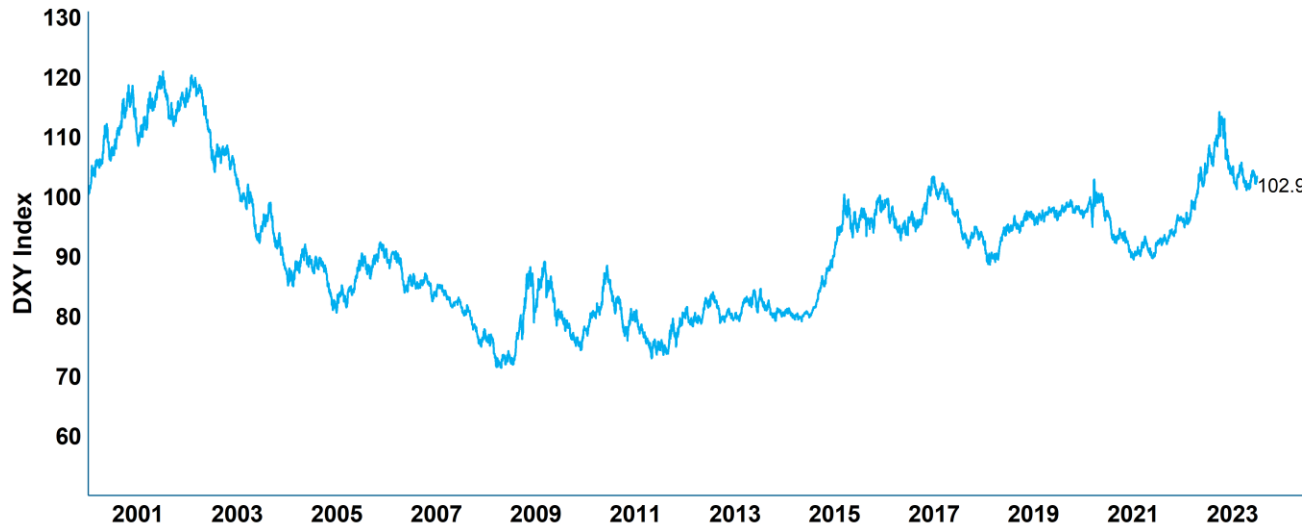
Unemployment¹



- Despite slowing growth and high inflation, the US labor market still shows signs of resiliency. Unemployment in the US, which experienced the steepest rise, recently returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.9% but also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, leading to higher unemployment.
- Unemployment in Europe has also declined but remains higher than the US, while levels in Japan have been flat through the pandemic given less layoffs.

¹ Source: Bloomberg. Data is as June 30, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of May 2023.

US Dollar versus Broad Currencies¹



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- Late last year and into this year, the dollar declined, as weaker economic data and lower inflation led to investors anticipating the end of Fed tightening. In June, we did see a slight decline in the dollar though.
- This year, the track of inflation across economies and the corresponding monetary policies will be key drivers of currency moves.

¹ Source: Bloomberg. Data as of June 30, 2023.

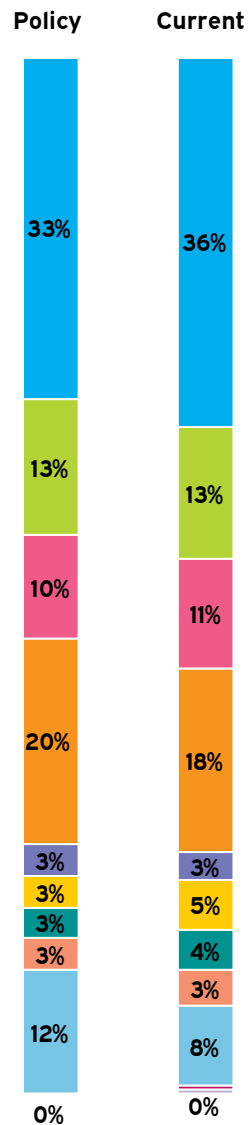
Summary

Key Trends:

- The impacts of still relatively high inflation will remain key, with bond market volatility likely to stay high.
- Recent issues related to the banking sector seem to have subsided for now but are a reminder that there is a delicate balance for central banks to continue to fight inflation but also to try to maintain financial stability.
- Global monetary policies could diverge in 2023. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- In the US, consumers could feel pressure as certain components of inflation remain high (e.g., shelter), borrowing cost are elevated, and the job market may weaken.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- Equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector.

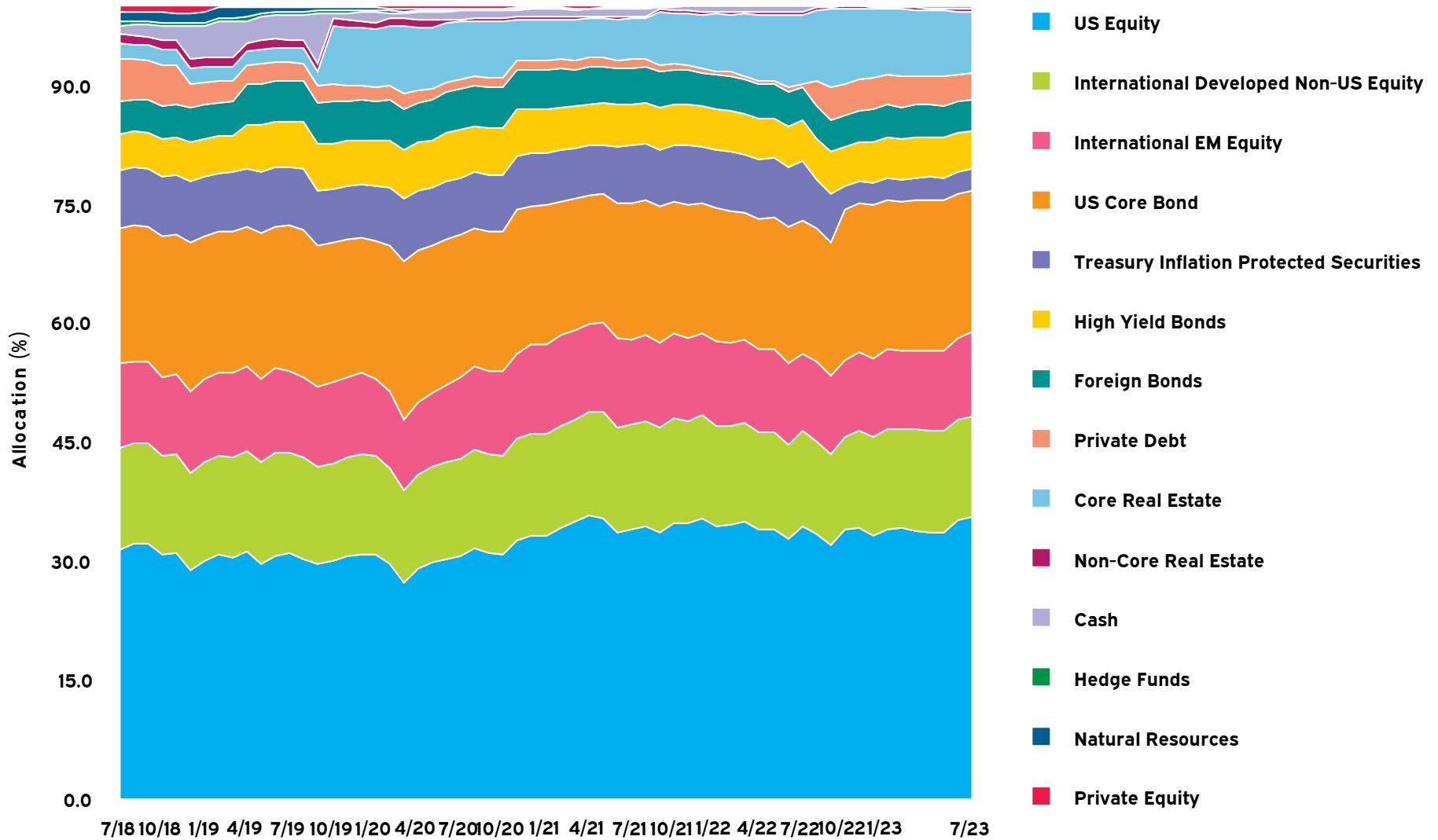
Performance Report

Asset Allocation Compliance | As of July 31, 2023

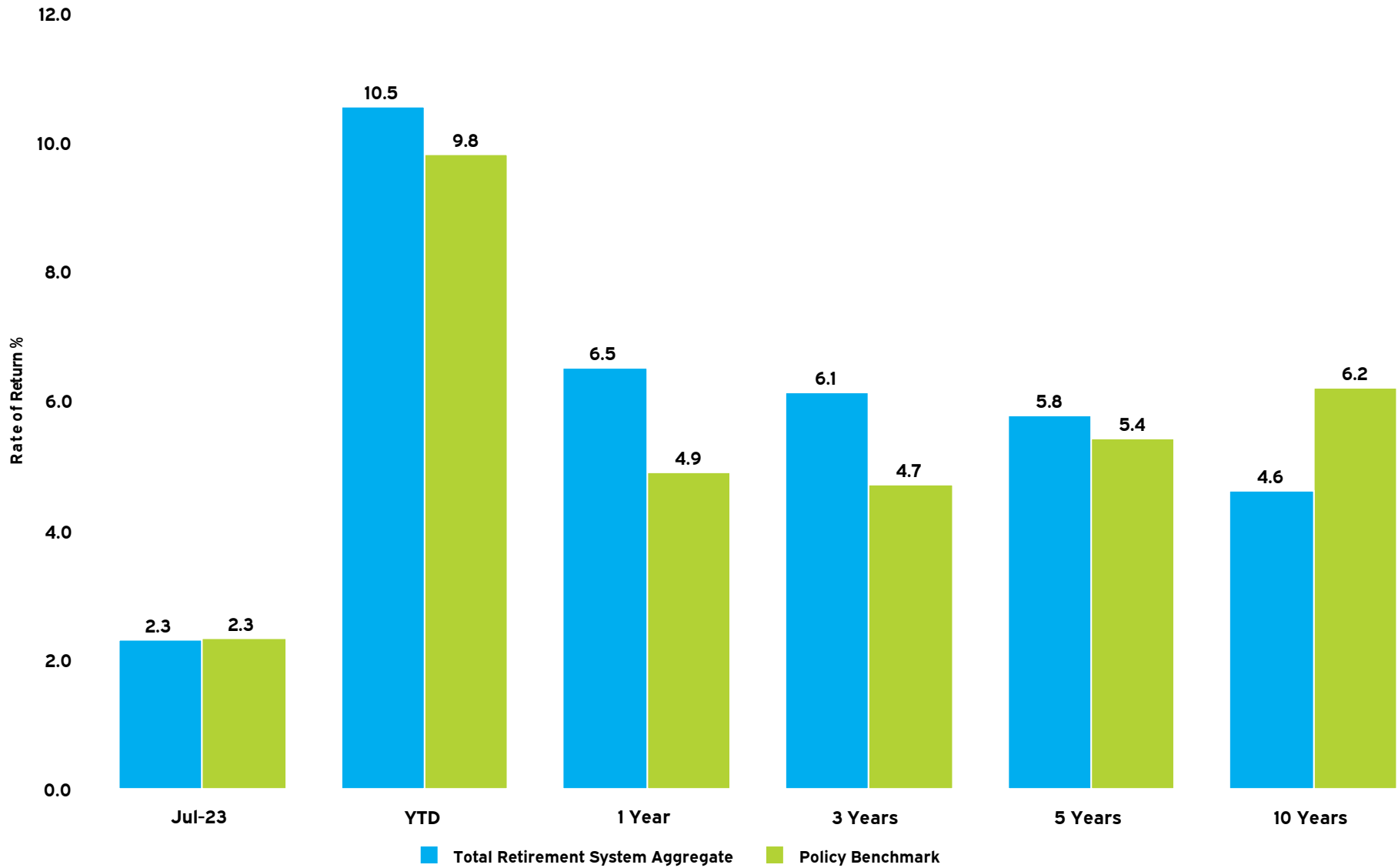


| | Current Balance (\$) | Current Allocation (%) | Policy (%) | Difference (%) | Policy Range (%) | Within IPS Range? |
|---|----------------------|------------------------|------------|----------------|------------------|-------------------|
| US Equity | 397,226,630 | 36 | 33 | 3 | 25 - 35 | No |
| International Developed Non-US Equity | 141,463,391 | 13 | 13 | 0 | 8 - 18 | Yes |
| International EM Equity | 119,144,404 | 11 | 10 | 1 | 7 - 13 | Yes |
| US Core Bond | 198,583,813 | 18 | 20 | -2 | 15 - 25 | Yes |
| Treasury Inflation Protected Securities | 29,419,799 | 3 | 3 | 0 | 0 - 10 | Yes |
| High Yield Bonds | 53,431,126 | 5 | 3 | 2 | 0 - 10 | Yes |
| Foreign Bonds | 44,125,051 | 4 | 3 | 1 | 0 - 10 | Yes |
| Private Debt | 38,246,572 | 3 | 3 | 0 | 0 - 6 | Yes |
| Core Real Estate | 86,014,082 | 8 | 12 | -4 | 5 - 15 | Yes |
| Non-Core Real Estate | 3,569,961 | 0 | 0 | 0 | 0 - 0 | No |
| Cash | 4,422,106 | 0 | 0 | 0 | 0 - 5 | Yes |
| Total | 1,115,646,935 | 100 | 100 | 0 | | |

Asset Allocation 5 Years Ending July 31, 2023



Net Return Summary



Asset Allocation & Net Performance | As of July 31, 2023

| | Market Value \$ | % of Portfolio | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|---|----------------------|----------------|-------------|-------------|--------------|-------------|-------------|-------------|---------------|----------------|
| Total Retirement System Aggregate | 1,115,646,935 | 100.0 | 2.3 | 10.5 | 6.5 | 6.1 | 5.8 | 4.6 | 4.4 | Jan-06 |
| <i>Policy Benchmark</i> | | | <i>2.3</i> | <i>9.8</i> | <i>4.9</i> | <i>4.7</i> | <i>5.4</i> | <i>6.2</i> | <i>6.4</i> | |
| <i>60% MSCI ACWI & 40% Barclays Universal</i> | | | <i>2.5</i> | <i>11.5</i> | <i>6.6</i> | <i>3.9</i> | <i>4.8</i> | <i>5.4</i> | <i>5.3</i> | |
| Domestic Equity | 397,226,630 | 35.6 | 3.8 | 18.3 | 13.3 | 14.2 | 10.0 | 10.9 | 8.9 | Feb-06 |
| <i>Russell 3000 Index</i> | | | <i>3.6</i> | <i>20.3</i> | <i>12.6</i> | <i>13.1</i> | <i>11.4</i> | <i>12.1</i> | <i>9.5</i> | |
| Developed Equity | 141,463,391 | 12.7 | 1.8 | 13.2 | 11.6 | 6.8 | 6.1 | -- | 5.8 | Jun-14 |
| <i>MSCI EAFE (Net)</i> | | | <i>3.2</i> | <i>15.3</i> | <i>16.8</i> | <i>9.3</i> | <i>4.5</i> | <i>5.2</i> | <i>4.0</i> | |
| Emerging Market Equity | 119,144,404 | 10.7 | 5.9 | 18.6 | 15.2 | 7.1 | 5.6 | -- | 5.7 | Jan-14 |
| <i>MSCI Emerging Markets (Net)</i> | | | <i>6.2</i> | <i>11.4</i> | <i>8.3</i> | <i>1.5</i> | <i>1.7</i> | <i>3.5</i> | <i>2.9</i> | |
| U.S. Core Bond Assets | 198,583,813 | 17.8 | -0.1 | 2.0 | -3.3 | -4.5 | 0.7 | 0.6 | 0.7 | May-13 |
| <i>Blmbg. U.S. Aggregate Index</i> | | | <i>-0.1</i> | <i>2.0</i> | <i>-3.4</i> | <i>-4.5</i> | <i>0.7</i> | <i>1.5</i> | <i>1.1</i> | |
| Treasury Inflation Protected Securities | 29,419,799 | 2.6 | 0.1 | 2.0 | -5.3 | -0.8 | 2.6 | -- | 1.9 | Aug-16 |
| <i>Blmbg. U.S. TIPS</i> | | | <i>0.1</i> | <i>2.0</i> | <i>-5.4</i> | <i>-0.8</i> | <i>2.6</i> | <i>2.0</i> | <i>1.9</i> | |
| Foreign Bond Assets | 44,125,051 | 4.0 | 1.8 | 5.2 | 0.5 | -3.4 | -0.3 | 0.9 | 0.3 | May-13 |
| <i>Blmbg. Global Aggregate</i> | | | <i>0.7</i> | <i>2.1</i> | <i>-2.7</i> | <i>-5.7</i> | <i>-0.9</i> | <i>0.1</i> | <i>-0.2</i> | |
| High Yield Bonds | 53,431,126 | 4.8 | 0.6 | 3.3 | -0.5 | -2.2 | 2.5 | 3.8 | 3.5 | May-13 |
| <i>Blmbg. U.S. Corp: High Yield Index</i> | | | <i>1.4</i> | <i>6.8</i> | <i>4.4</i> | <i>2.0</i> | <i>3.4</i> | <i>4.4</i> | <i>4.1</i> | |
| Core Real Estate | 86,014,082 | 7.7 | -0.1 | -1.9 | -6.1 | 13.1 | 10.1 | 10.2 | 7.6 | Apr-06 |
| <i>NCREIF ODCE Equal Weighted (Net)</i> | | | <i>0.0</i> | <i>-6.4</i> | <i>-10.5</i> | <i>7.6</i> | <i>6.1</i> | <i>8.1</i> | <i>5.6</i> | |
| Private Debt | 38,246,572 | 3.4 | 1.1 | 8.0 | 9.5 | 10.3 | 8.4 | 7.4 | 7.4 | May-13 |
| <i>Bloomberg US High Yield+2%</i> | | | <i>1.5</i> | <i>8.1</i> | <i>6.5</i> | <i>4.1</i> | <i>5.5</i> | <i>6.5</i> | <i>6.2</i> | |

Asset Allocation & Net Performance | As of July 31, 2023

| | Market Value \$ | % of Portfolio | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|-------------------------------------|------------------|----------------|------------|-------------|-------------|------------|--------------|-------------|---------------|----------------|
| Non-Core Real Estate | 3,569,961 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -16.2 | -6.3 | -2.4 | Feb-06 |
| <i>NCREIF Property (Q Lag)</i> | | | <i>0.0</i> | <i>-5.3</i> | <i>-1.6</i> | <i>7.2</i> | <i>6.7</i> | <i>8.3</i> | <i>7.5</i> | |
| Cash | 4,422,106 | 0.4 | 0.3 | 1.6 | 2.3 | 0.9 | 1.5 | 0.9 | 1.0 | Feb-06 |
| <i>ICE BofA 3 Month U.S. T-Bill</i> | | | <i>0.4</i> | <i>2.7</i> | <i>4.0</i> | <i>1.4</i> | <i>1.6</i> | <i>1.0</i> | <i>1.3</i> | |

Asset Allocation & Net Performance | As of July 31, 2023

| | Market Value \$ | % of Portfolio | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|---|----------------------|----------------|------------|-------------|-------------|-------------|-------------|-------------|---------------|----------------|
| Total Retirement System Aggregate | 1,115,646,935 | 100.0 | 2.3 | 10.5 | 6.5 | 6.1 | 5.8 | 4.6 | 4.4 | Jan-06 |
| <i>Policy Benchmark</i> | | | <i>2.3</i> | <i>9.8</i> | <i>4.9</i> | <i>4.7</i> | <i>5.4</i> | <i>6.2</i> | <i>6.4</i> | |
| <i>60% MSCI ACWI & 40% Barclays Universal</i> | | | <i>2.5</i> | <i>11.5</i> | <i>6.6</i> | <i>3.9</i> | <i>4.8</i> | <i>5.4</i> | <i>5.3</i> | |
| Domestic Equity | 397,226,630 | 35.6 | 3.8 | 18.3 | 13.3 | 14.2 | 10.0 | 10.9 | 8.9 | Feb-06 |
| <i>Russell 3000 Index</i> | | | <i>3.6</i> | <i>20.3</i> | <i>12.6</i> | <i>13.1</i> | <i>11.4</i> | <i>12.1</i> | <i>9.5</i> | |
| Northern Trust S&P 500 Index | 235,286,857 | 21.1 | 3.2 | 20.6 | 13.0 | 13.7 | 12.2 | -- | 12.2 | Dec-13 |
| <i>S&P 500 Index</i> | | | <i>3.2</i> | <i>20.6</i> | <i>13.0</i> | <i>13.7</i> | <i>12.2</i> | <i>12.7</i> | <i>12.2</i> | |
| <i>Large Cap Median</i> | | | 3.3 | 17.7 | 11.6 | 12.4 | 10.3 | 11.1 | 10.6 | |
| Northern Trust S&P 500 Index Rank | | | 53 | 35 | 35 | 31 | 20 | -- | 21 | |
| Northern Trust S&P 400 MidCap Index | 78,359,973 | 7.0 | 4.1 | 13.3 | 10.5 | 15.2 | 8.2 | -- | 9.6 | Dec-13 |
| <i>S&P MidCap 400 Index</i> | | | <i>4.1</i> | <i>13.3</i> | <i>10.5</i> | <i>15.3</i> | <i>8.3</i> | <i>10.0</i> | <i>9.6</i> | |
| <i>Mid Cap Median</i> | | | 3.4 | 13.3 | 8.6 | 11.6 | 8.0 | 9.4 | 8.8 | |
| Northern Trust S&P 400 MidCap Index Rank | | | 25 | 50 | 30 | 26 | 45 | -- | 31 | |
| Barrow Hanley Small Cap Value Equity | 50,629,431 | 4.5 | 7.6 | 20.8 | 21.8 | 22.6 | 9.9 | 10.9 | 10.6 | Jan-06 |
| <i>Russell 2000 Value Index</i> | | | <i>7.5</i> | <i>10.2</i> | <i>3.9</i> | <i>17.5</i> | <i>4.7</i> | <i>7.4</i> | <i>7.0</i> | |
| <i>Small Value Median</i> | | | 5.9 | 11.4 | 7.5 | 19.1 | 5.9 | 7.7 | 7.5 | |
| Barrow Hanley Small Cap Value Equity Rank | | | 12 | 2 | 1 | 20 | 4 | 1 | 1 | |
| Loomis Sayles Small Cap Growth | 32,950,368 | 3.0 | 1.8 | 11.0 | 8.7 | 6.3 | -- | -- | 9.0 | Jun-20 |
| <i>Russell 2000 Growth Index</i> | | | <i>4.7</i> | <i>18.9</i> | <i>11.6</i> | <i>6.5</i> | <i>4.8</i> | <i>8.5</i> | <i>8.6</i> | |
| <i>Small Growth Median</i> | | | 3.2 | 15.3 | 7.5 | 6.2 | 6.6 | 9.2 | 8.7 | |
| Loomis Sayles Small Cap Growth Rank | | | 90 | 90 | 40 | 50 | -- | -- | 46 | |
| International Equity | 260,607,795 | 23.4 | 3.7 | 15.6 | 13.2 | 7.0 | 5.9 | -- | 6.3 | Jun-17 |
| <i>MSCI AC World ex USA (Net)</i> | | | <i>4.1</i> | <i>13.9</i> | <i>13.4</i> | <i>7.1</i> | <i>3.9</i> | <i>4.7</i> | <i>4.7</i> | |

Asset Allocation & Net Performance | As of July 31, 2023

| | Market Value \$ | % of Portfolio | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|--|--------------------|----------------|------------|-------------|-------------|------------|------------|------------|---------------|----------------|
| Developed Equity | 141,463,391 | 12.7 | 1.8 | 13.2 | 11.6 | 6.8 | 6.1 | -- | 5.8 | Jun-14 |
| <i>MSCI EAFE (Net)</i> | | | <i>3.2</i> | <i>15.3</i> | <i>16.8</i> | <i>9.3</i> | <i>4.5</i> | <i>5.2</i> | <i>4.0</i> | |
| First Eagle International Value | 41,636,169 | 3.7 | 1.8 | 8.9 | 9.4 | 5.9 | 4.3 | -- | 3.7 | Jun-14 |
| <i>MSCI EAFE (Net)</i> | | | <i>3.2</i> | <i>15.3</i> | <i>16.8</i> | <i>9.3</i> | <i>4.5</i> | <i>5.2</i> | <i>4.0</i> | |
| <i>Foreign Median</i> | | | 2.8 | 14.3 | 13.2 | 7.0 | 3.9 | 5.0 | 3.9 | |
| First Eagle International Value Rank | | | 80 | 94 | 80 | 62 | 40 | -- | 58 | |
| WCM Focused International Growth Fund | 52,162,083 | 4.7 | 0.5 | 15.1 | 9.1 | 5.1 | 9.1 | -- | 8.8 | Jun-14 |
| <i>MSCI AC World ex USA (Net)</i> | | | <i>4.1</i> | <i>13.9</i> | <i>13.4</i> | <i>7.1</i> | <i>3.9</i> | <i>4.7</i> | <i>3.6</i> | |
| <i>Foreign Median</i> | | | 2.8 | 14.3 | 13.2 | 7.0 | 3.9 | 5.0 | 3.9 | |
| WCM Focused International Growth Fund Rank | | | 97 | 35 | 82 | 70 | 1 | -- | 1 | |
| Northern Trust MSCI EAFE Index | 47,665,139 | 4.3 | 3.3 | 15.2 | 16.4 | 9.7 | 4.9 | -- | 7.3 | Jan-17 |
| <i>MSCI EAFE (Net)</i> | | | <i>3.2</i> | <i>15.3</i> | <i>16.8</i> | <i>9.3</i> | <i>4.5</i> | <i>5.2</i> | <i>6.9</i> | |
| <i>Foreign Median</i> | | | 2.8 | 14.3 | 13.2 | 7.0 | 3.9 | 5.0 | 6.6 | |
| Northern Trust MSCI EAFE Index Rank | | | 35 | 34 | 21 | 24 | 25 | -- | 31 | |
| Emerging Market Equity | 119,144,404 | 10.7 | 5.9 | 18.6 | 15.2 | 7.1 | 5.6 | -- | 5.7 | Jan-14 |
| <i>MSCI Emerging Markets (Net)</i> | | | <i>6.2</i> | <i>11.4</i> | <i>8.3</i> | <i>1.5</i> | <i>1.7</i> | <i>3.5</i> | <i>2.9</i> | |
| Dimensional Emerging Markets Value | 52,690,350 | 4.7 | 6.4 | 15.4 | 14.5 | 11.7 | 3.4 | -- | 3.8 | Jan-14 |
| <i>MSCI Emerging Markets Value (Net)</i> | | | <i>6.5</i> | <i>13.5</i> | <i>11.9</i> | <i>6.3</i> | <i>1.7</i> | <i>2.4</i> | <i>2.0</i> | |
| <i>Diversified Emerging Mkts Median</i> | | | 4.8 | 12.5 | 9.8 | 1.0 | 1.7 | 3.3 | 2.8 | |
| Dimensional Emerging Markets Value Rank | | | 14 | 20 | 17 | 3 | 23 | -- | 26 | |
| GQG Partners Emerging Markets | 66,454,054 | 6.0 | 5.6 | 21.2 | 15.8 | 4.0 | -- | -- | 8.3 | Sep-18 |
| <i>MSCI Emerging Markets (Net)</i> | | | <i>6.2</i> | <i>11.4</i> | <i>8.3</i> | <i>1.5</i> | <i>1.7</i> | <i>3.5</i> | <i>2.3</i> | |
| <i>Diversified Emerging Mkts Median</i> | | | 4.8 | 12.5 | 9.8 | 1.0 | 1.7 | 3.3 | 2.5 | |
| GQG Partners Emerging Markets Rank | | | 34 | 3 | 12 | 25 | -- | -- | 2 | |

Asset Allocation & Net Performance | As of July 31, 2023

| | Market Value \$ | % of Portfolio | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|---|--------------------|----------------|-------------|------------|-------------|-------------|-------------|------------|---------------|----------------|
| U.S. Core Bond Assets | 198,583,813 | 17.8 | -0.1 | 2.0 | -3.3 | -4.5 | 0.7 | 0.6 | 0.7 | May-13 |
| <i>Blmbg. U.S. Aggregate Index</i> | | | <i>-0.1</i> | <i>2.0</i> | <i>-3.4</i> | <i>-4.5</i> | <i>0.7</i> | <i>1.5</i> | <i>1.1</i> | |
| Northern Trust Barclays Aggregate Index | 198,583,813 | 17.8 | -0.1 | 2.0 | -3.3 | -4.5 | 0.7 | -- | 1.0 | Jan-16 |
| <i>Blmbg. U.S. Aggregate Index</i> | | | <i>-0.1</i> | <i>2.0</i> | <i>-3.4</i> | <i>-4.5</i> | <i>0.7</i> | <i>1.5</i> | <i>1.1</i> | |
| <i>Intermediate Core Bond Median</i> | | | <i>0.0</i> | <i>2.2</i> | <i>-3.4</i> | <i>-4.4</i> | <i>0.7</i> | <i>1.4</i> | <i>1.0</i> | |
| Northern Trust Barclays Aggregate Index Rank | | | 64 | 66 | 46 | 57 | 42 | -- | 50 | |
| Treasury Inflation Protected Securities | 29,419,799 | 2.6 | 0.1 | 2.0 | -5.3 | -0.8 | 2.6 | -- | 1.9 | Aug-16 |
| <i>Blmbg. U.S. TIPS</i> | | | <i>0.1</i> | <i>2.0</i> | <i>-5.4</i> | <i>-0.8</i> | <i>2.6</i> | <i>2.0</i> | <i>1.9</i> | |
| Northern Trust TIPS | 29,419,799 | 2.6 | 0.1 | 2.0 | -5.4 | -0.8 | 2.6 | -- | 1.9 | Aug-16 |
| <i>Blmbg. U.S. TIPS</i> | | | <i>0.1</i> | <i>2.0</i> | <i>-5.4</i> | <i>-0.8</i> | <i>2.6</i> | <i>2.0</i> | <i>1.9</i> | |
| <i>Inflation-Protected Bond Median</i> | | | <i>0.2</i> | <i>1.9</i> | <i>-5.1</i> | <i>-0.9</i> | <i>2.3</i> | <i>1.6</i> | <i>1.7</i> | |
| Northern Trust TIPS Rank | | | 60 | 42 | 56 | 49 | 29 | -- | 37 | |
| Foreign Bond Assets | 44,125,051 | 4.0 | 1.8 | 5.2 | 0.5 | -3.4 | -0.3 | 0.9 | 0.3 | May-13 |
| <i>Blmbg. Global Aggregate</i> | | | <i>0.7</i> | <i>2.1</i> | <i>-2.7</i> | <i>-5.7</i> | <i>-0.9</i> | <i>0.1</i> | <i>-0.2</i> | |
| Brandywine Global Opportunistic Fixed Income | 44,125,051 | 4.0 | 1.8 | 5.2 | 0.5 | -3.4 | -0.3 | 1.2 | 3.9 | Jan-06 |
| <i>Blmbg. Global Aggregate</i> | | | <i>0.7</i> | <i>2.1</i> | <i>-2.7</i> | <i>-5.7</i> | <i>-0.9</i> | <i>0.1</i> | <i>2.3</i> | |
| <i>Global Bond Median</i> | | | <i>1.0</i> | <i>2.2</i> | <i>-1.3</i> | <i>-5.4</i> | <i>-1.1</i> | <i>0.1</i> | <i>2.5</i> | |
| Brandywine Global Opportunistic Fixed Income Rank | | | 13 | 8 | 24 | 29 | 25 | 16 | 2 | |
| High Yield Bonds | 53,431,126 | 4.8 | 0.6 | 3.3 | -0.5 | -2.2 | 2.5 | 3.8 | 3.5 | May-13 |
| <i>Blmbg. U.S. Corp. High Yield Index</i> | | | <i>1.4</i> | <i>6.8</i> | <i>4.4</i> | <i>2.0</i> | <i>3.4</i> | <i>4.4</i> | <i>4.1</i> | |

Asset Allocation & Net Performance | As of July 31, 2023

| | Market Value \$ | % of Portfolio | 1 Mo (%) | YTD (%) | 1 Yr (%) | 3 Yrs (%) | 5 Yrs (%) | 10 Yrs (%) | Inception (%) | Inception Date |
|--|-------------------|----------------|-------------|-------------|--------------|-------------|--------------|-------------|---------------|----------------|
| Loomis Sayles Multisector Full Discretion | 53,431,126 | 4.8 | 0.6 | 3.3 | -0.5 | -2.2 | 2.5 | 3.6 | 5.8 | Jan-06 |
| <i>Blmbg. U.S. Govt/Credit</i> | | | <i>-0.1</i> | <i>2.1</i> | <i>-2.9</i> | <i>-4.8</i> | <i>1.0</i> | <i>1.6</i> | <i>3.1</i> | |
| <i>Multisector Bond Median</i> | | | <i>0.9</i> | <i>4.1</i> | <i>1.9</i> | <i>0.0</i> | <i>2.0</i> | <i>2.8</i> | <i>4.3</i> | |
| Loomis Sayles Multisector Full Discretion Rank | | | 85 | 72 | 89 | 96 | 21 | 14 | 1 | |
| Core Real Estate | 86,014,082 | 7.7 | 0.0 | -1.7 | -5.9 | 13.6 | 10.7 | -- | -- | Mar-16 |
| <i>NCREIF Fund Index-ODCE (EW) (Net)</i> | | | <i>0.0</i> | <i>-6.4</i> | <i>-10.5</i> | <i>7.6</i> | <i>6.1</i> | <i>8.1</i> | <i>6.7</i> | |
| TA Realty Core Property Fund, L.P. | 86,014,082 | 7.7 | 0.0 | -1.7 | -5.9 | 13.5 | -- | -- | 11.4 | Oct-19 |
| <i>NCREIF Fund Index-ODCE (EW) (Net)</i> | | | <i>0.0</i> | <i>-6.4</i> | <i>-10.5</i> | <i>7.6</i> | <i>6.1</i> | <i>8.1</i> | <i>6.0</i> | |
| Private Debt | 38,246,572 | 3.4 | 1.1 | 8.0 | 9.5 | 10.3 | 8.4 | 7.4 | 7.4 | May-13 |
| <i>Bloomberg US High Yield+2%</i> | | | <i>1.5</i> | <i>8.1</i> | <i>6.5</i> | <i>4.1</i> | <i>5.5</i> | <i>6.5</i> | <i>6.2</i> | |
| BlueBay Direct Lending Fund II, L.P. | 3,217,696 | 0.3 | 0.0 | 0.0 | -1.7 | 6.4 | 5.7 | -- | 6.6 | Aug-15 |
| <i>Bloomberg US High Yield+2%</i> | | | <i>1.5</i> | <i>8.1</i> | <i>6.5</i> | <i>4.1</i> | <i>5.5</i> | <i>6.5</i> | <i>6.5</i> | |
| ArrowMark Global Opportunity Fund IV | 35,028,876 | 3.1 | 1.2 | 8.9 | -- | -- | -- | -- | 11.4 | Sep-22 |
| <i>Bloomberg US High Yield+2%</i> | | | <i>1.5</i> | <i>8.1</i> | <i>6.5</i> | <i>4.1</i> | <i>5.5</i> | <i>6.5</i> | <i>8.8</i> | |
| Non-Core Real Estate | 3,569,961 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -16.2 | -6.3 | -2.4 | Feb-06 |
| <i>NCREIF Property (Q Lag)</i> | | | <i>0.0</i> | <i>-5.3</i> | <i>-1.6</i> | <i>7.2</i> | <i>6.7</i> | <i>8.3</i> | <i>7.5</i> | |
| Gainesville Vision | 3,569,961 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | -16.2 | -2.6 | -4.1 | Jan-08 |
| <i>NCREIF Property (Q Lag)</i> | | | <i>0.0</i> | <i>-5.3</i> | <i>-1.6</i> | <i>7.2</i> | <i>6.7</i> | <i>8.3</i> | <i>6.4</i> | |
| Cash | 4,422,106 | 0.4 | 0.3 | 1.6 | 2.3 | 0.9 | 1.5 | 0.9 | 1.0 | Feb-06 |
| <i>ICE BofA 3 Month U.S. T-Bill</i> | | | <i>0.4</i> | <i>2.7</i> | <i>4.0</i> | <i>1.4</i> | <i>1.6</i> | <i>1.0</i> | <i>1.3</i> | |

BlueBay Direct Lending Fund II as of March 31, 2023, adjusted for subsequent cash flows
BlueBay Direct Lending Fund II since inception net IRR performance is 7.36% as of March 31, 2023
TA Core Realty Property Fund, L.P. valued as of June 30, 2023, adjusted for subsequent cash flows

Cash Flow Summary | 1 Month Ending July 31, 2023

| | Beginning Market Value | Contributions | Distributions | Net Cash Flow | Net Investment Change | Ending Market Value |
|--|---------------------------|---------------|-----------------|-----------------|--------------------------|------------------------|
| ArrowMark Global Opportunity Fund IV | 34,598,766 | - | - | - | 430,110 | 35,028,876 |
| Barrow Hanley Small Cap Value Equity | 47,010,138 | - | - | - | 3,619,293 | 50,629,431 |
| BlueBay Direct Lending Fund II, L.P. | 3,217,696 | - | - | - | - | 3,217,696 |
| Brandywine Global Opportunistic Fixed Income | 43,347,400 | - | - | - | 777,651 | 44,125,051 |
| Dimensional Emerging Markets Value | 49,535,553 | - | - | - | 3,154,798 | 52,690,350 |
| Federated Government Obligations | 4,531,000 | 203 | -123,957 | -123,754 | 14,860 | 4,422,106 |
| First Eagle International Value | 40,886,690 | - | - | - | 749,478 | 41,636,169 |
| Gainesville Vision | 3,569,961 | - | - | - | - | 3,569,961 |
| GQG Partners Emerging Markets | 62,951,351 | - | - | - | 3,502,703 | 66,454,054 |
| Loomis Sayles Multisector Full Discretion | 53,167,515 | - | -55,552 | -55,552 | 319,163 | 53,431,126 |
| Loomis Sayles Small Cap Growth | 32,352,941 | - | - | - | 597,427 | 32,950,368 |
| Northern Trust Barclays Aggregate Index | 198,736,122 | - | - | - | -152,309 | 198,583,813 |
| Northern Trust MSCI EAFE Index | 46,161,294 | - | - | - | 1,503,845 | 47,665,139 |
| Northern Trust S&P 500 Index | 227,961,069 | - | - | - | 7,325,789 | 235,286,857 |
| Northern Trust S&P 400 MidCap Index | 75,255,914 | - | - | - | 3,104,059 | 78,359,973 |
| Northern Trust TIPS | 29,377,606 | - | - | - | 42,193 | 29,419,799 |
| TA Realty Core Property Fund, L.P. | 86,014,082 | - | - | - | - | 86,014,082 |
| WCM Focused International Growth Fund | 51,882,395 | - | - | - | 279,688 | 52,162,083 |
| Total | 1,090,557,493 | 203 | -179,509 | -179,306 | 25,268,747 | 1,115,646,935 |

| Annual Investment Expense Analysis | | | | |
|--|---|--------------------|-------------------|-------------------|
| | Fee Schedule | Market Value | Expense Ratio (%) | Estimated Expense |
| Domestic Equity | | | | |
| | | 397,226,630 | 0.15 | 579,675 |
| Northern Trust S&P 500 Index | 0.01 % of Assets | 235,286,857 | 0.01 | 17,647 |
| Northern Trust S&P 400 MidCap Index | 0.02 % of Assets | 78,359,973 | 0.02 | 11,754 |
| Barrow Hanley Small Cap Value Equity | 1.00 % of First \$10 M 0.50 % of Next \$190 M 0.40 % of Next \$200 M 0.30 % Thereafter | 50,629,431 | 0.60 | 303,147 |
| Loomis Sayles Small Cap Growth | 0.75 % of Assets | 32,950,368 | 0.75 | 247,128 |
| Developed Equity | | | | |
| | | 141,463,391 | 0.55 | 781,836 |
| First Eagle International Value | 0.79 % of Assets | 41,636,169 | 0.79 | 328,926 |
| WCM Focused International Growth Fund | 0.85 % of Assets | 52,162,083 | 0.85 | 443,378 |
| Northern Trust MSCI EAFE Index | 0.02 % of Assets | 47,665,139 | 0.02 | 9,533 |
| Emerging Market Equity | | | | |
| | | 119,144,404 | 0.61 | 722,221 |
| Dimensional Emerging Markets Value | 0.45 % of Assets | 52,690,350 | 0.45 | 237,107 |
| GQG Partners Emerging Markets | 0.73 % of Assets | 66,454,054 | 0.73 | 485,115 |
| U.S. Core Bond Assets | | | | |
| | | 198,583,813 | 0.02 | 34,752 |
| Northern Trust Barclays Aggregate Index | 0.02 % of Assets | 198,583,813 | 0.02 | 34,752 |
| Treasury Inflation Protected Securities | | | | |
| | | 29,419,799 | 0.02 | 5,148 |
| Northern Trust TIPS | 0.02 % of Assets | 29,419,799 | 0.02 | 5,148 |
| Foreign Bond Assets | | | | |
| | | 44,125,051 | 0.45 | 198,563 |
| Brandywine Global Opportunistic Fixed Income | 0.45 % of Assets | 44,125,051 | 0.45 | 198,563 |
| High Yield Bonds | | | | |
| | | 53,431,126 | 0.42 | 223,293 |
| Loomis Sayles Multisector Full Discretion | 0.57 % of First \$15 M 0.45 % of Next \$15 M 0.30 % Thereafter | 53,431,126 | 0.42 | 223,293 |
| Core Real Estate | | | | |
| | | 86,014,082 | 0.70 | 602,099 |

Performance Fees not included in fee calculation

Fee Schedule | As of July 31, 2023

| | Fee Schedule | Market Value | Expense Ratio (%) | Estimated Expense |
|--|------------------|----------------------|-------------------|-------------------|
| TA Realty Core Property Fund, L.P. | 0.70 % of Assets | 86,014,082 | 0.70 | 602,099 |
| Private Debt | | 38,246,572 | 0.46 | 175,144 |
| BlueBay Direct Lending Fund II, L.P. | 0.00 % of Assets | 3,217,696 | 0.00 | - |
| ArrowMark Global Opportunity Fund IV | 0.50 % of Assets | 35,028,876 | 0.50 | 175,144 |
| Non-Core Real Estate | | 3,569,961 | 0.00 | - |
| Gainesville Vision | 0.00 % of Assets | 3,569,961 | 0.00 | - |
| Cash | | 4,422,106 | 0.00 | - |
| Federated Government Obligations | 0.00 % of Assets | 4,422,106 | 0.00 | - |
| Total Retirement System Aggregate | | 1,115,646,935 | 0.30 | 3,322,733 |

Performance Fees not included in fee calculation

Fiscal Year Road Map

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF LOUISIANA

PRELIMINARY ROAD MAP¹

August 2023

1. Market Update
2. Performance Report
3. Introduction to Road Map

December 2023

1. Fee benchmarking
2. Equity exposure deep dive
3. Performance Report

March 2024

1. Annual asset study
2. Fixed income exposure deep dive
3. Performance Report

June 2024

1. Annual investment policy statement review
2. Performance Report

Ongoing objective

1. Educational sessions as needed

¹ Dates and actions subject to change based on client needs and capital market conditions

Disclaimer

Disclaimer

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SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM," "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.