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Active US Core Fixed Income Search

Pennsylvania State Employees' Retirement System (SERS) Defined Benefit Plan

July 22, 2025

Background

- Currently, the SERS Core Fixed Income portfolio primarily consists of a passive index strategy managed by Mellon Investments Corporation and a complementary active allocation managed by PIMCO.
- On April 1, 2025, a search process was initiated to identify active US Core Fixed Income strategies. The objective of the search was to enhance the overall return and risk profile of the Core Fixed Income portfolio within the Fixed Income composite of the Defined Benefit plan.
- As shown on the following page, active management within Core Fixed Income has, on average, been successful in generating excess returns over the Bloomberg US Aggregate Bond Index.
- The search was available publicly on the SERS and RVK websites with additional outreach through direct contact with investment management firms offering strategies listed in the eVestment Core Fixed Income peer group.
- To be considered, proposers had to meet the following criteria (as of March 31, 2025):
  - Demonstrated ability to manage institutional-sized portfolios, including at least one client (not affiliated with the firm) for whom the firm currently manages $10 million or more in the product under consideration.
  - Have at least $500 million in assets under management in the product under consideration.
  - Have at least $1 billion in assets under management at the firm-wide level.
  - A minimum three-year track record managing the proposed Active US Core Fixed Income product.

Core Fixed Income – Active Management Results

- Active management within the Core Fixed Income asset class has, on average, been successful in adding excess returns.
- The Bloomberg US Aggregate Bond Index ranks in the 97th percentile when compared to the active Core Fixed Income peer group, based on 20-year annualized returns through March 31, 2025.
- The exhibit below displays the 3-Year Rolling Average Excess Returns (net of fees, January 2001 – December 2024) for the active Core Fixed Income peer group.

Excess Returns (%) are calculated relative to the Bloomberg US Aggregate Bond Index
Assumed Active Management Fee: 21 (Basis Points)
Peak Population: 346

25th Percentile — Median — 75th Percentile
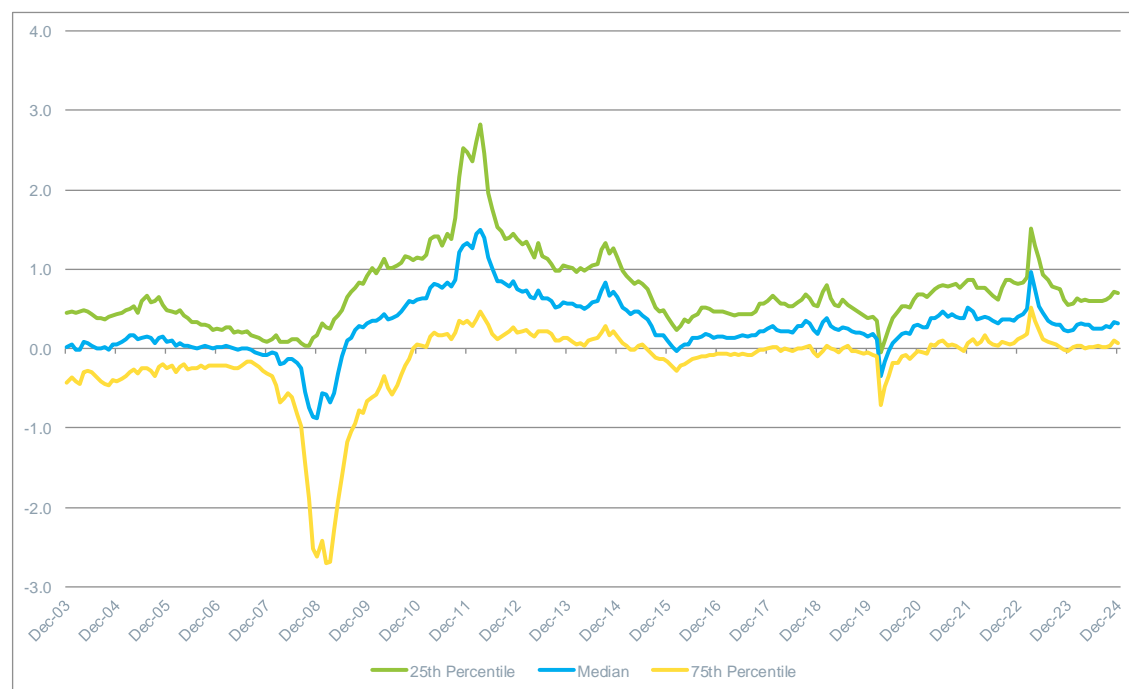
Excess return is calculated versus universe-specific benchmark. January 2001 represents the start of the first 3-year period.
Performance shown represents rolling 3-year performance at each quartile, and does not correspond to the long-term experience of any specific manager. Peer group constituents and managers' rankings change over time. Hit rate calculation represents the number of months where the median manager excess return was positive divided by the total number of months.

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Search Process

- There was significant interest in the search opportunity from the manager community. In total, more than 240 strategies were included in the initial evaluation process. Multiple criteria were used to narrow the field to consistent top performers.
- The quantitative analysis identified six strategies as potential candidates. Candidates were further evaluated through comprehensive due diligence questionnaires and interviews with each firm.
- The interviews and due diligence questionnaires provided substantial insights across all six candidates. Staff and RVK collaborated to assess the strengths and weaknesses of each strategy.
- Upon completing the evaluation process and conducting further analysis of each firm's potential contribution to the portfolio, the search was narrowed to three finalists: JPMorgan, Loomis Sayles and NISA.

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Manager Recommendation

- RVK agrees with and supports the Staff recommendation that the Board select the following strategies and allocate $500 million to each as new additions to the Core Fixed Income portfolio.
  - JPMorgan Core Bond
  - Loomis Sayles Core Fixed Income
  - NISA Core Broad Market Fixed Income
- The recommended managers share several key traits that were central to the selection decision:
  - A strong track record of generating excess returns while maintaining appropriate yield and effectively managing portfolio risk within the core bond universe.
  - Above median long-term performance rankings.
  - Clear diversification benefits to the overall portfolio.
  - Proposed fees that are competitively positioned relative to peers.

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Historical Manager Performance

- The consistency of excess return generation was a key focus during the evaluation process.
- The recommended strategies exhibit varying levels of relative risk, but each has consistently demonstrated the ability to outperform the benchmark over long-term periods.

Manager Consistency - 5 Year Annualized Period Calculated Every 12 Months
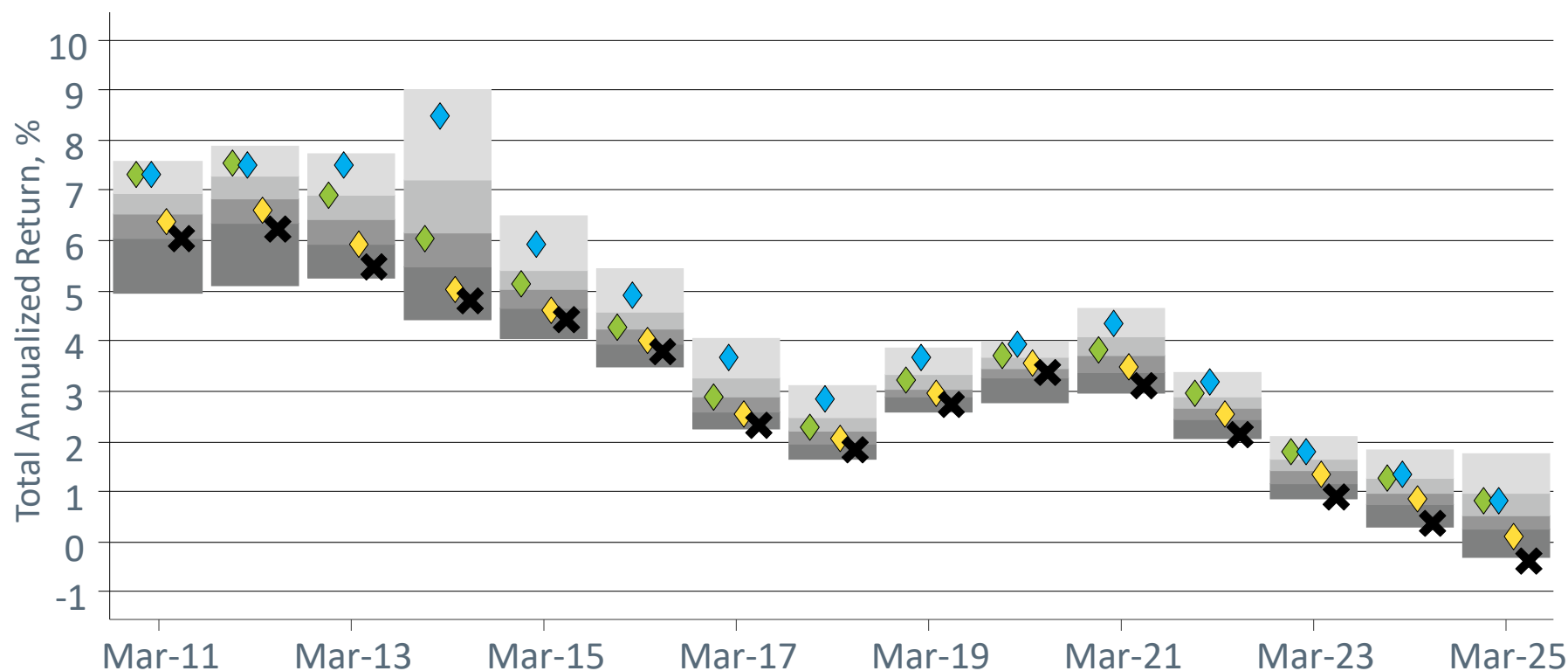
Legend: ◆ JPM: Core Bond ◆ Loomis Sayles: Core ◆ NISA: Core Broad Market ✖ Bloomberg US Aggregate Bond Index

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Portfolio Structure

- Each of the recommended candidates has produced attractive levels of return relative to their respective risk levels.
- There is clear process differentiation across the candidates, with each seeking to generate returns from unique sources.
- The combination of these managers is expected to reduce the cyclicality of excess return generation within the SERS Core Fixed Income portfolio.

Manager	Tracking Error	Volatility Risk	Duration Risk	Spread Risk
JPMorgan	Moderate	Lower than Benchmark	Moderate	Moderate
Loomis Sayles	Moderate/High	Similar to Benchmark	Moderate/Low	Moderate
NISA	Low	Similar to Benchmark	Similar to Benchmark	Low

Analysis is gross of fees. The period represents 240 months ending March 31, 2025. Average returns of the indexes in past regimes of implied volatility (top 20% of VIX monthly readings = High Volatility, middle 80% = Moderate Volatility, bottom 20% = Low Volatility).

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Portfolio Structure – Historical Blend Analysis

- The combination of these three recommended managers would have produced balanced performance across both rising and falling market environments, while maintaining attractive levels of excess returns and low tracking error.
- Generally, the objective of this manager combination is to improve risk-adjusted returns (as measured by the Sharpe and Information Ratio) and aim for a consistent source of excess returns that ranks favorably to other active managers.
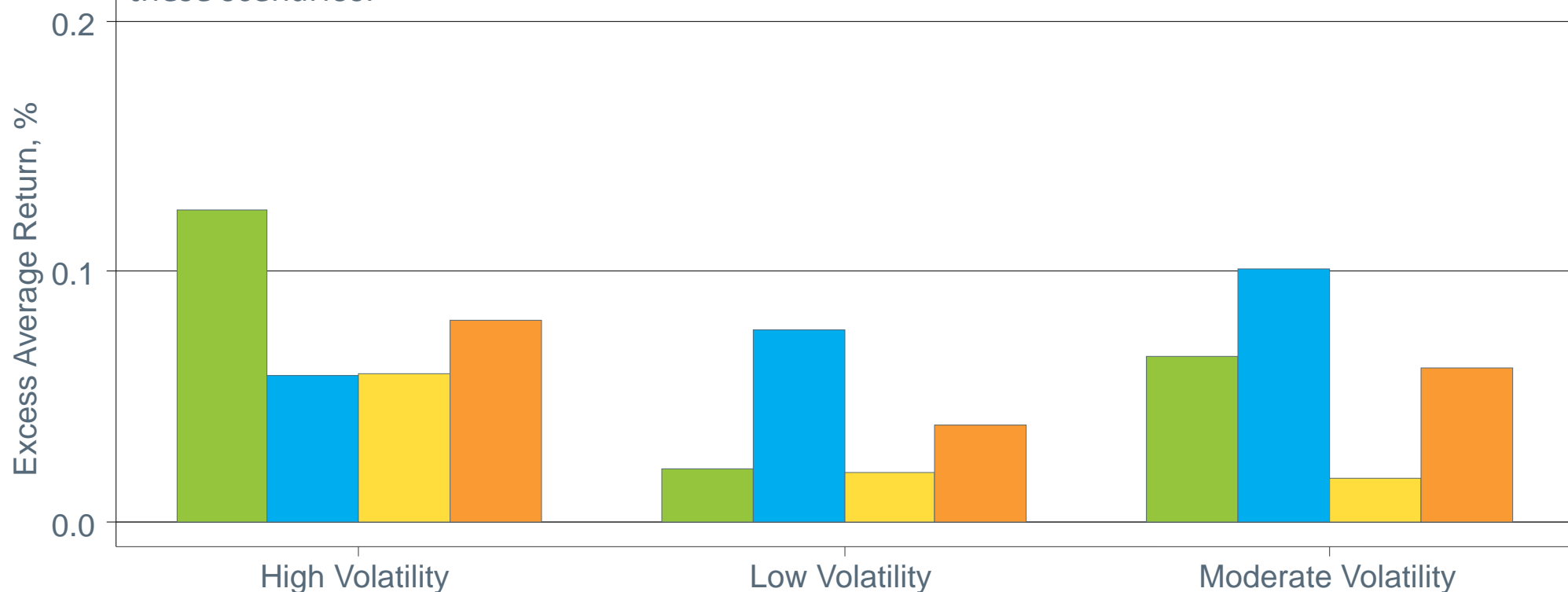
15 Year Statistics	Total Return	Standard Deviation	Sharpe Ratio	Excess Return	Tracking Error	Info Ratio	Up Market Capture Ratio	Down Market Capture Ratio	Alpha	Beta
JPM: Core Bond	3.21	4.21	0.47	0.78	0.65	1.20	102.73	87.31	0.82	0.95
Loomis Sayles: Core	3.55	4.48	0.52	1.11	0.87	1.27	112.15	93.92	1.08	1.00
NISA: Core Broad Market	2.76	4.43	0.35	0.32	0.18	1.82	102.81	97.21	0.31	1.00
SERS Core Fixed Income Blend	*3.17*	*4.35*	*0.45*	*0.74*	*0.44*	*1.67*	*105.90*	*92.81*	*0.74*	*0.98*
Bloomberg US Agg	**2.44**	**4.42**	**0.28**	---	---	---	**100.00**	**100.00**	---	**1.00**
eA Core Fixed Income Median	**3.04**	**4.50**	**0.41**	**0.61**	**0.96**	**0.62**	**105.72**	**96.72**	**0.61**	**1.00**

SERS Core Fixed Income Blend represents an equally weighted blend of JPMorgan, Loomis Sayles and NISA, rebalanced monthly, and is intended for analysis of historical results of the manager combination.

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Portfolio Structure – VIX Scenario Analysis

- The analysis below calculates the historical excess returns of each manager, as well as an equally weighted blend, across different equity market conditions, grouped by the implied volatility of the stock market.
- While each manager demonstrates relative strengths and weaknesses under varying conditions, the blended portfolio **(orange)** would have delivered stable excess returns across these scenarios.


Legend:
- JPM: Core Bond
- Loomis Sayles: Core
- NISA: Core Broad Market
- SERS Core Fixed Income Blend

Y-axis: Excess Average Return, %

X-axis categories: High Volatility, Low Volatility, Moderate Volatility

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Portfolio Structure – Credit Spread Scenario Analysis

- This scenario analysis focuses on the excess returns of each manager and the combined blend under different credit spread conditions.
- While each manager exhibits relative strengths and weaknesses across these conditions, the blended portfolio **(orange)** would have delivered stable excess returns across the various scenarios.
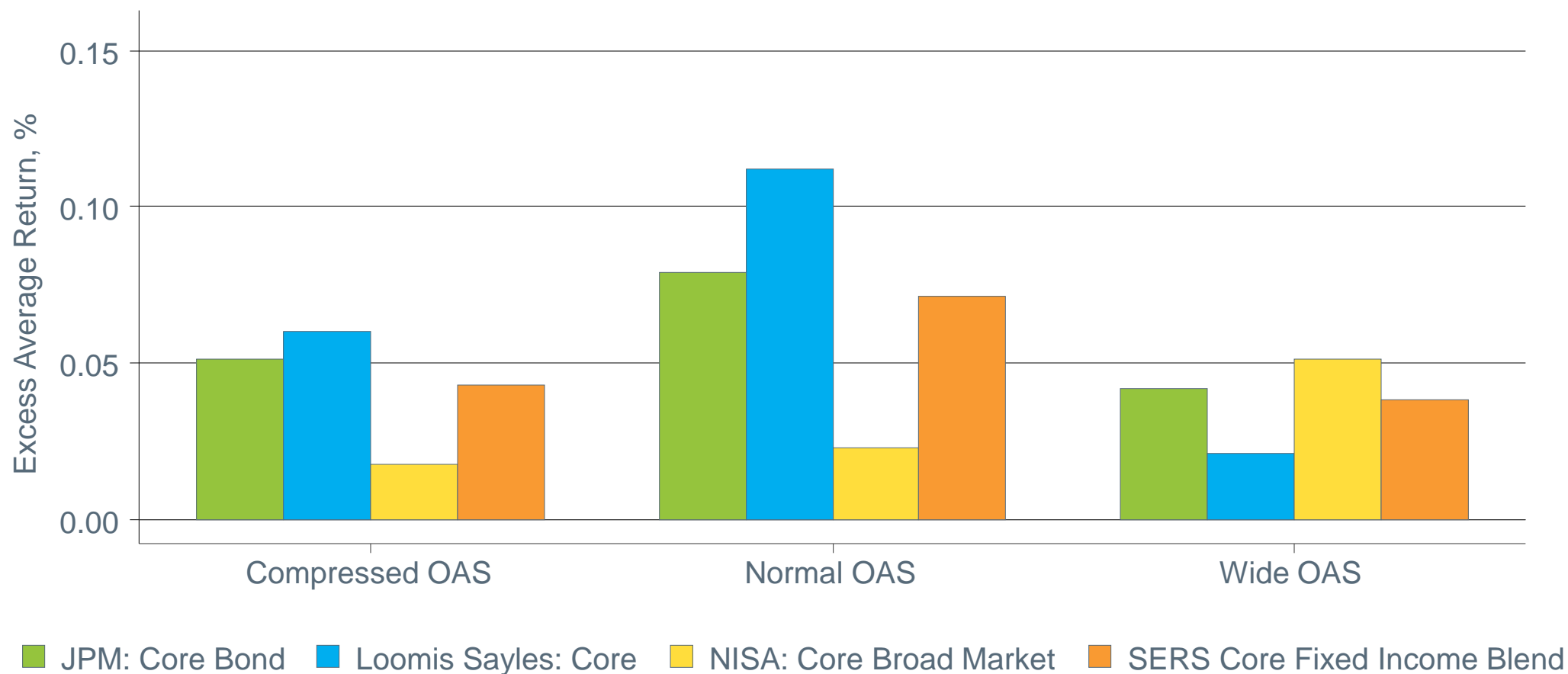
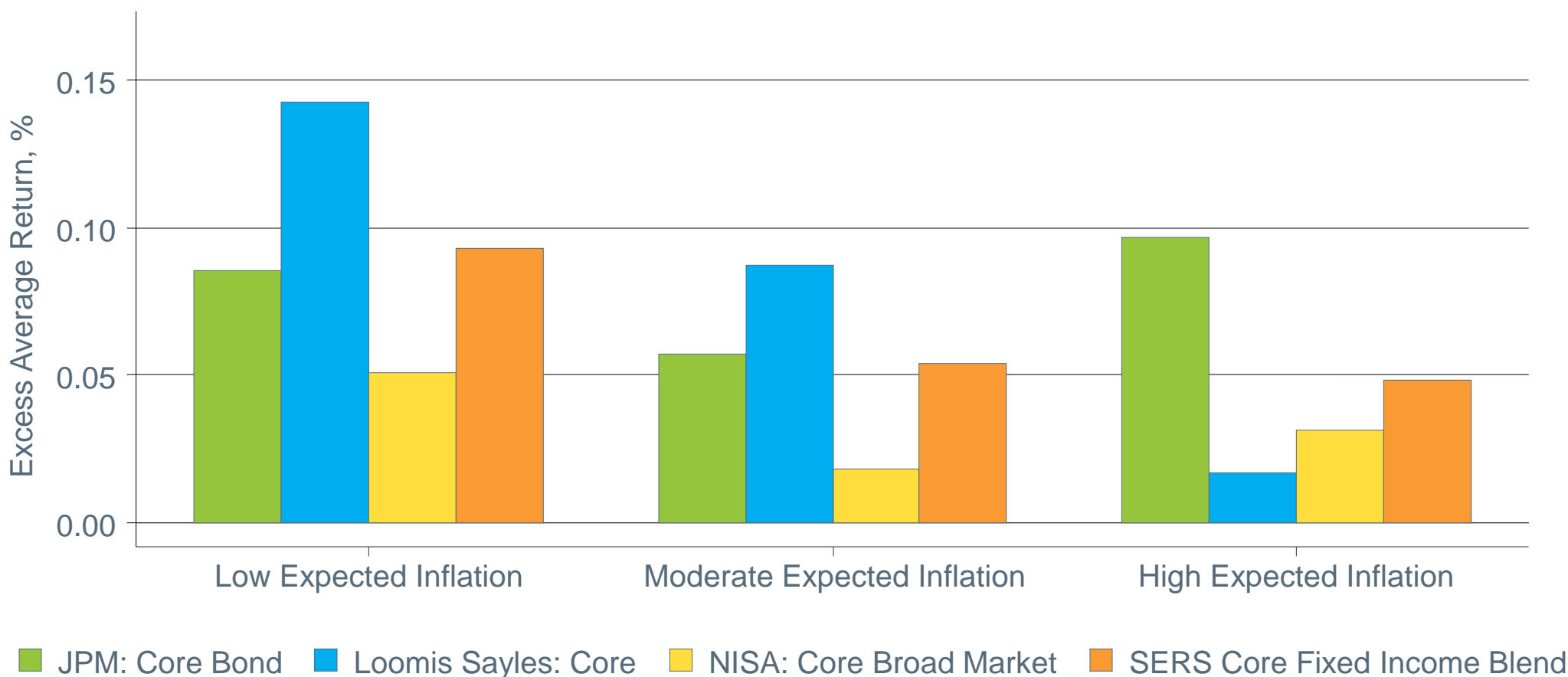**Legend:** JPM: Core Bond | Loomis Sayles: Core | NISA: Core Broad Market | SERS Core Fixed Income Blend

Analysis is gross of fees. The period represents 240 months ending March 31, 2025. Returns are averaged to illustrate the performance of each strategy in past credit spread environments. Moderate credit spread is defined as an OAS between 1 and 2. SERS Core Fixed Income Blend represents an equally weighted blend of JPMorgan, Loomis Sayles and NISA, rebalanced monthly, and is intended for analysis of historical results of the manager combination.

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Portfolio Structure – Inflation Scenario Analysis

- This scenario analysis focuses on the excess returns of each manager and the combined blend during periods with varying levels of expected inflation.
- While each manager exhibits relative strengths and weaknesses under these conditions, the blended portfolio **(orange)** would have delivered stable excess returns across the different inflation scenarios.

Legend: JPM: Core Bond | Loomis Sayles: Core | NISA: Core Broad Market | SERS Core Fixed Income Blend

Analysis is gross of fees. The period represents 240 months ending March 31, 2025. Returns are average to illustrate the performance of each strategy in past inflation expectation regimes. Moderate expected inflation is defined as a 5Y breakeven rate between 1.5 and 2.5. SERS Core Fixed Income Blend represents an equally weighted blend of JPMorgan, Loomis Sayles and NISA, rebalanced monthly, and is intended for analysis of historical results of the manager combination.

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Manager Summaries

JPMorgan Core Bond

Firm and Team

- JPMorgan Investment Management (JPMIM) is registered with the SEC and is an indirect, wholly owned subsidiary of JPMorgan Chase, which trades on the NYSE under the ticker JPM. The firm manages nearly $1.4 trillion in U.S. Fixed Income strategies.
- The firm is headquartered in New York City, with key members of the Core Fixed Income team based in Columbus, Ohio.
- The investment team includes 12 portfolio managers, averaging 23 years of industry experience and 18 years with the firm. The research group comprises 82 analysts.

Philosophy and Process

- The strategy seeks to outperform the Bloomberg U.S. Aggregate Index over a typical market cycle. Fundamentally based security selection is the foundation of the approach. The team believes that opportunities are most prevalent in inefficient areas of the market, which has historically led to a bias toward securitized sectors.

Risks to Consider

- The portfolio's sizable exposure to securitized credit introduces liquidity risk, particularly during periods of market stress. While strong risk management practices help mitigate this risk, they do not eliminate it entirely.
- Additionally, JPMIM is wholly owned by a publicly traded bank and may be subject to elevated headline risk relative to other candidates.

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Loomis Sayles Core Fixed Income

Firm and Team

- Since 2000, the firm has operated as a wholly owned subsidiary of Natixis Investment Managers, LLC, the US arm of Paris-based Natixis. Loomis Sayles manages $162 billion in fixed income.
- The strategy is managed by the Core Fixed Income team, led by three portfolio managers—Chris Harms, Cliff Rowe, and Dan Conklin—who average over 31 years of industry experience and have each been with Loomis Sayles for more than 20 years.
- The portfolio managers are supported by the firm's extensive resources, including 14 global macro strategists, 49 credit research analysts, 12 securitized analysts, 26 traders, and a dedicated group of risk and quantitative analysts.

Philosophy and Process

- The investment process combines sector team research with the portfolio managers' ongoing assessment of market conditions, including the investment cycle, investor risk preferences, liquidity, and price transparency. Portfolios are positioned relative to the benchmark to maintain a balance between return potential, income, and capital preservation.

Risks to Consider

- The team has historically maintained an underweight to Treasuries and Agency MBS relative to the benchmark, favoring instead allocations to asset-backed securities (ABS) that offer higher yields in exchange for greater structural complexity.

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NISA Core Broad Market Fixed Income

Firm and Team

- NISA Investment Advisors, LLC (NISA) is registered with the SEC and is a wholly owned subsidiary of NISA, LLC which is 100% employee owned. The firm is headquartered in St. Louis, Missouri and manages approximately $432 billion in total assets across physical and overlay strategies, with approximately $269 billion invested in physical Fixed Income strategies.
- NISA employs a collaborative, team-based approach to portfolio management. The investment team comprises of 9 portfolio managers with an average of 25 years of industry experience, supported by a research group of 88 analysts and 24 traders.

Philosophy and Process

- The strategy seeks to outperform the Bloomberg US Aggregate Index over a typical market cycle. A key differentiator for NISA is their ability to act as a liquidity provider in the market. Their ability to execute trades when others may be constrained, often secures them more favorable pricing as a result. Trading is the foundation of their strategy and believed to be the most reliable and repeatable source of performance. The portfolio is managed to be duration-neutral and not a source of excess returns.

Risks to Consider

- The approach is highly benchmark-aware, emphasizing risk-controlled implementation and precise duration and sector alignment. As a result, performance tends to stay tightly aligned with the index. This construction approach can be appropriate when reducing exposure to passively managed strategies, but will limit the excess return potential of the portfolio.

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