Active Core Fixed Income Manager Search Recommendation

Commonwealth of Pennsylvania State Employees' Retirement System

Prepared for: SERS Investment Committee

Date: July 22, 2025

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Search Summary

- Investment Staff and RVK evaluated 246 Active Core Fixed Income strategies

- Investment Staff and RVK selected six managers for further due diligence

- Staff and RVK recommend that the Board hire three managers and allocate $500 million to each manager. The managers and strategies selected include:
  1. NISA Core Broad Market Fixed Income
  2. Loomis, Sayles Core Fixed Income
  3. J.P. Morgan Core Bond

- All three managers have a proven track record of delivering strong risk-adjusted returns on a consistent basis at very competitive low fees

Active Core Fixed Income Manager Recommendations

	NISA	Loomis Sayles	J.P. Morgan
Key Strengths:	Strong Risk-Adjusted Returns	Strong Risk-Adjusted Returns	Strong Risk-Adjusted Returns
	Consistent Outperformance	Consistent Outperformance	Consistent Outperformance
	Risk-Controlled, Diversified	Strong Excess Returns	Strong Excess Returns
	Duration Neutral	Duration Neutral	Uncorrelated Excess Returns
	Low Tracking Error	Strong Research Process	Strong Downside Capture
	Experienced Team	Experienced Team	Experienced Team
	Credit Research Capabilities	Credit Research Capabilities	Credit Research Capabilities
Product AUM ($B)	$33.8	$25.9	$101.6
Excess Return Objective:	40-60 bps over market cycle	50-100 bps over market cycle	50-100 bps over market cycle
Fee Rank	SERS negotiated fees are very low and rank near the top decile versus peers		

Strong Outperformance Versus Benchmark

- As a <u>combination</u> and individually, NISA, Loomis, and JPM demonstrate a strong track record of consistent outperformance against the Bloomberg U.S. Aggregate Index (net of fees)

	Rolling 5-Year Returns (net of fees)									
	3/31/2025	3/31/2024	3/31/2023	3/31/2022	3/31/2021	3/31/2020	3/31/2019	3/31/2018	3/31/2017	3/31/2016
NISA, Loomis, JPM	0.46%	1.02%	1.50%	2.75%	3.75%	3.61%	3.15%	2.26%	2.90%	4.26%
Bloomberg U.S. Agg Index	-0.40%	0.36%	0.91%	2.14%	3.10%	3.36%	2.74%	1.82%	2.34%	3.78%
Annualized Excess Returns (net of fees)	0.86%	0.66%	0.59%	0.61%	0.65%	0.25%	0.41%	0.43%	0.56%	0.48%

Rolling 5-Year Returns (net of fees):
NISA, Loomis, JPM minus Agg Index
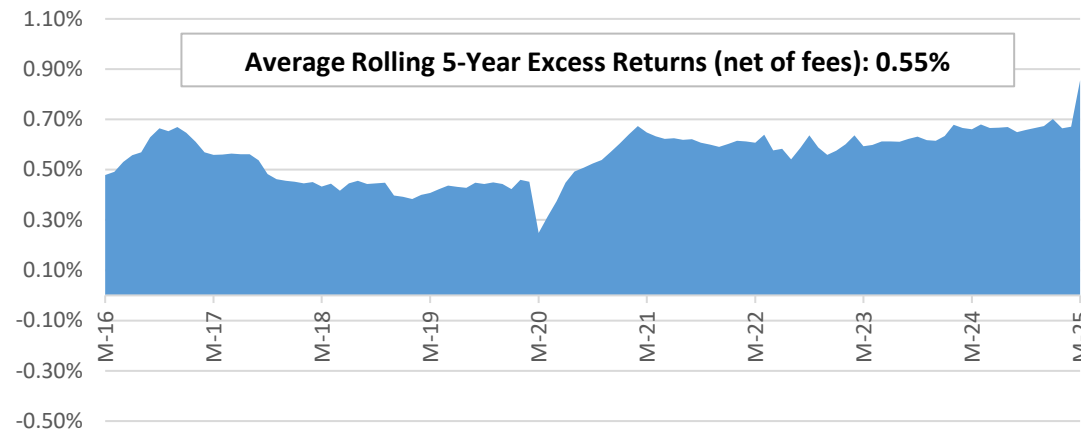
Average Rolling 5-Year Excess Returns (net of fees): 0.55%

Strong Outperformance Versus Benchmark

- As a combination and <u>individually</u>, NISA, Loomis, and JPM demonstrate a strong track record of consistent outperformance against the Bloomberg U.S. Aggregate Index (net of fees)
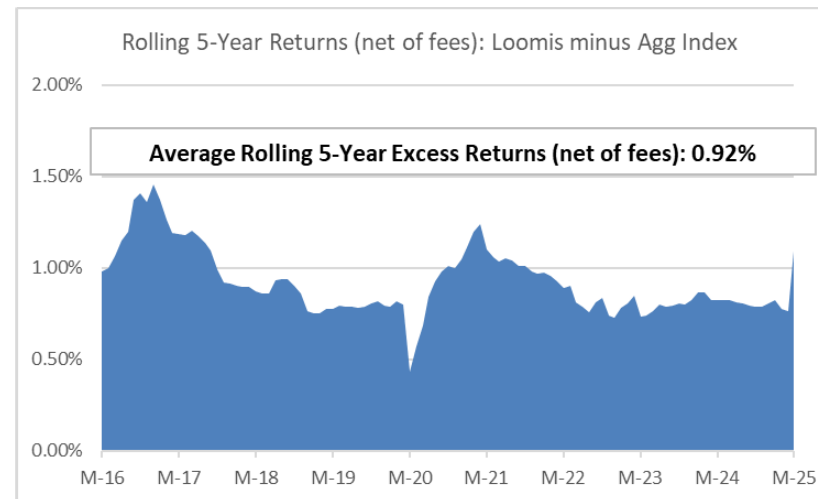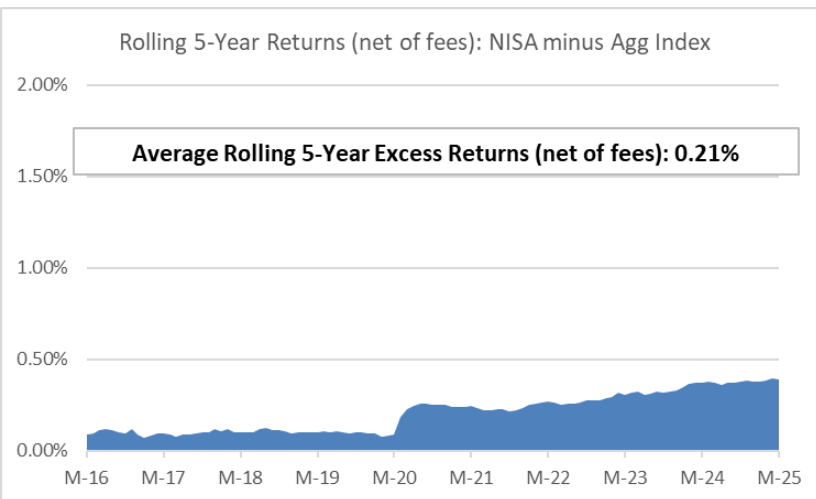

Rolling 5-Year Returns (net of fees): NISA minus Agg Index

Average Rolling 5-Year Excess Returns (net of fees): 0.21%

Rolling 5-Year Returns (net of fees): Loomis minus Agg Index

Average Rolling 5-Year Excess Returns (net of fees): 0.92%

Rolling 5-Year Returns (net of fees): JPM minus Agg Index

Average Rolling 5-Year Excess Returns (net of fees): 0.53%
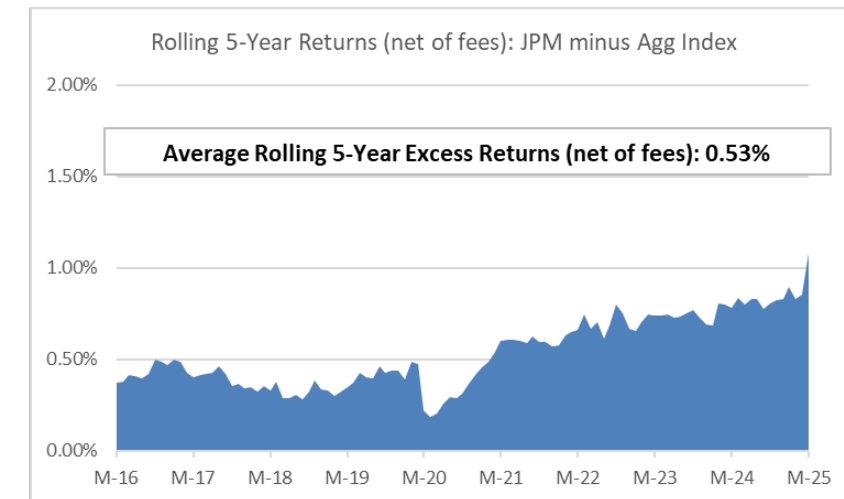
Strong Risk-Adjusted Returns

▪ **Information Ratio is a measure of the value added per unit of active risk by a manager over an index (i.e., are you getting paid for the risk the manager is taking?)**

- A positive Information Ratio would indicate effective risk management by a manager; the higher the better

$$\text{Information Ratio} = \frac{\text{Portfolio Return} - \text{Benchmark Return}}{\text{Portfolio Tracking Error}}$$

▪ **As a combination and individually, NISA, Loomis, and JPM achieve high Information Ratios**

	Rolling 5-Year Information Ratio									
	3/31/2025	3/31/2024	3/31/2023	3/31/2022	3/31/2021	3/31/2020	3/31/2019	3/31/2018	3/31/2017	3/31/2016
NISA, Loomis, JPM	2.13	1.23	1.13	1.35	1.42	0.81	2.83	2.87	2.96	1.91

Average Rolling 5-Year Information Ratio: 1.86

Consistent Outperformance Versus Benchmark

- **Batting Average is a measure of the frequency of success**
  - Calculated by taking the number of months in the period where the combination outperformed the Bloomberg U.S. Agg Index (net of fees) divided by the total number of months
  - Measures frequency of success without regard to degree of outperformance

- **As the table demonstrates below, the combination of NISA, Loomis, and JPM has achieved consistent monthly outperformance (net of fees)**

	Rolling 5-Year Batting Average (net of fees)									
	3/31/2025	3/31/2024	3/31/2023	3/31/2022	3/31/2021	3/31/2020	3/31/2019	3/31/2018	3/31/2017	3/31/2016
NISA, Loomis, JPM	85%	82%	80%	85%	85%	77%	77%	77%	80%	73%

Average Rolling 5-Year Batting Average (net of fees): 80%

Good Downside Market Capture and Upside Market Capture

- **Downside Market Capture measures how well an investment manager performs relative to a benchmark during periods of market decline**
  - A ratio under 100% means the portfolio lost less than the benchmark
  - The combination of NISA, Loomis, and JPM has historically provided good downside protection

	Rolling 5-Year Downside Market Capture Ratio									
	3/31/2025	3/31/2024	3/31/2023	3/31/2022	3/31/2021	3/31/2020	3/31/2019	3/31/2018	3/31/2017	3/31/2016
NISA, Loomis, JPM	93%	96%	96%	98%	99%	100%	91%	92%	91%	90%

Average Rolling 5-Year Downside Market Capture Ratio: 95%

- **Upside Market Capture measures how well an investment manager performs relative to a benchmark during periods of market growth**
  - A ratio above 100% means the portfolio gained more than the benchmark
  - The combination of NISA, Loomis, and JPM has historically provided good upside market capture

	Rolling 5-Year Upside Market Capture Ratio									
	3/31/2025	3/31/2024	3/31/2023	3/31/2022	3/31/2021	3/31/2020	3/31/2019	3/31/2018	3/31/2017	3/31/2016
NISA, Loomis, JPM	105%	106%	106%	111%	112%	106%	106%	106%	109%	106%

Average Rolling 5-Year Upside Market Capture Ratio: 107%

Next Steps

- Investment Committee to recommend that the Board hire NISA, Loomis, and JPM

- Funding will be from the Mellon U.S. Aggregate Bond Index and Cash

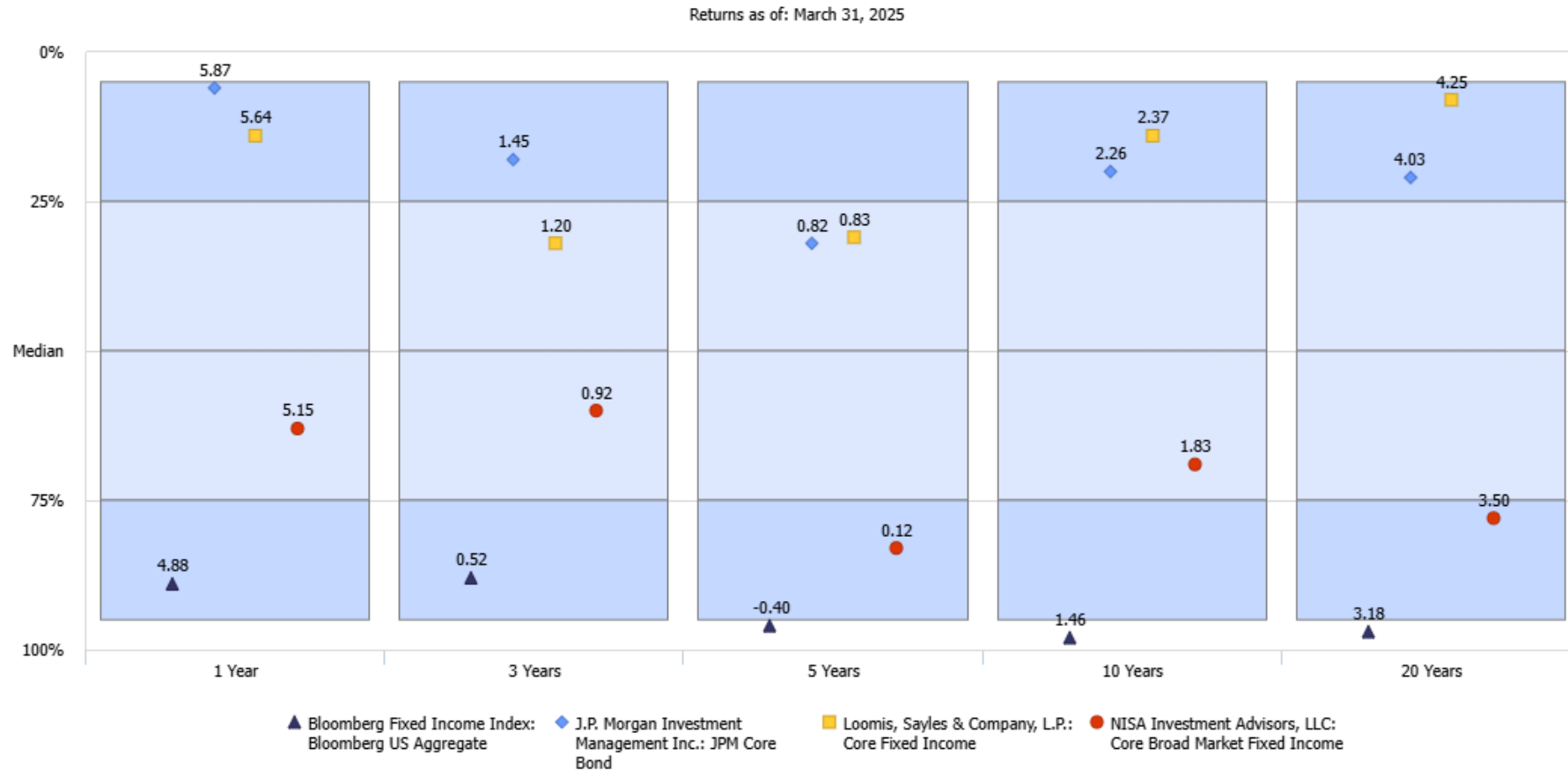- Investment staff may use a transition manager to efficiently fund these strategies

Appendix

- All charts in Appendix were produced through Nasdaq eVestment

Trailing Period Performance vs Peers (3/31/2025)

Returns as of: March 31, 2025

Legend:
- ▲ Bloomberg Fixed Income Index: Bloomberg US Aggregate
- ◆ J.P. Morgan Investment Management Inc.: JPM Core Bond
- ▢ Loomis, Sayles & Company, L.P.: Core Fixed Income
- ● NISA Investment Advisors, LLC: Core Broad Market Fixed Income

Period	Bloomberg ▲	J.P. Morgan ◆	Loomis Sayles ▢	NISA ●
1 Year	4.88	5.87	5.64	5.15
3 Years	0.52	1.45	1.20	0.92
5 Years	-0.40	0.82	0.83	0.12
10 Years	1.46	2.26	2.37	1.83
20 Years	3.18	4.03	4.25	3.50

Universe: eVestment US Core Fixed Income

Source: Nasdaq eVestment

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Rolling 3-Year Performance vs Peers (3/31/2025)

Returns

	4/22-3/25	4/21-3/24	4/20-3/23	4/19-3/22	4/18-3/21
J.P. Morgan (◆)	1.45	-1.56	-1.31	2.62	5.44
Loomis, Sayles (▢)	1.20	-1.82	-1.42	2.87	5.93
NISA (●)	0.92	-2.02	-2.15	2.21	5.08
Bloomberg (▲)	0.52	-2.46	-2.77	1.69	4.65

▲ Bloomberg Fixed Income Index: Bloomberg US Aggregate
◆ J.P. Morgan Investment Management Inc.: JPM Core Bond
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Universe: eVestment US Core Fixed Income
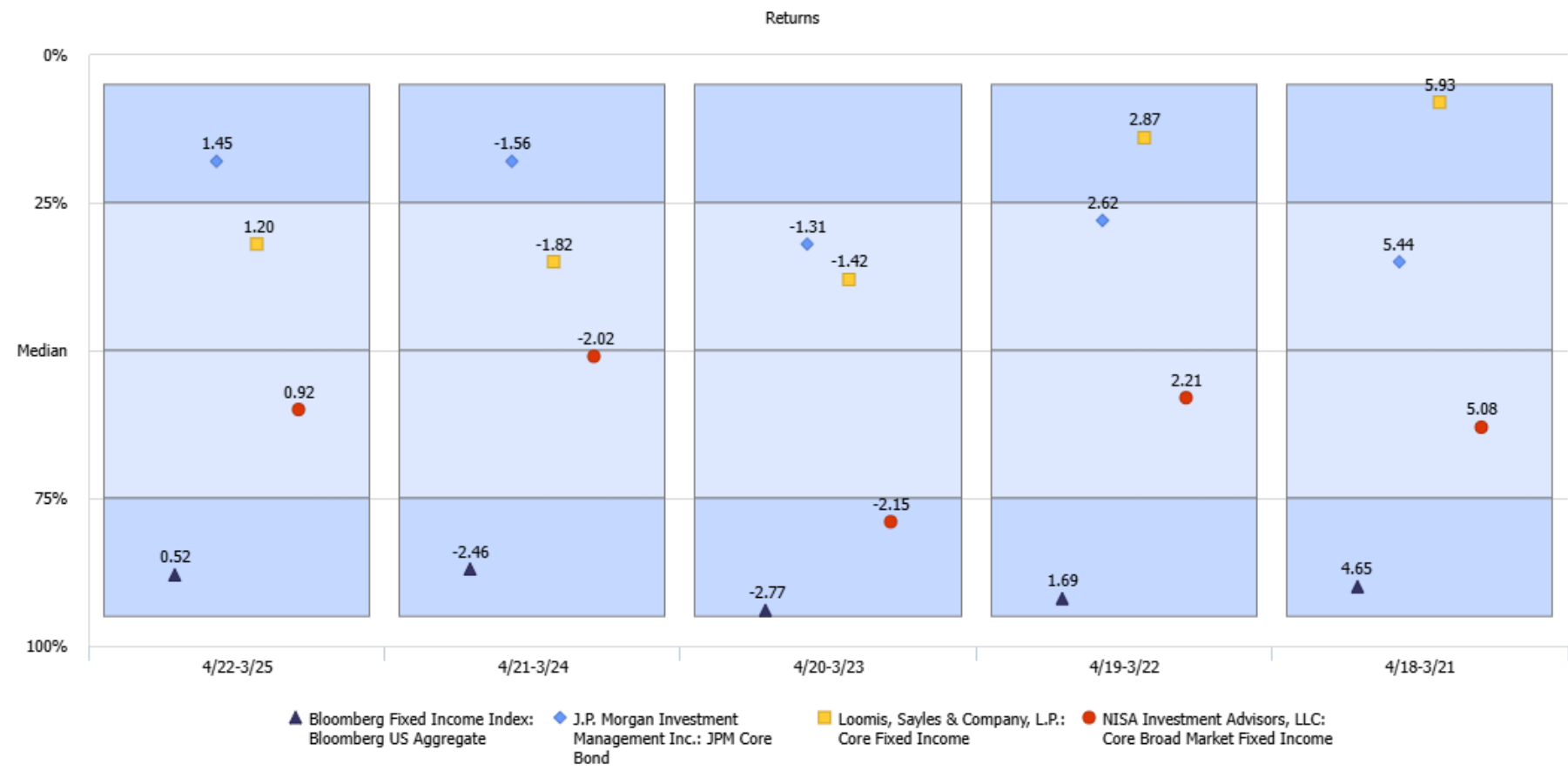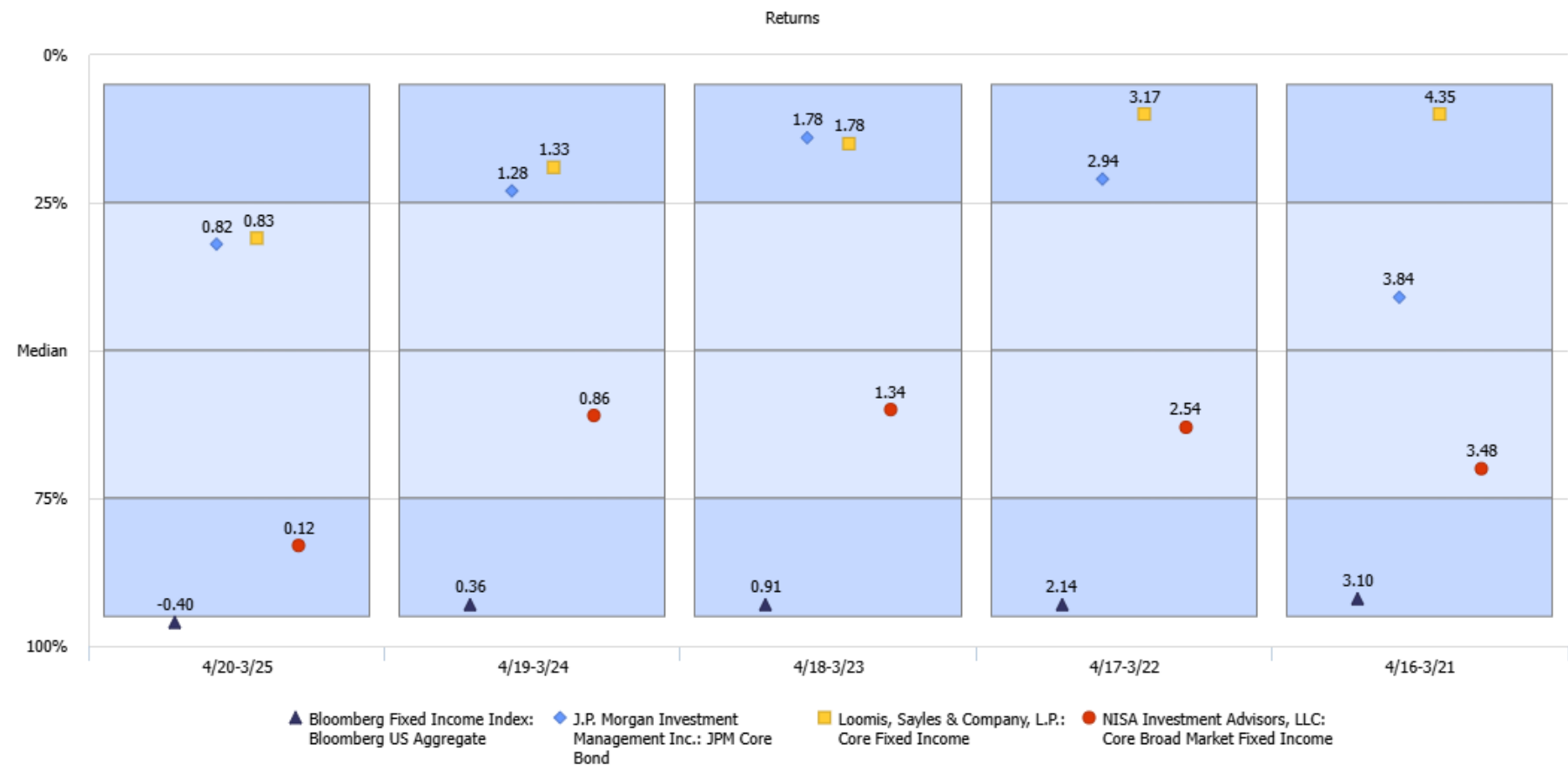
Source: Nasdaq eVestment

Rolling 5-Year Performance vs Peers (3/31/2025)

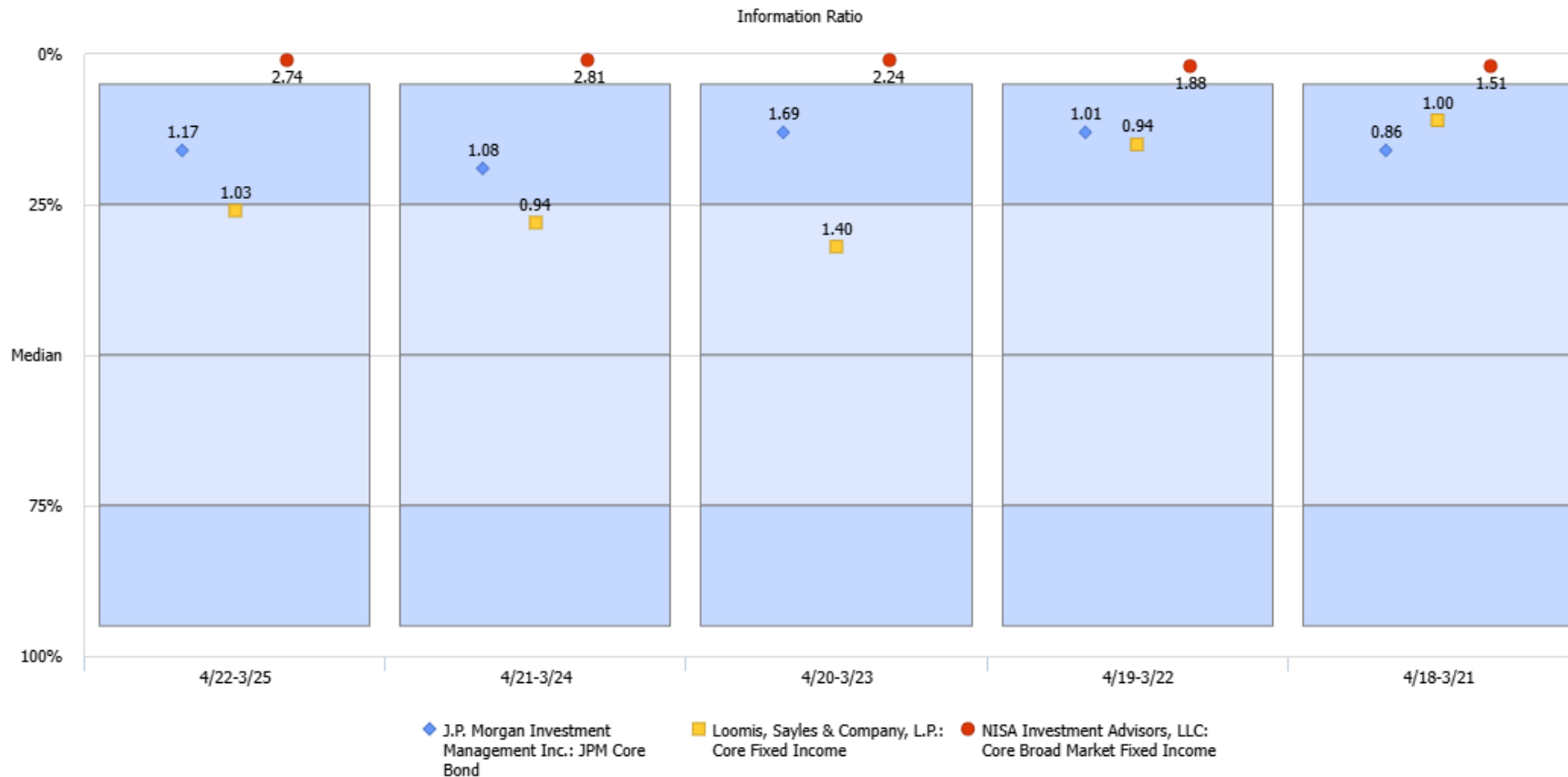
Universe: eVestment US Core Fixed Income

Source: Nasdaq eVestment

Rolling 3-Year Information Ratio vs Peers (3/31/2025)

- **Information Ratio is a measure of the value added per unit of active risk by a manager over an index (i.e., are you getting paid for the risk the manager is taking?)**
  - A positive Information Ratio would indicate efficient use of risk by a manager; the higher the better

$$\text{Information Ratio} = \frac{\text{Portfolio Return} - \text{Benchmark Return}}{\text{Tracking Error}}$$

Information Ratio

Period	J.P. Morgan (blue diamond)	Loomis Sayles (yellow square)	NISA (red circle)
4/22-3/25	1.17	1.03	2.74
4/21-3/24	1.08	0.94	2.81
4/20-3/23	1.69	1.40	2.24
4/19-3/22	1.01	0.94	1.88
4/18-3/21	0.86	1.00	1.51

- ◆ J.P. Morgan Investment Management Inc.: JPM Core Bond
- ◻ Loomis, Sayles & Company, L.P.: Core Fixed Income
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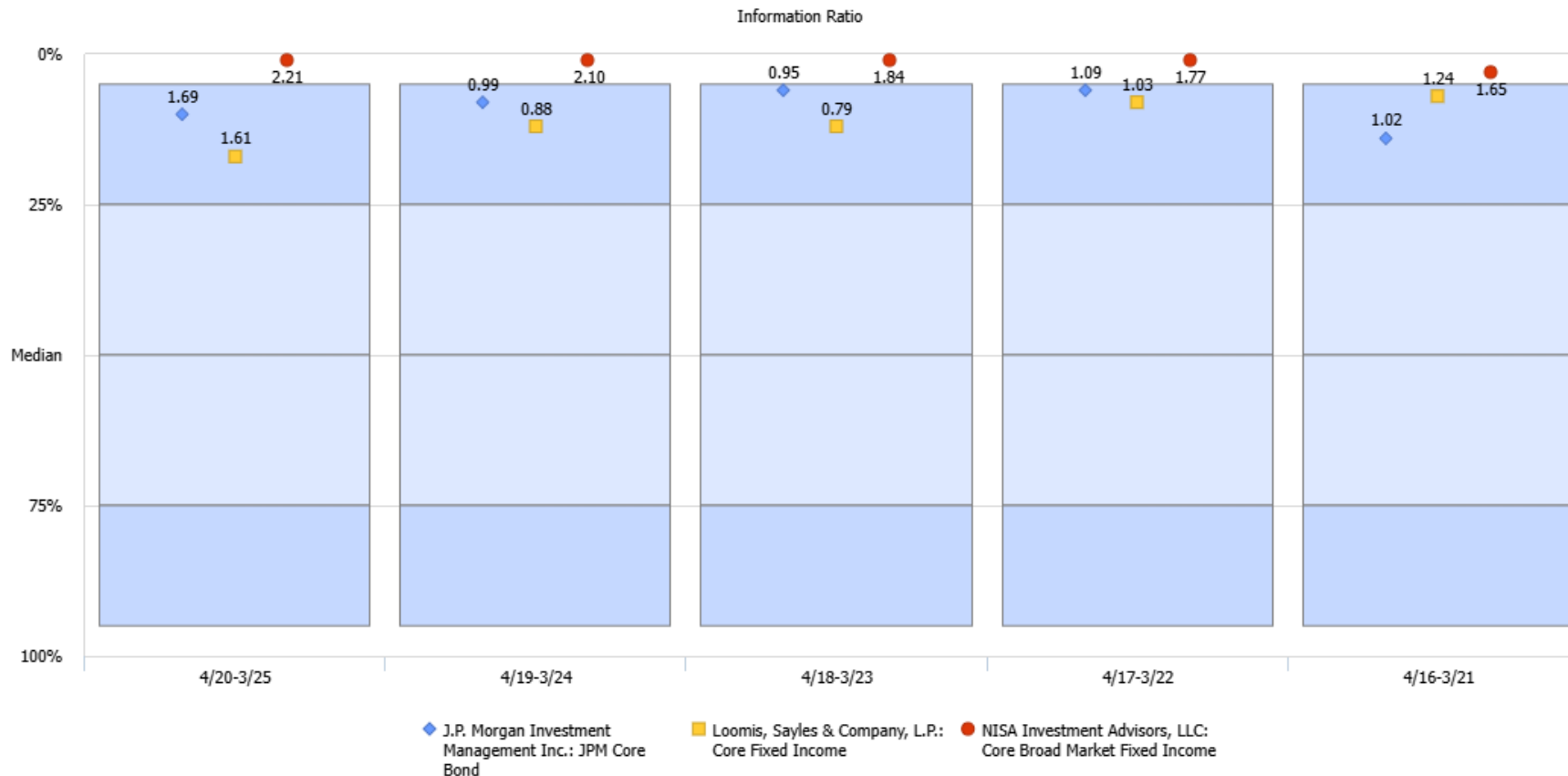
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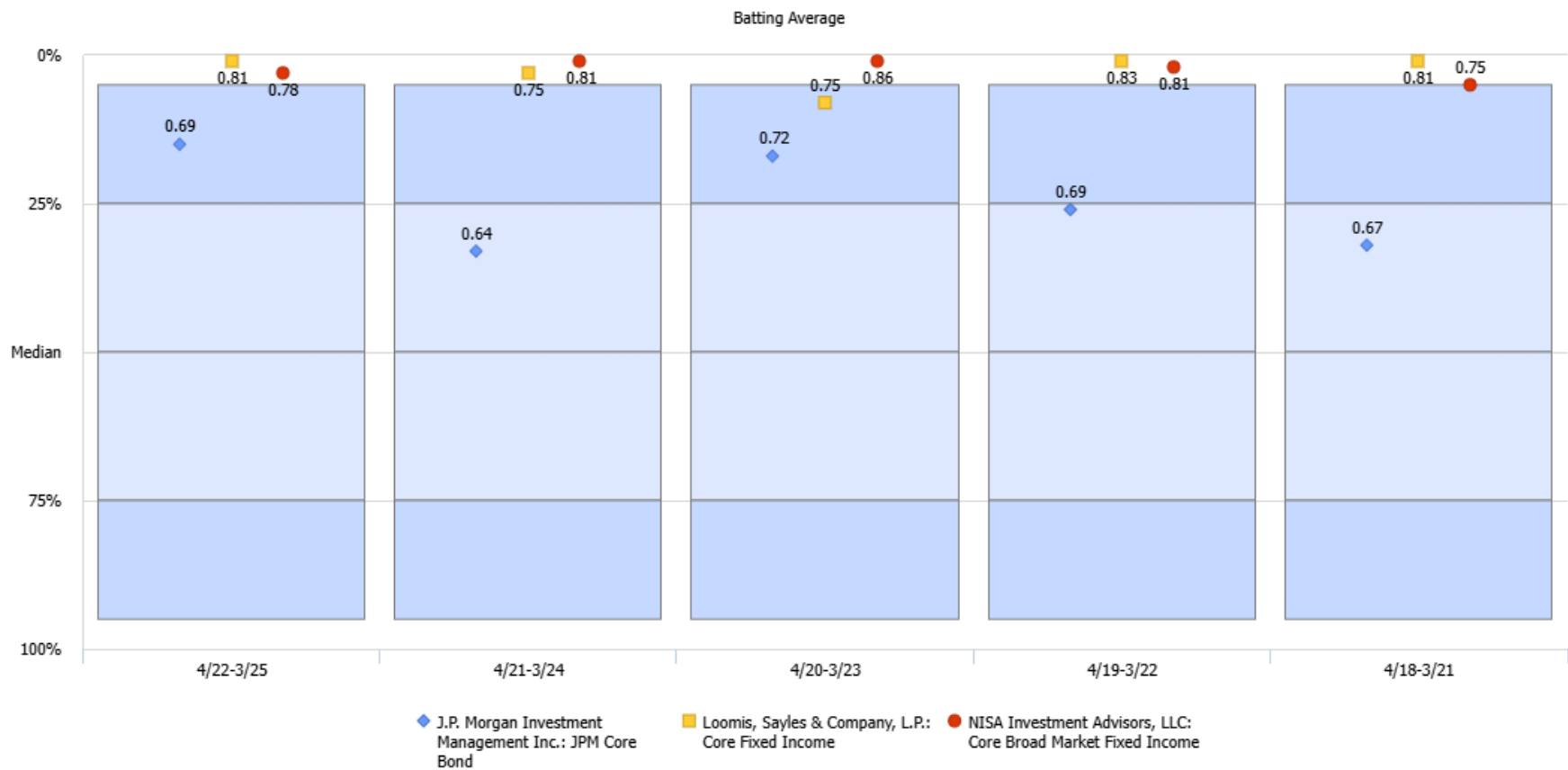

Information Ratio

	4/20-3/25	4/19-3/24	4/18-3/23	4/17-3/22	4/16-3/21
J.P. Morgan (♦)	1.69	0.99	0.95	1.09	1.02
Loomis Sayles (▪)	1.61	0.88	0.79	1.03	1.24
NISA (●)	2.21	2.10	1.84	1.77	1.65

- ♦ J.P. Morgan Investment Management Inc.: JPM Core Bond
- ▪ Loomis, Sayles & Company, L.P.: Core Fixed Income
- ● NISA Investment Advisors, LLC: Core Broad Market Fixed Income

Universe: eVestment US Core Fixed Income   Source: Nasdaq eVestment

Rolling 3-Year Batting Average vs Peers (3/31/2025)

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  - Calculated by taking the number of months in the period where the combination outperformed the Bloomberg U.S. Agg Index divided by the total number of months
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Batting Average

Universe: eVestment US Core Fixed Income

Source: Nasdaq eVestment

- ◆ J.P. Morgan Investment Management Inc.: JPM Core Bond
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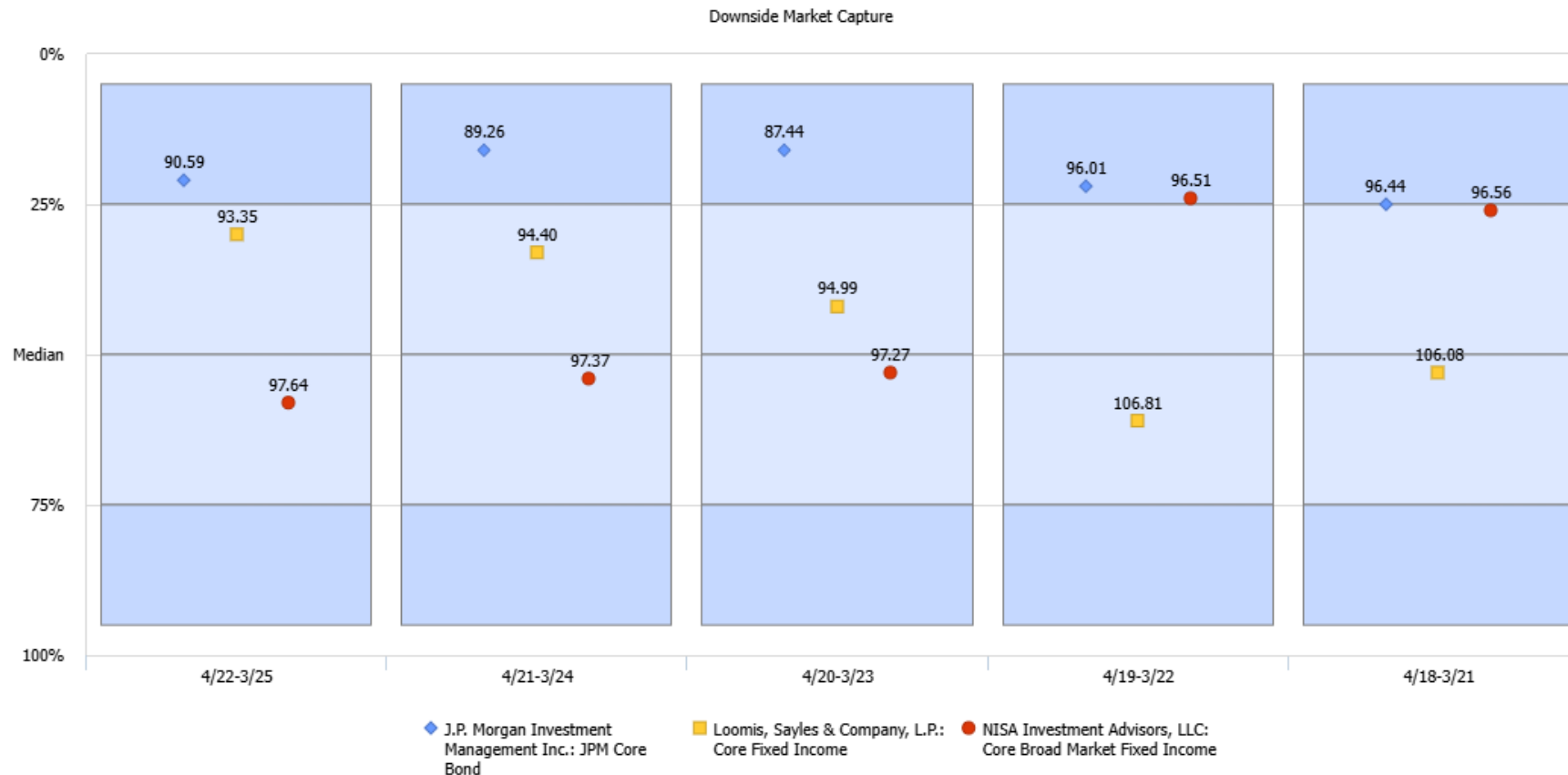

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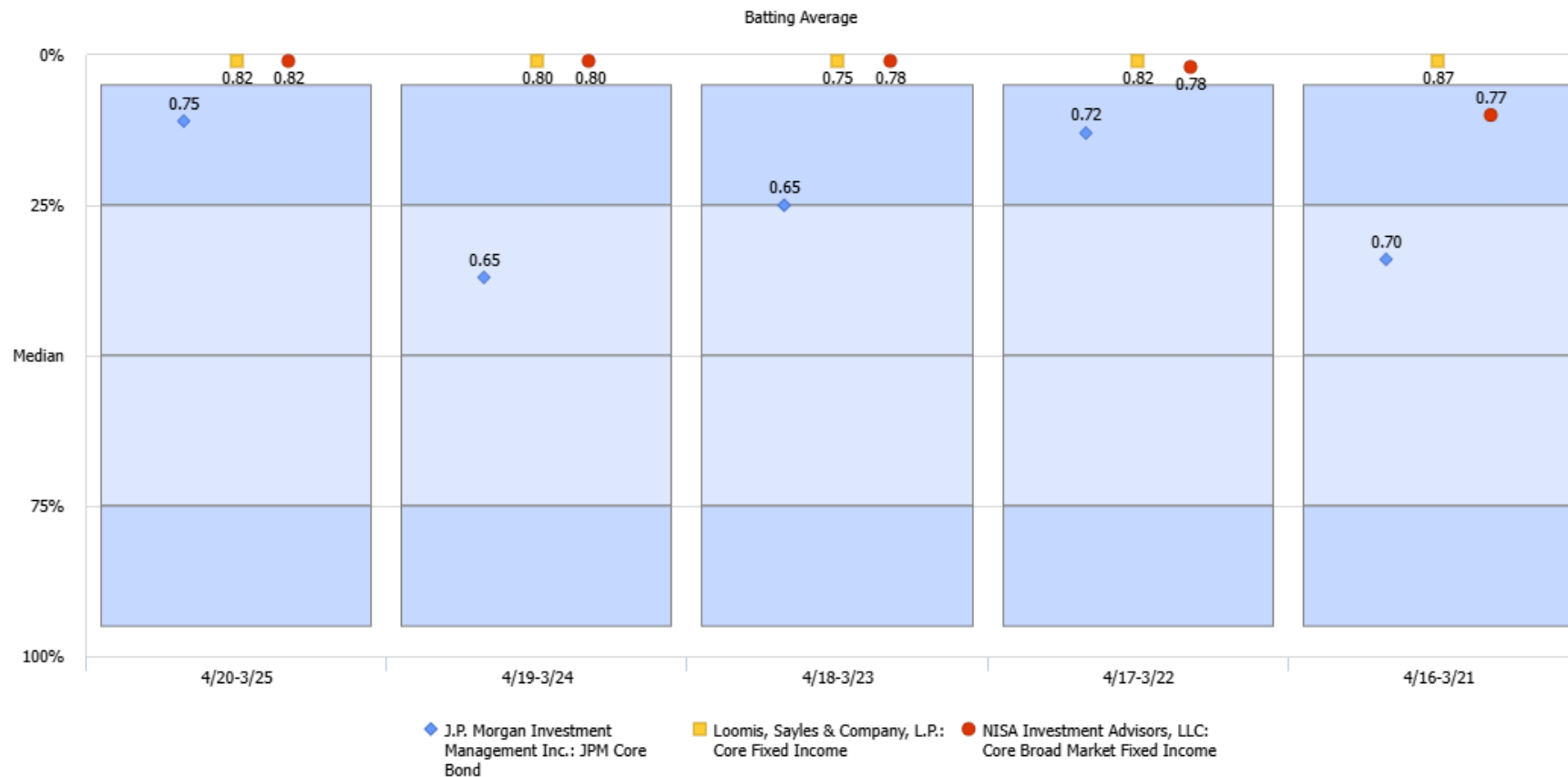
Source: Nasdaq eVestment

Rolling 3-Year Downside Market Capture vs Peers (3/31/2025)

- **Downside Market Capture measures how well an investment manager performs relative to a benchmark during periods of market decline**
  - A ratio under 100% means the portfolio lost less than the benchmark

Downside Market Capture

Universe: eVestment US Core Fixed Income

Source: Nasdaq eVestment

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Rolling 5-Year Downside Market Capture vs Peers (3/31/2025)

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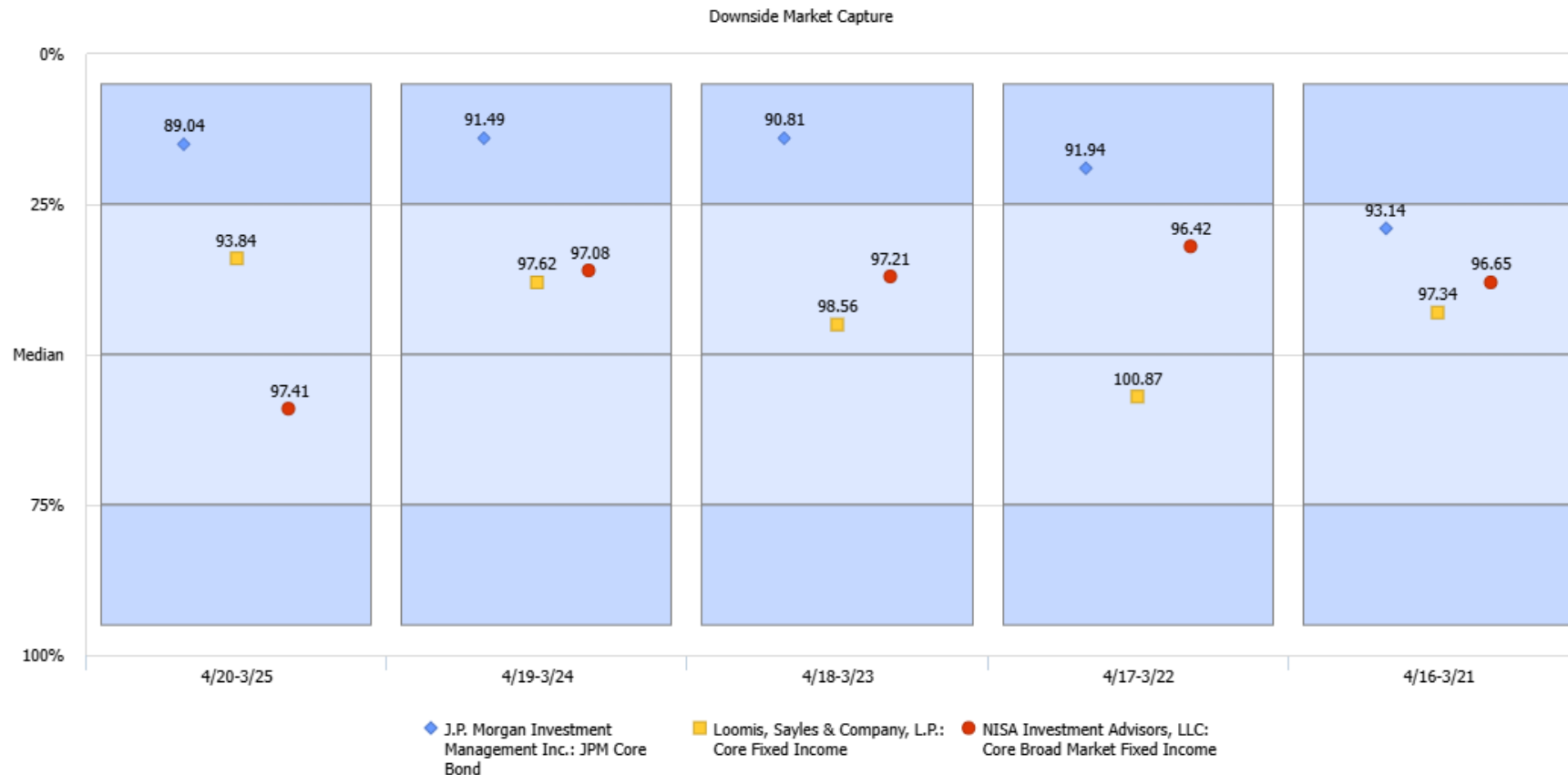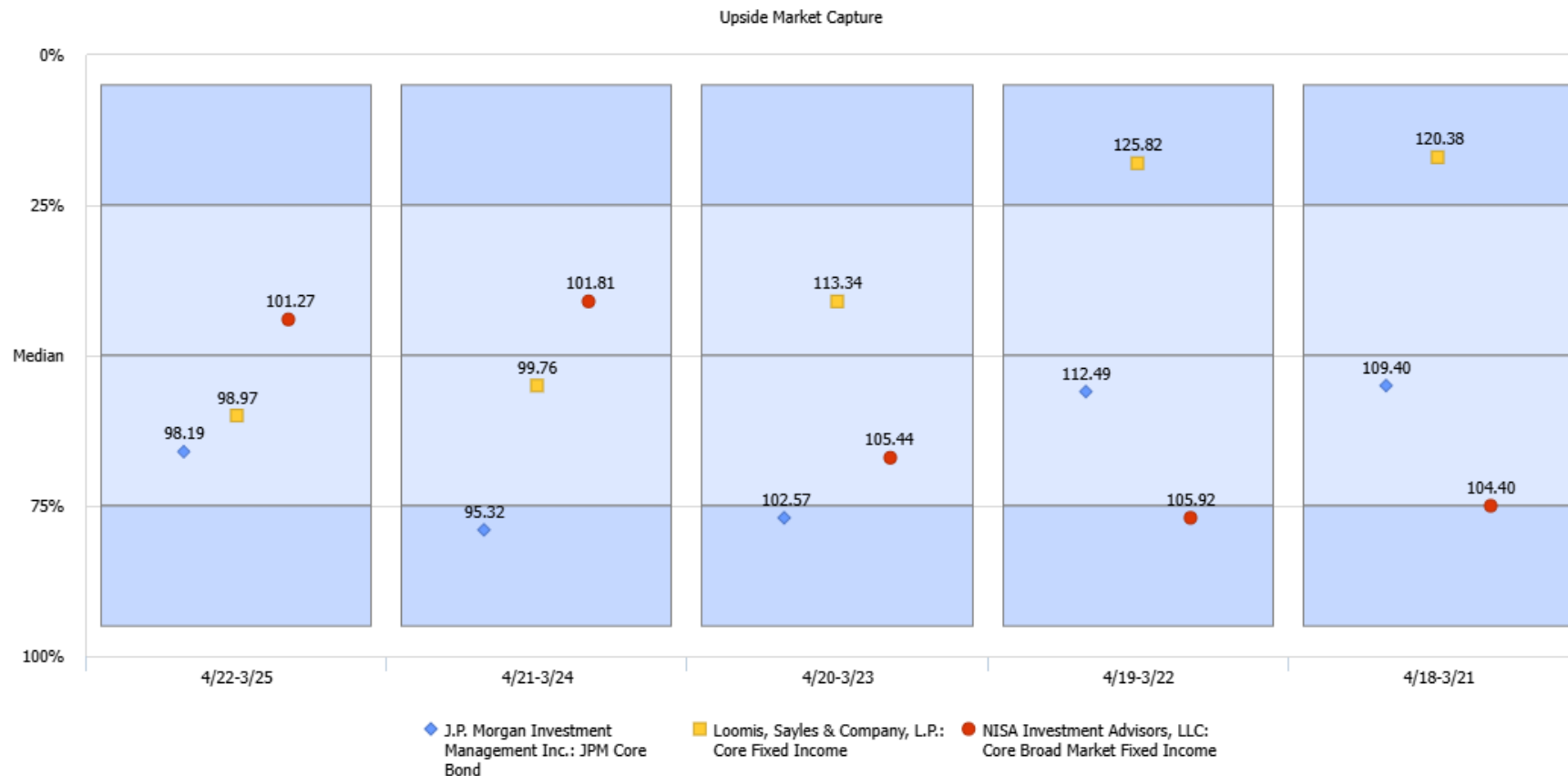 - A ratio under 100% means the portfolio lost less than the benchmark

Downside Market Capture

	4/20-3/25	4/19-3/24	4/18-3/23	4/17-3/22	4/16-3/21
J.P. Morgan (blue diamond)	89.04	91.49	90.81	91.94	93.14
Loomis, Sayles (yellow square)	93.84	97.62	98.56	100.87	97.34
NISA (red circle)	97.41	97.08	97.21	96.42	96.65

Legend:
- ◆ J.P. Morgan Investment Management Inc.: JPM Core Bond
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Universe: eVestment US Core Fixed Income

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Rolling 3-Year Upside Market Capture vs Peers (3/31/2025)

- **Upside Market Capture measures how well an investment manager performs relative to a benchmark during periods of market growth**
  - A ratio above 100% means the portfolio gained more than the benchmark


Upside Market Capture

	4/22-3/25	4/21-3/24	4/20-3/23	4/19-3/22	4/18-3/21
Loomis, Sayles	98.97	99.76	113.34	125.82	120.38
NISA	101.27	101.81	105.44	105.92	104.40
J.P. Morgan	98.19 / 95.32		102.57	112.49	109.40

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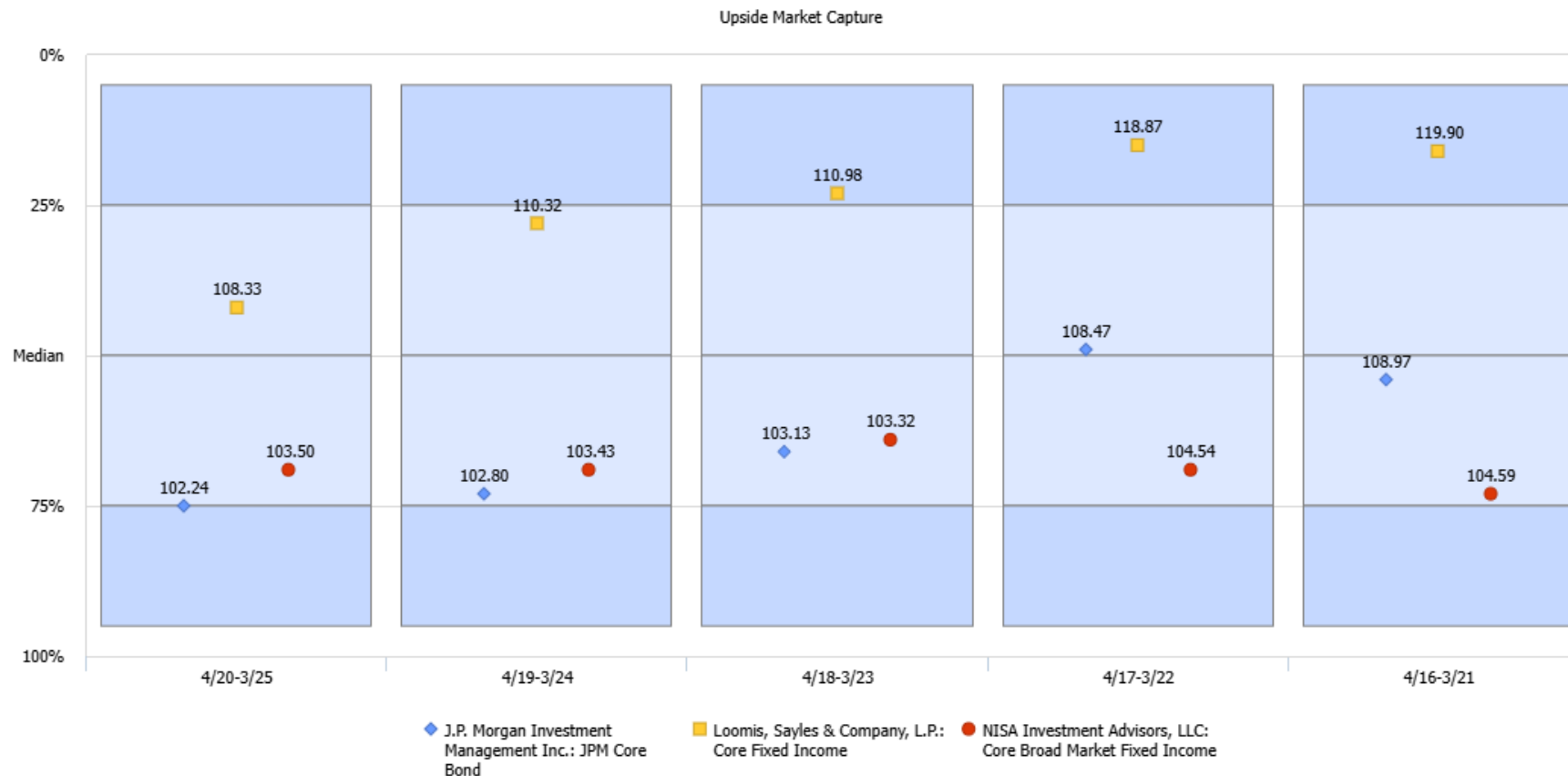
Universe: eVestment US Core Fixed Income

Source: Nasdaq eVestment

Rolling 3-Year Tracking Error vs Peers (3/31/2025)

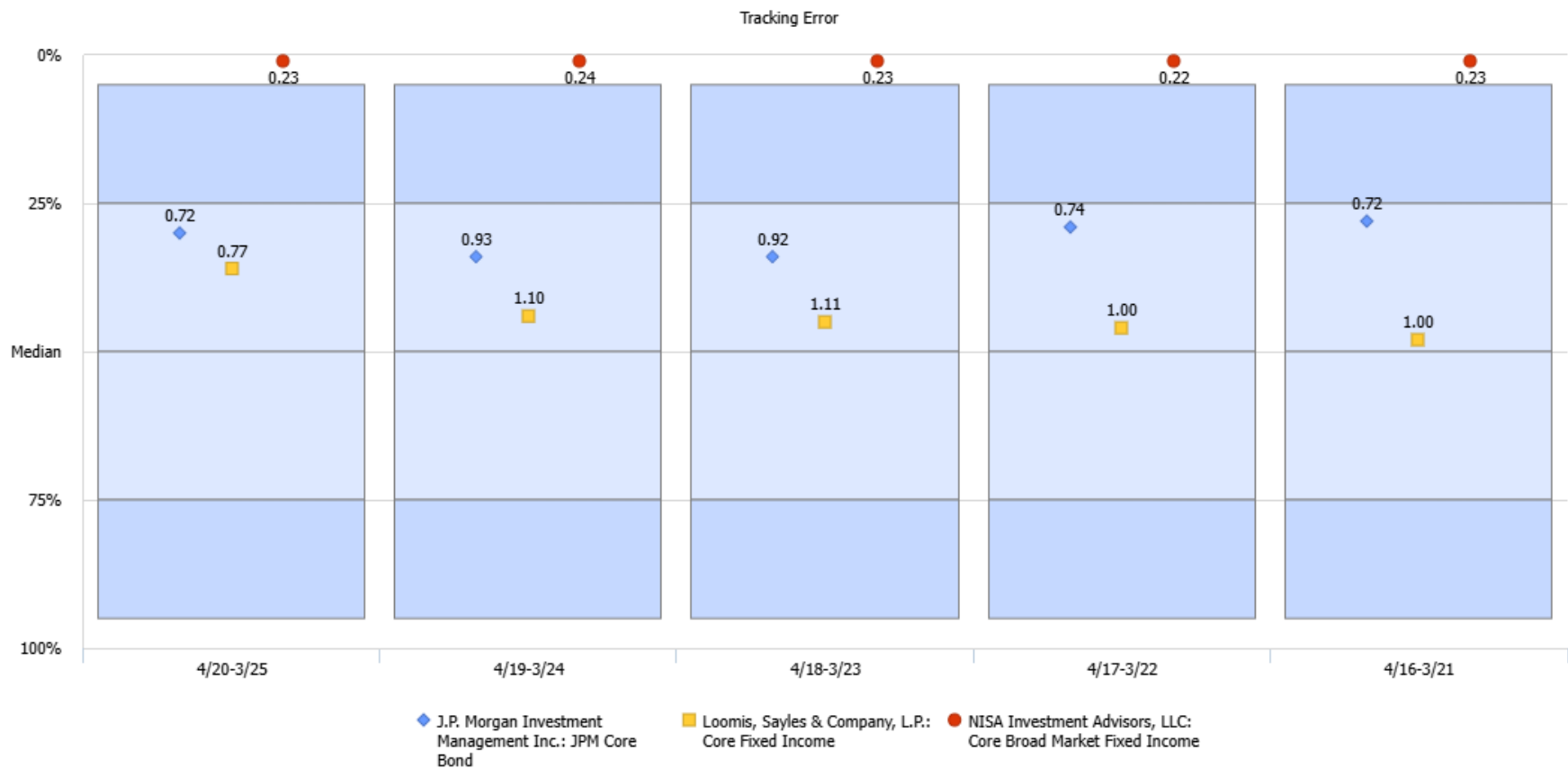- Tracking error measures the amount of active risk that is being taken by a manager relative to its benchmark

Tracking Error

Universe: eVestment US Core Fixed Income

Source: Nasdaq eVestment

Rolling 5-Year Tracking Error vs Peers (3/31/2025)

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Universe: eVestment US Core Fixed Income

Source: Nasdaq eVestment