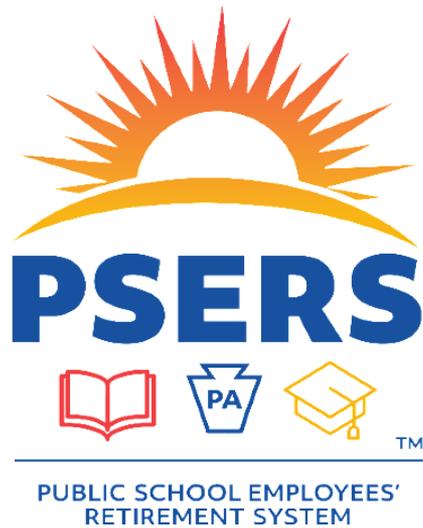


PSERB Resolution 2025-19
Re: NISA Investment Advisors, LLC
March 21, 2025

RESOLVED, that the Public School Employees' Retirement Board (the "Board") accepts the recommendation of the Investment Committee of the Board and

- (i) Allocates an initial amount of \$500 million to a core fixed income account to be separately managed by NISA Investment Advisors, LLC, and
- (ii) Authorizes the Chief Investment Officer in his discretion to invest additional sums up to \$1.5 billion to the core fixed income separate account managed by NISA Investment Advisors, LLC, provided that at the time of any such investment, the total aggregate amount of market exposure allocated to the core fixed income and directed beta overlay program separate accounts does not exceed \$10 billion.
- (iii) This authorization prospectively revises Resolution 2023-49 such that the \$10 billion total allocation amount to the directed beta overlay program shall now apply to both the core fixed income and directed beta overlay separate accounts in aggregate.

The final terms and conditions of the engagement are subject to legal due diligence and must be satisfactory to the Investment Office, the Office of Chief Counsel, and the Office of Executive Director, as evidenced either by the appropriate signatures on, or by a memo to that effect appended to, the implementing investment contracts.



NISA Investment Advisors, LLC
Core Broad Market Fixed Income Strategy
Recommendation of Public Markets External Manager Group

Carl Lantz, CFA
Director

March 20, 2025

Today's Presentation

NISA Investment Advisors Core Broad Market Fixed Income Strategy

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1. Asset Class Considerations

Recommendation is consistent with PSERS Strategic Asset Allocation (SAA)

1. PSERS SAA has established a long-term target of 8% to Core Fixed Income
2. As of December 31, 2024, the actual allocation to Core Fixed Income was 4.66%, an underweight of approximately \$2.5 billion
3. Funding for the Core Fixed Income mandates will be coordinated with allocation changes within the asset class and between the other asset classes of the fund

2. Recommendation

PSERS IO and Verus recommend committing an initial amount of \$500 million, with an additional sum of up to \$1.5 billion, to NISA for a Core Fixed Income mandate.

Overview	
Firm Name	NISA Investment Advisors, LLC (NISA)
Strategy Name	NISA Investment Advisors Core Broad Market Fixed Income Strategy
Capacity / Current NAV	No Stated Capacity Constraints / Current NAV is \$6.8 billion
Recommended Commitment Amount	Initial commitment of \$500 million, total of up to \$2.0 billion
Existing Relationship	Yes. PSERS has an investment of \$6.1 billion (as of December 31, 2024) with NISA in a Directed Beta Overlay Strategy that was onboarded in July 2024.
Asset Class / Sub Asset Class	Investment Grade Fixed Income / Core
Investment Office Professionals Due Diligence Team ("IOP")	Carl Lantz, Director Steven Heuer, Senior Manager Angela Chen, Portfolio Manager Emily Detz, Senior Investment Professional
Investment Office Oversight	Steven Heuer, Senior Manager
External Consultant Oversight	Verus

3. Strategy & Expertise

Firm & Expertise

- \$6.8 billion AUM in the strategy as of December 31, 2024
- NISA is well resourced with vast and extensive research capabilities
 - Approximately 200 investment professionals
 - NISA's Quantitative Portfolio Management team uses advance analytical techniques and mathematical equations to refine portfolio construction, risk management, and trading strategies
 - 11 portfolio managers dedicated to Core Fixed Income located in the St. Louis, Missouri office
- Firm-wide culture of risk management, embedded on multiple levels

Strategy

- Portfolio is highly diversified across issuers and individual bonds, and closely representative of benchmark risk characteristics such as duration, sector, and credit quality.
- NISA seeks enhancement across all benchmark sectors (e.g., Treasury, Credit, and Securitized) through primarily bottom-up sources but also some top-down sources.
- The breadth and volume of trading within a particular sector limits idiosyncratic risk and can lead to high information ratios.
- Credit research, including covenant and financial information, focuses on identifying unique opportunities in the market.
- Active trading style creates opportunities in both primary and secondary markets.

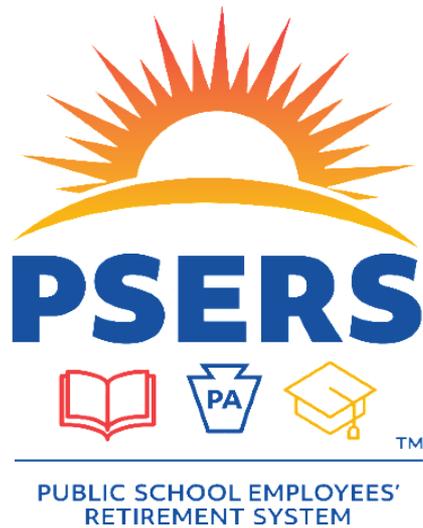
4. Investment Considerations

Investment expected to face risks consistent with core fixed income mandates

Risk	Detail	Mitigating Factors
Market Risk	Market risk is the risk of experiencing adverse price movements due to factors that impact the overall performance of financial markets.	<i>The portfolio holdings are diversified across maturity, sector, and issuer, and remains liquid in case of market shocks.</i>
Interest Rate Risk	Bonds can be bought and sold prior to maturity on the secondary market. Bonds can trade at prices higher or lower than the face value of the bond depending on the economic environment and market conditions—both of which can be affected significantly by a change in interest rates.	<i>To mitigate interest rate risk, duration is used as a risk control tool within the portfolio, and the Strategy doesn't take outsized positions in duration or yield curve.</i>
Credit Risk	Credit risk is the risk of loss if an issuer doesn't pay required interest or principal payments. Most individual bonds are rated by a credit agency such as Moody's or S&P to help describe the creditworthiness of the issuer or issue. Bonds also carry the risk of being downgraded, which can impact price.	<i>The portfolio invests in Investment Grade securities to help mitigate credit risk.</i>
Liquidity Risk	Liquidity risk is the risk that an entity is unable to execute transactions at prevailing market prices due to lack of market depth or other market disruptions.	<i>While the Strategy may have an allocation to some less liquid securitized assets, the vast majority of the portfolio is in highly liquid securities. It also invests in amortizing assets that provide monthly recurring incoming cash flows.</i>

5. Investment Highlights

- Stable investment team with average of approximately 25 years of industry experience
- Collaborative focus towards portfolio management; all portfolios are managed with a team approach
- Bottom-up, micro analysis; positions change frequently (sector allocation, ticker selection, and trading) and NISA seeks to locate small inefficiencies as often as possible and capitalize on those opportunities
- Top-down, macro analysis; positions change relatively infrequently (overall portfolio structure, yield curve positioning, and some sector allocation)
- Steady, consistent outperformance over long-term horizons
- Slightly negative long-term excess return correlation to PSERS internal core bond strategy



NISA Investment Advisors, LLC
Core Broad Market Fixed Income Strategy
Recommendation of Public Markets External Manager Group

Carl Lantz, CFA
Director

March 20, 2025



Manager Recommendation Memorandum

February 20, 2025

Board of Trustees

Commonwealth of Pennsylvania, Public School Employees' Retirement System ("PSERS")
5 North Fifth Street Harrisburg, PA 17101

Re: NISA Investment Management Services for Core Fixed Income Mandate

Dear Trustees:

Verus Advisory, Inc. ("Verus"), having been duly authorized by the Board of PSERS, has evaluated the NISA Core Broad Market Fixed Income strategy, in line with PSERS' Investment Policy Statement, Objectives, and Guidelines, and believes that this strategy is of institutional quality and appropriate for investors, including PSERS, that seek a broadly diversified, high-quality exposure to US core fixed income markets.

Verus recommends that the PSERS Board approve staff's recommendation to hire NISA as a core fixed income investment manager for an initial allocation of up to \$500 million plus reasonable normal investment expenses and authorize the Investment Office in its discretion to invest an additional sum up to \$1.5 billion as long as the total market exposure allocated to separate accounts managed by NISA does not exceed \$10 billion.

NISA's Core Bond strategy is rated IQ3 by Verus, indicating that the strategy is of institutional quality and that Verus has conviction in its ability to deliver strong risk-adjusted returns over a market cycle. NISA, based in St. Louis, MO, is employee-owned and began managing assets in April 1994. NISA currently manages over \$429 billion (physical and notional assets), with \$270 billion in physical assets. Fixed income assets total \$258 billion (physical and notional) and short duration and core fixed income strategies total \$47 billion.

NISA's Core Broad Market Fixed Income strategy seeks to add small increments of value as they exploit moderate market inefficiencies for predictable gains. The team strives to structure high quality, duration-neutral portfolios to outperform chosen benchmarks. This approach does not permit large bets or positions that generate significant tracking error to the chosen benchmark. Instead, NISA invests in a large number of small, diversified active positions which seek tight tracking error to the chosen benchmark.

Verus appreciates NISA's easy to understand process and philosophy and believes the team's ability to add value through active trading is unique to its peers. NISA's risk-controlled framework, high-touch process with clients to develop customized strategies, and team-

oriented approach make them an attractive choice for clients seeking a low tracking error, relatively conservative core fixed income portfolio.

All NISA-managed portfolios are separate accounts. The team works closely with clients to customize a strategy and specify a benchmark, taking into account risk tolerances. Additionally, given the focus on maintaining a tight tracking error, the strategy is managed in a duration-and yield curve-neutral manner, and as such, may be subject to periods of heightened volatility in the event interest rate volatility were to increase significantly.

NISA seeks to achieve target alpha of 20-40 bps and tracking error less than 50 bps annualized over a typical market cycle for core fixed income mandates. We have observed that the strategy has been able to outperform the benchmark consistently in both long- and short-term periods on a gross of fee basis while maintaining a low tracking error, due to value-additive security selection and skilled active trading.

Verus and staff evaluated a wide range of potential core fixed income strategies based on qualitative factors, quantitative measures, and onsite interviews. Verus believes that NISA represents a strong fit for PSERS' needs for the following primary reasons:

- Risk management: Management of risk is central to NISA's investment approach. Given the strategic nature of client portfolios, tracking error, which adds material beta or tail-risks, is avoided.
- Portfolio fit: The investment process utilizes a low tracking error, core approach that is complementary to the strategies of JP Morgan and Garcia Hamilton. The NISA Core Fixed Income strategy has also historically produced a low correlation of excess returns (relative to the benchmark) with the PSERS in-house Core Fixed Income strategy.
- Operational efficiency: NISA currently provides overlay services to PSERS and there will be some operational efficiencies gained as NISA will be able to use treasury securities held in the core fixed income mandate to satisfy margin requirements for the overlay program.

For these reasons, we recommend that PSERS Board approve the recommendation to hire NISA as a core fixed income investment manager for an initial allocation of up to \$500 million.

Please feel free to contact me should you have any questions about this recommendation.

Sincerely,



Mark E. Brubaker, CFA
Managing Director