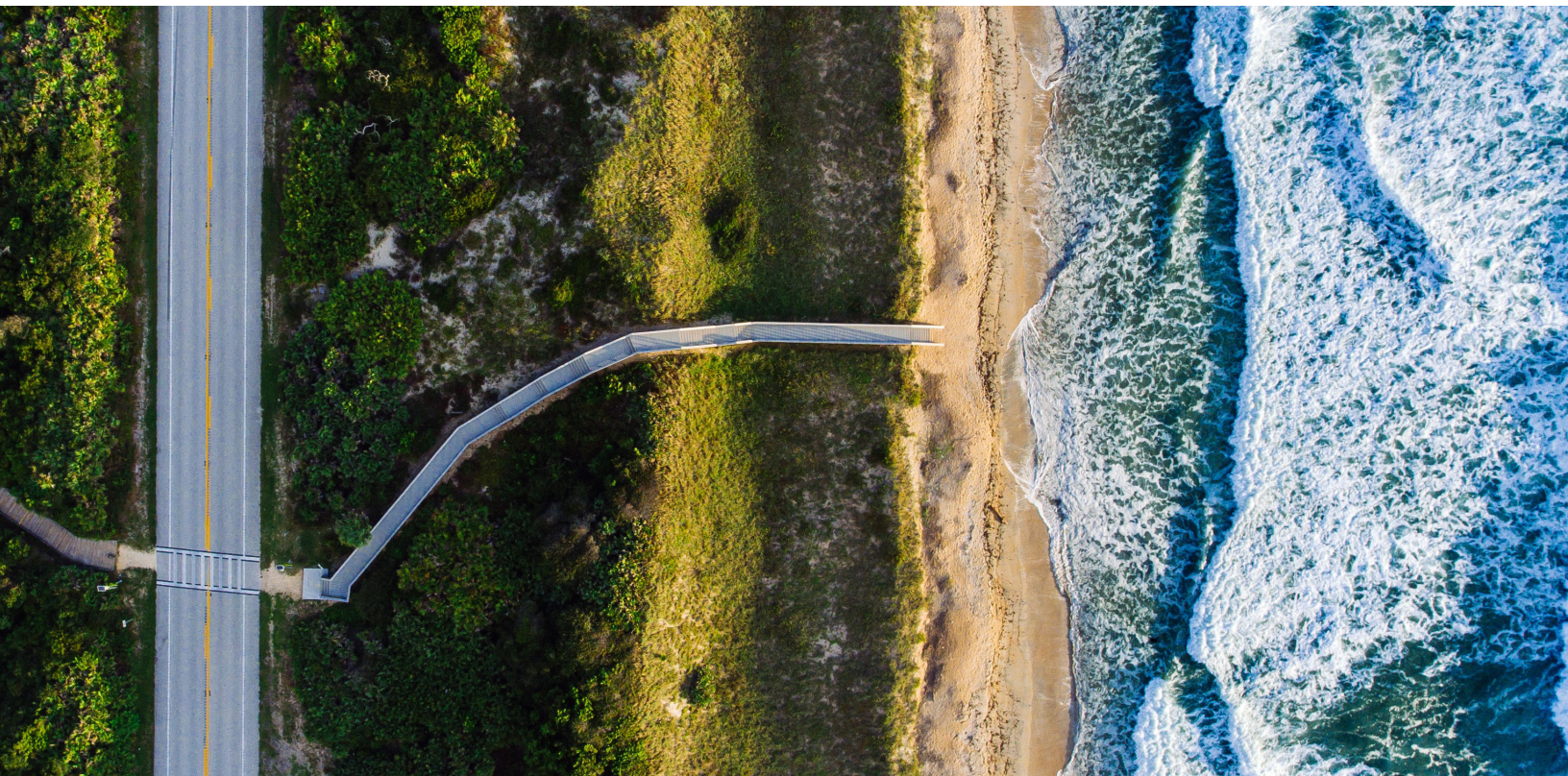# Core Disciplined Alpha: Portfolio Turnover, Risk and Trading Costs

WRITTEN BY

LYNNE ROYER
Co-Head of Disciplined Alpha Fixed Income, Portfolio Manager

SETH TIMEN
Co-Head of Disciplined Alpha Fixed Income, Portfolio Manager

CAMDEN WANG, PHD
Quantitative Associate

OREN CHEYETTE, PHD
Former Quantitative Strategist

The Loomis Sayles Core Disciplined Alpha (CDA) strategy has historically had relatively high turnover.

In 2023, turnover of 301% put CDA in the top decile among managers that report turnover.[i]

While high turnover is potentially beneficial for efficiently harvesting alpha while managing risk, frequent trading requires adequate market liquidity for efficient implementation, so it's natural to be concerned that such a strategy might run into headwinds in a lower liquidity environment.

Key Takeaways

- The level of turnover in Loomis Sayles CDA portfolios is a result of the alpha generation and risk management process.

- The security selection strategy of CDA has succeeded not just by identifying relative value opportunities, but by exiting positions where value has been realized in order to make room for new opportunities.

- The CDA strategy of high turnover and many small positions historically has achieved an information ratio of roughly 2.2.
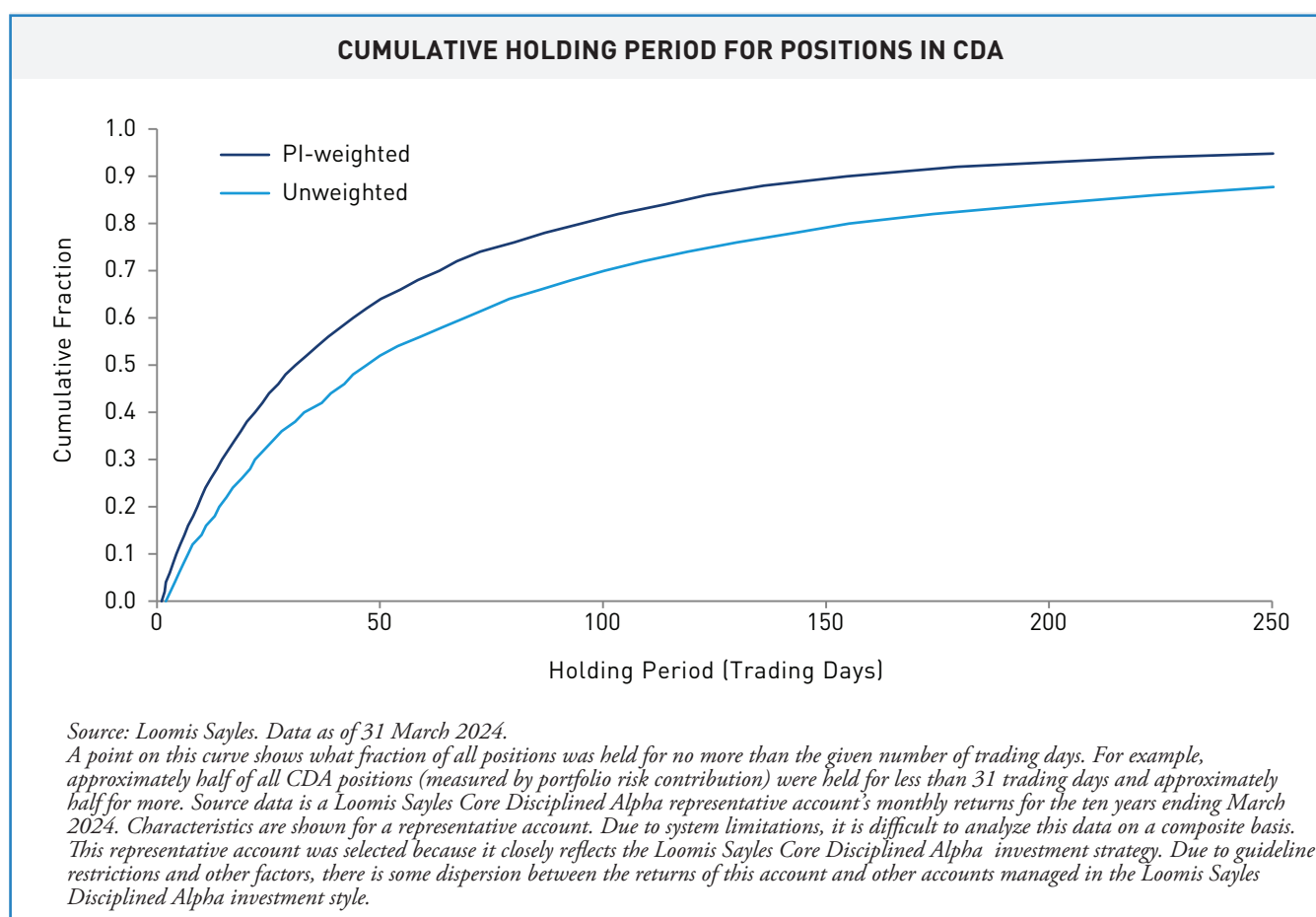
Therefore, it is worthwhile to delve more deeply into the dependence of CDA performance on liquidity, as well as characterizing the potential advantages of a high turnover strategy.

It's important to note that the level of turnover in CDA portfolios has been a result of the alpha generation and risk management process, not an ex-ante decision. For any source of excess return, there is typically an expected time required to realize the outperformance. Deep-value strategies often depend on finding bonds that may never have to be sold to capture alpha, so they naturally have low turnover. Sector or macro strategies typically depend on forecasting a few, usually relatively slow, movements in broad market factors across potentially multi-year time frames, and maintaining persistent exposures to these factors. By contrast, relative-value security selection strategies such as CDA depend on finding many small discrepancies that last for a relatively short time, and don't necessarily entail exposure to broad market factors.

For comparison suppose that, hypothetically, one were able to correctly predict the direction of Treasury bond yield changes on a monthly basis with a win/loss ratio of 55:45—a skillful performance for such a strategy.[ii] A strategy using this signal to make monthly directional trades would yield an information ratio[iii] (IR) of about 0.35.[iv] Less frequent trading would produce correspondingly lower IR. Achieving our CDA gross of fees excess return objective of 50-100 basis points per year using such a strategy would entail duration tilts producing an expected tracking error of approximately 200 basis points (50-100 basis points/(0.35) ≈140-280 basis points).[v] A multi-factor macro strategy can potentially perform better than this by taking many active exposures, but still faces the challenge of the relatively long time frame needed to realize the investment ideas.

Even with as many as 16 directional factor views at a time, such a strategy would likely still achieve an information ratio only modestly larger than 1.[vi] Low turnover, in this case, implies relatively few opportunities to capture excess returns. We note that the CDA strategy of high turnover and many small positions has achieved an information ratio since inception of roughly 2.2, with a tracking error to date of approximately 35 basis points.[vii]

The security selection strategy of CDA has succeeded not just by identifying relative value opportunities, but by exiting positions where value has been realized (or where the value thesis has changed) in order to make room for new opportunities. The following figure shows the cumulative distribution of holding periods for credit positions in CDA for the ten years ending March 2024.[viii] While the median (PI-weighted) holding period is roughly 34 trading days, there is also a long tail of longer-held positions—the next quartile extends to 77 trading days.
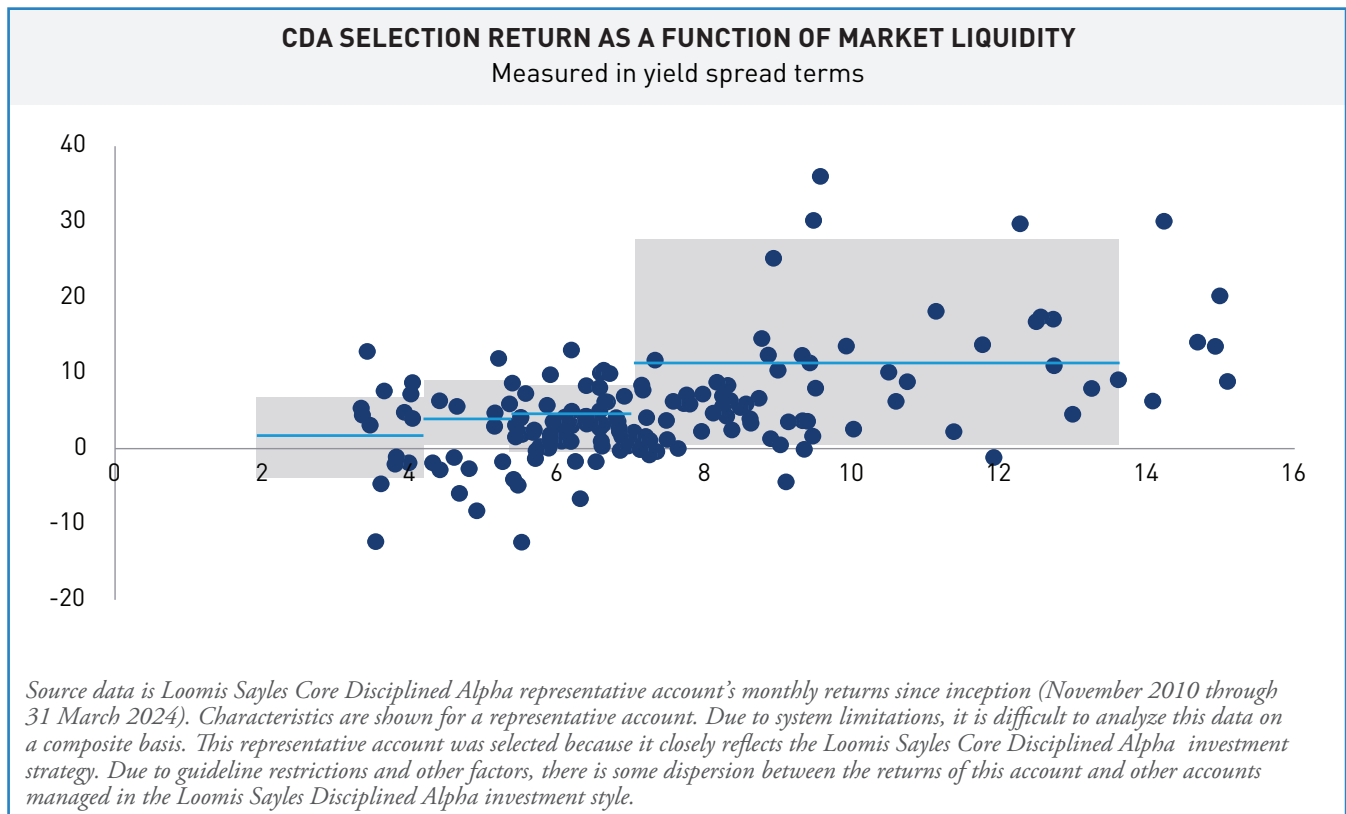
CUMULATIVE HOLDING PERIOD FOR POSITIONS IN CDA

Source: Loomis Sayles. Data as of 31 March 2024.
A point on this curve shows what fraction of all positions was held for no more than the given number of trading days. For example, approximately half of all CDA positions (measured by portfolio risk contribution) were held for less than 31 trading days and approximately half for more. Source data is a Loomis Sayles Core Disciplined Alpha representative account's monthly returns for the ten years ending March 2024. Characteristics are shown for a representative account. Due to system limitations, it is difficult to analyze this data on a composite basis. This representative account was selected because it closely reflects the Loomis Sayles Core Disciplined Alpha investment strategy. Due to guideline restrictions and other factors, there is some dispersion between the returns of this account and other accounts managed in the Loomis Sayles Disciplined Alpha investment style.

The Distribution of Holding Periods is a Result of a Combination of Three Aspects of the CDA Strategy:

• Many small trades. Over the 10-year period ending 31 March 2024, the strategy typically held about 115 names at any one time.

• Continual re-assessment of the relative value of each position.

• Tight risk control resulting in an exit from positions that are, in our view, fairly valued in order to enter what we believe to be more attractive positions.

We believe the first aspect of the strategy is a significant contributor to producing a high information ratio. Making a large number of small bets with positive expected alpha can be an effective approach to generating maximum return for a given level of risk (tracking error). The second and third dictate the typical holding period, as well as the possibility that risk considerations may cause some positions to be held for longer periods.
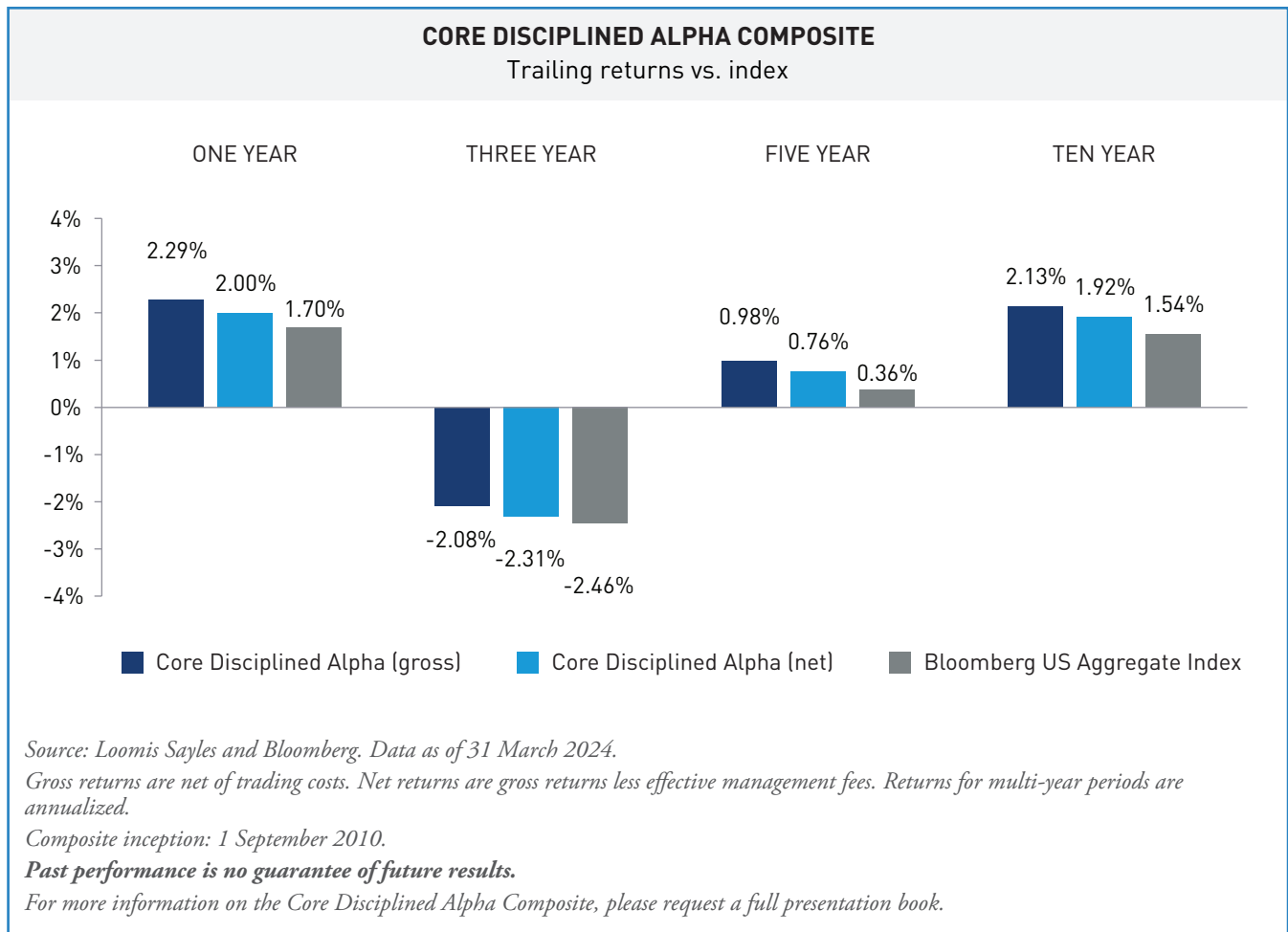
As mentioned at the outset, a consideration for a relatively high turnover strategy is that it may face difficulty generating excess return in a low liquidity/high trading cost environment, as higher trading costs would potentially eat up more excess return on trades entered at the offer side and exited at the bid. On the other hand, low liquidity environments may involve forced sellers, reduced capital commitments by dealers, and other technical factors that can produce larger-than-normal relative mis-valuations that may be exploitable by the CDA strategy.

The figure below shows the monthly returns from security selection for CDA as a function of market liquidity as measured by the MarketAxess TRACE Bid Ask Spread Index (BASI), an estimate of the average round-trip trading cost for bonds in the MarketAxess Investment Grade TRACE Index (represented here in yield spread terms).[ix] Points to the right represent low-liquidity months; points to the left correspond to better liquidity. The segmented horizontal lines with gray bands show the mean and 10%/90% quantile range for the realized CDA selection returns grouped into quartiles by BASI. There is a trend in the data toward higher selection returns in less liquid environments, suggesting that the second alternative in the previous paragraph is realized.

CDA SELECTION RETURN AS A FUNCTION OF MARKET LIQUIDITY
Measured in yield spread terms

Source data is Loomis Sayles Core Disciplined Alpha representative account's monthly returns since inception (November 2010 through 31 March 2024). Characteristics are shown for a representative account. Due to system limitations, it is difficult to analyze this data on a composite basis. This representative account was selected because it closely reflects the Loomis Sayles Core Disciplined Alpha investment strategy. Due to guideline restrictions and other factors, there is some dispersion between the returns of this account and other accounts managed in the Loomis Sayles Disciplined Alpha investment style.

Conclusion

The CDA philosophy and process has resulted in a high turnover process designed to produce a risk-adjusted portfolio with very limited exposure to market factors, many small positions, and a long-tailed distribution of holding periods. In spite of the high turnover, the strategy has produced positive excess return in times of high trading costs as well as periods of more ordinary market conditions.

CORE DISCIPLINED ALPHA COMPOSITE
Trailing returns vs. index

	ONE YEAR	THREE YEAR	FIVE YEAR	TEN YEAR
Core Disciplined Alpha (gross)	2.29%	-2.08%	0.98%	2.13%
Core Disciplined Alpha (net)	2.00%	-2.31%	0.76%	1.92%
Bloomberg US Aggregate Index	1.70%	-2.46%	0.36%	1.54%

Source: Loomis Sayles and Bloomberg. Data as of 31 March 2024.
Gross returns are net of trading costs. Net returns are gross returns less effective management fees. Returns for multi-year periods are annualized.
Composite inception: 1 September 2010.
Past performance is no guarantee of future results.
For more information on the Core Disciplined Alpha Composite, please request a full presentation book.

This report was originally published in January 2017. We have updated the content as necessary and otherwise believe the information is current and relevant.

AUTHORS

LYNNE ROYER
Co-Head of Disciplined Alpha Fixed Income, Portfolio Manager

SETH TIMEN
Co-Head of Disciplined Alpha Fixed Income, Portfolio Manager

CAMDEN WANG, PHD
Quantitative Associate

OREN CHEYETTE, PHD
Former Quantitative Strategist

Trailing Performance

Core Disciplined Alpha Representative Account
Benchmark: Bloomberg US Aggregate Index

Annualized	Q1 2024	YTD	Trailing Years 1	3	5	10
Total Return Net of Fees	-0.68%	-0.61%	2.00%	-2.35%	0.71%	1.86%
Gross Total Return	-0.61%	-0.61%	2.29%	-2.06%	1.00%	2.15%
Index Total Return	-0.78%	-0.78%	1.70%	-2.46%	0.36%	1.54%

Core Disciplined Alpha Composite
Benchmark: Bloomberg US Aggregate Index

Annualized	Q1 2024	YTD	Trailing Years 1	3	5	10
Total Return Net of Fees	-0.69%	-0.69%	2.00%	-2.31%	0.76%	1.92%
Gross Total Return	-0.62%	-0.62%	2.29%	-2.08%	0.98%	2.13%
Index Total Return	-0.78%	-0.78%	1.70%	-2.46%	0.36%	1.54%

Data source: Loomis Sayles, Bloomberg, as of 31 March 2024.

Gross returns are net of trading costs. Net returns are gross returns less effective management fees. Returns for multi-year periods are annualized. Returns may increase or decrease as a result of currency fluctuations. There is no guarantee that the investment objective will be realized or that the strategy will generate positive or excess return.

Performance is shown for a representative account. Due to system limitations, it is difficult to analyze this data on a composite basis. This representative account was selected because it closely reflects the Loomis Sayles Core Disciplined Alpha investment strategy. Due to guideline restrictions and other factors, there is some dispersion between the returns of this account and other accounts managed in the Core Disciplined Alpha investment style. The GIPS report at the end of this presentation displays performance, including dispersion, for the Loomis Sayles Core Disciplined Alpha composite. Past performance is no guarantee of future results.

Endnotes

[i] *Source: eVestment Alliance, as of 31 March 2024. Based on the US Core Fixed Income Universe.*

[ii] *Although not directly interpretable in the same terms, a study by Boney, Comer and Kelly (Journal of Empirical Finance, January 2009) shows that across 84 bond funds they examined across a nine-year period, market timing of interest rates produced an average negative excess return of roughly -57 basis points/year relative to an unmanaged benchmark. Only five of the funds showed positive timing ability over the period. Forecasting rate movements is difficult.*

[iii] *Information ratio, a measure of manager skill, is the annualized ratio of a portfolio's excess return over its benchmark to the tracking error.*

[iv] *This is derived via the "fundamental law of active management": where IR is the information ratio, IC is the correlation of forecasts with outcomes, and BR is "breadth," with IC= 0.1 and BR = 12. For further details, see Grinold and Kahn, "Active Portfolio Management," 2nd Ed. (2000), Chapter 6.*

ᵛ *There is no guarantee that the investment objective will be realized or that the strategy will generate positive or excess return. Excess return objectives are subject to change and are not based on past performance.*

ᵛⁱ *For investors whose primary concern is total return, without regard to risk, the information ratio may not be the most important metric of performance.*

ᵛⁱⁱ *Based on Loomis Sayles Core Disciplined Alpha representative account monthly returns since inception (1 November 2010 through 31 March 2024) relative to the Bloomberg US Aggregate Index. Due to system limitations, it is difficult to analyze this data on a composite basis. This representative account was selected because it closely reflects the Loomis Sayles Core Disciplined Alpha investment strategy. Due to guideline restrictions and other factors, there is some dispersion between the returns of this account and other accounts managed in the Core Disciplined Alpha investment style. Please note standard performance shown on page 4 is for the Core Disciplined Alpha composite.*

ᵛⁱⁱⁱ *Holding period is defined as the number of trading days between an issuer's first appearance at positive active weight in the portfolio and the time its active weight drops to zero or below. Loomis Sayles uses a proprietary "risk-weighted" holding period that takes into account the size of the position, its sensitivity to changes in interest rates, and its sensitivity to changes in sector spreads, and weights each position based on its contribution to portfolio risk relative to the benchmark. The unweighted holding period just counts days held equally for all positions with positive market value weight. The analysis is restricted to credit because the sources of return correspond straightforwardly to identifiable issuers. For mortgages, the sources of return generally correspond to attributes (such as loan balance) that aren't easily identifiable in the portfolio data.*

ⁱˣ *MarketAxess BASI data are for the period 1 November 2010 through 31 March 2024.*

About Risk

Fixed income securities *may carry one or more of the following risks: credit, interest rate (as interest rates rise bond prices usually fall), inflation and liquidity.* **Below investment grade fixed income securities** *may be subject to greater risks (including the risk of default) than other fixed income securities.* **Foreign and emerging market securities** *may be subject to greater political, economic, environmental, credit, currency and information risks.* **Foreign securities** *may be subject to higher volatility than US securities due to varying degrees of regulation and limited liquidity. These risks are magnified in emerging markets.*

Disclosure

GIPS Report

As of 31 December 2023.

Firm

Loomis, Sayles & Company, L.P. ("Loomis Sayles") is an autonomous investment advisory firm registered under the Investment Advisers Act of 1940. Registration does not imply a certain level of skill or training.

Selection Criteria for the Core Disciplined Alpha Composite ("Composite")

The Composite includes all discretionary accounts with market values greater than $40 million managed by Loomis Sayles that seek to add value for clients primarily through security selection, intending to gain an edge through analysis and market information and minimizing duration, curve, and large sector mismatches with the following additional considerations. The investment universe is primarily investment grade bonds, with a bias for liquidity. Accounts may allow up to 5% in securities below investment grade. Portfolio duration is tightly constrained and normally managed within 10% of the benchmark. Prior to 1 May 2018 the Composite minimum account size requirement was $30 million. The Composite inception date is 1 September 2010. The Composite was created in 2010.

Loomis Sayles claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Loomis Sayles has been independently verified for the periods 1 January 1999 through 31 December 2023. The verification reports are available upon request.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

Loomis Sayles adopted a significant cash flow policy since Composite inception where portfolios are removed from the Composite when net monthly cash flow exceeds 30% of the portfolio's beginning market value.

Benchmark

The benchmark for the Composite is the Bloomberg US Aggregate ("Index"). The Index represents securities that are SEC-registered, taxable, and dollar denominated. The Index covers the US investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. The investment portfolio underlying the Index is different from the investment portfolios of the accounts included in the Composite. The Index is used for comparative purposes only, is not intended to parallel the risk or investment style of the accounts in the Composite, and does not reflect the impact of fees and trading costs. The source of all data regarding the Index is Bloomberg.

Calculation Methodology

Gross of fee account returns are time-weighted rates of return, net of commissions and transaction costs. Net of fee account returns are the gross returns less the effective management fee for the measurement period. Beginning 1 April 2015 the effective fee for an account is derived by applying the highest applicable fee based on the current standard fee schedule for the composite to calculate an annual fee amount. Beginning 1 April 2015 through 31 December 2023 the effective fee for an account was derived by using beginning of measurement period assets and standard fee schedule for the Composite to calculate an annual fee amount. Prior to 1 April 2015 the effective fee for an account was derived by using beginning of measurement period assets and the specific fee schedule for each account to calculate an annual fee amount. The fee amount is divided by the assets for an annual effective fee. The monthly effective fee is based on 1/12 of the annual effective fee.

All performance results are expressed in US dollars. Performance results include the reinvestment of dividends and other earnings on holdings in the Composite and Index. Policies for valuing investments, calculating performance, and preparing GIPS reports are available upon request. Loomis Sayles's advisory fees are presented below and may also be found in Part 2A of Form ADV.

Annual Rates Applied to Assets Under Management

0.29% on the first $50 million; 0.25% on the next $50 million; 0.20% on the next $100 million; 0.18% on value over $200 million; Minimum account size: $50 million; Minimum annual fee: $145,000. The maximum management fee and total expense ratio for the Core Disciplined Alpha New Hampshire Trust are 0.30%.

Core Disciplined Alpha Composite as of 31 December 2023

Period	Composite Gross Return (%)	Composite Net Return (%)	Bloomberg U.S. Aggregate Index (%)	Composite 3-Yr St Dev* (%)	Benchmark 3-Yr St Dev* (%)	Number of Portfolios in Composite End of Period	Internal Dispersion of Returns** (%)	Composite Total Assets End of Period (USD M)	Total Firm Assets End of Period (USD M)
2023	6.13	5.83	5.53	7.14	7.14	12	0.04	5,954	312,921
2022	-12.91	-13.09	-13.01	5.92	5.77	9	0.03	4,021	265,942
2021	-1.14	-1.34	-1.54	3.51	3.35	9	0.04	4,511	338,949
2020	9.29	9.07	7.51	3.49	3.36	9	0.06	3,154	325,173
2019	9.17	8.95	8.72	2.85	2.87	10	0.03	4,167	276,489
2018	0.18	-0.02	0.01	2.84	2.84	8	0.01	3,333	249,718
2017	3.93	3.71	3.54	2.80	2.78	8	0.05	2,706	268,086
2016	3.68	3.46	2.65	3.01	2.98	7	N/M	2,090	240,193
2015	1.12	0.93	0.55	2.95	2.88	≤ 5	N/M	1,701	229,126
2014	6.55	6.40	5.97	2.73	2.63	≤ 5	N/M	1,075	230,229

*The three-year annualized standard deviation measures the variability of the gross composite returns and the benchmark returns over the preceding 36 month period.

**The internal dispersion of returns presented reflects the annual equal weighted standard deviation and is calculated as the average dispersion from the mean gross return of all accounts included in the Composite for the entire year.

N/M - Measures of internal dispersion with five or fewer accounts for the entire period are not considered meaningful.