Fixed Income Manager Search Summary

Information as of September 30, 2023

	Sage Advisory      Segall Bryant & Hamill      Bloomberg      Pacific Income Adv.        Intermediate Fixed      Intermediate Fixed      Int. Gov/Credit      Core Fixed Income		Sage A Core Fixe	Bloomberg Aggregate								
GIMA Status	Fo	cus	Арр	roved	Index	Арр	proved	Focues		Index		
Security Selection/Decision Making	Sector/Spre	ead Analysis	Credit	Analysis		Yield Curr	ve Analysis	Yield Curr				
Duration	3.93	years	3.59 years		3.77 years	6.03	years	6.22	6.06 years			
Sector Breakdown												
Treasuries/Agencies	47%		38	3%	69%	3	0%	43	45%			
Corporates	3.	1%	46%		31%	30	6%	3	39%			
Mortgages/Asset-Backed	2	1%	1	5%	0%	3	1%	10	16%			
Other	2	%	1%		0%	3	3%	2	2%			
Quality Breakdown												
AAA / AA	6	7%	59	9%	69%	6	3%	5	9%	75%		
A	1:	3%	20	6%	15%	10	6%	1:	12%			
BBB	18	3%	1	5%	16%	2	1%	2	13%			
Other	2	.%	C	%	0%	C	)%	3	0%			
FEES	0.20%		0.20%			0.28%		0.2	0.20%			
RISK (5 year)	I											
Standard Deviation	3.95		3.67		3.75	5.44		6.39		5.59		
PERFORMANCE												
<u>Equity</u>	Gross	Net*	Gross	Net*		Gross	Net*	Gross	Net*			
1 year	2.29	2.09	2.73	2.53	2.20	1.03	0.75	1.36	1.16	0.64		
3 year	(2.30)	(2.50)	(2.24)	(2.44)	(2.93)	(4.31)	(4.57)	(4.36)	(4.55)	(5.21)		
5 year	1.44	1.24	1.39	1.19	1.02	0.94	0.66	1.12	0.92	0.10		
10 year	1.56	1.35	1.47	1.27	1.27	1.55	1.26	1.76	1.56	1.13		
Since Inception	2.94	2.75	3.92	3.75		4.44	4.15	4.63	4.48			
Inception Date	Janua	ry 2003	January 2000			January 1994		Marc				
OTHER INFORMATION												
Year Firm Established	19	996	19	1994		1986		1996				
Who Est. Performance	Te	1996 Team		Team		Team		Team				
Commitment	Owners/Well Paid		Owners/Well Paid			Owners/Well Paid		Owners/Well Paid				
Total Assets	\$22.9B Firm/\$	\$4.2B Strategy	\$23.2B Firm/	\$3.3B Strategy		\$1.9B Firm/\$	283M Strategy	\$22.9B Firm/\$				
Total PM's & Analysts	1	11		15		8			11			
Pooled vs. Separate	Sep	arate	Sep	arate		Sep	parate	Sep				

\* Note: The net performance shown is net of the manager fee stated on this summary for each manager.

Sources: Morgan Stanley Global Investment Manager Analysis team, Informa PSN, Zephyr StyleADVISOR, and the investment managers.

This summary contains select data for each investment manager and index listed and should not be considered inclusive of all material information available for each investment. Please refer to additional information provided in the complete presentation books provided by each manager.



Investment Manager Search Analysis As of September 30, 2023

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### **Important Disclosures**

This report must be accompanied by a separate profile document or other report for each mutual fund and exchangetraded fund (ETF), referred to herein as "fund" or "funds", shown in this report, and for each investment manager shown in this report and approved by Morgan Stanley to be offered to investors in any investment advisory program in which you may invest. These separate documents show, for each manager and fund, various information which may include both gross and net performance (which may be more up-to-date than the performance shown in this report).

Morgan Stanley has prepared this report for your personal use, at your request, to help you evaluate the investment disciplines and investment managers/funds shown in this report. It is for informational purposes only. It is not a recommendation of a particular portfolio, investment manager or fund. It is not tax or legal advice. The report is based on information you gave Morgan Stanley about your financial situation, investment objectives, risk tolerance and investment time horizon.

### IT IS TO BE PRESENTED TO YOU IN A ONE-ON-ONE PRESENTATION WITH YOUR MORGAN STANLEY FINANCIAL ADVISOR OR PRIVATE WEALTH ADVISOR SO THAT YOU HAVE AN OPPORTUNITY TO ASK QUESTIONS.

If you asked us to do so, we have included one or more investment managers/funds that have not been approved by Morgan Stanley to be offered to investors in any investment advisory program in which you may invest. Morgan Stanley does not and will not recommend any such manager/fund for investment in these programs, and has included the manager/fund in the report solely at your request and for your information. The performance shown in this report for any such managers or funds could differ materially from their performance in investment advisory programs offered by firms other than Morgan Stanley. If you have invested with any such manager/fund through another firm, we recommend that you seek information from that firm on the manager's or fund's gross and net performance in its programs.

This report is not complete unless it contains all pages (as indicated in the page numbering below). Please see "Important Notes About Performance" and "Important Notes About this Report" for other important information (including the effect of fees and a summary of the risks associated with particular investment disciplines).

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### **Important Notes About Performance**

The performance data in this report is historical. Past performance does not guarantee future results.

#### NET PERFORMANCE

See the accompanying Select UMA Manager Profiles for each investment manager in this report for net performance information on the manager. See the accompanying Morningstar profiles for each fund in the report for standardized fund performance (i.e. returns net of any maximum sales charges that apply if you purchase the Mutual Fund or ETF outside of our investment advisory programs) and also returns net of the maximum annual investment advisory fees that apply if you purchase the fund in one of our investment advisory programs. You should carefully read the manager/fund profiles, which may contain more up-to-date performance information than in this report.

#### NOTE ABOUT ETF PERFORMANCE

For ETFs, performance shown may be based on net asset value (NAV), market price (MKT) or both. The Morningstar profile that must accompany this report shows performance based on both NAV and market price.

### Important Notes About Performance (Cont'd)

#### GENERAL DISCLOSURE

The investment return and principal value of an investment will fluctuate so that an investor's shares in a fund, when redeemed, may be worth more or less than their original cost, and investments in separately managed accounts may be worth more or less than the original amount. Current performance may be lower or higher than the performance quoted. For performance data for a fund current to the most recent month end, please either contact the fund (at the toll-free number or website address specified in that fund's profile given to you with this report) or call your Financial Advisor or Private Wealth Advisor at the toll-free number on the cover page of this report.

You would not necessarily have obtained the performance results shown in this report if you had invested with these managers or funds for the periods indicated. Actual performance results of accounts vary due to factors such as the timing of contributions and withdrawals, client restrictions, rebalancing schedules, and fees and costs. THE SELECTION OF MANAGERS/FUNDS IN THIS REPORT MAY REFLECT THE BENEFIT OF HINDSIGHT BASED ON HISTORICAL RATES OF RETURN.

See the applicable Morgan Stanley ADV brochure for an explanation of the fees and charges that would apply if you invest with an investment manager or in a fund through a Morgan Stanley investment advisory program. See "Important Notes About This Report" for information on the sources of performance information in this report.

Managers shown in this report may be approved managers offered in some or all of Morgan Stanley's Consulting and Evaluation Services program or Select UMA program. Please ask your Financial Advisor or Private Wealth Advisor about availability in particular programs. See "Important Notes About This Report" for more information on how Morgan Stanley approves managers for these programs.

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Terms have the following meanings:

- (S) Manager participates in the Select UMA program, performance is Gross of advisory fees
- (n) Manager participates in the Select UMA program, performance is Net of advisory fees
- (C) Manager participates in the Consulting and Evaluation Services program, performance is Gross of advisory fees
- (Cn) Manager participates in the Consulting and Evaluation Services program, performance is Net of advisory fees

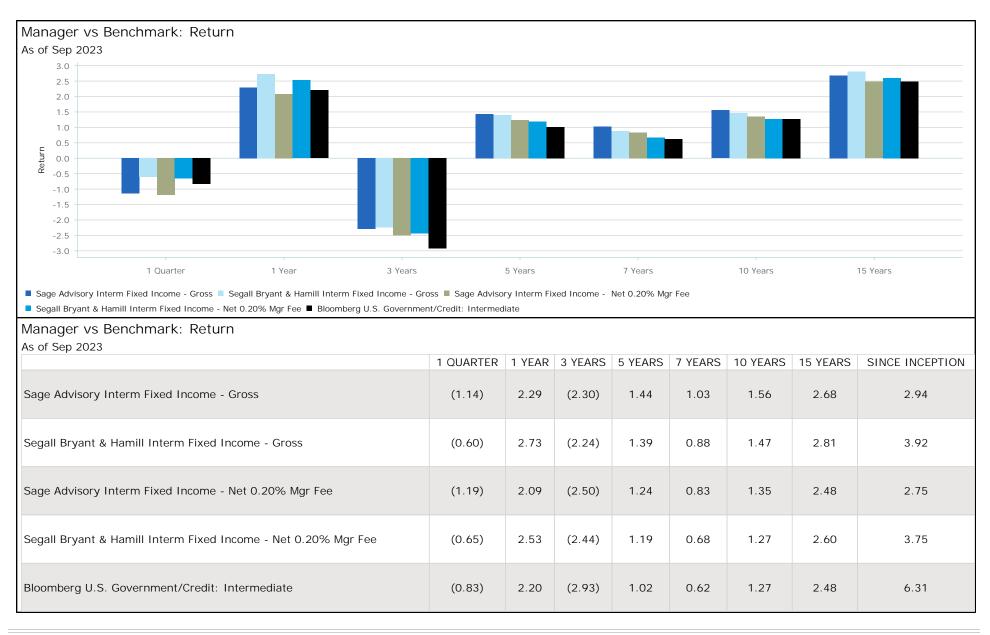
The "Inception Date" is, for separately managed accounts, the date when the investment manager began managing the applicable investment discipline and, for funds, the date the fund was established. In either case, this date may be before the investment discipline or fund became available in any applicable Morgan Stanley investment advisory program.





QUANTITATIVE ANALYSIS (Intermediate Fixed Income) Trailing Period Returns Analysis

as of September 30, 2023





#### Calendar Year Returns Analysis

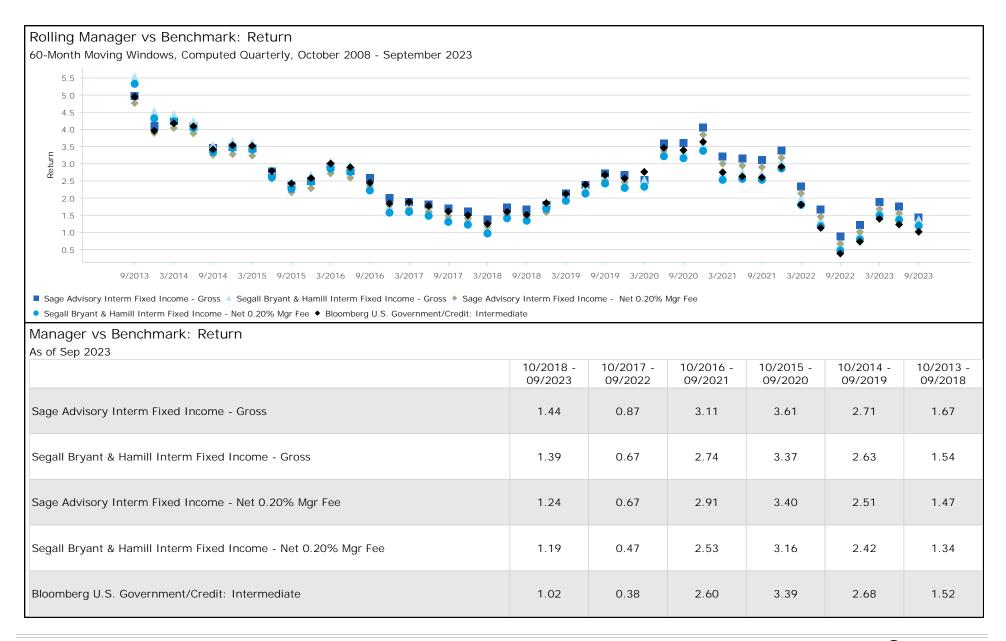
as of September 30, 2023

Calendar Year Return															
As of Sep 2023	YTD	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Sage Advisory Interm Fixed Income - Gross	0.61	(7.91)	(0.93)	7.90	7.30	0.59	2.37	2.32	0.93	2.78	(0.31)	4.34	4.81	5.92	5.89
Segall Bryant & Hamill Interm Fixed Income - Gross	1.24	(7.71)	(0.61)	6.60	6.44	0.97	2.14	1.91	1.13	3.30	(1.28)	3.92	6.52	6.09	7.66
Sage Advisory Interm Fixed Income - Net 0.20% Mgr Fee	0.46	(8.09)	(1.13)	7.68	7.09	0.39	2.16	2.11	0.73	2.58	(0.51)	4.13	4.60	5.71	5.68
Segall Bryant & Hamill Interm Fixed Income - Net 0.20% Mgr Fee	1.08	(7.90)	(0.81)	6.39	6.23	0.77	1.94	1.71	0.93	3.09	(1.48)	3.71	6.31	5.88	7.44
Bloomberg U.S. Government/Credit: Intermediate	0.65	(8.24)	(1.44)	6.43	6.80	0.88	2.14	2.08	1.07	3.13	(0.86)	3.89	5.80	5.89	5.24



5-Year Rolling Period Returns

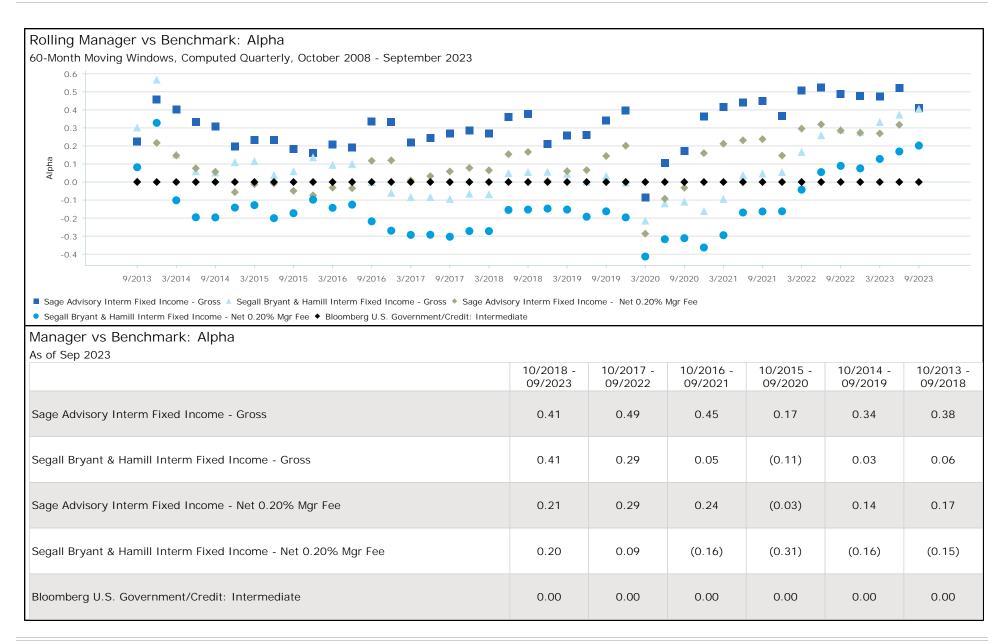
as of September 30, 2023





5-Year Rolling Period Alphas

as of September 30, 2023





3-Year Risk/Return Analysis

as of September 30, 2023





5-Year Risk/Return Analysis

as of September 30, 2023





7-Year Risk/Return Analysis

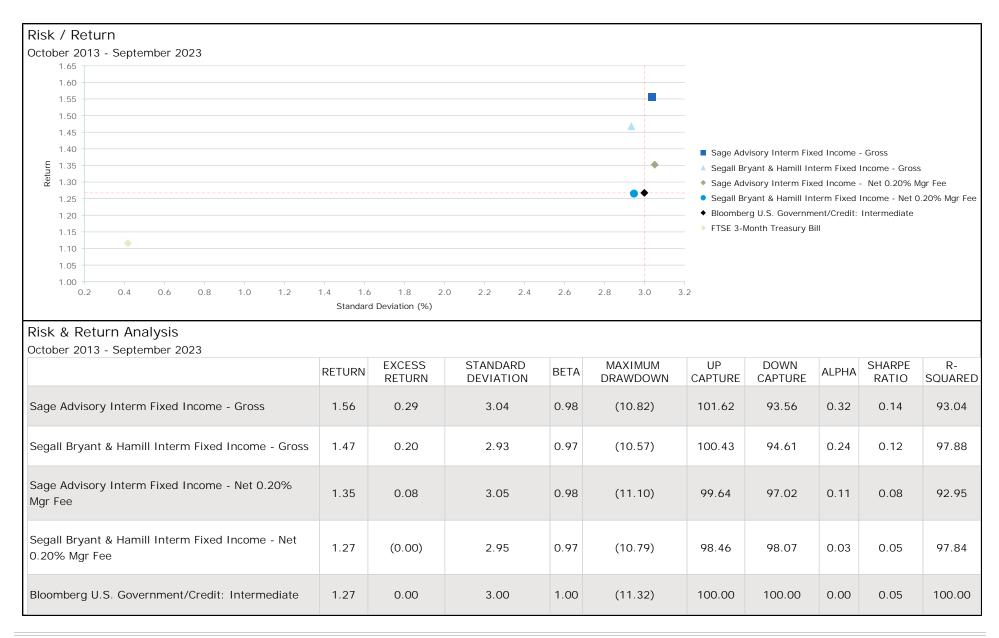
as of September 30, 2023





10-Year Risk/Return Analysis

as of September 30, 2023





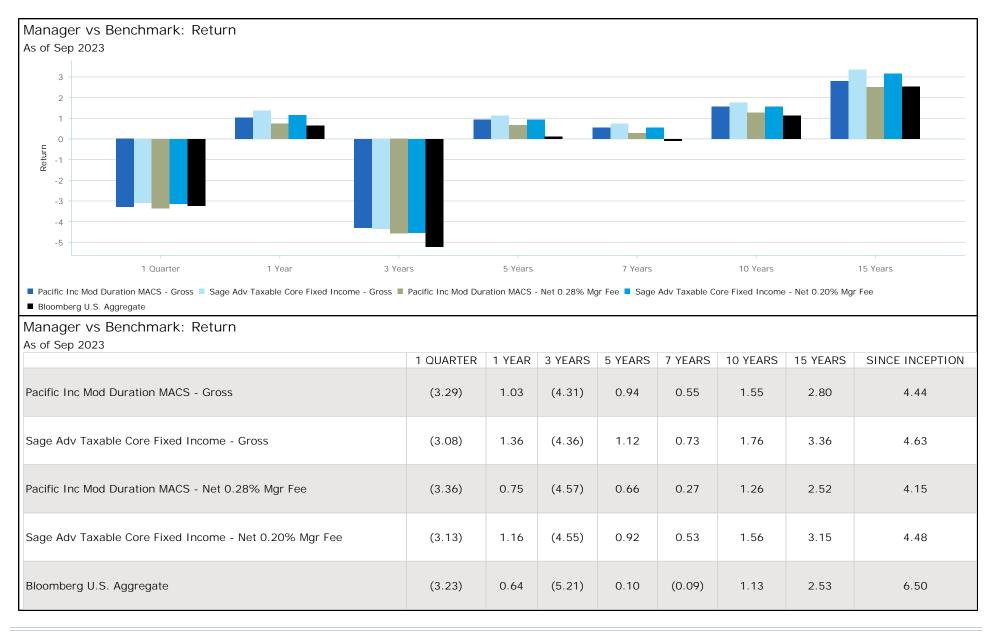




### QUANTITATIVE ANALYSIS (Core Fixed Income)

Trailing Period Returns Analysis

as of September 30, 2023





### Calendar Year Returns Analysis

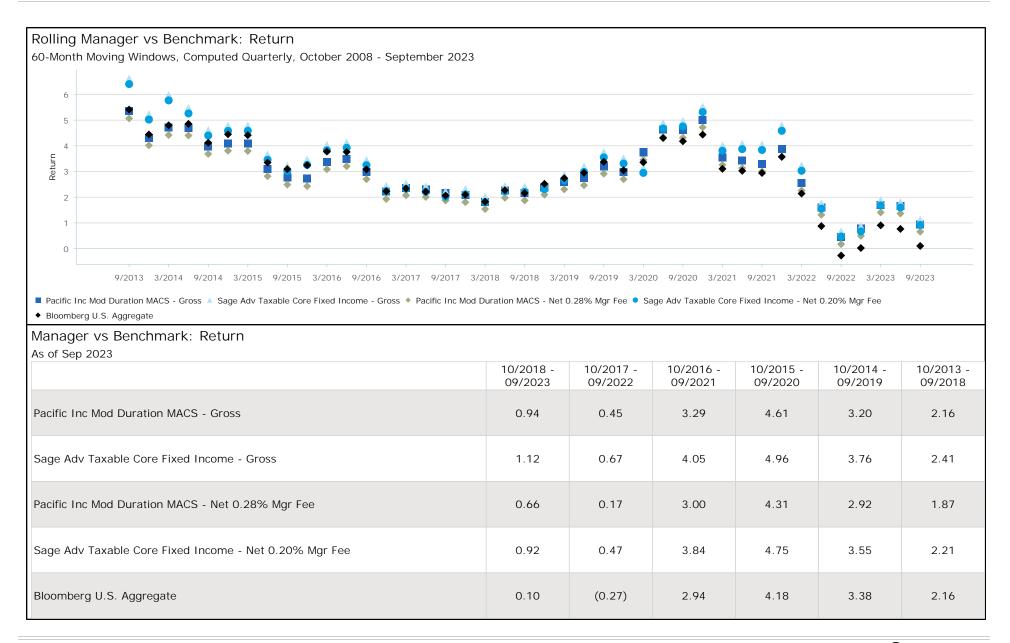
as of September 30, 2023

Calendar Year Return															
As of Sep 2023															
	YTD	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Pacific Inc Mod Duration MACS - Gross		(10.77)	(1.70)	9.37	8.89	(0.50)	3.81	3.80	(0.77)	5.74	(1.92)	4.44	6.39	6.08	6.81
Sage Adv Taxable Core Fixed Income - Gross	(0.37)	(13.53)	(0.61)	10.58	10.83	(0.85)	4.65	2.90	0.46	5.58	(1.83)	5.30	8.15	7.06	7.83
Pacific Inc Mod Duration MACS - Net 0.28% Mgr Fee	(1.16)	(11.02)	(1.98)	9.06	8.59	(0.78)	3.52	3.51	(1.04)	5.44	(2.19)	4.15	6.09	5.79	6.52
Sage Adv Taxable Core Fixed Income - Net 0.20% Mgr Fee	(0.52)	(13.70)	(0.81)	10.36	10.60	(1.05)	4.44	2.69	0.26	5.37	(2.03)	5.08	7.93	6.85	7.61
Bloomberg U.S. Aggregate	(1.21)	(13.01)	(1.54)	7.51	8.72	0.01	3.54	2.65	0.55	5.97	(2.02)	4.21	7.84	6.54	5.93



5-Year Rolling Period Returns

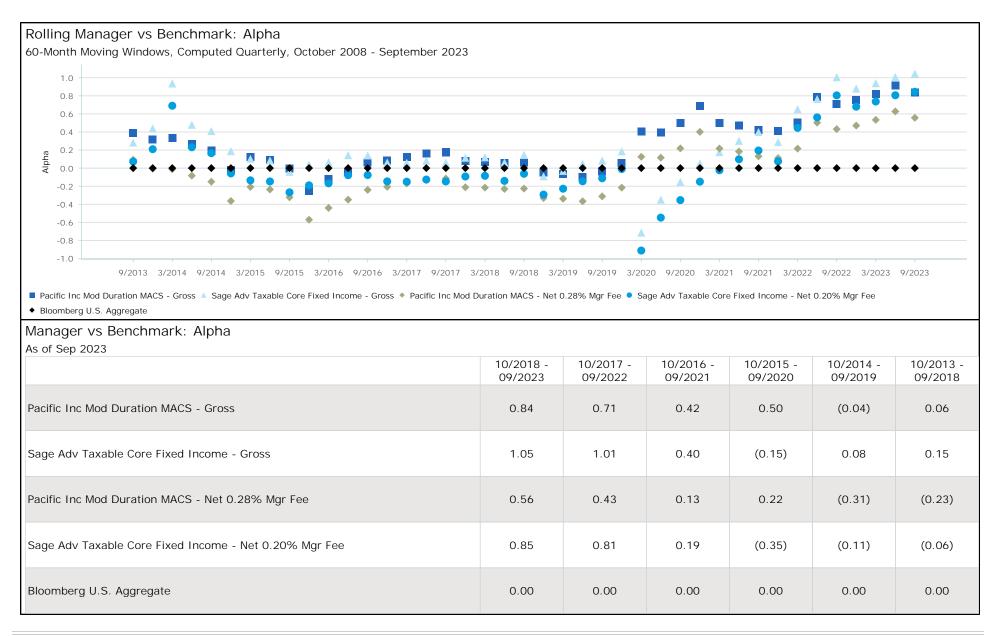
as of September 30, 2023





5-Year Rolling Period Alphas

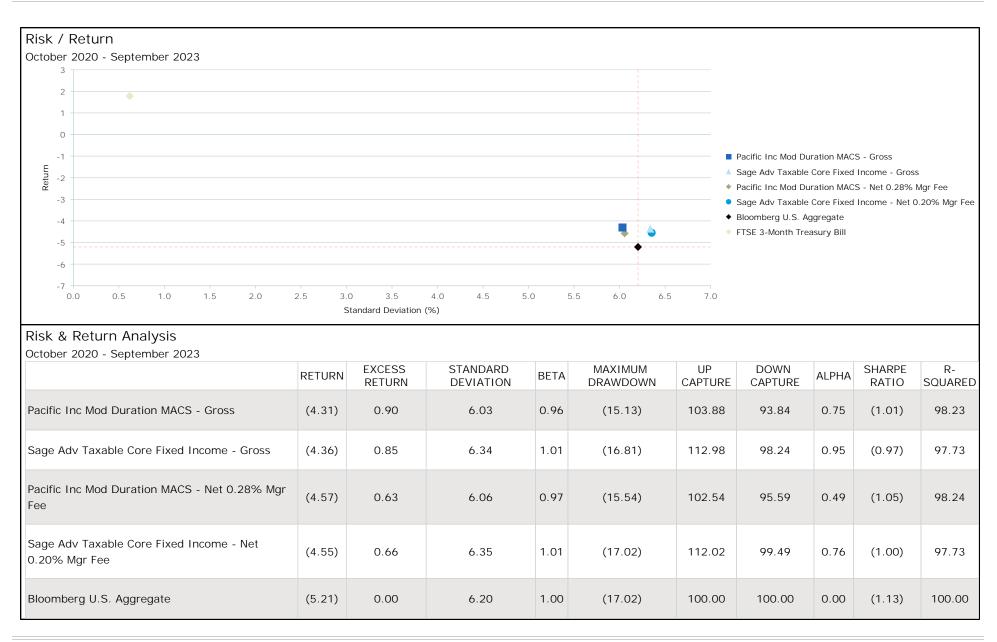
as of September 30, 2023





#### 3-Year Risk/Return Analysis

as of September 30, 2023





5-Year Risk/Return Analysis

as of September 30, 2023





7-Year Risk/Return Analysis

as of September 30, 2023





10-Year Risk/Return Analysis

as of September 30, 2023





### Important Notes About This Report

### PAST PERFORMANCE DOES NOT GUARANTEE FUTURE RESULTS. ACTUAL INDIVIDUAL ACCOUNT RESULTS WILL DIFFER FROM THE PERFORMANCE SHOWN IN THIS REPORT.

INVESTMENT DECISIONS: Do not use this report as the sole basis for investment decisions. Do not select an allocation, investment disciplines or investment managers/funds based on performance alone. Consider, in addition to performance results, other relevant information about each investment manager or fund, as well as matters such as your investment objectives, risk tolerance and investment time horizon.

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In addition, each account that is invested in a program that is eligible to purchase certain investment products, such as mutual funds, will also pay a Platform Fee (which is subject to a Platform Fee offset) as described in the applicable ADV brochure. Accounts invested in the Select UMA program may also pay a separate Sub-Manager fee, if applicable.

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#### http://www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf

www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf. For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at www.morganstanley.com/ADV, or contact your Financial Advisor / Private Wealth Advisor.

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You should read the investment manager profile accompanying this report for each investment manager. The investment manager profile gives further details on the sources of performance information for a particular investment manager, as well as other calculations of the manager's performance returns (such as performance net of fees and expenses).

SOURCE OF PERFORMANCE INFORMATION FOR OTHER INVESTMENT MANAGERS: For any investment managers shown in this report that are not available in the Consulting and Evaluation Services or Select UMA programs, the performance data is obtained from databases maintained by parties outside Morgan Stanley. This data has been included for your information, and has not been verified by Morgan Stanley in any way. See "Sources of Information" below. The gross performance shown in this report for these managers could differ materially from their gross performance in investment advisory programs offered by firms other than Morgan Stanley. If you have invested with any such manager through another firm, we recommend that you seek information from that firm on the manager's gross and net performance in its programs.

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SHARE CLASSES OF FUNDS SHOWN IN THIS REPORT: The share class of a fund shown in this report may differ from the share class available in any Morgan Stanley Wealth Management investment advisory program in which you invest. The performance of the share class in which you invest may differ from that of the share class shown in this report.

REINVESTMENT: The performance results shown in this report assume that all dividends, accrued income and capital gains were reinvested.

SOURCES OF INFORMATION: Although the statements of fact in this report have been obtained from, and are based on, sources that Morgan Stanley believes to be reliable, Morgan Stanley makes no representation as to the accuracy or completeness of the information from sources outside Morgan Stanley. Any such information may be incomplete and you should not use it as the sole basis for investment decisions.

It is important to consider a fund's investment objectives, risks, charges and expenses carefully before investing. The prospectus contains this and other information about the fund. A copy of the prospectus may be obtained from your Financial Advisor or Private Wealth Advisor. Please read the prospectus carefully before investing in the fund.

KEY ASSET CLASS RISK CONSIDERATIONS: Investing in securities entails risk including the risk of losing principal. There is no assurance that the investment disciplines and investment managers/funds selected will meet their intended objectives.

Commodities – Diversified: The commodities markets may fluctuate widely based on a variety of factors including changes in supply and demand relationships; governmental programs and policies; national and international political and economic events; war and terrorist events; changes in interest and exchange rates; trading activities in commodities and related contracts; pestilence; weather; technological change; and the price volatility of a commodity. In addition to commodity risk, commodity-linked notes may be subject to special risks, such as risk of loss of interest and principal, lack of a secondary market and risk of greater volatility that do not affect traditional equity and debt securities.

Commodities - Precious Metals: The prices of Commodities - Precious Metals tend to fluctuate widely and in an unpredictable manner, and have historically experienced extended periods of flat or declining prices. The prices of Commodities - Precious Metals are affected by several factors, including global supply and demand, investors' expectations with respect to the rate of inflation, currency exchange rates, interest rates, investment and trading activities of hedge funds and commodity funds, and global or regional political, economic or financial events and situations.

Fixed Income: Fixed income securities are subject to certain inherent risks such as credit risk, reinvestment risk, call risk, and interest rate risk. Fixed income securities are sensitive to changes in prevailing interest rates. When interest rates rise, the value of fixed income securities generally declines. Accordingly, managers or funds that invest in fixed income securities are subject to interest rate risk and portfolio values can decline in value as interest rates rise and an investor can lose principal.

High Yield Fixed Income: As well as being subject to risks relating to fixed income generally (see "Fixed Income"), high yield or "junk" bonds are considered speculative, have significantly higher credit and default risks (including loss of principal), and may be less liquid and more volatile than investment grade bonds. Clients should only invest in high yield strategies if this is consistent with their risk tolerance, and high yield investments should comprise only a limited part of a balanced portfolio.

International/Emerging Market: International investing (including investing in particular countries or groups of countries) should be considered only one component of a complete and diversified investment program. Investing in foreign markets may entail greater risks than those normally associated with domestic markets, such as foreign political, currency, economic and market risks. In addition, the securities markets of many emerging markets are substantially smaller, less developed, less liquid and more volatile than the securities markets of the U.S. and other more developed countries. Further, a portfolio that focuses on a single country may be subject to higher volatility than one that is more diversified.

Preferred Securities: Preferred securities are generally subject to the same risks as apply to fixed income securities. (See "Fixed Income.") However, preferred securities (especially equity preferred securities) may rank below traditional forms of debt for the purposes of repayment in the event of bankruptcy. Many preferred securities are "callable" meaning that the issuer may retire the securities at specific prices and dates prior to maturity. If a preferred security is called, the investor bears the risk of reinvesting proceeds at a potentially lower return. Investors may not receive regular distributions on preferred securities. For example, dividends on equity preferred securities may only be declarable in the discretion of the issuer's board and may not be cumulative. Similarly, interest payments on certain debt preferred securities may be deferred by the issuer for periods of up to 10 years or more, in which case the investor would still have income tax liability even though payments would not have been received.

Real Estate: Real estate investments are subject to special risks, including interest rate and property value fluctuations as well as risks related to general and local conditions.

Small and Mid Cap: Investments in small-to medium-sized corporations are generally more vulnerable to financial risks and other risks than larger corporations and may involve a higher degree of price volatility than investments in the broad equity market.

Hedged and Alternatives Strategies: In most Consulting Group investment advisory program, alternative investments are limited to US registered open-end mutual funds, separate account strategies, and ETFs that seek to pursue alternative investment strategies or returns utilizing publicly traded securities. Investment products in this category may employ various investment strategies and techniques for both hedging and more speculative purposes such as short selling, leverage, derivatives, and options, which can increase volatility and the risk of investment loss. Alternative Investments are not suitable for all investors.

Managed Futures: Involve a high degree of risk, often involve leveraging and other speculative investment practices that may increase the risk of investment loss, can be highly illiquid, are not required to provide periodic pricing or valuation information to investors, may involve complex tax structures and delays in distributing important tax information, are not subject to the same regulatory requirements as mutual funds, often charge high fees which may offset any trading profits, and in many cases the underlying investments are not transparent and are known only to the investment manager.

Master Limited Partnerships (MLPs) are limited partnerships or limited liability companies whose interests (limited partnership or limited liability company units) are generally traded on securities exchanges like shares of common stock. Investment in MLPs entails different risks, including tax risks, than is the case for other types of investments. Currently, most MLPs operate in the energy, natural resources or real estate sectors and are subject to the risks generally applicable to companies in those sectors, including commodity pricing risk, supply and demand risk, depletion risk and exploration risk. Depending on the ownership vehicle, MLP interests are subject to varying tax treatment.

### Glossary

ALPHA: Synonym of 'value added', linearly similar to the way beta is computed, alpha is the incremental return on a portfolio when the market is stationary. In other words, it is the extra expected return due to non-market factors. This risk-adjusted measurement takes into account both the performance of the market as a whole and the volatility of the portfolio. A positive alpha indicates that a portfolio has produced returns above the expected level at that level of risk, and vice versa for a negative alpha.

ANNUALIZED RETURN: The constant rate of return that, compounded annually, would yield the same overall return for a period of more than one year as the actual return observed for that period.

ANNUALIZED EXCESS RETURN: Excess return represents the difference between the manager's return and the return of a benchmark for that manager. Annualized excess return is calculated by taking the annualized return of the original series and forming the difference between the two. A positive annualized excess return implies that the manager outperformed the benchmark over the time period shown.

BEST AND WORST PERIOD RETURNS: The best period return for a time window is simply the maximum of the returns for that period inside this window. Similarly, the worst period return for a time window is the minimum of the returns for that period inside this window. To calculate the best one-year return for a return series, the program moves a one-year time window along the series and calculates the compound return for each of these windows. The best one-year return is the maximum of the returns thus found. Similarly, the worst one-year return is the minimum of the returns thus found. Therefore, best and worst one-year returns do not refer to calendar years.

BETA: The measure of a portfolio's risk in relation to the market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a portfolio with a beta of 1.5 will have moved, on average, 1.5 times the market return. According to asset pricing theory, beta represents the type of risk, systematic risk, which cannot be diversified away. When using beta, there are a number of issues that you need to be aware of: (1) betas may change through time; (2) betas may be different depending on the direction of the market (i.e. betas may be greater for down moves in the market rather than up moves); (3) the estimated beta will be biased if the portfolio does not frequently trade; and (4) the beta is not necessarily a complete measure of risk (you may need multiple betas). Also, note that the beta is a measure of co movement, not volatility. It is possible for a security to have a zero beta and higher volatility than the market.

# Glossary (Cont'd)

CORRELATION: Statistical method to measure how closely related the variances of two series are. Assets that are highly correlated would be expected to react in similar ways to changing market conditions.

CUMULATIVE RETURN: The total return on an investment over a specified time period.

CUMULATIVE EXCESS RETURN: Excess return represents the difference between the manager's return and the return of a benchmark for that manager. Cumulative excess return is calculated by taking the cumulative return of the original series and forming the difference between the two. A positive cumulative excess return implies that the manager outperformed the benchmark over the time period shown.

DOWNSIDE CAPTURE RATIO: For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had negative returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. For investors, the lower the downside capture ratio, the better. For example, a downside capture ratio of 90% means that the portfolio's losses were only 90% of the market's losses (as represented by the benchmark index).

DOWNSIDE DEVIATION: Similar to Standard Deviation, but Downside Deviation captures the range of expected returns only on the down side [when the returns fall below the minimum acceptable return (MAR)].

DRAWDOWN (MAXIMUM DRAWDOWN): The Maximum loss (compounded, not annualized) that the manager incurred during any sub-period of the time period shown.

DRAWDOWN BEGIN DATE: the first date of the sub-period used to calculate the maximum drawdown

DRAWDOWN END DATE: The last date of the sub period used to calculate the maximum drawdown

DRAWDOWN LENGTH: The number of periods (months or quarters depending on the periodicity of the data) the sub-period used to calculate the maximum drawdown

DRAWDOWN RECOVERY DATE: Date at which the compounded returns regain the peak level that was reached before the drawdown began

DRAWDOWN RECOVERY LENGTH: Number of periods it takes to reach the recovery level from maximum drawdown end date

# Glossary (Cont'd)

EXCESS RETURN: The difference between the returns of two portfolios. Usually excess return is the difference between a portfolio's return and the return of a benchmark for that portfolio.

GAIN TO LOSS RATIO: Divides the average gain in an up period by the average loss in a down period. A higher Gain to Loss Ratio is more favorable.

HIGH WATER MARK: The High Water Mark represents the peak level of the manager's return, as represented by the peak of the cumulative return series.

HIGH WATER MARK DATE: The date which the High Water Mark was reached.

UNDER WATER LOSS: Loss incurred between the high water mark date and the end of the period analyzed UNDER WATER LENGTH: Length of the time interval that begins with the high water mark and ends with the analysis period TO HIGH WATER MARK: The percentage of gain that the manager/fund needs to regain the peak level of the cumulative return series

INFORMATION RATIO: Measures the active return of the manager divided by the manager's active risk. Active return is the annualized differences of the manager and the benchmark index, while active risk is measured by tracking error. The higher the information ratio, the better. An information ratio of 0 implies that a manager/fund (or benchmark index, if applicable) has provided a return that is equivalent to the risk of the benchmark return.

MAR: Stands for "Minimum Acceptable Return." This represents the lowest return possible that could be considered a successful result of the investment. In most cases, the MAR will either be defined as 0 (meaning no negative return) or as the return of a cash benchmark (meaning the investment had a higher return that simply keeping the investment amount in the relatively safe investment of money market funds). Please refer to the specific chart/statistic to see the specific MAR used in the illustration.

# Glossary (Cont'd)

MANAGER STYLE (RETURNS BASED STYLE ANALYSIS): A measure for analyzing the style of a portfolio's returns when compared with the quarterly returns on a number of selected style indices (the "Style Basis"). These style indices represent distinct investment styles or asset classes such as large cap value, large cap growth, small cap growth, small cap value, government bonds, or cash equivalents asset classes. Style analysis uses a calculation procedure that finds the combination of selected indices that best tracks (i.e. that has the highest correlation to) a given manager's return series. This allows the advisor to capture an accurate picture of the investment style of the manager without viewing the underlying holdings.

OMEGA: A measure of volatility designed to capture the entire return distribution (useful for investments that do not have normal return distributions), the Omega is tied to a MAR (see above) and shows the ratio of the entire upside performance to the entire downside, with the MAR representing the dividing line between upside and downside. (e.g. If MAR = 0.00%, any positive return is captured in the upside and any negative return is captured in the downside).

PAIN INDEX: Represents the frequency, the depth, and the width of the manager/fund's drawdowns. The Pain Index captures the information for every period in which the manager/fund is negative. A higher Pain Index indicates that the manager/fund had a more negative result when considering not just the depth (lowest return) but also the frequency of negative returns (frequency) and the amount of time that the return remained negative (width).

PAIN RATIO: A risk/return ratio which uses the Pain Index as the measure of risk. The higher the Pain Ratio, the better the riskadjusted return of the portfolio.

ROLLING WINDOW: Indicates that the chart or statistic was evaluated using periodic smaller windows of data on a rolling basis. As an example, a 20 Quarter Rolling Window (Annual Roll) over a 10 year period indicates that 5 year (20 quarter) periods of time were evaluated from the start date, moving forward one year at a time, for the duration of the 10 year period, resulting in 5 "windows". Evaluating data this way allows us to remove end point bias and determine a measure of consistency in performance.

R-SQUARED: Used to show how much of a portfolio's variability can be accounted for by the market. For example, if a portfolio's R-Squared is 0.79, then 79% of the portfolio's variability is due to market conditions. As R-Squared approaches 100%, the portfolio is more closely correlated with the market.

# Glossary (Cont'd)

SHARPE RATIO: Developed by William F. Sharpe, this calculation measures a ratio of return to volatility. It is useful in comparing two portfolios or stocks in terms of risk-adjusted return. The higher the Sharpe Ratio, the better the risk-adjusted return of the portfolio. It is calculated by first subtracting the risk free rate (Citigroup 3-month T-bill) from the return of the portfolio, then dividing by the standard deviation of the portfolio. Using Sharpe ratios to compare and select among investment alternatives can be difficult because the measure of risk (standard deviation) penalizes portfolios for positive upside returns as much as the undesirable downside returns.

SINGLE COMPUTATION: For a single computation chart, StyleADVISOR calculates the information over the entire time period shown as a single data point. AS an example, in a chart showing 10 years of performance, a "Single Computation" would represent the statistic shown over the entire 10 year window.

STANDARD DEVIATION: A statistical measure of the degree to which the performance of a portfolio varies from its average performance during a specified period. The higher the standard deviation, the greater the volatility of the portfolio's performance returns relative to its average return. A portfolio's returns can be expected to fall within plus or minus one standard deviation, relative to its average return, two-thirds of the time, and fall within plus or minus two standard deviations relative to its average return, 95% of the time. For example, if a portfolio had a return of 5% and a standard deviation of 13% then, if future volatility of returns is similar to historical volatility (which may not be the case):

- About two-thirds of the time, the future returns could be expected to fall between -8% and 18% (being 5% +/- 13%)
- About 95% of the time, the future returns could be expected to fall between -21% and 31% (being 5% +/- 26%).

In performance measurement, it is generally assumed that a larger standard deviation means that great risk was taken to achieve the return.

# Glossary (Cont'd)

STYLE BASIS: A set of indices that represent the broad asset category being utilized. The Style Basis is used in the equation that calculates the Manager Style (see definition). The "Manager Style" chart shows the specific benchmarks utilized in the Style Basis. The following Style Bases would be appropriate for the asset classes shown below:

- Domestic Equity: Russell Generic Corners; Russell 6 Way Style basis; S&P Pure Style Basis
- International Equity: MSCI Regional Style Basis; MSCI World Ex USA Style Basis; MSCI International Equity Style Basis;
  S&P Regional International Indexes, S&P International 4 Way Style Basis
- Global Equity: MSCI World Style Basis; MSCI World Regional Indexes; MSCI Global Equity Style Basis
- Fixed income: Citigroup Corporate Bond Indexes; BofA Merrill Lynch Fixed Income Indexes; Citigroup Govt Fixed Income Indexes; Global Bond Indexes

STYLE BENCHMARK: A unique benchmark calculated for each manager/fund based on the Returns Based Style Analysis described above. The "Asset Allocation" chart in Zephyr shows the specific weightings used for the Style Benchmark for each manager or fund.

TRACKING ERROR: A measurement that indicates the standard deviation of the difference between a selected market index and a portfolio's returns. The portfolio's returns are then compared to the index's returns to determine the amount of excess return, which produces a tracking error. A low tracking error indicates that the portfolio is tracking the selected index closely or has roughly the same returns as the index.

UPSIDE CAPTURE RATIO: For each portfolio, this is calculated by (1) identifying the calendar quarters in which the portfolio's benchmark index had positive returns and then (2) for those quarters, dividing the portfolio's annualized net performance by the benchmark index's performance. A percentage less than 100% indicates that the portfolio "captured" less performance than the benchmark index, while a percentage greater than 100% indicates the portfolio captured more performance than the benchmark index. For investors, the higher the upside capture ratio, the better. For example, if the annualized performance of an benchmark index during "up" markets (when its returns were zero or positive) is 20.8% and the portfolio's annualized performance during the same period is 16.8%, then the portfolio's upside capture ratio is 16.8%/20.8% = 80.7%, meaning the portfolio "captured" 80.7% of the upside performance of the index. Stated another way, the portfolio in this example performed almost 20% worse than the market during up periods.

VARIANCE: A measure of how spread out a distribution is. It is computed as the average squared deviation of each number from its mean.





## **QUALITATIVE DUE DILGENCE REPORTS**

(Intermediate Fixed Income)

Global Investment Manager Analysis | February 24, 2023

# **Focus List Report**

## Sage Intermediate Taxable

## Highlights

- Sage Intermediate Taxable strategy is an intermediate-term taxable strategy that invests in a broad range of investment grade fixed income securities and may tactically use non-benchmark securities (e.g. ABS, CMBS, municipals) in an effort to add value.
- The strategy tends to maintain an underweight position to government-related securities in the Treasury and Agency sectors and an overweight allocation to the corporate credit sector. The strategy could have up to 10% allocation to below investment grade securities.
- The portfolio typically maintains overall portfolio duration between +/-25% relative to the benchmark.
- Sage Advisory Services, Ltd. Co. (Sage) is 100% employee owned and primarily dedicated to the investment management of fixed income strategies. GIMA views positively expansion of ownership among employees.
- GIMA maintains a favorable view of the strategy' lead portfolio manager, Thomas Urano, as well as the breadth of supporting investment resources dedicated to fixed income. Mr. Urano has served as a portfolio manager at Sage since 2003. He is also a member of the firm's Investment Committee, which in addition to Mr. Urano, is composed of seven senior members of the investment team. The Investment Committee evaluates macroeconomic conditions and sets top-down views.

## **Performance Expectations**

- GIMA expects strategy performance may deviate from the benchmark given its exposure to non-benchmark securitized sectors such as asset-backed securities, mortgage-backed securities, and commercial mortgage-backed securities.
- The strategy's allocations to non-benchmark securities may introduce higher volatility relative to the benchmark.

## Olga Pujara, CFA

Investment Analyst Olga.Pujara@morganstanley.com +1 212 296-7779

## **Strategy Details**

**Investment Style:** US Taxable Core

Sub-Style: Intermediate Taxable Core

## Benchmark:

Bloomberg Intermediate Government/Credit Index

## **GIMA Status:**

Focus List

## **Product Type:**

Separately Managed Account <a href="https://www.sageadvisory.com">https://www.sageadvisory.com</a>

## **Strategy Description**

Sage Intermediate Taxable strategy employs a value-oriented approach. The strategy seeks to add value from sector rotation and security selection and to a lesser degree from duration management.

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## INVESTMENT PRODUCTS: NOT FDIC INSURED\*NO BANK GUARANTEE\* MAY LOSE VALUE

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## **Positive Attributes**

- Sage Advisory Services, Ltd. Co. (Sage) is 100% owned by employees and primarily dedicated to the investment management of fixed income strategies.
- GIMA maintains a favorable view of the fixed income team. The broader investment team consists of 10 portfolio managers and 8 dedicated research analysts who assist with fundamental research and security selection.
- The strategy utilizes a comprehensive investment process that seeks to achieve risk-adjusted performance objectives through multiple strategies.
- Sage has grown assets under management steadily and taken steps to distribute more equity ownership to employees.

## **Points to Consider**

- The strategy may at times be overweight or underweight the BBB rating category. The strategy could have up to 10% in below investment grade securities.
- The strategy may invest in non-benchmark securitized sectors such as asset-backed securities, mortgage-backed securities, and commercial mortgage-backed securities.
- Strategy duration is typically +/- 25% of the benchmark, generally between three and five years.
- Smaller retail SMA accounts generally do not use CMBS and are expected to have a lower allocation to ABS relative to larger portfolios.
- Sage does not use futures or options when seeking to enhance return potential, and avoids the use of any derivative securities within its portfolios unless instructed to do so by client guidelines.

## **Areas of Concern**

• While not expected, GIMA would view the departure of Thomas Urano negatively. Experienced team of portfolio managers that manage the strategy in a team format helps to mitigate that concern.

## Portfolio Management Team & Investment Process

- The strategy is managed in a team format with Thomas Urano, as a lead portfolio manager. The portfolio management team leverages the firm's investment team, which includes the Investment Committee, Portfolio Management Team and Research Team.
- Sage blends fundamental economic analysis and quantitative techniques to identify sectors and issues believed to offer attractive returns over a rolling three-to-six-month horizon.
- The Investment Committee identifies economic and interest rate trends and differentiates secular from cyclical themes. It actively monitors monetary and fiscal policy and components of inflation.
- Duration Management Based on the firm's projected macroeconomic outlook. Duration is maintained within 3-5 years or +/-25% versus the benchmark.
- Yield Curve Strategies In constructing the maturity structure of the portfolio, management identifies favorable risk-adjusted return within each segment of the yield curve, including anticipated potential yield curve changes.
- Sector Allocation Since the firm focuses on top-down themes, assessment of a sector's overall outlook and attractiveness is important. According to the firm, valuation is based on current sector option-adjusted spread (OAS) versus the sector's historical OAS and fundamentals.
- Security Selection Each security choice is looked at from two angles: from a research (fundamentals) perspective, and from a relative value viewpoint.

## **PORTFOLIO TRAITS**

Range of Holdings	90-150
Max. Single Non-Treas Issue	5%
Duration Range	+/-25% relative to Benchmark
Maturity Range	+/-25% relative to Benchmark
Typical Annual Turnover	125%-150%
Invests in Derivatives	No
Non-US Dollar Exposure	No

**OWNERSHIP & PARENT COMPANY** 

Name of Owner	Robert G. Smith
Percentage Owned	61%
Publicly Traded	No
Name of Owner	Peck Investment Partners
Percentage Owned	13%
Publicly Traded	No

Source: Sage Sage is 100% employee owned, with additional 26% owned between 14 other employees.

SECTORS	EXPECTED RANGE (%)
Treasuries/Agencies	15-100
Agency Mortgages	0-50
Non-Agency Mortgages	0-10
ABS	0-25
CMBS	0-10
US Investment Grade Corp	20-60
US High Yield Corporates	0-10
Inflation Linked	0-5
Tax-Exempt Inv Grade Munis	0-10
Taxable Inv Grade Munis	0-10
Cash (& Equivalents)	2-5

## **ASSETS UNDER MANAGEMENT (\$ BILLIONS)**

YEAR	FIRM	SMA
2022	17.3	3.6
2021	17.5	3.7
2020	15.7	3.3
2019	14.6	3.3
2018	12.7	2.8

Source: Sage

Source: Sage

Source: Sage

CREDIT QUALITY	EXPECTED RANGE (%)
AAA	40-60
AA	1-5
Α	5-15
BBB	10-30
BB	0-5
В	0
CCC & Below	0
Non-Rated	0

Source: Sage

### **Disclosure Section**

#### Definitions

**Bloomberg Intermediate Govt/Credit Index** - This index is the U.S. Gov/Credit component of the U.S. Aggregate index. The Government/Credit Index includes securities in the Government and Credit Indices. The Government Index includes treasuries and agencies (i.e., publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government). The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements. Securities are in the intermediate range of the Bloomberg Barclays Govt/Credit Index with maturities less than 10 years.

**Sub-Styles:** Subjective classifications designed to assist with manager selection and performance evaluation based on GIMA's understanding of a manager's long-term investment philosophy and portfolio structuring biases and techniques. At points in time managers may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.

Intermediate Taxable Core - portfolios comprised of intermediate term investment grade taxable core fixed income securities including U.S. Treasuries, U.S. Government agencies, investment grade corporate debt, commercial mortgage-backed securities, asset-backed securities, mortgage-backed securities and other pass-through securities. Managers may invest in individual securities with a broad range of maturities (0-10 years). Portfolio duration generally ranges between 3 - 4.5 years. Plus sector exposure is generally less than 5%.

### Glossary of Terms

Active Share – is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

Alpha – measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

Asset-backed securities (ABS) - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Beta** – measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

Commercial Mortgage-Backed Security (CMBS) – mortgage-backed security that is secured by the loan on a commercial property.

**Collateralized Mortgage Obligation (CMOs)** – mortgage-backed security that creates separate pools of pass-through payments for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Convexity** – measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Correlation** – a statistical measure of how two securities move in relation to each other. This measure is often converted into what is known as correlation coefficient, which ranges between -1 and +1. Perfect positive correlation (a correlation coefficient of +1) implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation means that if one security moves in either direction the security that is perfectly negatively correlated will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; they are completely random. A correlation greater than 0.8 is generally described as strong, whereas a correlation less than 0.5 is generally described as weak.

**Credit Quality Rating** – weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based of their opinions of the issuer's ability to pay interest and principal as scheduled.

**Duration** – quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

**Excess Return** – represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

London Interbank Offered Rate (LIBOR) – is an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market. The LIBOR is fixed on a daily basis by the British Bankers' Association and is calculated from a filtered average of the world's most creditworthy banks' interbank deposit rates for larger loans with maturities between overnight and one full year.

**Maturity** – the weighted average portfolio length of time until the principal amount of a bond must be repaid.

**Mortgage-backed securities (MBS)** – securities backed by a mortgage loan or a pool of mortgage loans secured by real property. Investors receive payments of interest and principal that are derived from payments received on the underlying mortgage loans.

**Pass-Through Security** – security backed by a package of assets. A servicing intermediary collects the monthly payments from issuers and, after deducting a fee, remits or passes them through to the holders of the pass-through security.

**R-Squared** ( $R^2$ ) – represents the percentage of the volatility of returns that is attributable to movements of the benchmark. It is a measure of "co-movement" between portfolio returns and benchmark returns. The closer the portfolio's  $R^2$  is to 100%, the more closely the portfolio correlates to, or follows, the benchmark. Generally, highly diversified portfolios have higher R2 percentages.

Yield to Worst – is a measure of the lowest potential yield that can be received on a bond portfolio without the issuers actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the portfolio issues by calculating the returns that would be received if provisions, including prepayment, call or sinking fund, are used by the issuer.

**Tracking Error** – represents the Standard Deviation of the Excess Return. This provides a historical measure of the variability of the portfolio's returns relative to its benchmark. A portfolio with a low Tracking Error would have quarterly Excess Returns that have exhibited very low volatility.

Sharpe Ratio – measures a portfolio's rate of return based on the risk it assumed and is often referred to as its risk-adjusted performance. Using Standard Deviation and returns in excess of the returns of T-bills, it determines reward per unit of risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing risk.

Standard Deviation – quantifies the volatility associated with a portfolio's returns. The statistic measures the variation in returns around the mean return. Unlike Beta, which measures volatility relative to the aggregate market, Standard Deviation measures the absolute volatility of a portfolio's return.

### Important Disclosures

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#### Focus List, Approved List and Tactical Opportunities List; Watch Policy

GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a 'Watch' policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" next to the "Status" on the cover page.

Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "GIMA at a Glance".

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#### Performance and Other Portfolio Information

#### General

*Past performance does not guarantee future results.* There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

For mutual funds, the investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. To obtain performance information, current to the most recent month-end, please contact the fund directly at the website set out on the cover page of this report.

#### Benchmark index

Depending on the composition of your account and your investment objectives, any indices shown in this report may not be an appropriate measure for comparison purposes and are therefore presented for illustration only.

Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

#### Other data

Portfolio analysis may be based on information on less than all of the securities held in the portfolio. For equity portfolios, the analysis typically reflects securities representing at least 95% of portfolio assets. This may differ for other strategies, including those in the fixed income and specialty asset classes, due to availability of portfolio information.

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### Securities holdings

Holdings are subject to change daily, so any securities discussed in this report may or may not be included in your portfolio if you invest in this investment product. Your portfolio may also include other securities in addition to or instead of any securities discussed in this report. Do not assume that any holdings mentioned were, or will be, profitable.

#### Sources of Data

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#### Asset Class and Other Risks

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*Bonds* are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

*High yield bonds* are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues.

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# Morgan Stanley

WEALTH MANAGEMENT

Global Investment Manager Analysis | March 29, 2023

# **Approved List Report**

## Segall Bryant & Hamill Intermediate Fixed Income

## Highlights

- The Segall Bryant & Hamill (SBH) Intermediate Fixed Income strategy is an intermediate-term taxable strategy that attempts to add value by focusing on fundamental analysis and disciplined risk controls rather than market timing.
- The investment process takes an actively managed approach relying on fundamental, bottom-up research. Central tenants of the approach include a long-term investment horizon and a value-oriented philosophy.
- Management is aware of sector allocation, yield curve and duration, but does not seek to add value through these factors. Duration of the strategy is expected to be within +/- 0.5 years of the benchmark.
- The strategy tends to maintain an underweight position to government-related securities and an overweight allocation to the corporate credit sector. Additionally, management tends to have minimal exposure to the largest issuers in the index, which they view as overvalued.
- The portfolio management team includes James Dadura (Director of Fixed Income) and Gregory Hosbein. Both portfolio managers have credit research responsibilities and are supported by 10+ portfolio managers and analysts.

## **Performance Expectations**

- GIMA anticipates stronger relative performance relative to the index during times of economic uncertainty and high market volatility. Conversely, GIMA anticipates weaker relative performance in markets characterized by economic recovery and/or when lower credit quality bonds outperform.
- Since the portfolio is expected to have less exposure to the larger issuers in the index, performance may lag the benchmark when issuers with the largest weights in the index outperform.

## Jim Szestowicki

Investment Analyst James.W.Szestowicki@morganstanley.com +1 302 888-4116

## **Strategy Details**

## **Investment Style:** US Taxable Core

**Sub-Style:** Intermediate Taxable Core

## Benchmark:

Bloomberg Intermediate Government/Credit Index

## **GIMA Status:**

Approved List

## Product Type:

Separately Managed Account

## Ticker Symbol:

NA https://www.sbhic.com/

## **Strategy Description**

The strategy is an intermediate term fixed income mandate that employs a fundamental credit research approach. The strategy attempts to add value by focusing on fundamental analysis and disciplined risk controls rather than market timing. The strategy tends to maintain an overweight allocation to the corporate sector and duration is expected to be within +/- 0.5 years of the benchmark.

This report is only to be used in connection with investment advisory programs and not brokerage accounts.

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## This is not a "research report" as defined by FINRA Rule 2241 and was not prepared by the Research Departments of Morgan Stanley Smith Barney LLC or its affiliates.

## INVESTMENT PRODUCTS: NOT FDIC INSURED\*NO BANK GUARANTEE\* MAY LOSE VALUE

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## **PORTFOLIO TRAITS**

	100-150 holdings for accounts over \$1	
Range of Holdings	Million; 40-50 holdings for accounts under	
	\$1 Million.	
Max. Single Non-Treas Issue	5%	
Duration Range	Within 10% of index duration (typically +/-	
Duration Range	0.5 years relative to index)	
Maturity Range	Approximately 0-30 years	
Typical Annual Turnover	30-40%*	
Invests in Derivatives	No	

CREDIT QUALITY	EXPECTED RANGE (%)
AAA	25-60
AA	5-10
Α	30-40
BBB	10-20
BB	0
В	0
CCC & Below	0
Non-Rated	0

Source: SBH

Source: SBH \*Five year annualized average as of 9/30/2022.

SECTORS EXPECTED RANGE	
Treasuries/Agencies	10-35
Agency Mortgages	0-15*
Non-Agency Mortgages	0
ABS	0-5*
CMBS	0-10*
US Investment Grade Corp	35-75
Inflation Linked	0
Tax-Exempt Inv Grade Munis	0-10*
Taxable Inv Grade Munis	0-15
Cash (& Equivalents)	1-3

Source: SBH \*Management typically limits investing in these sectors to institutional accounts.

#### **Disclosure Section**

#### Definitions

**Bloomberg Barclays Intermediate Govt/Credit Index** - This index is the U.S. Gov/Credit component of the U.S. Aggregate index. The Government/Credit Index includes securities in the Government and Credit Indices. The Government Index includes treasuries and agencies (i.e., publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government). The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements. Securities are in the intermediate range of the Bloomberg Barclays Govt/Credit Index with maturities less than 10 years.

**Sub-Styles:** Subjective classifications designed to assist with manager selection and performance evaluation based on GIMA's understanding of a manager's long-term investment philosophy and portfolio structuring biases and techniques. At points in time managers may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.

Intermediate Taxable Core - portfolios comprised of intermediate term investment grade taxable core fixed income securities including U.S. Treasuries, U.S. Government agencies, investment grade corporate debt, commercial mortgage-backed securities, asset-backed securities, mortgage-backed securities and other pass-through securities. Managers may invest in individual securities with a broad range of maturities (0-10 years). Portfolio duration generally ranges between 3 - 4.5 years. Plus sector exposure is generally less than 5%.

### Glossary of Terms

Active Share – is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

Alpha – measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

Asset-backed securities (ABS) - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Beta** – measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

Commercial Mortgage-Backed Security (CMBS) – mortgage-backed security that is secured by the loan on a commercial property.

**Collateralized Mortgage Obligation (CMOs)** – mortgage-backed security that creates separate pools of pass-through payments for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Convexity** – measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Correlation** – a statistical measure of how two securities move in relation to each other. This measure is often converted into what is known as correlation coefficient, which ranges between -1 and +1. Perfect positive correlation (a correlation coefficient of +1) implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation means that if one security moves in either direction the security that is perfectly negatively correlated will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; they are completely random. A correlation greater than 0.8 is generally described as strong, whereas a correlation less than 0.5 is generally described as weak.

**Credit Quality Rating** – weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based of their opinions of the issuer's ability to pay interest and principal as scheduled.

**Duration** – quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

**Excess Return** – represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

London Interbank Offered Rate (LIBOR) – is an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market. The LIBOR is fixed on a daily basis by the British Bankers' Association and is calculated from a filtered average of the world's most creditworthy banks' interbank deposit rates for larger loans with maturities between overnight and one full year.

Maturity – the weighted average portfolio length of time until the principal amount of a bond must be repaid.

**Mortgage-backed securities (MBS)** – securities backed by a mortgage loan or a pool of mortgage loans secured by real property. Investors receive payments of interest and principal that are derived from payments received on the underlying mortgage loans.

**Pass-Through Security** – security backed by a package of assets. A servicing intermediary collects the monthly payments from issuers and, after deducting a fee, remits or passes them through to the holders of the pass-through security.

**R-Squared (R2)** – represents the percentage of the volatility of returns that is attributable to movements of the benchmark. It is a measure of "co-movement" between portfolio returns and benchmark returns. The closer the portfolio's R2 is to 100%, the more closely the portfolio correlates to, or follows, the benchmark. Generally, highly diversified portfolios have higher R2 percentages.

Yield to Worst – is a measure of the lowest potential yield that can be received on a bond portfolio without the issuers actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the portfolio issues by calculating the returns that would be received if provisions, including prepayment, call or sinking fund, are used by the issuer.

**Tracking Error** – represents the Standard Deviation of the Excess Return. This provides a historical measure of the variability of the portfolio's returns relative to its benchmark. A portfolio with a low Tracking Error would have quarterly Excess Returns that have exhibited very low volatility.

Sharpe Ratio – measures a portfolio's rate of return based on the risk it assumed and is often referred to as its risk-adjusted performance. Using Standard Deviation and returns in excess of the returns of T-bills, it determines reward per unit of risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing risk.

Standard Deviation – quantifies the volatility associated with a portfolio's returns. The statistic measures the variation in returns around the mean return. Unlike Beta, which measures volatility relative to the aggregate market, Standard Deviation measures the absolute volatility of a portfolio's return.

### Important Disclosures

### Report for Use Only in Investment Advisory Programs

This report is only to be used in Morgan Stanley Wealth Management investment advisory programs and not in connection with brokerage accounts.

#### The Global Investment Manager Analysis (GIMA) services Only Apply to Certain Investment Advisory Programs

GIMA evaluates certain investment products for the purposes of some – but not all – of Morgan Stanley Smith Barney LLC's investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs, Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA status changes even though it may give notice to clients in other programs.

#### Focus List, Approved List and Tactical Opportunities List; Watch Policy

GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a 'Watch' policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" next to the "Status" on the cover page.

Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "GIMA at a Glance".

## No Obligation to Update

Morgan Stanley Wealth Management has no obligation to update you when any information or opinion in this report changes.

### Strategy May Be Available as a Separately Managed Account or Mutual Fund

Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program.

Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's Separately Managed Account ("SMA") programs may effect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instance, you may be assessed additional costs by the other firm in addition to the Morgan Stanley and Sub-Manager fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain Sub-Managers have historically directed most, if not all, of their trades to outside firms. Information provided by Sub-Managers concerning trade execution away from Morgan Stanley is summarized at: www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf. For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at www.morganstanley.com/ADV, or contact your Financial Advisor / Private Wealth Advisor.

#### Consider Your Own Investment Needs

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#### Performance and Other Portfolio Information

#### General

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## **QUALITATIVE DUE DILGENCE REPORTS**

(Core Fixed Income)

# Morgan Stanley

WEALTH MANAGEMENT

Global Investment Manager Analysis | November 28, 2022

# **Approved List Report**

## Pacific Income Advisers Moderate Duration

## Highlights

- Women and/or racially/ethnically diverse individuals own at least 33% of Pacific Income Advisers, which aligns with the Inclusion approach on the Investing with Impact Platform.
- Global Investment Manager Analysis (GIMA) thinks the Pacific Income Advisers Moderate Duration strategy may be appropriate for investors seeking a conservative, taxable core portfolio focused on investment grade fixed income securities.
- The approach is top-down and driven by the firm's Investment Strategy Group.
- The strategy invests mostly in US Treasuries, agency MBS, and corporate credit. However, there may be exposure to non-agency MBS, CMBS, and ABS.
- Security specific selections are made at the portfolio manager level and may include the use of two Pacific Income Advisers Managed Account Completion Shares (MACS) funds. These are proprietary products used to achieve diversification and the desired exposure to BBB rated credits and MBS. The MACS can represent up to 50% of the strategy but will typically be less than 20%. No management fees are charged when the MACS are used in the SMA.
- GIMA finds the number of investment professionals dedicated to credit research is relatively light. However, we recognize the focus on top-down macroeconomic factors and bias toward high-quality investment grade issues somewhat mitigate this concern.

## **Performance Expectations**

- GIMA believes that the strategy may be able to add value over time through duration management, curve positioning, and sector selection.
- The BBB MACS seeks to replicate the BBB segment of the Bloomberg U.S. Credit Index. The MBS MACS seeks to replicate the fixed rate component of the Bloomberg U.S. MBS Index, but may at times invest in high-quality ABS and CMBS securities. The MACS are used to gain BBB-rated corporate and mortgage exposures and reduce issue-specific risks.

## Jane C. Curley

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## **Strategy Details**

**Investment Style:** US Taxable Core

Sub-Style: Taxable Core

## Benchmark:

Bloomberg U.S. Aggregate Bond Index

**GIMA Status:** Approved List

## Product Type:

Separately Managed Account <a href="https://www.pacificincome.com">https://www.pacificincome.com</a>

## **Strategy Description**

The strategy seeks to add alpha through duration/yield curve and sector allocation decisions. The firm's Investment Strategy Group develops the economic outlook and investment strategy.

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## **PORTFOLIO TRAITS**

15 to 30
3% at purchase
+/- 20% of benchmark
0 to 10 years
25% to 35%
No

Source: Pacific Income Advisers

SECTORS	EXPECTED RANGE (%)
Treasuries Agencies	20-80
Agency Mortgages	15-50
Non-Agency Mortgages	0-5
ABS	0-5
CMBS	0-5
US Investment Grade Corp	10-50
Inflation Linked	0-10
Cash (& Equivalents)	0-3

Source: Pacific Income Advisers

CREDIT QUALITY	EXPECTED RANGE (%)	
AAA	40-80	
AA	0-10	
A	0-25	
BBB	0-25	

Source: Pacific Income Advisers

## **INVESTING WITH IMPACT**

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Investing with Impact Approach	Inclusion

Source: Pacific Income Advisers

#### **Disclosure Section**

#### Definitions

**Bloomberg Barclays Index** - The U.S. Aggregate Index covers the dollar-denominated investment-grade fixed-rate taxable bond market, including Treasuries, government-related and corporate securities, MBS pass-through securities, asset-backed securities, and commercial mortgage-backed securities. These major sectors are subdivided into more specific sub-indices that are calculated and published on an ongoing basis. Total return comprises price appreciation/depreciation and income as a percentage of the original investment. This index is rebalanced monthly by market capitalization.

**Sub-Styles:** Subjective classifications designed to assist with manager selection and performance evaluation based on GIMA's understanding of a manager's long-term investment philosophy and portfolio structuring biases and techniques. At points in time managers may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.

**Taxable Core** - portfolios comprised of investment grade fixed income securities including U.S. Treasuries, U.S. Government agencies, investment grade corporate debt, commercial mortgage-backed securities, asset-backed securities, mortgage-backed securities and other pass-through securities Maturities for individual securities typically range from 0 - 30 years. Portfolio duration generally ranges between 3 - 6 years. Plus sector exposure is generally less than 5%.

#### Glossary of Terms

Active Share – is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

Alpha – measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

Asset-backed securities (ABS) - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Beta** – measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

Commercial Mortgage-Backed Security (CMBS) – mortgage-backed security that is secured by the loan on a commercial property.

**Collateralized Mortgage Obligation (CMOs)** – mortgage-backed security that creates separate pools of pass-through payments for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Commingled Fund** –A fund, typically offered by a bank or trust company that combines the assets of unaffiliated plans into one large group. With respect to a stable value investment option that is a commingled fund, the fund would purchase stable value investment contracts and other investments on behalf of the invested, unaffiliated plans. These funds may also be referred to as pooled funds, pooled GIC funds, bank pooled funds, collective investment funds, bank collective trusts, commingled investment trusts (CITs), or group trusts.

**Convexity** – measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Correlation** – a statistical measure of how two securities move in relation to each other. This measure is often converted into what is known as correlation coefficient, which ranges between -1 and +1. Perfect positive correlation (a correlation coefficient of +1) implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation means that if one security moves in either direction the security that is perfectly negatively correlated will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; they are completely random. A correlation greater than 0.8 is generally described as strong, whereas a correlation less than 0.5 is generally described as weak.

**Credit Quality Rating** – weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based of their opinions of the issuer's ability to pay interest and principal as scheduled.

**Duration** – quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

**Excess Return** – represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

London Interbank Offered Rate (LIBOR) – is an interest rate at which banks can borrow funds, in marketable size, from other banks in the

London interbank market. The LIBOR is fixed on a daily basis by the British Bankers' Association and is calculated from a filtered average of the world's most creditworthy banks' interbank deposit rates for larger loans with maturities between overnight and one full year.

**Maturity** – the weighted average portfolio length of time until the principal amount of a bond must be repaid.

**Mortgage-backed securities (MBS)** – securities backed by a mortgage loan or a pool of mortgage loans secured by real property. Investors receive payments of interest and principal that are derived from payments received on the underlying mortgage loans.

**Pass-Through Security** – security backed by a package of assets. A servicing intermediary collects the monthly payments from issuers and, after deducting a fee, remits or passes them through to the holders of the pass-through security.

**R-Squared (\mathbb{R}^2)** – represents the percentage of the volatility of returns that is attributable to movements of the benchmark. It is a measure of "co-movement" between portfolio returns and benchmark returns. The closer the portfolio's  $\mathbb{R}^2$  is to 100%, the more closely the portfolio correlates to, or follows, the benchmark. Generally, highly diversified portfolios have higher R2 percentages.

Yield to Worst – is a measure of the lowest potential yield that can be received on a bond portfolio without the issuers actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the portfolio issues by calculating the returns that would be received if provisions, including prepayment, call or sinking fund, are used by the issuer.

**Tracking Error** – represents the Standard Deviation of the Excess Return. This provides a historical measure of the variability of the portfolio's returns relative to its benchmark. A portfolio with a low Tracking Error would have quarterly Excess Returns that have exhibited very low volatility.

Sharpe Ratio – measures a portfolio's rate of return based on the risk it assumed and is often referred to as its risk-adjusted performance. Using Standard Deviation and returns in excess of the returns of T-bills, it determines reward per unit of risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing risk.

Standard Deviation – quantifies the volatility associated with a portfolio's returns. The statistic measures the variation in returns around the mean return. Unlike Beta, which measures volatility relative to the aggregate market, Standard Deviation measures the absolute volatility of a portfolio's return.

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GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

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Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

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#### Performance and Other Portfolio Information

#### General

*Past performance does not guarantee future results.* There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

For mutual funds, the investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. To obtain performance information, current to the most recent month-end, please contact the fund directly at the website set out on the cover page of this report.

#### Benchmark index

Depending on the composition of your account and your investment objectives, any indices shown in this report may not be an appropriate measure for comparison purposes and are therefore presented for illustration only. Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

#### Other data

Portfolio analysis may be based on information on less than all of the securities held in the portfolio. For equity portfolios, the analysis typically reflects securities representing at least 95% of portfolio assets. This may differ for other strategies, including those in the fixed income and specialty asset classes, due to availability of portfolio information.

Other data in this report is accurate as of the date this report was prepared unless stated otherwise. Data in this report may be calculated by the investment manager, Morgan Stanley Wealth Management or a third party service provider, and may be based on a representative account or a composite of accounts.

#### Securities holdings

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#### Asset Class and Other Risks

Investing in *stocks, mutual funds* and *exchange-traded funds ("ETFs")* entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods. Besides the general risk of holding securities that may decline in value, *closed-end funds* may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance, and potential leverage. Some funds also invest in foreign securities, which may involve currency risk.

*Bonds* are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

*High yield bonds* are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues.

*Mortgage-backed securities* ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be appropriate for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk). Additionally, the underlying collateral supporting MBS may default on principal and interest payments. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements.

Asset-backed securities generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepaymesons.

*Treasury Inflation Protection Securities' (TIPS)* coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

*Nondiversification:* For a portfolio that holds a concentrated or limited number of securities, a decline in the value of these investments would cause the portfolio's overall value to decline to a greater degree than a less concentrated portfolio. Portfolios that invest a large percentage of assets in only one industry sector (or in only a few sectors) are more vulnerable to price fluctuation than those that diversify among a broad range of sectors.

The returns on a portfolio consisting primarily of *environmental, social, and governance-aware investments (ESG)* may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein.

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# Morgan Stanley

WEALTH MANAGEMENT

Global Investment Manager Analysis | February 23, 2023

# **Focus List Report**

## Sage Core Taxable Fixed Income

## Highlights

- Sage Core Taxable Fixed Income strategy is a taxable core fixed income strategy that invests in a broad range of investment-grade fixed income securities and may tactically use non-benchmark securities in an effort to add value.
- February 2023: Global Investment Manager Analysis (GIMA) has changed the status of the Sage Core Taxable Fixed Income strategy from Approved List to Focus List. This decision was based on the strength of the organization and its investment team, confidence in the investment approach, and favorable historic performance.
- The strategy generally maintains an underweight position to US Treasuries and an overweight allocation to the corporate credit sector relative to its benchmark, the Bloomberg Government/Credit Index. The strategy could have up to 10% allocation to below investment grade securities. The portfolio typically maintains an overall portfolio duration between 75% to 125% of benchmark duration.
- Sage Advisory Services, Ltd. Co. (Sage) is 100% employee owned and primarily dedicated to the investment management of fixed income strategies. GIMA views positively expansion of ownership among employees.
- GIMA maintains a favorable view of the strategy' lead portfolio manager, Thomas Urano, as well as the breadth of supporting investment resources dedicated to fixed income. Mr. Urano has served as a portfolio manager at Sage since 2003. He is also a member of the firm's Investment Committee, which in addition to Mr. Urano, is composed of seven senior members of the investment team. The Investment Committee evaluates macroeconomic conditions and sets top-down views.

## **Performance Expectations**

 GIMA expects strategy performance may deviate from the benchmark given its exposure to non-benchmark securitized sectors such as asset-backed securities, mortgage-backed securities, and commercial mortgage-backed securities. The strategy's allocations to non-benchmark securities may introduce higher volatility relative to the benchmark.

## Olga Pujara, CFA

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## **Strategy Details**

**Investment Style:** US Taxable Core

Sub-Style: Taxable Core

## Benchmark:

Bloomberg Government/Credit Index

**GIMA Status:** Focus List

## **Product Type:**

Separately Managed Account <u>https://www.sageadvisory.com</u>

## **Strategy Description**

Sage Core Taxable Fixed Income strategy employs a value-oriented approach, which blends active duration management, sector rotation, and security selection.

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## **Positive Attributes**

- Sage Advisory Services, Ltd. Co. (Sage) is 100% owned by employees and primarily dedicated to the investment management of fixed income strategies.
- GIMA maintains a favorable view of the fixed income team. The broader investment team consists of 10 portfolio managers and 8 dedicated research analysts who assist with fundamental research and security selection.
- The strategy utilizes a comprehensive investment process that seeks to achieve risk-adjusted performance objectives through multiple strategies.
- Sage has grown assets under management steadily and taken steps to distribute more equity ownership to employees.

## **Points to Consider**

- The strategy may at times be overweight or underweight the BBB rating category. The strategy could have up to 10% in below investment grade securities.
- The strategy may invest in non-benchmark securitized sectors such as asset-backed securities, mortgage-backed securities, and commercial mortgage-backed securities.
- Strategy duration is typically +/- 25% of the benchmark.
- Smaller retail SMA accounts generally do not use CMBS and are expected to have a lower allocation to ABS relative to larger portfolios.
- Sage does not use futures or options when seeking to enhance return potential, and avoids the use of any derivative securities within its portfolios unless instructed to do so by client guidelines.

## **Areas of Concern**

• While not expected, GIMA would view the departure of Thomas Urano negatively. Experienced team of portfolio managers that manage the strategy in a team format helps to mitigate that concern.

## Portfolio Management Team & Investment Process

- The strategy is managed in a team format, with Thomas Urano as lead portfolio manager. The portfolio management team leverages the firm's investment team, which includes the Investment Committee, Portfolio Management Team and Research Team.
- Sage blends fundamental economic analysis and quantitative techniques to identify sectors and issues believed to offer attractive returns over a rolling three-to-six-month horizon.
- The Investment Committee identifies economic and interest rate trends and differentiates secular from cyclical themes. It actively monitors monetary and fiscal policy and components of inflation.
- Duration Management Based on the firm's projected macroeconomic outlook. Duration is maintained within +/-25% versus the benchmark.
- Yield Curve Strategies In constructing the maturity structure of the portfolio, management identifies favorable risk-adjusted return within each segment of the yield curve, including anticipated potential yield curve changes.
- Sector Allocation Since the firm focuses on top-down themes, assessment of a sector's overall outlook and attractiveness is important. According to the firm, valuation is based on current sector option-adjusted spread (OAS) versus the sector's historical OAS and fundamentals.
- Security Selection Each security choice is looked at from two angles: from a research (fundamentals) perspective, and from a relative value viewpoint.

## **PORTFOLIO TRAITS**

Range of Holdings	90-150
Max. Single Non-Treas Issue	5%
Duration Range	+/-25% relative to Benchmark
Maturity Range	+/-25% relative to Benchmark
Typical Annual Turnover	125%-150%
Invests in Derivatives	No
Non-US Dollar Exposure	No

**OWNERSHIP & PARENT COMPANY** 

Name of Owner	Robert G. Smith
Percentage Owned	61%
Publicly Traded	No
Name of Owner	Peck Investment Partners
Percentage Owned	13%
Publicly Traded	No

Source: Sage Sage is 100% employee owned, with additional 26% owned between 14 other employees.

SECTORS	EXPECTED RANGE (%)
Treasuries/Agencies	15-100
Agency Mortgages	0-50
Non-Agency Mortgages	0-10
ABS	0-25
CMBS	0-10
US Investment Grade Corp	20-60
US High Yield Corporates	0-10
Inflation Linked	0-5
Tax-Exempt Inv Grade Munis	0-10
Taxable Inv Grade Munis	0-10
Cash (& Equivalents)	2-5

## **ASSETS UNDER MANAGEMENT (\$ BILLIONS)**

YEAR	FIRM	SMA
2022	17.3	0.378
2021	17.5	0.445
2020	15.7	0.529
2019	14.6	0.425
2018	12.7	0.329

Source: Sage

Source: Sage

Source: Sage

CREDIT QUALITY	EXPECTED RANGE (%)
AAA	40-60
AA	1-5
Α	5-15
BBB	10-30
BB	0-5
В	0
CCC & Below	0
Non-Rated	0

Source: Sage

#### Disclosure Section

#### Definitions

**Bloomberg Govt/Credit Index** - This index is the U.S. Gov/Credit component of the U.S. Aggregate index. The Government/Credit Index includes securities in the Government and Credit Indices. The Government Index includes treasuries (i.e., public obligations of the U.S. Treasury that have remaining maturities of more than one year) and agencies (i.e., publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government). The Credit Index includes publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity, and quality requirements.

**Sub-Styles:** Subjective classifications designed to assist with manager selection and performance evaluation based on GIMA's understanding of a manager's long-term investment philosophy and portfolio structuring biases and techniques. At points in time managers may display attributes of other sub-style classifications, and these classifications may change due to changes in the capital markets, evolution of performance benchmarks, industry trends, or changes involving a manager's personnel or process.

**Taxable Core** - portfolios comprised of investment grade fixed income securities including U.S. Treasuries, U.S. Government agencies, investment grade corporate debt, commercial mortgage-backed securities, asset-backed securities, mortgage-backed securities and other pass-through securities Maturities for individual securities typically range from 0 - 30 years. Portfolio duration generally ranges between 3 - 6 years. Plus sector exposure is generally less than 5%.

### Glossary of Terms

Active Share – is a measure of the percentage of stock holdings in a manager's portfolio that differ from the benchmark index; Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the manager's portfolio versus the weight of each holding in the benchmark index and dividing by two.

Alpha – measures the difference between a portfolio's actual returns and its expected performance, given its level of risk as measured by Beta. A positive Alpha figure indicates the portfolio has performed better than its Beta would predict. A negative Alpha indicates the portfolio's underperformance given the expectations established by the Beta. The accuracy of the Alpha is therefore dependent on the accuracy of the Beta. Alpha is often viewed as a measurement of the value added or subtracted by a portfolio's manager.

Asset-backed securities (ABS) - securities backed by a pool of assets, typically loans or accounts receivable, originated by banks, specialty finance companies, or other credit providers.

**Beta** – measures a portfolio's volatility relative to its benchmark. A portfolio with a Beta higher than 1.0 has historically been more volatile than the benchmark, while a portfolio with a Beta lower than 1.0 has been less volatile. The accuracy of the Beta is dependent on R-Squared.

Commercial Mortgage-Backed Security (CMBS) – mortgage-backed security that is secured by the loan on a commercial property.

**Collateralized Mortgage Obligation (CMOs)** – mortgage-backed security that creates separate pools of pass-through payments for different classes of bondholders with varying maturities, called tranches. The repayments from the pool of pass-through securities are used to retire the bonds in the order specified by the bonds' prospectus.

**Convexity** – measures the sensitivity of a bond's duration to changes in interest rates. Convexity can be positive or negative. Unlike most fixed income securities, bonds with negative convexity tend to fall in value as interest rates decline and vice versa.

**Correlation** – a statistical measure of how two securities move in relation to each other. This measure is often converted into what is known as correlation coefficient, which ranges between -1 and +1. Perfect positive correlation (a correlation coefficient of +1) implies that as one security moves, either up or down, the other security will move in lockstep, in the same direction. Alternatively, perfect negative correlation means that if one security moves in either direction the security that is perfectly negatively correlated will move in the opposite direction. If the correlation is 0, the movements of the securities are said to have no correlation; they are completely random. A correlation greater than 0.8 is generally described as strong, whereas a correlation less than 0.5 is generally described as weak.

**Credit Quality Rating** – weighted average of the assessments of credit worthiness given by credit rating agencies such as Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings to bonds in the portfolio. Credit rating agencies evaluate issuers and assign ratings based of their opinions of the issuer's ability to pay interest and principal as scheduled.

**Duration** – quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Longer-term bonds carry a longer or higher duration than shorter-term bonds; as such, they would be affected by changing interest rates for a greater period of time if interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

**Excess Return** – represents the average quarterly total return of the portfolio relative to its benchmark. A portfolio with a positive Excess Return has on average outperformed its benchmark on a quarterly basis. This statistic is obtained by subtracting the benchmark return from the portfolio's return.

London Interbank Offered Rate (LIBOR) – is an interest rate at which banks can borrow funds, in marketable size, from other banks in the London interbank market. The LIBOR is fixed on a daily basis by the British Bankers' Association and is calculated from a filtered average of the world's most creditworthy banks' interbank deposit rates for larger loans with maturities between overnight and one full year.

**Maturity** – the weighted average portfolio length of time until the principal amount of a bond must be repaid.

**Mortgage-backed securities (MBS)** – securities backed by a mortgage loan or a pool of mortgage loans secured by real property. Investors receive payments of interest and principal that are derived from payments received on the underlying mortgage loans.

**Pass-Through Security** – security backed by a package of assets. A servicing intermediary collects the monthly payments from issuers and, after deducting a fee, remits or passes them through to the holders of the pass-through security.

**R-Squared** ( $R^2$ ) – represents the percentage of the volatility of returns that is attributable to movements of the benchmark. It is a measure of "co-movement" between portfolio returns and benchmark returns. The closer the portfolio's  $R^2$  is to 100%, the more closely the portfolio correlates to, or follows, the benchmark. Generally, highly diversified portfolios have higher R2 percentages.

Yield to Worst – is a measure of the lowest potential yield that can be received on a bond portfolio without the issuers actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the portfolio issues by calculating the returns that would be received if provisions, including prepayment, call or sinking fund, are used by the issuer.

**Tracking Error** – represents the Standard Deviation of the Excess Return. This provides a historical measure of the variability of the portfolio's returns relative to its benchmark. A portfolio with a low Tracking Error would have quarterly Excess Returns that have exhibited very low volatility.

Sharpe Ratio – measures a portfolio's rate of return based on the risk it assumed and is often referred to as its risk-adjusted performance. Using Standard Deviation and returns in excess of the returns of T-bills, it determines reward per unit of risk. This measurement can help determine if the portfolio is reaching its goal of increasing returns while managing risk.

Standard Deviation – quantifies the volatility associated with a portfolio's returns. The statistic measures the variation in returns around the mean return. Unlike Beta, which measures volatility relative to the aggregate market, Standard Deviation measures the absolute volatility of a portfolio's return.

### Important Disclosures

### Report for Use Only in Investment Advisory Programs

This report is only to be used in Morgan Stanley Wealth Management investment advisory programs and not in connection with brokerage accounts.

#### The Global Investment Manager Analysis (GIMA) services Only Apply to Certain Investment Advisory Programs

GIMA evaluates certain investment products for the purposes of some – but not all – of Morgan Stanley Smith Barney LLC's investment advisory programs (as described in more detail in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management). If you do not invest through one of these investment advisory programs, Morgan Stanley Wealth Management is not obligated to provide you notice of any GIMA status changes even though it may give notice to clients in other programs.

#### Focus List, Approved List and Tactical Opportunities List; Watch Policy

GIMA uses two methods to evaluate investment products in applicable advisory programs: Focus (and investment products meeting this standard are described as being on the Focus List) and Approved (and investment products meeting this standard are described as being on the Approved List). In general, Focus entails a more thorough evaluation of an investment product than Approved. Sometimes an investment product may be evaluated using the Focus List process but then placed on the Approved List instead of the Focus List. Investment products may move from the Focus List to the Approved List, or vice versa. GIMA may also determine that an investment product no longer meets the criteria under either process and will no longer be recommended in investment advisory programs (in which case the investment product is given a "Not Approved" status).

GIMA has a 'Watch' policy and may describe a Focus List or Approved List investment product as being on "Watch" if GIMA identifies specific areas that (a) merit further evaluation by GIMA and (b) may, but are not certain to, result in the investment product becoming "Not Approved." The Watch period depends on the length of time needed for GIMA to conduct its evaluation and for the investment manager or fund to address any concerns. GIMA may, but is not obligated to, note the Watch status in this report with a "W" or "Watch" next to the "Status" on the cover page.

Certain investment products on either the Focus List or Approved List may also be recommended for the Tactical Opportunities List based in part on tactical opportunities existing at a given time. The investment products on the Tactical Opportunities List change over time.

For more information on the Focus List, Approved List, Tactical Opportunities List and Watch processes, please see the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management. Your Financial Advisor or Private Wealth Advisor can also provide upon request a copy of a publication entitled "GIMA at a Glance".

## No Obligation to Update

Morgan Stanley Wealth Management has no obligation to update you when any information or opinion in this report changes.

### Strategy May Be Available as a Separately Managed Account or Mutual Fund

Strategies are sometimes available in Morgan Stanley Wealth Management investment advisory programs both in the form of a separately managed account ("SMA") and a mutual fund. These may have different expenses and investment minimums. Your Financial Advisor or Private Wealth Advisor can provide more information on whether any particular strategy is available in more than one form in a particular investment advisory program.

Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's Separately Managed Account ("SMA") programs may effect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instance, you may be assessed additional costs by the other firm in addition to the Morgan Stanley and Sub-Manager fees. Those costs will be included in the net price of the security, not separately reported on trade confirmations or account statements. Certain Sub-Managers have historically directed most, if not all, of their trades to outside firms. Information provided by Sub-Managers concerning trade execution away from Morgan Stanley is summarized at: www.morganstanley.com/wealth/investmentsolutions/pdfs/adv/sotresponse.pdf. For more information on trading and costs, please refer to the ADV Brochure for your program(s), available at www.morganstanley.com/ADV, or contact your Financial Advisor / Private Wealth Advisor.

#### Consider Your Own Investment Needs

This report is not intended to be a client specific analysis or recommendation, an offer to participate in any investment, or a recommendation to buy, hold or sell securities (includes securities of Morgan Stanley, and/or their affiliates if shown in this report). Do not use this report as the sole basis for investment decisions. Do not select an asset class or investment product based on performance alone. Consider all relevant information, including your existing portfolio, investment objectives, risk tolerance, liquidity needs and investment time horizon.

#### Performance and Other Portfolio Information

#### General

*Past performance does not guarantee future results.* There is no guarantee that this investment strategy will work under all market conditions. As a result of recent market activity, current performance may vary from the performance referenced in this report.

For mutual funds, the investment return and principal value of an investment will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. To obtain performance information, current to the most recent month-end, please contact the fund directly at the website set out on the cover page of this report.

#### Benchmark index

Depending on the composition of your account and your investment objectives, any indices shown in this report may not be an appropriate measure for comparison purposes and are therefore presented for illustration only.

Indices are unmanaged. They do not reflect any management, custody, transaction or other expenses, and generally assume reinvestment of dividends, accrued income and capital gains. Past performance of indices does not guarantee future results. You cannot invest directly in an index.

Performance of indices may be more or less volatile than any investment product. The risk of loss in value of a specific investment (such as with an investment manager or in a fund) is not the same as the risk of loss in a broad market index. Therefore, the historical returns of an index will not be the same as the historical returns of a particular investment product.

#### Other data

Portfolio analysis may be based on information on less than all of the securities held in the portfolio. For equity portfolios, the analysis typically reflects securities representing at least 95% of portfolio assets. This may differ for other strategies, including those in the fixed income and specialty asset classes, due to availability of portfolio information.

Other data in this report is accurate as of the date this report was prepared unless stated otherwise. Data in this report may be calculated by the investment manager, Morgan Stanley Wealth Management or a third party service provider, and may be based on a representative account or a composite of accounts.

### Securities holdings

Holdings are subject to change daily, so any securities discussed in this report may or may not be included in your portfolio if you invest in this investment product. Your portfolio may also include other securities in addition to or instead of any securities discussed in this report. Do not assume that any holdings mentioned were, or will be, profitable.

#### Sources of Data

Material in this report has been obtained from sources that we believe to be reliable, but we do not guarantee its accuracy, completeness or timeliness. Third party data providers make no warranties or representations relating to the accuracy, completeness or timeliness of the data they provide and are not liable for any damages relating to this data.

#### Asset Class and Other Risks

Investing in *stocks, mutual funds* and *exchange-traded funds ("ETFs")* entails the risks of market volatility. The value of all types of investments may increase or decrease over varying time periods. Besides the general risk of holding securities that may decline in value, *closed-end funds* may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance, and potential leverage. Some funds also invest in foreign securities, which may involve currency risk.

*Bonds* are subject to interest rate risk. When interest rates rise, bond prices fall; generally the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which allows the issuer to retain the right to redeem the debt, fully or partially, before the scheduled maturity date. Proceeds from sales prior to maturity may be more or less than originally invested due to changes in market conditions or changes in the credit quality of the issuer.

*High yield bonds* are subject to additional risks such as increased risk of default and greater volatility because of the lower credit quality of the issues.

*Mortgage-backed securities* ("MBS"), which include collateralized mortgage obligations ("CMOs"), also referred to as real estate mortgage investment conduits ("REMICs"), may not be appropriate for all investors. There is the possibility of early return of principal due to mortgage prepayments, which can reduce expected yield and result in reinvestment risk. Conversely, return of principal may be slower than initial prepayment speed assumptions, extending the average life of the security up to its listed maturity date (also referred to as extension risk). Additionally, the underlying collateral supporting MBS may default on principal and interest payments. Investments in subordinated MBS involve greater credit risk of default than the senior classes of the same issue. MBS are also sensitive to interest rate changes which can negatively impact the market value of the security. During times of heightened volatility, MBS can experience greater levels of illiquidity and larger price movements.

*Asset-backed securities* generally decrease in value as a result of interest rate increases, but may benefit less than other fixed-income securities from declining interest rates, principally because of prepayments.

Interest on *municipal bonds* is generally exempt from federal income tax; however, some bonds may be subject to the alternative minimum tax (AMT). Typically, state tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's state of residence and, if applicable, local tax-exemption applies if securities are issued within one's state of residence and if applicable, local tax-exemption applies if securities are issued within one's state of residence and if applicable, local tax-exemption applies if securities are issued within one's state of residence.

*Treasury Inflation Protection Securities' (TIPS)* coupon payments and underlying principal are automatically increased to compensate for inflation by tracking the consumer price index (CPI). While the real rate of return is guaranteed, TIPS tend to offer a low return. Because the return of TIPS is linked to inflation, TIPS may significantly underperform versus conventional U.S. Treasuries in times of low inflation.

Because of their narrow focus, *sector investments* tend to be more volatile than investments that diversify across many sectors and companies.

The returns on a portfolio consisting primarily of **environmental, social, and governance-aware investments (ESG)** may be lower or higher than a portfolio that is more diversified or where decisions are based solely on investment considerations. Because ESG criteria exclude some investments, investors may not be able to take advantage of the same opportunities or market trends as investors that do not use such criteria. The companies identified and investment examples are for illustrative purposes only and should not be deemed a recommendation to purchase, hold or sell any securities or investment products. They are intended to demonstrate the approaches taken by managers who focus on ESG criteria in their investment strategy. There can be no guarantee that a client's account will be managed as described herein.

## No Tax Advice

Tax laws are complex and subject to change. Morgan Stanley Smith Barney LLC ("Morgan Stanley"), its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors do not provide tax or legal advice and are not "fiduciaries" (under ERISA, the Internal Revenue Code or otherwise) with respect to the services or activities described herein except as otherwise provided in writing by Morgan Stanley and/or as described at www.morganstanley.com/disclosures/dol. Individuals are encouraged to consult their tax and legal advisors (a) before establishing a retirement plan or account, and (b) regarding any potential tax, ERISA and related consequences of any investments made under such plan or account.

If any investments in this report are described as "tax free", the income from these investments may be subject to state and local taxes and (if applicable) the federal Alternative Minimum Tax. Realized capital gains on these investments may be subject to federal, state and local capital gains tax.

## Conflicts of Interest

GIMA's goal is to provide professional, objective evaluations in support of the Morgan Stanley Wealth Management investment advisory programs. We have policies and procedures to help us meet this goal. However, we also believe that investors are entitled to full disclosure of conflicts of interests which could affect the objectivity of our Manager Profiles. For example, ideas and suggestions for which investment products should be evaluated by GIMA come from a variety of sources, including our Morgan Stanley Wealth Management Financial Advisors and their direct or indirect managers, and other business persons within Morgan Stanley Wealth Management or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, Morgan Stanley Wealth Management or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds. For example, a Financial Advisor may suggest that GIMA evaluates an investment manager or fund in which a portion of his or her clients' assets are already invested. While such a recommendation is permissible, GIMA is responsible for the opinions expressed by GIMA. Separately, certain strategies managed or sub-advised by us or our affiliates, including but not limited to MSIM and Eaton Vance Management ("EVM") and its investment affiliates, may be included in your account. See the conflicts of interest section in the applicable Form ADV Disclosure Document for Morgan Stanley Wealth Management, MS&Co., managers and their affiliates provide a variety of services (including research, brokerage, asset management, trading, lending and investment banking services) for each other and for various clients, including issuers of securities that may be recommended for purchase or sale by clients or are otherwise held in client accounts, and managers in various advisory programs. Morgan Stanley Wealth Management, managers, MS&Co., and their affiliates receive compensation and fees in connectio

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