

Investment Conversations

Portfolio Construction – Manager Selection
Manager Scoring



Manager Scoring: Powering a Holistic Investment Process

Ranking investment strategies by quality to guide manager selection decisions

- The Global Investment Committee (GIC) recommends a **multi-faceted process** to reach client goals.
- Selecting high-quality managers on Morgan Stanley's leading platform can bolster **clients' risk-adjusted returns**.



Source: Morgan Stanley Wealth Management GIO.

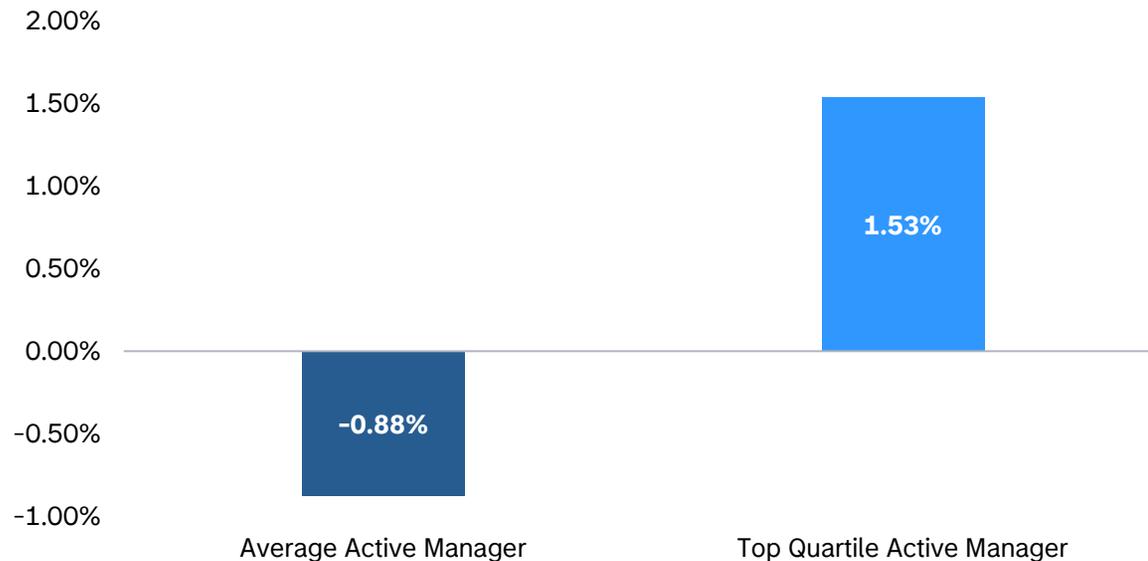
Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Manager Scoring: Benefits of Identifying Higher-Quality Strategies

- While the average active investment strategy has struggled to deliver excess returns after fees in recent years, top-quartile investment strategies have indeed outperformed.
- The challenge lies in identifying these higher-quality active investment strategies ahead of time.

AVERAGE ACTIVE MANAGERS EXCESS RETURNS (2015-2025)

10 YEARS THROUGH MARCH 31, 2025



Performance incentives exist for selecting strong active investment strategies

Source: Morgan Stanley Wealth Management GIO (1) We have based our active manager performance calculations on US equity mutual funds designated with institutional share classes, compared with their relevant Morningstar category benchmark. All performance figures are net of expense ratios. Expense ratio is determined through an annual calculation, where a fund's operating expenses are divided by the average dollar value of its assets under management. The "Top-Quartile Active Manager" category contains the top 25% of funds ranked by excess returns above the Morningstar category benchmark. Source: Calculated by Morgan Stanley Wealth Management GIO, using data provided by Morningstar. (c) 2024 Morningstar, Inc. All rights reserved. Used with permission. This information contained herein: (i) is proprietary to Morningstar and/or its content providers; (ii) may not be copied or distributed; and (iii) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

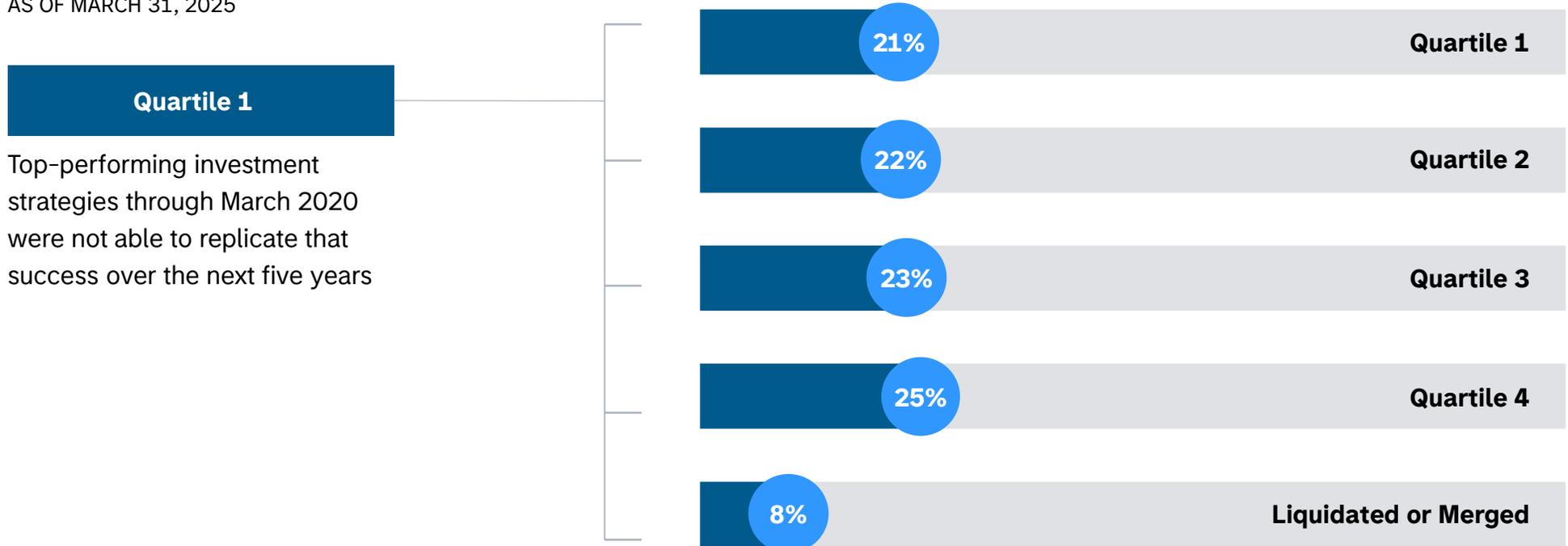
Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Manager Scoring: Challenges in Identifying Higher-Quality Strategies

- While top-quartile investment strategies significantly improve the value proposition for active management, selecting the past's top performers has historically fallen short of providing meaningful insights for the road ahead.

SUBSEQUENT FIVE-YEAR RANKING OF 1ST QUARTILE MANAGERS FROM 2015-2020 STARTING MARCH 2020 (ANN.)

AS OF MARCH 31, 2025



Source: Calculated by Morgan Stanley Wealth Management GIO, using data provided by Morningstar. (c) 2024 Morningstar, Inc. All rights reserved. Used with permission. This information contained herein: (i) is proprietary to Morningstar and/or its content providers; (ii) may not be copied or distributed; and (iii) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information. The "Top-Quartile Active Manager" category contains the top 25% of funds ranked by excess returns above their relevant Morningstar category benchmark, based on US equity mutual funds designated with institutional share classes. All performance figures are net of expense ratios. Expense ratio is determined through an annual calculation, where a fund's operating expenses are divided by the average dollar value of its assets under management.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Manager Scoring: Objective and Implementation

Ranking investment strategies by quality to guide manager selection decisions

Objective

To rank investment strategies in each of 50+ categories by quality, according to **alpha generation, risk management, prospective value vs. expense ratios, and tax efficiency**

Hallmarks

- Leverage the observation that **quality investment processes can lead to quality investment results**
- Gain insights on strategies' **prospective performance** by studying **quantitative markers of success**
- Historically, have **meaningfully boosted risk-adjusted returns** on a rolling three-year forward basis
- Result in **reasonable annual turnover** of approximately 10% to 15%, promoting consistency

1

Adverse Active AlphaSM

Patented manager selection process that sorts investment strategies by potential prospective profitability and consistency of profitability

2

Risk Score

Proprietary methodology that evaluates investment strategies' effectiveness in managing risk, both in absolute and relative terms

3

Value Score

Proprietary methodology that considers active investment strategies' value proposition relative to their costs

	GROUP	RANKING	GUIDANCE
	High	Top 40%	Add
	Medium	Next 40%	Watch
	Low	Bottom 20%	Remove

OUTCOMES

- Strengthening and enhancing our manager evaluation and selection efforts¹
- Providing **GIMA**; our OCIO, Family Office, and Portfolio Solutions teams; and Financial Advisors with another perspective on investment strategies' quality

Source: Morgan Stanley Wealth Management GIO. (1) These ranking methodologies have inherent limitations that are discussed in greater detail in the disclosures which should be read and considered carefully.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Adverse Active AlphaSM: Characteristics

Ranking investment strategies by prospective profitability and consistency

An exclusive approach ...

In 2014, Morgan Stanley Wealth Management received a patent grant on the "Adverse Active Alpha" ranking process. We subsequently updated the process in 2016 to include fixed income strategies and in 2018 to include further enhancements.

... that brings compelling value, in our view

Highly-ranked investment strategies have outperformed benchmarks and peers in risk-adjusted terms since implementation, despite the overall challenging environment for active management.

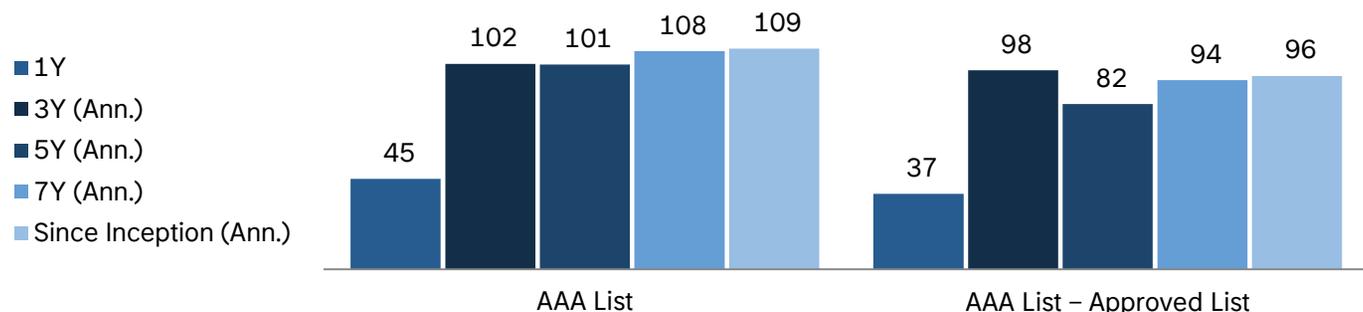
ADVERSE ACTIVE ALPHASM CHARACTERISTICS

<p>Active Management Significant but controlled returns differentiation from the relevant benchmark</p>	<p>Alpha Positive rolling alphas, including from security selection, with special focus on "adverse" environments</p>	<p>Consistency Risk-adjusted gauges to assess the "quality" of investment strategies' total and excess returns</p>
--	--	---

OUTPERFORMANCE OF ADVERSE ACTIVE ALPHA (AAA) STRATEGIES⁽¹⁾

MEDIAN ALPHA (IN BP) OF AAA STRATEGIES, BOTH IN ABSOLUTE TERMS AND RELATIVE TO GIMA'S APPROVED LIST, COMPARING EACH STRATEGY TO ITS GIMA-ASSIGNED BENCHMARK

AS OF MARCH 31, 2025

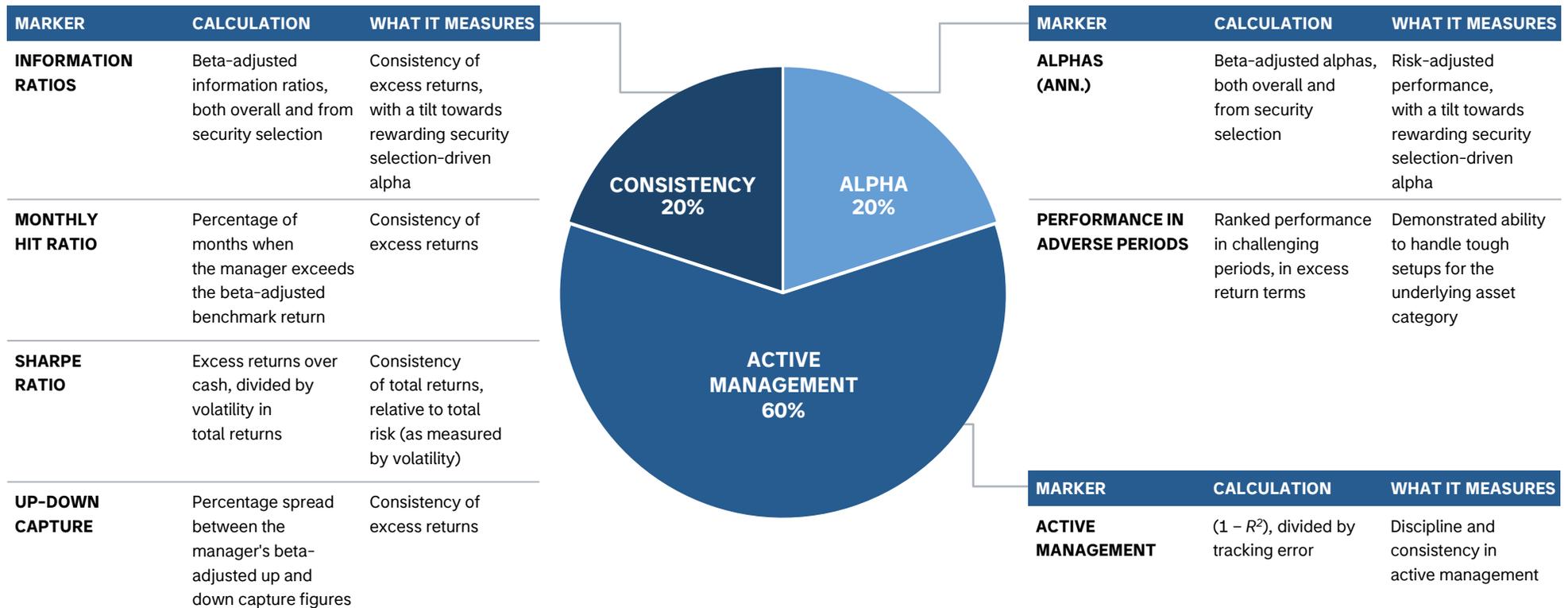


Source: Morgan Stanley Wealth Management GIO, Bloomberg, CompSitelQ, FactSet, PSN, Performance Analytics. From January 1, 2013, to December 31, 2015, the Adverse Active Alpha List includes only equity strategies on the GIMA Focus List that also ranked in the top two quintiles according to the Adverse Active Alpha ranking process. Starting January 1, 2016, the Adverse Active Alpha List has included both equity and fixed income strategies. As of March 31, 2025, the number of products meeting these criteria was approximately 200 out of the approximately 3,250 products covered by GIMA and is subject to change. This data includes SMA performance, gross of management fees and advisory fees, and NAV mutual fund performance. (1) Does not reflect advisory fees. Performance is risk-adjusted and relative to each strategy's GIMA-assigned benchmark index. The performance shown is that of all separately managed accounts and mutual funds on the Morgan Stanley platform in the respective categories identified. The purpose of the chart is to show the utility of Adverse Active Alpha methodology in manager selection. The Adverse Active Alpha list inceptioned on January 1, 2013, and includes Focus List managers that also have received the Adverse Active Alpha designation.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Adverse Active AlphaSM: Components

Ranking investment strategies by prospective profitability and consistency



Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Adverse Active AlphaSM: Sample Application (Indicative)

Ranking investment strategies by prospective profitability and consistency

Asset Class (Category): Large-Cap Growth Equity

Manager: Large-Cap Growth Equity (MF)

MARKER	WEIGHT	PERCENTILE IN ASSET CLASS
Active Management	60%	0.89
Alpha		
Alphas (Ann.)	20%	0.64
Performance in Adverse Periods		0.66
Consistency		
Information Ratios		0.64
Monthly Hit Ratio	20%	0.48
Sharpe Ratio		0.61
Up-Down Capture		0.62
	Weighted Average	0.78
	Re-Ranked	0.91

RANKING PROCESS

- 1 We evaluate each manager versus its peers within each category. For example, this manager, which typically features a concentrated portfolio, ranks in the top quintile according to the active management score (0.89 percentile).
- 2 We compute the percentiles across each factor and then aggregate them through a weighted average (e.g., 60% x 0.89 for the active management score).
- 3 We then re-rank the managers according to the weighted average (i.e., by computing a percentile rank based on the relative weighted average within each asset class). We assign a "Green" rating to the top 40% of managers in each asset class. This manager scored well, falling in the first decile among peers.

Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Risk Score: Characteristics

Ranking investment strategies by prospective risk management

GAUGING THE QUALITY OF INVESTMENT STRATEGIES' RISK MANAGEMENT FRAMEWORKS...

The Risk Score tracks investment strategies' risk management discipline, looking at both upside and downside potential. We believe that investment strategies' prospective success depends heavily on the consistency and rigor of their risk management processes, and the Risk Score quantitatively assesses this critical dimension of quality.



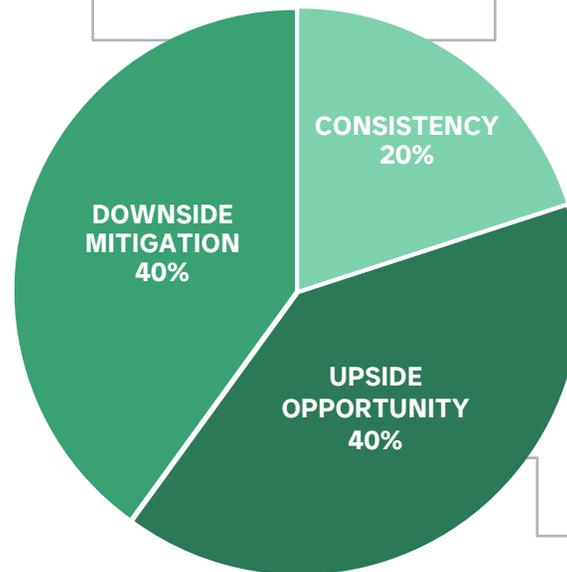
Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Risk Score: Components

Ranking investment strategies by prospective risk management

MARKER	CALCULATION	WHAT IT MEASURES
PERFORMANCE IN ADVERSE PERIODS	Ranked performance in challenging periods, in total return terms	Demonstrated ability to handle tough setups for the underlying strategy
RETURNS-TO-AVG. DRAWDOWN	Ratio of the total returns to absolute value of the average drawdown in total returns	Strength in delivering absolute returns without painful drawdowns in total returns
VOLATILITY OF VOLATILITY	Volatility of the rolling 12-month volatility in total returns	Consistency of risk exposures, based on the principle that drastic changes may be investor-unfriendly



MARKER	CALCULATION	WHAT IT MEASURES
SHARPE RATIO	Excess returns over cash, divided by volatility in total returns	Consistency of total returns, relative to total risk (as measured by volatility)
SORTINO RATIO	Excess returns over cash, divided by downside volatility in total returns	Consistency of total returns, relative to total risk (as measured by downside volatility)
UP-DOWN CAPTURE	Percentage spread between the manager's beta-adjusted up and down capture figures	Consistency of excess returns
MARKER	CALCULATION	WHAT IT MEASURES
ACTIVE MANAGEMENT	$(1 - R^2)$, divided by tracking error	Discipline and consistency in active management
FEES-TO-TRACKING ERROR	Rolling expense ratios, divided by tracking error	Prospective hurdle to overcome, defining the minimum gross information ratio for positive net alpha

Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Risk Score: Sample Application (Indicative)

Ranking investment strategies by prospective risk management

Asset Class (Category): International Core Equity

Manager: International Core Equity (MF)

MARKER	WEIGHT	PERCENTILE IN ASSET CLASS
Upside Opportunity		
Active Management	40%	0.94
Fees-to-Tracking Error		0.54
Downside Mitigation		
Performance in Adverse Periods		0.91
Return-to-Average Drawdown	40%	0.94
Volatility of Volatility		0.97
Consistency		
Sharpe Ratio		0.98
Sortino Ratio	20%	0.98
Up-Down Capture		0.98
Weighted Average		0.86
Re-Ranked		0.97

RANKING PROCESS

- 1 We evaluate each manager versus its peers within each category. For example, this manager ranks well in terms of Downside Mitigation for each of the three subcomponents: Performance in Adverse Periods, Return-to-Average Drawdown, and Volatility of Volatility (0.91, 0.94, and 0.97 percentile, respectively).
- 2 We compute the percentiles across each factor and then aggregate them through a weighted average. For this manager, the weighted- average percentile is 0.86.
- 3 We then re-rank the managers according to the weighted average (i.e., by computing a percentile rank based on the relative weighted average within each asset class). We assign a "Green" rating to the top 40% of managers in each asset class. This manager scored well, falling in the first decile among its peers.

Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Value Score: Characteristics

Ranking investment strategies by prospective "excess value"

A Proprietary Methodology...

Complementing the patented Adverse Active AlphaSM and Risk Score tools, Morgan Stanley Wealth Management's Value Score gauges investment strategies' quality by comparing current expense ratios and potential prospective value.

... That Evaluates Investment Strategies on a Cost-Benefit Basis

We assess investment strategies' "fair value" by studying quantitative markers that have historically driven forward-looking value. We then compare this "fair value" vs. actual expense ratio to compute "excess value." We may then rank investment strategies within a given asset class by "excess value."

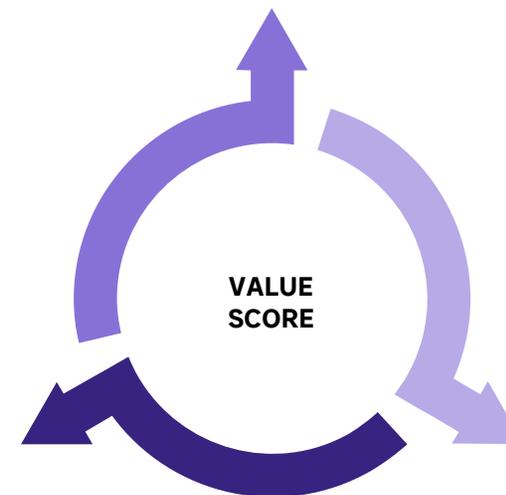
RISK-ADJUSTED PERFORMANCE

Positive, consistent, "quality" active returns

- Alphas (Ann.)
- Information Ratios
- Monthly Hit Ratio

ACTIVE MANAGEMENT

Significant but controlled manager differentiation from the relevant benchmark



RISK MANAGEMENT

Mitigating portfolios' risk exposures by monitoring investment strategies' business- and performance-related risks

- Net Flows (Ann.)
- Right-Left Tail Capture
- Up-Down Capture

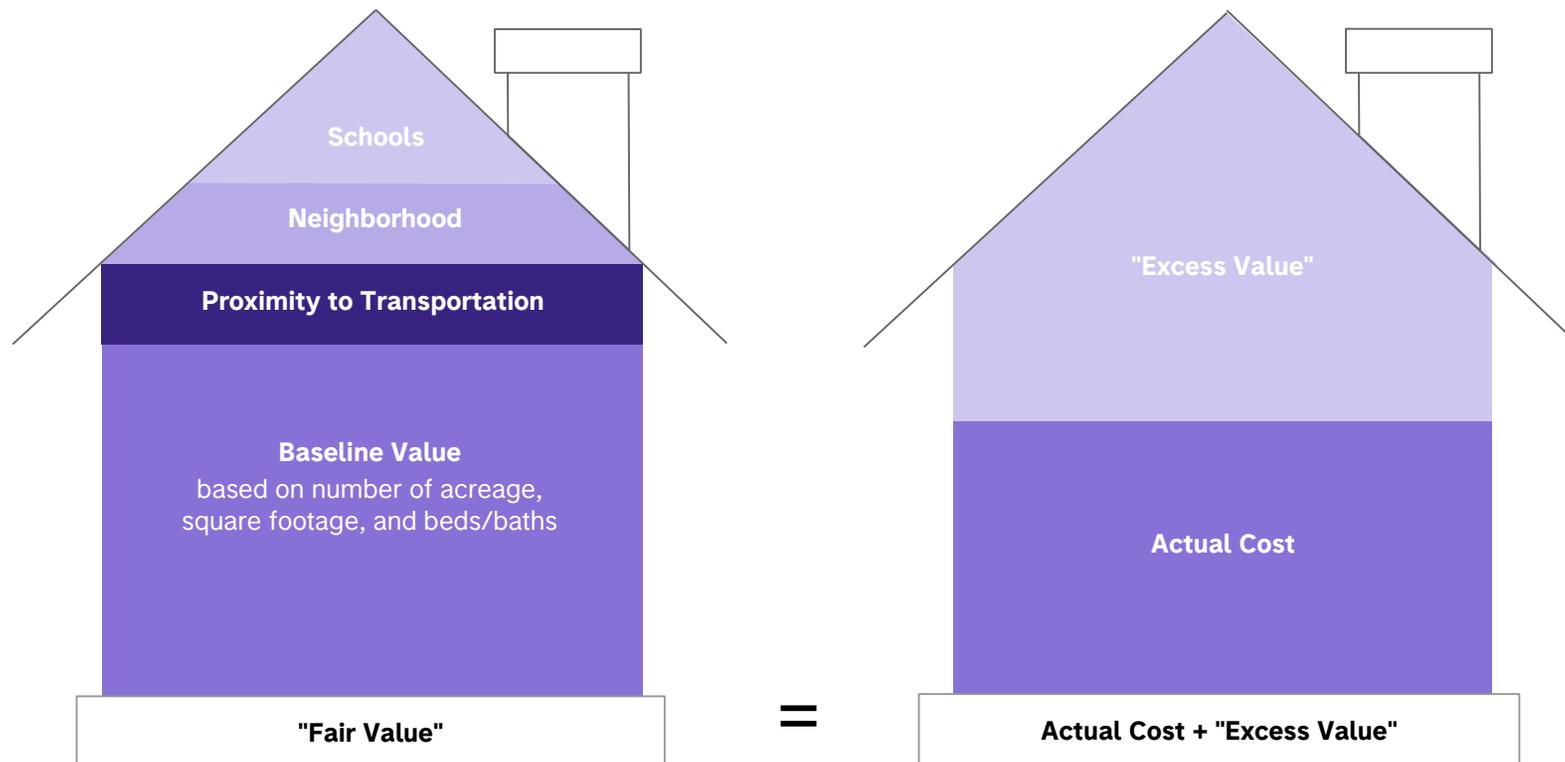
Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Value Score: Computing "Excess Value"

Ranking investment strategies by prospective "excess value"

We may estimate "**excess value**" by first computing a "**fair value**" and then **comparing it against actual costs**, as illustrated in the home buying analogy.

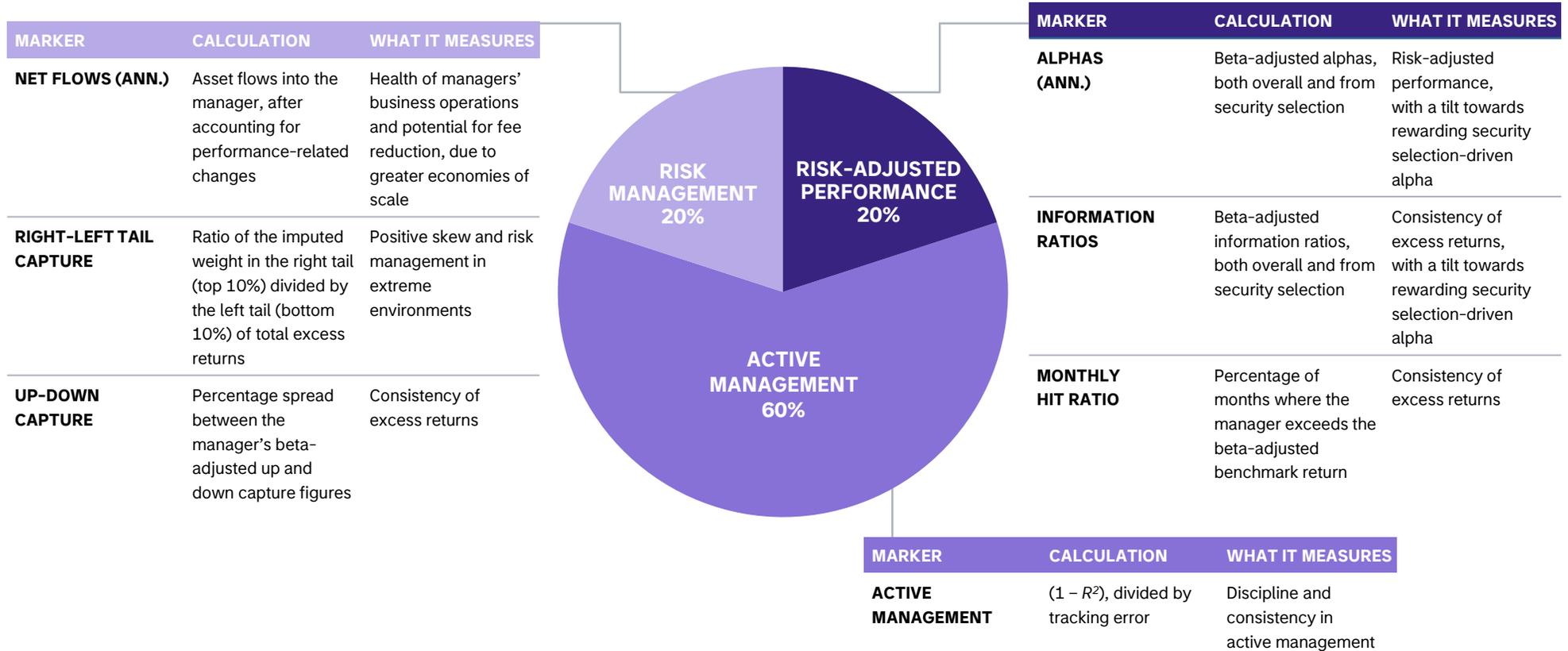


Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Value Score: Components

Ranking investment strategies by prospective "excess value"



Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Value Score: Sample Application (Indicative)

Ranking investment strategies by prospective "excess value"

Asset Class (Category): US Small-Cap Value Equity

Manager: Small-Cap Value (SMA)

MARKER	WEIGHT	PERCENTILE IN ASSET CLASS
Active Management	60%	0.89
Risk-Adjusted Performance		
Alphas (Ann.)	20%	0.05
Information Ratios		0.05
Monthly Hit Ratio		0.05
Risk Management		
Net Flows (Ann.)	20%	0.67
Right-Left Tail Capture		0.83
Up-Down Capture		0.05
	Weighted Average	0.81
	"Fair Value" Expense Ratio	0.98%
	Less Actual Expense Ratio	0.45%
	"Excess Value" (EV)	0.53%
	Percentile of "EV" Within Asset Class	0.85

RANKING PROCESS

- 1 We measure the percentile rankings of managers' ex-post quantitative markers across a given asset class and compute a weighted average of these percentile rankings.
- 2 We compute each manager's "fair value" expense ratio by calculating the expense ratio that corresponds to the weighted-average percentile rankings. This percentile ranking translates into an expense ratio of 1.23%. We then compare to the manager's actual expense ratio to compute its "excess value"—in this case, 0.88%.
- 3 Finally, we rank each manager's "excess value" within its asset class, with higher-quality managers rising to the top. We assign a "Green" or "Yes" rating to the top 40% of managers. This sample manager ranks in the 94th percentile.

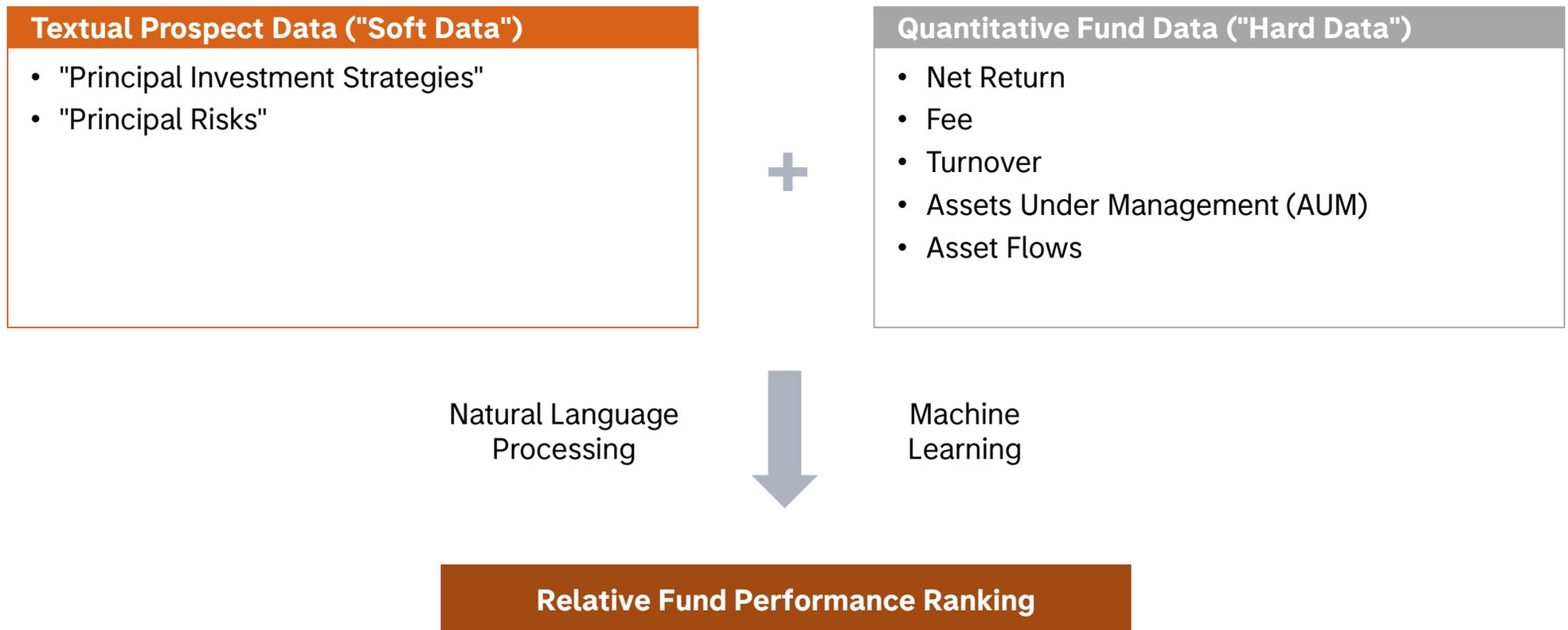
Source: Morgan Stanley Wealth Management GIO.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

AI Manager Evaluation Score (AIME)

Deploys Sophisticated AI Algorithms on Quantitative Data and Mutual Fund Prospectuses

- Every mutual fund must file and update a prospectus which describes the strategies, risks and other key information about the fund.
- The AIME Score uses prospectus data to add context to traditional quantitative metrics.



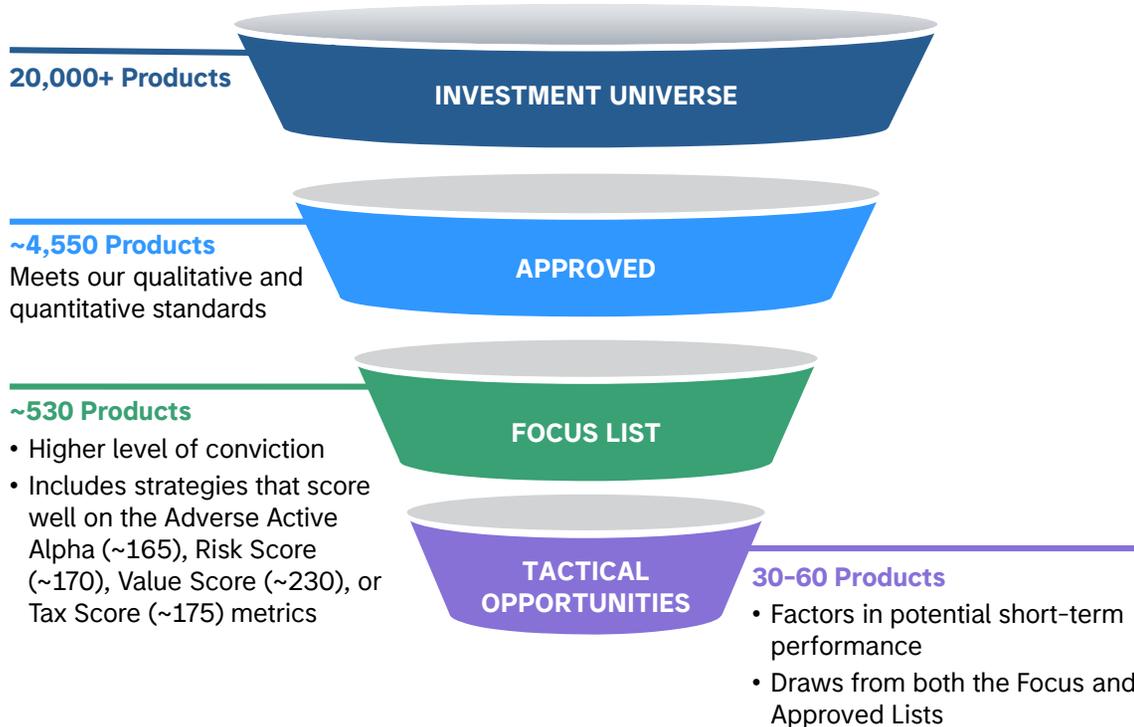
Source: Morgan Stanley Wealth Management GIO. For full report, see "Aiming for Alpha: Introducing the AI Manager Evaluation (AIME) Score" report, published Oct. 18, 2023.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Manager Scoring: Enhancing Value-Added in Manager Selection

COMPLEMENTING AND STRENGTHENING MORGAN STANLEY'S HOLISTIC MANAGER ANALYSIS PROCESS¹

Only 1% of products make the Focus List and rank highly according to the four Manager Scoring tools—Adverse Active AlphaSM, the Risk Score, the Value Score, and the Tax Score.



STRONG GOVERNANCE

- Over 60 analysts continually review investment managers
- An experienced Investment Committee governs status list decisions
- Extensive library of analyses are made available to Financial Advisors and clients

PROPRIETARY MANAGER SCORING

- Adverse Active AlphaSM seeks to identify investment strategies that can potentially enhance your portfolio's risk-reward profile
- The Risk Score seeks to evaluate investment strategies' effectiveness in managing risk, in terms of both total and excess returns
- The Value Score seeks to rank investment strategies by their prospective value above expense ratios
- The Tax Score seeks to sort investment strategies by their potential to deliver prospective after-tax risk-adjusted returns

Source: Morgan Stanley Wealth Management GIO. (1) The functions of manager analysis and review are only available through advisory accounts. A majority of investments reviewed and selected by GIMA pay or cause to be paid an ongoing fee to Morgan Stanley Wealth Management in connection with Morgan Stanley Wealth Management clients that purchase such investments. Please see the disclosures at the end of this presentation for more information.

Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

Manager Scoring: Objective and Implementation

Ranking investment strategies by quality to guide manager selection decisions

Objective To rank investment strategies across asset classes by **quality**, according to **alpha generation, risk management, prospective value vs. expense ratios, tax efficiency and impact** as well as by the **firm-level commitment to diversity, equity and inclusion**

Hallmarks

- Leverage the observation that **quality investment processes lead to quality investment results**
- Gain insights into strategies’ **prospective performance** by studying **quantitative markers of success**
- Historically have **meaningfully boosted risk-adjusted returns** on a rolling three-year forward basis
- Deploy **innovative AI/ML algorithms** to analyze **unstructured data sources** for additional sources of alpha
- Integrate **performance on environmental and social factors** alongside performance consideration
- Identify asset managers that are **intentionally creating a culture of diversity, equity and inclusion**

STRATEGY LEVEL

1
 Adverse Active AlphaSM

2
 Risk Score

3
 Value Score

4
 AIME Score

5
 Tax Score

6
 Impact Signal

FIRM LEVEL

7
 DEI Signal

- Outcomes**
- Strengthen and enhance our manager evaluation and selection efforts¹
 - Provide GIMA, our portfolio solution teams and Financial Advisors with another perspective on investment strategies’ quality

AAA ^{SE} , AIME, RISK, VALUE AND TAX SCORES				IMPACT SIGNAL			DEI SIGNAL	
GROUP	RANKING	GUIDANCE		SCORE	INTERPRETATION	SCORE	INTERPRETATION	
High	Top 40%	Add		High	Top 40%	0.50–1.00 (Absolute)	DEI Leaders, firms that receive 0.65 or more points	
Medium	Next 40%	Watch		Medium	Next 40%	Includes both absolute (vs. US Census population benchmarks) and relative scores (vs. peer firms with similar levels of AUM)		
Low	Bottom 20%	Remove		Low	Bottom 20%			

Source: Morgan Stanley Wealth Management GIO. (1) These ranking methodologies have inherent limitations that are discussed in greater detail in the disclosures which should be read and considered carefully. Past performance is no guarantee of future results. Estimates of future performance are based on assumptions that may not be realized. This material is not a solicitation of any offer to buy or sell any security or other financial instrument or to participate in any trading strategy. Please refer to important information, disclosures and qualifications at the end of this material.

General Disclosures

Morgan Stanley Wealth Management ("MSWM", "Morgan Stanley" or "MSSB") is the trade name of Morgan Stanley Smith Barney LLC, a registered broker-dealer and investment adviser in the United States. This material is for educational purposes only and is not an offer or solicitation to buy, sell, or participate in any security or trading strategy. Past performance is not a guarantee of future results.

Morgan Stanley offers a range of brokerage and advisory services, which create different types of client relationships and obligations. Please consult with your Financial Advisor to understand these differences, or review our "Understanding Your Brokerage and Investment Advisory Relationships" brochure available at www.morganstanley.com/wealth-relationshipwithms/pdfs/understandingyourrelationship.pdf.

Asset allocation, diversification, rebalancing and dollar cost averaging do not guarantee a profit or protect against loss in declining markets. Past performance is no guarantee of future results and actual results may vary. Rebalancing strategies may also have tax consequences; investors should consult a qualified tax advisor before implementing such strategies.

Conflicts of Interest: As a diversified global financial services firm, Morgan Stanley engages in a broad range of activities, including financial advisory and investment management services; sponsoring and managing private investment funds; broker-dealer and principal securities transactions, commodities and foreign exchange transactions; and the publication of research, among other activities. In the ordinary course of its business, these activities may create situations where Morgan Stanley's interests may conflict with those of its clients, including the private investment funds it manages. Morgan Stanley can give no assurance that such conflicts of interest will be resolved in favor of its clients or any particular fund.

Indices are unmanaged and cannot be invested in directly. For index, indicator and survey definitions referenced in this report, please visit: www.morganstanley.com/wealth-investmentsolutions/wmir-definitions

For more information, please refer to additional General Disclosures here: www.morganstanley.com/wealthbooks#general-disclosures.

Risks Associated With Investing

Investing in the markets entails the risk of market volatility. The value of all types of investments, including stocks, mutual funds, exchange-traded funds ("ETFs"), closed-end funds, and unit investment trusts, may increase or decrease over varying time periods. **Please carefully consider the investment objectives, risks, charges and expenses of investment fund(s) before investing. The fund prospectus contains this and other information about the fund(s). To obtain a prospectus, contact your financial advisor. Please read the prospectus carefully before investing.** There is no assurance that investment funds will achieve their investment objectives. Besides the general investment risk of holding securities that may decline in value and the possible loss of principal invested, closed-end funds may have additional risks related to declining market prices relative to net asset values (NAVs), active manager underperformance and potential leverage. To the extent the investments depicted herein represent international securities, you should be aware that there may be additional risks associated with international investing, including foreign economic, political, monetary and/or legal factors, changing currency exchange rates, foreign taxes, and differences in financial and accounting standards. These risks may be magnified in emerging markets and frontier markets. Some funds also invest in foreign securities, which may involve currency risk. **Equity securities** may fluctuate in response to news on companies, industries, market conditions and general economic environment. Companies paying dividends can reduce or cut payouts at any time. Small- and mid-capitalization companies may lack the financial resources, product diversification and competitive strengths of larger companies. In addition, the securities of small- and mid-capitalization companies may not trade as readily as, and be subject to higher volatility than, those of larger, more established companies. **Growth investing** does not guarantee a profit or eliminate risk. Growth stocks can trade at relatively high valuations which may increase risk compared with an investment in a company with more modest growth expectations. **Value investing** does not guarantee a profit or eliminate risk. Not all companies deemed value stocks are able to turn around their business or successfully execute corrective strategies, and their stock prices may not rise as initially expected.

The value of **fixed income securities** will fluctuate and, upon a sale, may be worth more or less than their original cost or value at maturity. Bonds are subject to interest rate risk, call risk, reinvestment risk, liquidity risk, and credit risk of the issuer. Yields may change with economic conditions and should be considered alongside other factors when making investment decisions. Credit ratings are subject to change. **High yield bonds** carry additional risks, including increased risk of default and greater volatility due to lower credit quality of the issues. In the case of **municipal bonds**, income is generally exempt from federal income taxes, though some income may be subject to state and local taxes and to the federal alternative minimum tax. Capital gains, if any, are subject to tax. **Treasury Inflation Protection Securities (TIPS)** adjust coupon payments and underlying principal to compensate for inflation in line with the consumer price index (CPI). While the real rate of return is guaranteed, TIPS typically offer lower returns and may significantly underperform conventional U.S. Treasuries during periods of low inflation. There is no guarantee that investors will receive par if TIPS are sold prior to maturity. The **Ultrashort-term fixed income** asset class consists of high-quality securities with very short maturities and is therefore still subject to the risks associated with debt securities such as credit and interest rate risk.

Money Market Funds: You could lose money in money market funds. Although government money market funds (defined as investing 99.5% of total assets in cash and/or securities backed by the U.S. government) and retail funds (defined as money market funds open to natural person investors only) seek to preserve value at \$1.00 per share, they cannot guarantee doing so. The price of other money market funds will fluctuate, and when you sell shares they may be worth more or less than originally paid. Money market funds may impose a fee upon sale or temporarily suspend sales if liquidity falls below required minimums. During suspensions, shares would not be available for purchases, withdrawals, check writing or ATM debits. A money market fund investment is not insured or guaranteed by the Federal Deposit Insurance Corporation or other government agency. The Fund's sponsor has no legal obligation to provide financial support to the Fund and investors should not expect that the sponsor will provide financial support to the Fund at any time.

Investing in **Commodities:** Commodity prices may be affected by factors such as supply and demand, government policies, domestic or international political and economic events (including war or terrorism), changes in interest and exchange rates, trading activity in commodities and related contracts, pestilence, technological developments, weather, price volatility, and liquidity constraints. Physical precious metals are speculative, non-regulated products that may experience short- and long-term price volatility. Precious metals do not make interest or dividend payments and therefore may not be appropriate for investors who require current income. Precious metals must be stored, which may impose additional costs on investors.

Master Limited Partnerships (MLPs): Investments in MLPs are subject to the risks generally applicable to companies in the energy and natural resources sectors, including commodity price fluctuations, supply

and demand imbalances, resource depletion and exploration risk. MLPs also carry interest rate risk and may underperform in rising interest rate environments. In addition, MLP funds accrue deferred income taxes on net operating gains and capital appreciation; as a result their after-tax performance could differ significantly from that of its underlying assets.

Exchange Funds are private placement vehicles that enable holders of concentrated single-stock positions to exchange those stocks for a diversified portfolio. Investors may benefit from greater diversification.

Alternative investments are often speculative and include a high degree of risk. Investors can lose all or a substantial amount of their investment. They are appropriate only for eligible, long-term investors willing to forgo liquidity and put capital at risk for an indefinite period. They are often illiquid, may employ leverage, short-selling, or other speculative practices that increase volatility and risk of loss, and may require large minimum investments and initial lock-ups. Alternative investments may also involve complex tax structures, tax-inefficient investing, and delays in distributing important tax documents. Clients should consult their own tax and legal advisors, as Morgan Stanley Wealth Management does not provide tax or legal advice. They also typically carry higher fees and expenses than traditional investments, which can reduce overall returns.

Sector investments, due to their narrow focus, tend to be more volatile than broadly diversified investments. **Non-diversified portfolios:** Portfolios that hold a concentrated number of securities may experience greater overall declines when those securities lose value compared with more diversified portfolios. Portfolios that invest heavily in one or a few industry sectors are more vulnerable to price fluctuations than those diversified across a wider range of sectors.

Environmental, Social and Governance (ESG) investments in a portfolio may experience performance that is lower or higher than a portfolio not employing such practices. Portfolios with ESG restrictions and strategies as well as ESG investments may not be able to take advantage of the same opportunities or market trends as portfolios where ESG criteria is not applied. There are inconsistent ESG definitions and criteria within the industry, as well as multiple ESG ratings providers that provide ESG ratings of the same subject companies and/or securities that vary among the providers. Certain issuers of investments may have inconsistent views concerning ESG criteria where the ESG claims made in offering documents or other literature may overstate ESG impact. ESG designations are as of the date of this material, and no assurance is provided that the underlying assets have maintained or will maintain any such designation or any stated ESG compliance. As a result, it is difficult to compare ESG investment products or to evaluate an ESG investment product in comparison to one that does not focus on ESG. Investors should also independently consider whether the ESG investment product meets their own ESG objectives or criteria. There is no assurance that an ESG investing strategy or techniques employed will be successful. Past performance is not a guarantee or a dependable measure of future results.

Buying, selling, and transacting in Bitcoin, Ethereum or other digital assets ("Digital Assets"), and related funds and products, is highly speculative and may result in a loss of the entire investment. Risks and considerations include but are not limited to: Digital Assets have only been in existence for a short period of time and historical trading prices for Digital Assets have been highly volatile. The price of Digital Assets could decline rapidly, and investors could lose their entire investment. Although any Digital Asset product and its service providers have in place significant safeguards against loss, theft, destruction and inaccessibility, there is nonetheless a risk that some or all of a product's Digital Asset could be permanently lost, stolen, destroyed or inaccessible by virtue of, among other things, the loss or theft of the "private keys" necessary to access a product's Digital Asset. Digital Assets may not have an established track record of credibility and trust. Further, any performance data relating to Digital Asset products may not be verifiable as pricing models are not uniform.

For more information, please refer to additional Risks Associated With Investing here: www.morganstanley.com/wealthbooks#risks-associated-with-investing.

Investment Advisory Programs

The sole purpose of this material is to inform, and it in no way is intended to be an offer or solicitation to purchase or sell any security, other investment or service, or to attract any funds or deposits. Investments mentioned may not be appropriate for all clients. MSWM offers investment program services through a variety of investment programs, which are opened pursuant to written client agreements. Each program offers investment managers, funds and features that are not available in other programs; conversely, some investment managers, funds or investment strategies may be available in more than one program. For more information, please see the Morgan Stanley Smith Barney LLC MSWM program disclosure brochure (the "Morgan Stanley ADV"). The Morgan Stanley ADV is available at www.morganstanley.com/ADV.

The Morgan Stanley Pathway Funds, Firm Discretionary UMA Model Portfolios, and other asset allocation or any other model portfolios that are discussed in this material are available only to investors participating in Morgan Stanley Consulting Group advisory programs. For additional information on the Morgan Stanley Consulting Group advisory programs, see the applicable ADV brochure, available at www.morganstanley.com/ADV or request from your Morgan Stanley Financial Advisor or Private Wealth Advisor. To learn more about the Morgan Stanley Pathway Funds, visit the Funds' website at www.morganstanley.com/wealth-investmentsolutions/cgcm.

Generally, investment advisory accounts are subject to an **annual asset-based fee** (the "Fee") which is payable monthly in advance (some account types may be billed differently). In general, the Fee covers Morgan Stanley investment advisory services, custody of securities with Morgan Stanley, trade execution with or through Morgan Stanley or its affiliates, as well as compensation to any Morgan Stanley Financial Advisor.

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 Morgan Stanley ADV. Accounts invested in the Select UMA program may also pay a separate Sub-Manager fee, if applicable.

If your account is invested in mutual funds or exchange traded funds (collectively "funds"), you will pay the fees and expenses of any funds in which your account is invested. **Fees and expenses are charged directly to the pool of assets** the fund invests in and are reflected in each fund's share price. These fees and expenses are an additional cost to you and would not be included in the Fee amount in your account statements. The advisory program you choose is described in the Morgan Stanley ADV.

Morgan Stanley or Executing Sub-Managers, as applicable, in some of Morgan Stanley's SMA programs may effect transactions through broker-dealers other than Morgan Stanley or our affiliates. In such instances, 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 **Morgan Stanley ADV** or contact your Financial Advisor / Private Wealth Advisor.

GIMA Conflicts of Interest: Our business is subject to various conflicts of interest. For example, ideas and suggestions for which investment products should be evaluated by Global Investment Manager Analysis (GIMA) come from a variety of sources, including our MSWM Financial Advisors and their direct or indirect managers, and other business persons within MSWM or its affiliates. Such persons may have an ongoing business relationship with certain investment managers or mutual fund companies whereby they, MSWM or its affiliates receive compensation from, or otherwise related to, those investment managers or mutual funds or for which a portion of their clients' assets are already invested. 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 Morgan Stanley ADV brochure for a discussion of other types of conflicts that may be relevant to GIMA's evaluation of managers and funds. In addition, MSWM, Morgan Stanley & Co. LLC ("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.

MSWM, managers, MS & Co., and their affiliates receive compensation and fees in connection with these services. MSWM believes that the nature and range of clients to which such services are rendered is such that it would be inadvisable to exclude categorically all these companies from an account.

Morgan Stanley charges each fund family we offer a **mutual fund support fee**, also called a "revenue-sharing payment," on client account holdings in fund families according to a tiered rate that increases along with the management fee of the fund so that lower management fee funds pay lower rates than those with higher management fees.

For more information, please refer to additional Investment Advisory Programs disclosures here: www.morganstanley.com/wealthbooks#investment-advisory-programs.

Products and Services

Annuities and insurance products are offered in conjunction with Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates. Not all products and services discussed herein are available through Morgan Stanley Smith Barney LLC's licensed insurance agency affiliates. Since life and long-term care insurance are medically underwritten, you should not cancel your current policy until your new policy is in force. A change to your current policy may incur charges, fees and costs. A new policy will require a medical exam. Surrender charges may be imposed and the period of time for which the surrender charges apply may increase with a new policy. You should consult with your own tax advisors regarding your potential tax liability on surrenders. Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY.

Lending products, including securities-based loans, are offered by Morgan Stanley Smith Barney LLC (MSSB), Morgan Stanley Private Bank, National Association (MSPBNA), and Morgan Stanley Bank, N.A. (MSBNA), collectively referred to as "the Firm" as applicable. Borrowing against securities involves risk and may not be appropriate for all clients. Risks include maintenance calls, forced liquidation of securities, and potential tax consequences. The Firm reserves the right to change collateral requirements, decline funding requests, or call loans at any time. Products are distinct and subject to independent underwriting and approval. Rates, terms, and availability may vary.

Residential mortgage loans and home equity lines of credit are offered by MSPBNA, Member FDIC an Equal Housing Lender. Nationwide Mortgage Licensing System Unique Identifier #663185. **The proceeds from a residential mortgage loan (including draws and advances from a home equity line of credit) are not permitted to be used to purchase, trade, or carry eligible margin stock; repay margin debt that was used to purchase, trade, or carry margin stock; or to make payments on any amounts owed under the note, loan agreement, or loan security agreement; and cannot be deposited into a MSSB or other brokerage account.** The pledged-asset feature allows eligible securities to be used as a substitute for a cash down payment. The pledged-asset feature allows eligible securities to be used as an alternative to a cash down payment. Clients must maintain collateral levels and may be subject to liquidation if requirements are not met. Interest-only and adjustable-rate mortgages (ARMs) carry specific risks, including payment increases and higher total interest costs. ARMs are based on the SOFR 30-Day Average. Relationship-based pricing is available based on eligible household assets held at the Firm.

Cards and Cash Management: Debit Cards offered through the Firm are issued by MSPBNA under license from Mastercard. American Express Cards offered through the Firm include the Platinum Card®, Blue Cash Preferred®, and the Morgan Stanley Credit Card. Eligibility requires an "Eligible Account" at the Firm. Cards are issued by American Express National Bank. Terms, conditions, and restrictions apply. The Greenlight App and Debit Card is provided by Greenlight Financial Technologies, not the Firm or any of its affiliates. The Morgan Stanley CashPlus is a brokerage account offered through MSSB. Conditions and restrictions apply. For more information, see the CashPlus Disclosure Statement.

Deposit Products and FDIC: Under the Bank Deposit Program, free credit balances held in an account(s) at Morgan Stanley Smith Barney LLC are automatically deposited into an interest-bearing deposit account(s) at FDIC-insured banks. Certain conditions must be met. For more information, view the Bank Deposit Program Disclosure Statement. The Savings and Preferred Savings Programs offer FDIC-insured deposit accounts at Morgan Stanley Private Bank, National Association, Member FDIC or Morgan Stanley Bank, N.A., Member FDIC. The Savings programs are not intended for clients who need to have frequent access to funds and those funds will not be automatically accessed to reduce a debit or margin loan in your brokerage account. Withdrawals are limited to 10 per calendar month, and excess withdrawals may incur fees. Promotional rates may be offered from time to time and are subject to change at any time.

Morgan Stanley Smith Barney LLC is a registered Broker/Dealer and not a bank. Where appropriate, Morgan Stanley Smith Barney LLC has entered into arrangements with banks and other third parties to assist in offering certain banking-related products and services.

Investment, insurance and annuity products offered through Morgan Stanley Smith Barney LLC are: NOT FDIC INSURED | MAY LOSE VALUE | NOT BANK GUARANTEED | NOT A BANK DEPOSIT | NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY

For more information, please refer to additional Products and Services disclosures here: www.morganstanley.com/wealthbooks#products-and-services.

Other General Disclosures

When MSWM, its affiliates and Morgan Stanley Financial Advisors and Private Wealth Advisors (collectively, "MS") provide "investment advice" regarding a retirement or welfare benefit plan account, an individual retirement account or a Coverdell education savings account ("Retirement Account"), MS is a "fiduciary" as those terms are defined under the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and/or the Internal Revenue Code of 1986 (the "Code"), as applicable. When MS provides investment education, takes orders on an unsolicited basis or otherwise does not provide "investment advice", MS will not be considered a "fiduciary" under ERISA and/or the Code. For more information regarding MS's role with respect to a Retirement Account, please visit www.morganstanley.com/disclosures/dol. Tax laws are complex and subject to change. MS does not provide tax or legal advice. Individuals are encouraged to consult their tax and legal advisors (a) before establishing a Retirement Account, and (b) regarding any potential tax, ERISA and related consequences of any investments or other transactions made with respect to a Retirement Account. Individuals should consult their tax advisor for matters involving taxation and tax planning and their attorney for matters involving trust and estate planning, charitable giving, philanthropic planning and other legal matters. This material is not a financial plan and does not establish an investment advisory relationship. MS will only prepare a financial plan at your specific request using MS approved financial planning software.

No obligation to notify: MSWM has no obligation to notify you when the model portfolios, strategies, or any other information in this material changes. All expressions of opinion are subject to change without notice and are not intended to be a forecast of future events or results.

This material, or any portion thereof, **may not be reprinted, sold or redistributed** without the written consent of Morgan Stanley Smith Barney LLC.

E*TRADE from Morgan Stanley is a registered trademark of Morgan Stanley. Morgan Stanley Smith Barney LLC, Member SIPC. Consulting Group, Investment Advisory Services, Private Wealth Management and Graystone are businesses of Morgan Stanley Smith Barney LLC.

For more information, please refer to additional Other General Disclosures here: www.morganstanley.com/wealthbooks#other-general-disclosures.

© 2026 Morgan Stanley Smith Barney LLC.

CRC 4953093 (11/25)