RPAG Scorecard System Methodology

Frequently Asked Questions

Scorecard System Overview

RPAG's proprietary Scorecard System is built around pass/fail criteria, on a scale of 0 to 10 (with 10 being the best). The Scorecard system measures Active, Passive and Asset Allocation investing strategies.

The Scorecard System methodology incorporates both quantitative and qualitative factors in evaluating fund managers and their investment strategies. Active and Asset Allocation strategies are evaluated over a five-year period, and Passive strategies are evaluated over a three-year period.

Eighty percent of the fund's score is quantitative (made up of eight unique factors), incorporating modern portfolio theory statistics, quadratic optimization analysis, and peer group rankings (among a few of the quantitative factors). The other 20% of the score is qualitative, accounting for manager tenure, the fund's expense ratio relative to the average fund expense ratio in that asset class category, and the fund's strength of statistics (statistical significance). Other criteria that may be considered in the qualitative score includes the viability of the firm managing the assets, management or personnel issues at the firm, and/or whether there has been a change in direction of the fund's stated investment strategy.

Combined, these factors are a way of measuring the relative performance, characteristics, behavior and overall appropriateness of a fund for inclusion into a plan as an investment option. General fund guidelines are shown in the "Scorecard Point System" table below.

The Scorecard Point System is meant to be used in conjunction with RPAG's sample Investment Policy Statement to help identify what strategies need to be discussed as a "watch-list" or removal candidate; what strategies continue to meet some minimum standards and continue to be appropriate; and/or identify new top-ranked strategies for inclusion into a plan.

Scorecard System Overview

Scorecard Point System	
Acceptable:	7-10 Points
Watchlist[1]:	5-6 Points
Review[2]:	0-4 Points

1 Funds that receive a watchlist score four consecutive quarters or five of the last eight quarters should be placed under review status.
2 Review status necessitates documenting why the fund/strategy remains appropriate or documenting the course of action for removal as an investment option.

Frequently Asked Questions

Q: Does RPAG score stable value, money market funds, & GICs?

RPAG does not provide scores for cash investment options, such as stable value, money market funds, and guaranteed investment contracts (GICs).

Two reasons for not scoring these types of investment options include the following:

1. *Benchmark and relative performance issues*. Once fees are netted, these vehicles would fail to outperform a potential benchmark due to the low returns that are associated with these types of investment options. (Principal preservation is the primary objective of cash options).

2. *Peer group issues*. There is great variability in the way these vehicles invest, which brings into question the integrity of any utilized peer group.

Frequently Asked Questions

Q: Why does RPAG use the Russell vs. the S&P indices as the Scorecard's designated benchmarks?

The designated benchmarks used within the Scorecard System were selected because they are the most appropriate and/or most commonly used indices in the marketplace (Russell 1000, MSCI EAFE, BC US Aggregate Bond, etc.). While both the Russell and S&P indices are commonly utilized, Russell employs a more quantitative approach to index construction.

Below are some benefits of using the Russell benchmarks:

1. 1. Russell ranks each company in the investable universe according to its total market capitalization. The market cap is the primary tool to determine where a company belongs in the Russell Index. S&P uses a committee to make these decisions.
2. Russell indices adjust each company's capitalization ranking to eliminate closely held shares that aren't likely to be traded. Using this float adjustment methodology, Russell creates benchmarks that most accurately reflect the market.
3. Russell updates their indices' holdings on a regular basis. Russell reconstitutes its indices annually, which assist in a truer representation of the market.
4. Russell indices objectively allow the market to determine the index composition according to clear and published rules. The market determines which companies are included, not the subjective vote of a selection committee.

Frequently Asked Questions

Q: Why does the Scorecard replace Information Ratio with Sharpe Ratio in the Peer Group Rankings for Asset Allocation funds?

Information Ratio Rank is not a viable option for our Asset Allocation methodology, due to every allocation fund having its own unique style benchmark. Since the allocation peer group would have multiple benchmarks, RPAG switches to Sharpe Ratio Rank because it’s a similar measurement and is not tied to a specific benchmark.

Sharpe Ratio = (Return –Risk Free Rate) / Standard Deviation

Q: Why is the median Peer Group Ranking hurdle the 75th percentile for passive vs. the 50th percentile for active and allocation funds?

The decision to utilize the 75th percentile for passive peer group rankings is because the dispersion of performance and expenses is much more concentrated for passively managed funds than their actively managed counterparts. The peer group ranking for passive strategies is to identify the lower outliers within a peer group. A hurdle of 50th percentile would unjustly penalize some passive funds that have very minimal differences from the typical fund.

Frequently Asked Questions

Q: What do the letters T/E/S represent in the qualitative section of the Scorecard?

- The letters T, E, and S in the qualitative section of the Scorecard are indicating why a fund was docked qualitative points. T = manager tenure E = fund expenses S = strength of statistics

Active & Allocation Strategies

All investments start with 2 points, with potential deductions. The total qualitative score is rounded to the nearest whole number. See below for the potential deduction criteria:

Manager Tenure

- If manager tenure is less than 1.5 years, 2 points will be deducted.
- If manager tenure is less than 3.5 years, 1 point will be deducted.

Fund Expenses

- If the fund expense is greater than the RPAG Peer Group Average (for that style), 0.5 points will be deducted.

Strength of Statistics

- If the average style fails and R-Squared <75%, 1 point will be deducted.
- If the average style fails and R-Squared <6t0%, 2 points will be deducted.
- If the average style passes and R-Squared <50%, 0.5 points will be deducted.
- If the information ratio is positive and the significance level <65%, 0.5 points will be deducted.

Most funds fall into the NORMAL CONDITIONS framework. Events or conditions that warrant other analysis or review may impact the qualitative score calculation for a particular fund.

Frequently Asked Questions

Q: What do the letters T/E/S represent in the qualitative section of the Scorecard?

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Passive Strategies

All investments start with 2 points, with potential deductions. The total qualitative score is rounded to the nearest whole number. See below for the potential deduction criteria:

Fund Expenses

- If the fund expense ranks in the 90% or below, 1 point will be deducted.

Strength of Statistics

- If the tracking error is greater than 6, 1 point will be deducted.
- If the tracking error is greater than 7, 2 points will be deducted.

Most funds fall into the NORMAL CONDITIONS framework. Events or conditions that warrant other analysis or review may impact the qualitative score calculation for a particular fund.

Frequently Asked Questions

Q: What are risk buckets?

Active and passive funds are filtered into categories based on their Morningstar category (or based on a specific vendor's classification). When it comes to asset allocation funds (e.g., balanced, risk-based, target date), the Scorecard categorizes these funds into appropriate risk-bucket categories, based on their 5-year standard deviation. Every manager has different tolerances and assumptions for risk, which is why RPAG categorizes these portfolios based on a universal risk metric, standard deviation. This enables RPAG to group and evaluate funds in a consistent manner and approach.

Q: How does a fund fail Risk Level (for Asset Allocation funds)?

A fund fails risk level if it plots below the conservative risk range or above the aggressive risk range. In other words, ultra-conservative and ultra-aggressive funds will lose a point for risk level. Please note that ultra-conservative funds are categorized under the conservative category, as well as ultra-aggressive funds are categorized under aggressive. The analytic on the Scorecard is the 5-year standard deviation, which is compared to the risk bucket ranges.

Frequently Asked Questions

Q: What are the time periods used for scoring funds?

Active and Allocation Scorecard Methodologies: 5-year requirement to be scored. All style, risk/return, and peer group data are representative of 5 years of data.

Passive Scorecard Methodologies: 3-year requirement to be scored. All style/tracking and peer group data are representative of 3 years of data.

Q: Why are passive funds scored based on 3 years, while active and asset allocation funds scored on 5 years?

The different time periods stem from RPAG's distinct objectives in scoring passive and active funds. For active management, the objective is to identify strategies that can provide added value in their professed style over time. Rather than outperforming a benchmark, passive funds are designed to track an index; therefore, the Scorecard sets out to identify how well the fund is doing just that. RPAG requires a longer and more significant time horizon in its active methodology to identify manager skill.

A 5-year (60 month) period allows RPAG to observe managers through an entire market cycle and offers a significant dataset for the Scorecard to confidently identify an active manager's skill. A 3-year (36 month) period provides adequate return history for RPAG to identify a passive fund's tracking ability.

Frequently Asked Questions

Q: What is Tracking Error?

Tracking error is the volatility of a fund's excess return vs. the benchmark. For passive funds, a lower tracking error is desired, indicating that a fund can track or closely follow the benchmark. A high tracking error means the fund is failing to closely track the benchmark.

Q: What is Significance Level?

Significance level provides to what degree (of statistical confidence) a fund's outperformance was due to manager skill and not a result of chance or luck. RPAG often utilizes significance level in the analysis of a fund's Information Ratio.

Fund	Information Ratio	Significance Level	Interpretation
A	0.25	0.50	It's a coin flip to whether the fund's outperformance was due to chance or skill.
B	0.75	0.85	With 85% confidence, the fund's outperformance was due to manager skill.

Frequently Asked Questions

Q: Do specialty funds belong in a 401(k) plan?

A specialty fund is a fund that does not fall into one of the standard asset classes used in a traditional asset allocation model. The type of specialty fund can vary dramatically, depending on how and where the specific fund chooses to invest. Due to the unique characteristics of specialty funds, they do have the ability to provide investors with strong returns and excellent diversification benefits. However, they can also be very volatile and can quickly deteriorate the value of a portfolio if used improperly. Because the average 401(k) participant is not a sophisticated investor, these types of investments are typically not appropriate.

Q: Why are some specialty funds not scored?

RPAG scores funds against broad and universal benchmarks, which aim to be representative of each asset class. However, RPAG does not score every asset class. It can prove difficult to identify representative benchmarks for specialty asset classes due to their highly concentrated and unique nature. In many of these asset classes there are only a handful of funds are available, which makes the peer group analysis of these funds challenging. For these reasons, specialty funds remain non-scored within our system. All non-scored asset classes are filtered into the two specialty categories: Specialty and Specialty Fixed Income. Usage of these non-scored asset classes require additional due diligence and monitoring.

Q: Why are some Target Date funds out of order?

If a target date series seems to be out of order in relation to the risk spectrum, chances are the series is a mix of scored and non-scored portfolios. All RPAG scored funds are categorized in their appropriate risk bucket, based on their 5-year standard deviation. The non-scored target date funds are placed in default risk buckets, based on their target year. As all the portfolios meet their 5-year mark, one should see a normalized order up the risk spectrum.

Frequently Asked Questions

Q: Style Analysis – what is the difference between Return-based and Holding-based?

Return-based style analysis (RBSA) draws from Bill Sharpe's style analysis model, which stipulates that a manager's investment style can be determined by comparing the returns on his portfolio with those of a certain number of selected indices. Through quadratic optimization modeling, RBSA is an effective way to test whether a fund maintains its professed style mandate. RBSA examines a fund's style over a period of time and tells us how the portfolio's returns behave, rather than the stocks the portfolio is actually holding (holding-based).

Holding-based style analysis consists of analyzing each of the securities that make up the portfolio. The securities are studied and ranked according to the different characteristics that allow their style to be described. The results are aggregated at the portfolio level to obtain the style of the entire portfolio. Where RBSA is typically applied over a specified period, holding-based style analysis is typically conducted at a single point in time. Overall, this is a more tedious and time-consuming approach. Holding-based is more of an accounting-driven approach, which stresses characteristics and categorization, rather than return behavior.

Reasons why RPAG uses return-based over holding-based style analysis:

1. **RBSA is easier to conduct**. All that is needed is the portfolio's return stream and a representative set of indices for analysis.
2. **Period-of-Time vs. Snapshot**. RBSA looks at the portfolio over a period of time. Holding-based is a snapshot of a single point in time.
3. **Better predictor.** If the aim is to predict a fund's future returns (in a certain style), factor exposures seem to be more relevant than actual portfolio holdings. This reasoning gives advantage to RBSA.

Frequently Asked Questions

Q: Explain the Risk/Return Analytics for active funds.

30% of an active fund’s total score is attributed to the following risk/return analytics:

1. **Risk/Return**: To pass this analytic, a particular fund must showcase favorable risk/return characteristics against the benchmark.

2. **Up/Down Market Capture**: The up and down capture is a measure of how well a manager was able to replicate or improve on phases of positive benchmark returns, and how badly the manager was affected by phases of negative benchmark returns. To pass this analytic, a fund must have an up market capture greater than its down market capture. This ratio is a measure of the percentage of the benchmark performance by the fund.

3. **Information Ratio**: The Information Ratio (IR) is a quick and telling analytic, which measures a manager or fund’s added value over the market (index). The Scorecard’s IR is calculated by dividing the fund’s 5-year annualized excess return by its annualized excess standard deviation (tracking error). A positive IR indicates that the manager is yielding an excess return over the benchmark. The denominator (excess standard deviation or tracking error) is adjusting for risk, so the higher the ratio, the better.

    - A higher IR indicates that the fund is adding more value at lower levels of additional risk. To pass this analytic, a fund must have a positive IR, but remember the stronger (higher) the ratio, the better.
        - *Information Ratio = Annualized Excess Return / Tracking Error*
    - One may think that IR sounds like the Sharpe Ratio. Both ratios measure a fund’s risk/return characteristics; however, Information Ratio is calculated relative to a benchmark. If one has a good benchmark for analysis, then the IR will bring greater value to the analysis.
        - *Sharpe Ratio = (Return –Risk Free Rate) / Standard Deviation*

Frequently Asked Questions

Q: Explain Style Analytics for active funds.

Thirty percent (30%) of an active fund's total score is attributed to style (Average Style, Style Drift, R-Squared).

1. **Average Style**: This is the average style over the latest 5-year period. RPAG calculates a fund's style through Bill Sharpe's return-based analysis. A fund passes and earns a point if its 5-year average style plots in the area representative of its stated or professed style. The analytics displayed in the Scorecard represent the fund's coordinates on the style map.
2. **Style Drift**: This analytic is using the same return-based style analysis as Average Style. However, instead of calculating one point, RPAG plots out multiple rolling windows. Style drift is calculated over a 5-year period, using 36-month rolling windows. RPAG utilizes rolling windows to analyze the volatility, or consistency/inconsistency of a fund's style. Style consistency is desired so that funds can be effectively monitored within their designated asset class. A relatively low number for style drift is desirable. If a fund falls under the style drift tolerance for a given asset class, then it will receive 1 point for passing this analytic. A drift over its tolerance will cause no points to be rewarded for Style Drift. The drift score on the Scorecard is simply a weighted measurement of style consistency/inconsistency over the 5-year period.
3. **R-Squared**: R-Squared measures the percentage of the fund's movement that is explained by the benchmark. The hurdle rate for a fund to pass this analytic is to have a R2 greater than 80%. A low R2 will bring question to whether the benchmark used is appropriate. If RPAG analyzes a fund to an inappropriate benchmark, one must question the relevancy of the fund's risk/return factors displayed in the Scorecard.

Frequently Asked Questions

Q: Explain Style Benchmarks for Asset Allocation funds.

RPAG creates unique returns-based Style Benchmarks for asset allocation funds for many of the same reasons why we categorize these funds into our own categories. Each fund has unique properties and weightings to different asset classes, making comparisons to a universal benchmark ineffective. RPAG constructs its benchmarks using four indices in the following categories; Domestic Equity, International Equity, Fixed Income, and Cash. RPAG performs a returns-based analysis to produce the returns-based style composition of the fund. This returns-based composition (Style Diversity) is used to create a blended Style Benchmark (and its corresponding performance). Our Style Benchmarks are comprised of the following indices: Russell 3000 (Domestic Equity); MSCI EAFE (International Equity); BC US Aggregate Bond (Fixed Income); and Citigroup 3-Month T-Bill (Cash).

Q: What is Style Diversity?

A fund's Style Diversity is the returns-based composition of a fund. A fund's Style Diversity provides the weightings for its benchmark. To pass this analytic, the style diversity composition (below on the right) must meet the style diversity criteria(below on the left) for its appropriate risk bucket. All four categories (US Equity, International Equity, Fixed Income, and Cash) must meet the corresponding criteria range. Fail one component and the portfolio fails the Style Diversity analytic. The Style Diversity Criteria ranges are determined by RPAG's investment department and is based on appropriate levels of diversification.