

# INVESTMENT ANALYSIS SCORECARD: ACTIVE METHODOLOGY

LPL Financial Research

## Overview of Scorecard and Methodology

- Helps establish and monitor your plan's investment lineup through a process that's consistent, simple yet sophisticated, and repeatable
- Assists you and advisor in fulfilling fiduciary responsibilities under ERISA
- Reviews data from the past 5 years and analyzes 12 equally rated factors using a pass-fail system

10+ points

➔ Investment is Suitable

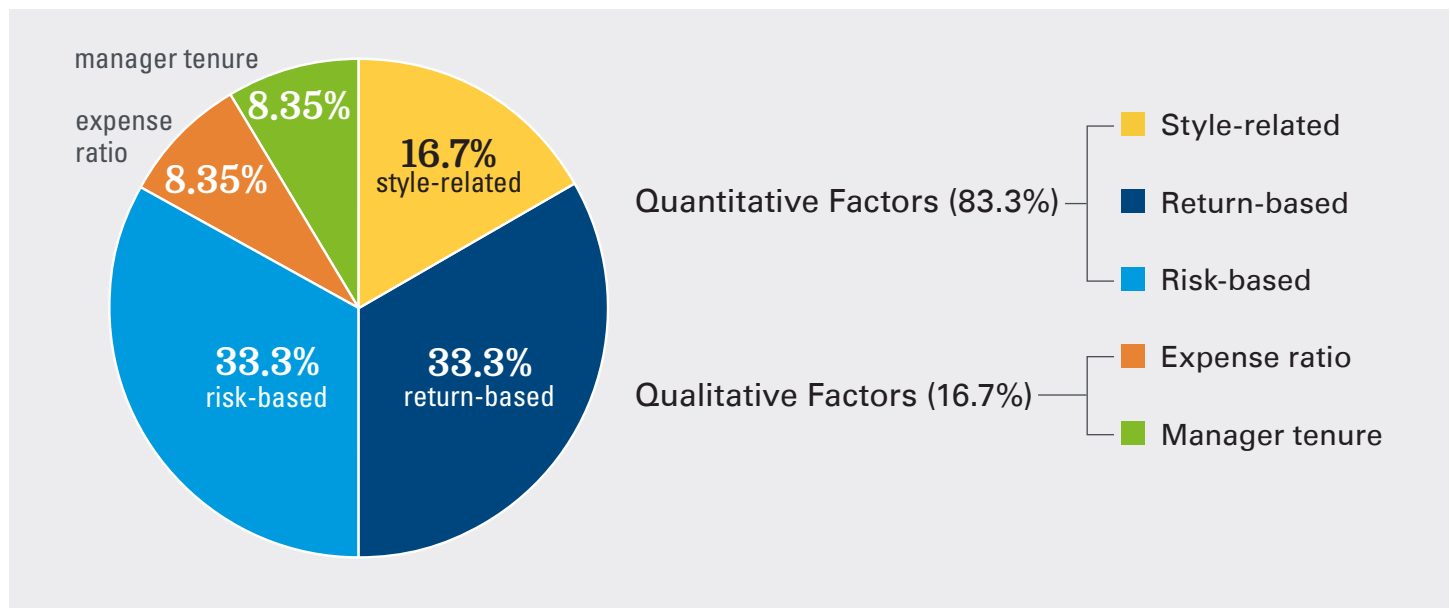
7-9 points

➔ Investment is Acceptable



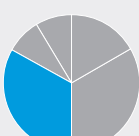
6 points or less

➔ Investment is placed on Watch List

**Note:** While this score is intended to help you evaluate plan investments, it does not constitute a specific recommendation or advice and should not be the sole factor in selecting investments for your plan.





# Quantitative Factors Explained

Factor/Weight	Definition	Pass-Fail Scoring
<b>Style-related</b> <b>16.7% of total</b> 	Factors measure the consistency of adherence to the Morningstar fund category in which it falls (e.g., Growth, Value, Blend, Large Cap, Mid-Cap or Small Cap), as well as how closely correlated the investment's returns are with its benchmark index.	<b>5-year consistency:</b> 1 point if style consistency < 29. Pass implies divergence from stated style or objective is minimal.  <b>5-year R-squared:</b> 1 point if R-squared is at least 80%. Pass implies that investment's return moves in the direction of its index at least 80 % of the time.
<b>Return-based</b> <b>33.3% of total</b> 	Factors measure an investment's demonstrated ability to outperform relative to its peers, as well as its ability to capture more return in up markets than it does in down markets.	<b>1-, 3-, &amp; 5-year return:</b> 1 point each if investment outperformed peer-group median. Pass implies that the investment has outperformed more than half of its category peers.  <b>5-year up/down capture:</b> 1 point if up capture > down capture. Pass implies investment captures more when market is up than when it is down.
<b>Risk-based</b> <b>33.3% of total</b> 	Factors quantify the amount of return an investment generated relative to an index, and the amount of risk it took to generate that return.	<b>3- &amp; 5-year information ratio:</b> 1 point each if the ratio > 0. Pass implies that investment outperformed its benchmark index.  <b>3- &amp; 5-year beta:</b> 1 point each if beta is between 0.75 and 1.15. Pass implies manager is taking risk within 75% and 115% of benchmark index.

Please refer to **Glossary of Selected Statistics** on the next page.

# Qualitative Factors Explained

Factor/Weight	Definition	Pass-Fail Scoring
<b>Expense Ratio</b> <b>8.35% of total</b> 	The expense ratio measures the cost of of the investment. Total fees reduce the return captured by the investor.	<b>Net expense ratio:*</b> 1 point if the ratio is ≤ category average. Pass implies that the investment charges no more than the average of all others in that category.
<b>Manager Tenure</b> <b>8.35% of total</b> 	Manager tenure is important when reviewing track record. You want to know that the track record being reviewed is one from the current management team.	<b>Longest tenured manager:</b> 1 point if the tenure of longest tenured manager is > 5 years, OR > category average (whichever is shorter). Pass implies that manager has been in place for relatively long time.

\* For Separate Accounts the "1st Management Fee/CAC (%)" is used instead of Net Expense ratio due to their unique expense structure. These investments are scored against the Separate Account peer group, not the open end mutual fund peer group.

# Glossary of Selected Statistics

**Beta** –A measure of volatility, or systematic risk, of a security or a portfolio comparison to the market as a whole. A Beta of 1.00 means that a portfolio’s risk is at parity with the market benchmark associated with that portfolio. A Beta less than 1.00 means that a portfolio is less volatile than the market, a Beta over 1.00 means a portfolio is more volatile/risky than the market. A Beta range of 0.75 –1.15 will earn a point within the scoring system.

**Information ratio (“IR”)** –A measure of risk-adjusted return that is more commonly used by institutional clients than Sharpe ratio. The higher the IR, the better the investment’s risk-adjusted return. IR is defined as the annualized excess return divided by the tracking error. Investments with a positive IR receive a favorable score on the scorecard.

**R-squared** – A statistic that measures how well the investment tracks the benchmark index. For example, an R-squared statistic of 90% indicates that 90% of the movement in the investment can be explained by the movement in the underlying benchmark index. The scorecard compares the investment’s R-squared to 80%.

**Standard deviation** - A measure of the dispersion of a set of performance data from its mean. The greater the range of returns, the higher the standard deviation. Standard deviation is calculated to measure the volatility of a fund’s returns which is an indicator of a fund’s performance consistency and is also used as a measurement of a portfolio’s risk.

**Style consistency** statistic calculated within Morningstar Direct, style consistency measures the change of a portfolio’s weighting in each underlying asset class over a period of five years broken up into 36-month rolling windows. Style consistency measures the variability of a portfolio’s style through time. For instance, a style consistency of 0 demonstrates quarterly rebalancing of a fund’s underlying holdings to their original target weightings. A style consistency statistic of 11.33 indicates moderate variability in a fund’s underlying securities weightings. A style consistency value less than 29 will earn a point on the scorecard. The Style Consistency Metric is derived as follows:

- High: Style Consistency Metric less than 9
- Medium: Style Consistency Metric between 9 and 29
- Low: Style Consistency Metric greater than 29

The breakpoints of 9 and 29 are static following a 20-60-20 rule. That is, roughly 60% of portfolios will be labeled as Medium, and 20% each as Low and High.

The Style Consistency Metric measures the extent of historical portfolio/strategy movement in both the value-growth (X axis) and size (Y axis) dimensions. Investments with low scores are considered more consistent, while investments with high scores are considered less consistent. The metric is calculated by taking the standard deviation of SQRT (Value-Growth Score<sup>2</sup> + Size Score<sup>2</sup>) of all available portfolios from the past five years broken up into 36-month rolling windows. When the number of eligible portfolios is fewer than six, no calculation will be made. The Value-Growth Score can be interpreted as a valuations multiple, like P/E. Size Score is market cap (small cap, mid cap, large cap, etc.). A similar approach is taken for fixed income, however credit quality and maturity are used as either axis.

**Up capture, down capture** – Up capture reflects how the investment has historically performed relative to the benchmark index in an up market. For example, an investment with an up capture of 110 has returned 110% of the benchmark index return in up market cycles. Similarly, down capture measures the investments historical relative performance in down markets. The scorecard measures up capture relative to down capture, giving a favorable score if up capture is greater than down capture.

## IMPORTANT DISCLOSURES

This material is for informational purposes only and is not intended to provide specific advice or recommendations. This information is not intended as authoritative guidance or tax or legal advice. You should consult with your attorney or tax advisor for guidance on your specific situation.

Indices are unmanaged and cannot be invested into directly. Unmanaged index returns do not reflect fees, expenses, or sales charges. Index performance is not indicative of the performance of any investment. Past performance is no guarantee of future results.

Investing in mutual funds involves risk, including loss of principal. No strategy assures success or protects against loss.

Peer groups based on Morningstar category.

**Not FDIC or NCUA Insured | No Bank or Credit Union Guarantee | May Lose Value  
Not Insured by any Federal Government Agency | Not a Bank or Credit Union Deposit**