

# Fi360 Fiduciary Score® Methodology



## WHAT IS THE FI360 FIDUCIARY SCORE®?

The Fi360 Fiduciary Score® (Score) is an investment rating system born out of Practice 3.3 in the Prudent Practices for Investment Fiduciaries handbook series. It helps quickly identify a short list of investments that merit continued research in the selection process. It also facilitates the ongoing monitoring process by highlighting investments that exhibit potential deficiencies.

The Score evaluates investments on eleven different criteria to determine if a minimum fiduciary standard of care is being met. The criteria include: track record, assets in the investment, stability of the organization, composition consistent with asset class, style consistency, expense ratio/ fees relative to peers, risk-adjusted performance relative to peers (alpha and sharpe), and performance relative to peers (1yr, 3yr and 5yr time horizons).

The Score is a flash-report on a selected investment. It is a useful tool for investment decision-makers to identify and monitor investments as a part of their due diligence process. The Fi360 Fiduciary Score® represents an objective means of comparing investments according to set criteria and is not intended, nor should it be used as the sole source of information for reaching an investment decision.

## CALCULATING THE FI360 FIDUCIARY SCORE®

The Fi360 Fiduciary Score® is a peer percent ranking of an investment against a set of quantitative due diligence criteria selected to reflect prudent fiduciary management. The Fi360 Fiduciary Score® is calculated on a monthly basis for investments with at least a three-year history. The Score is calculated for open end mutual funds, exchange-traded funds (ETFs), group retirement plan annuities (GRPAs), and collective investment trusts (CITs).

The Mutual Fund and ETF Fi360 Fiduciary Score® is calculated against a combined peer group including both databases. The GRPA Fi360 Fiduciary Score® is calculated against a combined peer group including mutual funds, ETFs and GRPAs. The CIT Fi360 Fiduciary Score® is calculated as an overlay against the Mutual Fund and ETF Fi360 Fiduciary Score®.

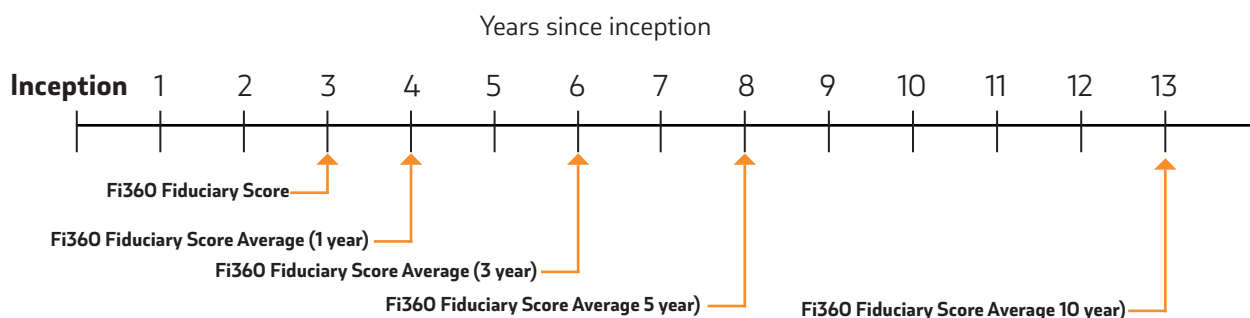
The Fi360 TDF Series Fiduciary Score™ is an equal-weighted average of a target date series', linked by strategy, share- class, and underlying vintages' (i.e. 2030, 2035, 2040, etc) Scores. It is not normalized as a percentile ranking, but rather an average of the representative series' collective scores. All investment data is sourced from Morningstar.

Each investment is then evaluated against a set of factors and thresholds and allotted points as described in the Criteria section of this document. The points are totaled and compared to all other investments within the peer group. Investments with 0 points are automatically given an Fi360 Fiduciary Score® of 0. Every other investment is then given a Score of 1-100, representing their percent ranking based on its placement in the distribution of their peer group.

For example, an investment with an Fi360 Fiduciary Score® of 37 means it scores in the 37th percentile of its peers. An Fi360 Fiduciary Score® of 0 is most favorable. It represents that an investment meets or exceeds all of Broadridge Fi360 Solutions' recommended due diligence thresholds. A Score of 100 is least favorable.

## CALCULATION TIMELINE

The minimum track record criterion states that an investment must have three years of history before the Fi360 Fiduciary Score® can be calculated. Once that threshold has been passed, the Fi360 Fiduciary Score® will be available and the history required for the Average Score will also begin to accrue. After an investment accrues one year of Score history, the Fi360 Fiduciary Score® Average (1 year) will be available. That pattern extends to the other Average Score calculations, as shown below.



## CALCULATING THE FI360 FIDUCIARY SCORE® AVERAGE

Because the averaging process utilizes consecutive, monthly data points, a missing period policy has been instituted to ensure that a missed data period will not prevent the calculation of an Average Score for an investment that otherwise has the requisite history. (bottom of page)

## CALCULATING THE FI360 FIDUCIARY SCORE® AVERAGE

The Fi360 Fiduciary Score® Average (Average Score) is a one-, three-, five- or ten-year rolling average of an investment's Fi360 Fiduciary Score®, calculated on a monthly basis.

Because the Average Score is a rolling average of the historical Fi360 Fiduciary Score®, an investment must have the requisite amount of history for each Average Score. If an investment does not have the required history, then the investment will not receive an Average Score for a given time period. This is first determined by examining the inception date of the investment's parent share class. If the investment has been in existence for three years PLUS the number of historical years used for the average, then the investment will have an Average Score for that time period. For example, if an investment has been in existence for six years, then the investment will have a Fi360 Fiduciary Score® Average for the one- and three-year time periods, but not for the five- and ten-year time periods.

## CALCULATION NOTES

- The Fi360 Fiduciary Score® process relies upon peer group comparison. Determining an investment's appropriate peer group or asset class is subjective. There is no uniform industry standard for determining a money manager's investment style or peer group, which makes it difficult to track some investments across different databases. Broadridge Fi360 Solutions utilizes data from Morningstar, Inc. in the calculation of the Fi360 Fiduciary Score® and therefore uses the Morningstar Category™ as the investment's peer group.
- To make the peer group analysis meaningful, the data set should be substantial enough to draw comparisons. With that in mind, Broadridge Fi360 Solutions requires that a peer group consists of at least five distinct investments, each with a minimum three-year history, in order to calculate a Score for the investments in that peer group. Investments within peer groups that do not meet the requirement will not receive a Score.

Fi360 Fiduciary Score® Average	Missing periods allowed
1 year	1
3 year	2
5 year	3
10 year	4

- Broadridge Fi360 Solutions also utilizes Morningstar Extended Performance data in its calculations. Investment share classes that don't have the history to receive an Fi360 Fiduciary Score® will receive a Score using their parent share class data adjusted for expenses. Regardless of the length of existence, an investment will only receive an Average Score after the appropriate amount of Score calculations have been tracked. Extended performance data will not “back-date” an Average Score for a brand new fund share class. *Note: Extended performance data was introduced with the 12.31.2010 calculations.*
- Given the variability for when CIT data is reported to Fi360 and the small universe of CITs available in many peer groups, Fi360 calculates all CIT rankings and the Fi360 Fiduciary Score as an overlay against their corresponding mutual fund and ETF peers. Any CITs in the leveraged net long peer group are overlaid against the Large Blend peer group as there are no mutual funds or ETFs in that peer group. Finally, no Fi360 Scores are provided for Stable Value CITs.



### FI360 FIDUCIARY SCORE® CRITERIA

The Fi360 Fiduciary Score® is a peer percent ranking of an investment against a set of quantitative due diligence criteria selected to reflect prudent fiduciary management. The Fi360 Fiduciary Score® should not be used as the sole source of information in an investment decision.

The investment should be managed by a bank, trust company, insurance company, registered investment company (mutual fund), or a registered investment adviser.

- Investments not registered or commingled are excluded from Broadridge Fi360 Solutions' calculations

### Minimum Track Record:

The investment should have at least three- years of history so that performance statistics can be properly calculated

- Investments without the requisite 3-year history are excluded from Broadridge Fi360 Solutions' calculations

### Stability of the Organization

The same portfolio management team should be in place for at least two years. In a management team setting, the most senior manager's reported tenure is used.

- 5 points if there has been manager turnover in the past two years
- 10 points if there has been manager turnover in the past year

### Assets in the Investment:

The investment should have at least \$75 million under management (across all share classes).

- 5 points if the investment has less than \$75 million in assets
- 10 points if the investment has less than \$50 million in assets

### Composition Consistent with Asset Class

At least 80% of the investment's underlying securities should be consistent with the broad asset class. For example, a Large-Cap Growth investment should not hold more than 20% in cash, fixed income, and/or international securities.

- 10 points if more than 20% of the portfolio is inconsistent with the broad asset class

Note: The broad asset classes used in the composition criterion include: U.S. Stocks, U.S. Bonds, and Non-U.S. Stocks. The Long-Short peer group is evaluated on the U.S. Stock and cash composition.

### Style Consistency:

The investment should be highly correlated to the asset class of the investment option, i.e., the Morningstar Style Box™ for the current period must match the peer group of the investment.

- 10 points if the investment is not correlated to its peer group

### Expense Ratios/Fees Relative to Peers:

The investment's fees should not be in the bottom quartile (most expensive) of their peer group. The Prospectus Net Expense Ratio is used for the evaluation of mutual funds and ETFs. If the investment is purchased within a group annuity product, any recordkeeping fees added to the underlying fund expense ratios by the group annuity provider are not included in the ratio. The management fee is used in the evaluation of GRPAs.

It is the maximum percentage deducted from an investment's average net assets to pay an advisor or sub-advisor.

- 10 points if the investment's expense ratios in the bottom quartile

### Risk-adjusted Performance Relative to Peers:

The investment's risk-adjusted performance (Alpha and Sharpe Ratio) should be above the peer group median manager's risk-adjusted performance. (Alpha is not evaluated for Money Market and Money Market Taxable peer groups.)

- 2.5 points if the risk-adjusted performance is in the third quartile
- 5.0 points if the risk-adjusted performance is in the fourth quartile
- 7.5 points if the risk-adjusted performance is in the bottom decile
- 7.5 points if not calculated

### Performance Relative to Peers:

The investment's performance should be above the peer group's median manager return for 1-, 3-, and 5-year cumulative periods.

#### One-year performance relative to the median value for the peer group:

- 2.5 points if in the third quartile
- 5.0 points if in the fourth quartile
- 7.5 points if in the bottom decile
- 7.5 points if not calculated

#### Three-year performance relative to the median value for the peer group:

- 5.0 points if in the third quartile
- 7.5 points if in the fourth quartile
- 10.0 points if in the bottom decile
- 10.0 points if not calculated

#### Five-year performance relative to the median value for the peer group:

- 7.5 points if in the third quartile
- 10.0 points if in the fourth quartile
- 12.5 points if in the bottom decile

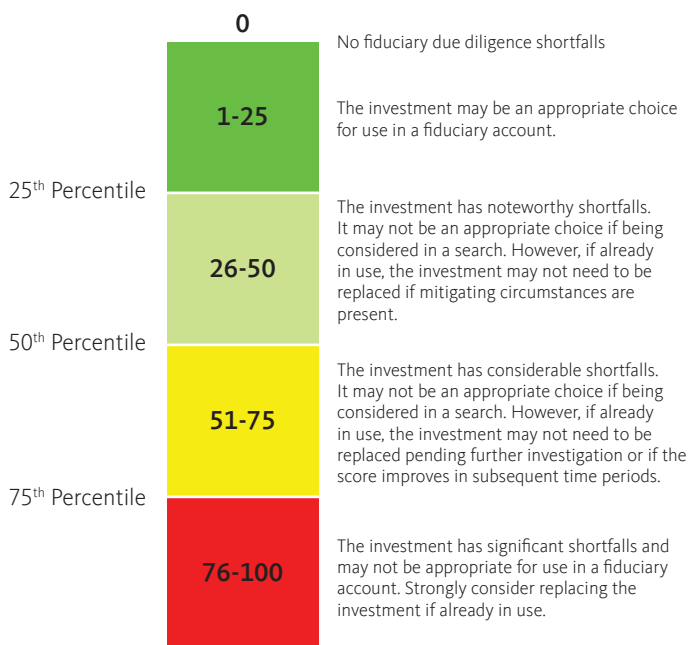
#### If the investment does not have a five-year performance history:

- 7.5 points if the three-year performance is in the third quartile
- 10.0 points if the three-year performance is in the fourth quartile

- 12.5 points if the three-year performance is in the bottom decile
- 12.5 points if the three-year performance not calculated

### FI360 FIDUCIARY SCORE® RANGE

The Fi360 Fiduciary Score® bar chart provides a visual representation of the investment's Score. The following thresholds provide the user with an easy-to-view assessment of the investment and suggested course of action.



The Fi360 Fiduciary Score® represents an objective means of comparing investments according to set criteria and is not intended, nor should it be used as the sole source of information for reaching an investment decision.



## APPENDIX

### Composition consistent with asset class

This criterion is only applied to investments in the following peer groups: Large Value, Large Blend, Large Growth, Mid-Cap Value, Mid-Cap Blend, Mid-Cap Growth, Small Value, Small Blend, Small Growth, Long Government, Long-term Bond, Intermediate Government, Intermediate Core Bond, Muni National Long, Muni Single State Long, Muni National Interm, Diversified Emerging Mkts, Europe Stock, Diversified Pacific/Asia, Pacific/Asia ex-Japan Stk, Japan Stock, Latin America Stock, Foreign Large Value, Foreign Large Blend, Foreign Large Growth, Foreign Small/Mid Value, Foreign Small/Mid Growth, China Region, Muni California Long, Muni California Intermediate, Muni New York Intermediate, Muni New York Long, Muni New York Intermediate, Muni Single State Interm, Inflation-Protected Bond, Intermediate Core-Plus Bond, Target Maturity, Muni Target Maturity and Long-Short.

### Style consistency

This criterion is only applied to investments in the following peer groups: Large Value, Large Blend, Large Growth, Foreign Large Value, Foreign Large Blend, Foreign Large Growth, Foreign Small/Mid Value, Foreign Small/Mid Growth, Mid-Cap Value, Mid-Cap Blend, Mid-Cap Growth, Small Value, Small Blend, Small Growth, Long Government, Intermediate Government, Short Government, Long-term Bond, Intermediate Core Bond, Intermediate Core-Plus, Short-term Bond, High Yield Bond, Muni California Long, Muni California Intermediate, Muni National Long, Muni National Interm, Muni Short, Muni New York Long, Muni New York Intermediate, Muni Single State Long, Muni Single State Interm, and Inflation-Protected Bond.

### Risk-adjusted performance relative to peers

Morningstar calculates the Alpha and Sharpe Ratios used in the evaluation. Alpha is calculated using one of the nine broad asset class indexes shown below.

Broad Asset Class	Broad Asset Class Index
U.S. Equity	S&P 500 TR USD
International Equity	MSCI EAFE NR USD
Municipal Bond	BarCap Municipal TR USD
Allocation	Morningstar Moderate Target Risk
Taxable Bond	BarCap US Agg Bond TR USD
Commodities	Morningstar Long-Only Commodity TR
Money Market	USTREAS T-Bill Auction Ave 3 Mon
Sector Equity	MSCI World NR USD
Alternative	MSCI ACWI NR USD

The broad asset classes shown on the previous page correspond to the peer groups in the following manner:

### Alternative

- Bear Market
- Multicurrency
- Single Currency
- Long-Short Credit
- Long-Short Equity
- Market Neutral
- Multialternative
- Managed Futures
- Option Writing
- Volatility
- Trading--Leveraged Commodities
- Trading--Inverse Commodities
- Trading--Leveraged Debt
- Trading--Inverse Debt
- Trading--Leveraged Equity
- Trading--Inverse Equity
- Trading--Miscellaneous

### International Equity

- Foreign Large-Value
- Foreign Large-Blend
- Foreign Large Growth
- Foreign Small/Mid-Value
- Foreign Small/Mid-Blend
- Foreign Small/Mid-Growth
- World Stock
- Diversified Emerging Markets
- Diversified Pacific/Asia
- Miscellaneous Region
- Europe Stock
- Latin America Stock
- Pacific/Asia ex-Japan Stock
- China Region
- India Equity
- Japan Stock

### Sector Equity

- Communications
- Consumer Cyclical
- Consumer Defensive
- Energy Limited Partnership
- Equity Energy
- Equity Precious Metals
- Financial
- Global Real Estate
- Health
- Industrials
- Infrastructure
- Natural Resources
- Real Estate
- Technology
- Utilities
- Miscellaneous Sector

### Allocation

- Allocation -- 15% to 30% Equity
- Allocation -- 30% to 50% Equity
- Allocation -- 50% to 70% Equity
- Allocation -- 70% to 85% Equity
- Allocation -- 85% + Equity
- Convertibles
- World Allocations
- Tactical Allocations
- Target-Date 2000-2010
- Target-Date 2015
- Target-Date 2020
- Target-Date 2025
- Target-Date 2030
- Target-Date 2035
- Target-Date 2040
- Target-Date 2045
- Target-Date 2050
- Target-Date 2055
- Target-Date 2060+
- Target-Date Retirement

## Municipal Bond

- Muni National Long
- Muni National Intermediate
- Muni National Short
- High-Yield Muni
- Muni Single State Long
- Muni Single State Intermediate
- Muni Single State Short
- Muni California Long
- Muni California Intermediate
- Muni Massachusetts
- Muni Minnesota
- Muni New Jersey
- Muni New York Long
- Muni New York Intermediate
- Muni Ohio
- Muni Pennsylvania

## U.S. Equity

- Large Value
- Large Blend
- Large Growth
- Mid-Cap Value
- Mid-Cap Blend
- Mid-Cap Growth
- Small Value
- Small Blend
- Small Growth Leveraged Net Long

## Taxable Bond

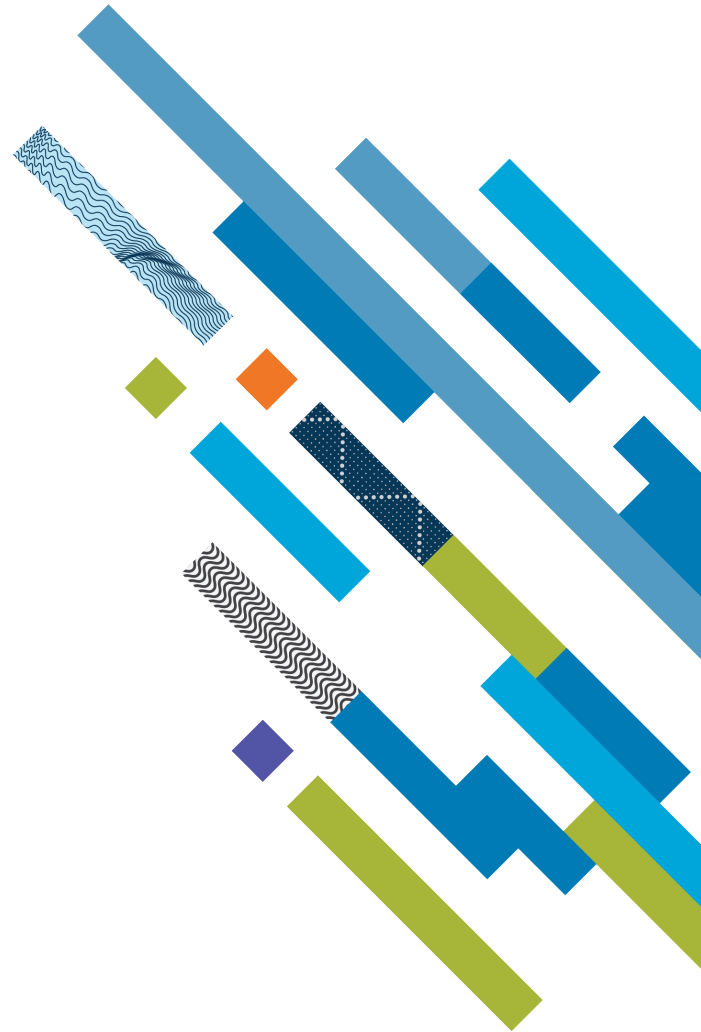
- Long Government
- Intermediate Government
- Short Government
- Inflation-Protected Bond
- Long Term Bond
- Intermediate Bond
- Short-Term Bond
- Ultrashort Bond
- Bank Loan
- Stable Value
- Corporate Bond
- Preferred Stock
- High-Yield Bond
- Multisector Bond
- World Bond
- NonTraditional Bond
- Emerging-Markets Bond
- Emerging-Markets Local Currency Bond

## Commodities

- Commodities Agriculture
- Commodities Broad Basket
- Commodities Energy
- Commodities Industrial Metals
- Commodities Miscellaneous
- Commodities Precious Metals

## Money Market

- Taxable Money Market
- Tax-Free Money Market
- Prime Money Market



Broadridge Financial Solutions (NYSE: BR), a global Fintech leader with over \$4.5 billion in revenues, provides the critical infrastructure that powers investing, corporate governance and communications to enable better financial lives. We deliver technology-driven solutions to banks, broker-dealers, asset and wealth managers and public companies. Broadridge's infrastructure serves as a global communications hub enabling corporate governance by linking thousands of public companies and mutual funds to tens of millions of individual and institutional investors around the world. In addition, Broadridge's technology and operations platforms underpin the daily trading of on average more than U.S. \$10 trillion of equities, fixed income and other securities globally.

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