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Introduction

The Morningstar Category classifications were introduced in 1996 to help investors make meaningful comparisons between mutual funds. Morningstar found that the investment objective listed in a fund’s prospectus often did not adequately explain how the fund actually invested. For example, many funds claimed to be seeking “growth,” but some of those were investing in established blue-chip companies while others were investing in small-cap companies.

The Morningstar Category classifications solved this problem by breaking portfolios into peer groups based on their holdings. The categories help investors identify the top-performing funds, assess potential risk, and build well-diversified portfolios. Morningstar regularly reviews the category structure and the portfolios within each category to ensure that the system meets the needs of investors.

Morningstar assigns categories to all types of portfolios, such as mutual funds, variable annuities, and separate accounts. Portfolios are placed in a given category based on their average holdings statistics over the past three years. Morningstar’s editorial team also reviews and approves all category assignments. If the portfolio is new and has no history, Morningstar estimates where it will fall before giving it a more permanent category assignment. When necessary, Morningstar may change a category assignment based on recent changes to the portfolio.

The driving principles behind the classification system are as follows:

- Individual portfolios within a category invest in similar types of securities and therefore share the same risk factors (for example, style risk, prepayment risk).
- Individual portfolios within a category can, in general, be expected to behave more similarly to one another than to portfolios outside the category.
- The aggregate performance of different categories differs materially over time.
- Categories have enough constituents to form the basis for reasonable peer group comparisons.
- The distinctions between categories are meaningful to investors and assist in their pursuit of investing goals.

In the United States, Morningstar supports 122 categories, which map into nine category groups (U.S. equity, sector equity, allocation, international equity, alternative, commodities, taxable bond, municipal bond, and money market). The category group indexes and category indexes listed with each category are used in Morningstar’s tools and reports to show performance relative to a benchmark.
Category Review Process

Morningstar engages in a formal category review process twice each year, in May and November; additional reviews for funds less than one year old are also conducted in February and August.

The process begins with a quantitative filter that proposes category recommendations based upon the three-year trailing portfolio statistics, which are calculated from an investment’s reported holdings. There is a wealth of data used in this process, but the statistics examined coincide with the major portfolio components we use to define categories, such as asset allocation, market capitalization, value-growth score, and duration. The recommendations for changes to existing category assignment are then reviewed by the Manager Research analysts who accept or reject the system’s proposals. Our research team uses a mosaic approach when performing our qualitative assignment. Their decision is based on many factors, including, but not limited to: familiarity with the strategy of the portfolio managers and fund family, their understanding of current market forces, an appreciation for alternative strategies which may not be borne out adequately in our statistical calculations, and a desire to portray the most accurate picture of economic exposure possible.

After we propose a change to a fund’s category, we notify fund representatives for each investment. Category changes are sent to the fund’s advisor with ample time to challenge our opinion, and provide contravening information in a category appeal. Once an appeal is received the change is escalated and reviewed again by a second group of analysts.

In addition to the formal review processes, we accept category appeals throughout the year. Morningstar reviews all appeals, but generally rejects those that are based only upon a philosophical difference in the category definition. Successful appeals typically provide information demonstrating that our analysis is incomplete or inaccurate. These off-quarter reviews are reserved for mis-categorizations that are due to incorrect initial assignment for new funds, data errors, strategy changes, or missing or incomplete data. Regardless of when these requests are received, all category changes are made on the last business day of the month in which they are reviewed. Changes to the category assignment as a result of this process are typically available in products by the third business day of the month following the review period. Appeals can be submitted only by fund representatives, and not by third-parties. In the case that a category change was initiated by a Morningstar analyst, we will notify fund representatives and offer an appeal period.

Fund representatives may request an appeal form by emailing category@morningstar.com.
Changes

April 29, 2016
► Added Infrastructure; Emerging-Markets Local-Currency Bond; Target-Date 2060+; Option Writing; Long-Short Credit; Prime Money Market; Allocation — 15% to 30% Equity; Allocation — 85%+ Equity
► Renamed: Target Date 2051+ to Target-Date 2055; Conservative Allocation to Allocation — 30% to 50% Equity; Moderate Allocation to Allocation — 50% to 70% Equity; Aggressive Allocation to Allocation — 70% to 85% Equity;
► Added Morningstar Index assignments to categories
► Added Category Review Process section

April 30, 2014
► Added Energy Limited Partnership

October 31, 2013
► Added Corporate Bond, Preferred Stock and Tactical Allocation

April 30, 2013
► Re-named Currency to Multicurrency
► Added Single Currency
► Added Miscellaneous Region
► Re-named U.S. Broad Asset Class to U.S. Category Group and Global Broad Asset Class to Global Broad Category Group
► Renamed U.S. Category Groups (Balanced to Allocation, US Stock to US Equity, International Stock to International Equity, and Sector Stock to Sector Equity)

April 30, 2012
► Created the Sector Stock U.S. Broad Asset Class, and moved 14 categories from U.S. Stock, International Stock, and Alternative asset classes into this new asset class
► Re-launched Muni Single State Short
► Replaced Target-Date 2050+ with Target-Date 2051+
► Added India Equity, Foreign Small/Mid-Blend, Target-Date 2046-2050
► Re-named Muni-Short to Muni National Short

October 31, 2011
► Added Nontraditional Bond
► Replaced Consumer Staples with Consumer Defensive and Consumer Discretionary with Consumer Cyclical
Changes (continued)

April 30, 2011
► Replaced Long/Short with Long/Short Equity
► Added Multialternative, Volatility, Trading--Leveraged Commodities, Trading--Inverse Commodities, Trading--Leveraged Debt, Trading--Inverse Debt, Trading--Leveraged Equity, Trading--Inverse Equity, Trading—Miscellaneous

Sept. 30, 2010
► Added Aggressive Allocation and China Region, and made the Market Neutral category available to all universes
► Removed Muni Single State Short

June 30, 2009
► Added the Commodities broad asset class and six commodities categories: Broad Basket, Energy, Precious Metals, Agriculture, Industrial Metals, and Miscellaneous
► Added Consumer Discretionary, Consumer Staples, Equity Energy, and Industrials

Jan. 30, 2009
► Introduced Target-Date categories in five-year increments for years 2011-2050
► Added Retirement Income
► Added Miscellaneous Sector

July 31, 2008
► Added Global Real Estate and Currency
► Added the Alternative broad asset class
► Removed Muni Florida

Sept. 30, 2007
► Added Leveraged Net Long and Market Neutral to the separate accounts and custom funds databases

Feb. 28, 2006
► Added Inflation-Protected Bond, Long-Short, Target-Date 2000-2014, Target-Date 2015-2029, and Target-Date 2030+
► Added the Balanced broad asset class
Changes (continued)

May 31, 2004
- Replaced the Muni Single State Intermediate/Short category with two new categories: Muni Single State Intermediate and Muni Single State Short
- Added Stable Value category (currently used for custom funds and separate accounts only)

Sept. 30, 2003
- Replaced the Foreign Stock category with five new categories: Foreign Large Value, Foreign Large Blend, Foreign Large Growth, Foreign Small/Mid-Value, and Foreign Small/Mid-Growth

March 30, 2003
- Discontinued Domestic Hybrid and split into Conservative Allocation and Moderate Allocation
- Created Bear Market, Bank Loan, High Yield Muni, Muni Florida, Muni Pennsylvania, Muni Massachusetts, Muni New Jersey, Muni Ohio, and Muni Minnesota
- Name changes: International Hybrid to World Allocation, International Bond to World Bond
U.S. Equity

**Large Value**
Large-value portfolios invest primarily in big U.S. companies that are less expensive or growing more slowly than other large-cap stocks. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow).

- Category Group Index: S&P 500 TR
- Category Index: Russell 1000 Value TR USD
- Morningstar Index: Morningstar US Large Val TR USD

**Large Blend**
Large-blend portfolios are fairly representative of the overall US stock market in size, growth rates and price. Stocks in the top 70% of the capitalization of the US equity market are defined as large cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios tend to invest across the spectrum of US industries, and owing to their broad exposure, the portfolios’ returns are often similar to those of the S&P 500 Index.

- Category Group Index: S&P 500 TR
- Category Index: Russell 1000 TR USD
- Morningstar Index: Morningstar US Large Cap TR USD

**Large Growth**
Large-growth portfolios invest primarily in big U.S. companies that are projected to grow faster than other large-cap stocks. Stocks in the top 70% of the capitalization of the U.S. equity market are defined as large cap. Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields). Most of these portfolios focus on companies in rapidly expanding industries.

- Category Group Index: S&P 500 TR
- Category Index: Russell 1000 Growth TR USD
- Morningstar Index: Morningstar US Large Growth TR USD
Mid-Cap Value
Some mid-cap value portfolios focus on medium-size companies while others land here because they own a mix of small-, mid-, and large-cap stocks. All look for U.S. stocks that are less expensive or growing more slowly than the market. The U.S. mid-cap range for market capitalization typically falls between $1 billion and $8 billion and represents 20% of the total capitalization of the U.S. equity market. Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow).

Category Group Index: S&P 500 TR
Category Index: Russell Midcap Value TR USD
Morningstar Index: Morningstar US Mid Val TR USD

Mid-Cap Blend
The typical mid-cap blend portfolio invests in U.S. stocks of various sizes and styles, giving it a middle-of-the-road profile. Most shy away from high-priced growth stocks but aren’t so price-conscious that they land in value territory. The U.S. mid-cap range for market capitalization typically falls between $1 billion and $8 billion and represents 20% of the total capitalization of the U.S. equity market. The blend style is assigned to portfolios where neither growth nor value characteristics predominate.

Category Group Index: S&P 500 TR
Category Index: Russell Midcap TR USD
Morningstar Index: Morningstar US Mid Cap TR USD

Mid-Cap Growth
Some mid-cap growth portfolios invest in stocks of all sizes, thus leading to a mid-cap profile, but others focus on midsize companies. Mid-cap growth portfolios target U.S. firms that are projected to grow faster than other mid-cap stocks, therefore commanding relatively higher prices. The U.S. mid-cap range for market capitalization typically falls between $1 billion and $8 billion and represents 20% of the total capitalization of the U.S. equity market. Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields).

Category Group Index: S&P 500 TR
Category Index: Russell Mid Cap Growth TR USD
Morningstar Index: Morningstar US Mid Core TR USD
U.S. Equity (continued)

**Small Value**
Small-value portfolios invest in small U.S. companies with valuations and growth rates below other small-cap peers. Stocks in the bottom 10% of the capitalization of the U.S. equity market are defined as small cap. Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow).

- Category Group Index: S&P 500 TR
- Category Index: Russell 2000 Value TR USD
- Morningstar Index: Morningstar US Small Val TR USD

**Small Blend**
Small-blend portfolios favor U.S. firms at the smaller end of the market-capitalization range. Some aim to own an array of value and growth stocks while others employ a discipline that leads to holdings with valuations and growth rates close to the small-cap averages. Stocks in the bottom 10% of the capitalization of the U.S. equity market are defined as small cap. The blend style is assigned to portfolios where neither growth nor value characteristics predominate.

- Category Group Index: S&P 500 TR
- Category Index: Russell 2000 TR USD
- Morningstar Index: Morningstar US Small Cap TR USD

**Small Growth**
Small-growth portfolios focus on faster-growing companies whose shares are at the lower end of the market-capitalization range. These portfolios tend to favor companies in up-and-coming industries or young firms in their early growth stages. Because these businesses are fast-growing and often richly valued, their stocks tend to be volatile. Stocks in the bottom 10% of the capitalization of the U.S. equity market are defined as small cap. Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields).

- Category Group Index: S&P 500 TR
- Category Index: Russell 2000 Growth TR USD
- Morningstar Index: Morningstar US Small Growth TR USD
Leveraged Net Long
Leveraged net long portfolios seek income by establishing long and short positions in securities. The most common strategy for leveraged net long portfolios is to take long positions in securities that have been identified as attractive and short positions in securities that have been identified as overvalued. These portfolios typically hold long positions in securities with an aggregate value of up to 130% of its net assets. In addition, these portfolios will establish short positions in securities with a market value of up to 30% of its net assets. The net long exposure therefore remains 100%, but it is a leveraged exposure. This category is only used in Morningstar’s custom fund and separate account databases.

Category Group Index: S&P 500 TR
Category Index: Russell 3000 TR USD
Morningstar Index: Morningstar US Market TR USD
Communications
Communications portfolios concentrate on telecommunications and media companies of various kinds. Most buy some combination of cable television, wireless-communications, and communications-equipment firms as well as traditional phone companies. A few favor entertainment firms, mainly broadcasters, film studios, publishers, and online service providers.

Category Group Index: MSCI ACWI NR USD
Category Index: S&P 1500 Telecom Services TR
Morningstar Index: Morningstar US Commun Svc TR USD

Consumer Cyclical
Consumer cyclical portfolios seek capital appreciation by investing in equity securities of U.S. or non-U.S. companies in the consumer cyclical sector.

Category Group Index: MSCI ACWI NR USD
Category Index: S&P 1500 Cons Discretionary TR
Morningstar Index: Morningstar US Consumr Cyclicl TR USD

Consumer Defensive
Consumer defensive portfolios seek capital appreciation by investing in equity securities of U.S. or non-U.S. companies that are engaged in the manufacturing, sales, or distribution of consumer staples.

Category Group Index: MSCI ACWI NR USD
Category Index: S&P 1500 Cons Staples TR
Morningstar Index: Morningstar US Consumr Dfnsve TR USD

Energy Limited Partnership
Energy Limited Partnership funds invest a significant amount of their portfolio in energy master limited partnerships. These include but are not limited to limited partnerships specializing in midstream operations in the energy industry.

Category Group Index: MSCI ACWI NR USD
Category Index: Morningstar MLP Composite TR USD
Morningstar Index: Morningstar MLP Composite TR USD
Sector Equity (continued)

**Equity Energy**
Equity energy portfolios invest primarily in equity securities of U.S. or non-U.S. companies who conduct business primarily in energy-related industries. This includes and is not limited to companies in alternative energy, coal, exploration, oil and gas services, pipelines, natural gas services, and refineries.

- Category Group Index: MSCI ACWI NR USD
- Category Index: S&P 1500 Energy TR
- Morningstar Index: Morningstar US Energy TR USD

**Equity Precious Metals**
Precious-metals portfolios focus on mining stocks, though some do own small amounts of gold bullion. Most portfolios concentrate on gold-mining stocks, but some have significant exposure to silver-, platinum-, and base-metal-mining stocks as well. Precious-metals companies are typically based in North America, Australia, or South Africa.

- Category Group Index: MSCI ACWI NR USD
- Category Index: MSCI World/Metals & Mining NR USD
- Morningstar Index: None

**Financial**
Financial portfolios seek capital appreciation by investing primarily in equity securities of U.S. or non-U.S. financial-services companies, including banks, brokerage firms, insurance companies, and consumer credit providers.

- Category Group Index: MSCI ACWI NR USD
- Category Index: S&P 1500 Financials TR
- Morningstar Index: Morningstar US Financial Services TR USD

**Global Real Estate**
Global real estate portfolios invest primarily in non-U.S. real estate securities but may also invest in U.S. real estate securities. Securities that these portfolios purchase include: debt securities, equity securities, convertible securities, and securities issued by real estate investment trusts and REIT-like entities. Portfolios in this category also invest in real estate operating companies.

- Category Group Index: MSCI ACWI NR USD
- Category Index: S&P Global REIT TR USD
- Morningstar Index: Morningstar US Real Estate PR USD
Health
Health portfolios focus on the medical and health-care industries. Most invest in a range of companies, buying everything from pharmaceutical and medical-device makers to HMOs, hospitals, and nursing homes. A few portfolios concentrate on just one industry segment, such as service providers or biotechnology firms.
Category Group Index: MSCI ACWI NR USD
Category Index: S&P 1500 Health Care TR
Morningstar Index: Morningstar US Healthcare TR USD

Industrials
Industrial portfolios seek capital appreciation by investing in equity securities of U.S. or non-U.S. companies that are engaged in services related to cyclical industries. This includes and is not limited to companies in aerospace and defense, automotive, chemicals, construction, environmental services, machinery, paper, and transportation.
Category Group Index: MSCI ACWI NR USD
Category Index: S&P 1500 Industrials TR
Morningstar Index: Morningstar US Industrials TR USD

Infrastructure
Infrastructure equity funds invest more than 60% of their assets in stocks of companies engaged in infrastructure activities. Industries considered to be part of the infrastructure sector include: oil & gas midstream; waste management; airports; integrated shipping; railroads; shipping & ports; trucking; engineering & construction; infrastructure operations; and the utilities sector.
Category Group Index: MSCI ACWI NR USD
Category Index: DJ Brookfld Global Infra TR USD
Morningstar Index: Morningstar Gbl Eq Infra GR USD

Natural Resources
Natural-resources portfolios focus on commodity-based industries such as energy, chemicals, minerals, and forest products in the United States or outside of the United States. Some portfolios invest across this spectrum to offer broad natural-resources exposure. Others concentrate heavily or even exclusively in specific industries. Portfolios that concentrate primarily in energy-related industries are part of the equity energy category.
Category Group Index: MSCI ACWI NR USD
Category Index: S&P North American Natural Resources TR
Morningstar Index: Morningstar Gbl Upstm Nat Res TR USD
Sector Equity (continued)

Real Estate
Real estate portfolios invest primarily in real estate investment trusts of various types. REITs are companies that develop and manage real estate properties. There are several different types of REITs, including apartment, factory-outlet, health-care, hotel, industrial, mortgage, office, and shopping center REITs. Some portfolios in this category also invest in real estate operating companies.

Category Group Index: MSCI ACWI NR USD
Category Index: S&P United States REIT TR USD
Morningstar Index: Morningstar US Real Estate PR USD

Technology
Technology portfolios buy high-tech businesses in the U.S. or outside of the U.S. Most concentrate on computer, semiconductor, software, networking, and Internet stocks. A few also buy medical-device and biotechnology stocks, and some concentrate on a single technology industry.

Category Group Index: MSCI ACWI NR USD
Category Index: Morningstar SEC/Technology TR
Morningstar Index: Morningstar US Technology TR USD

Utilities
Utilities portfolios seek capital appreciation by investing primarily in equity securities of U.S. or non-U.S. public utilities including electric, gas, and telephone-service providers.

Category Group Index: MSCI ACWI NR USD
Category Index: S&P 1500 Utilities TR
Morningstar Index: Morningstar US Utilities TR USD

Miscellaneous Sector
Miscellaneous-sector portfolios invest in specific sectors that do not fit into any of Morningstar’s existing sector categories and for which not enough funds exist to merit the creation of a separate category.

Category Group Index: MSCI ACWI NR USD
Category Index: Morningstar US Market TR USD
Morningstar Index: Morningstar US Market TR USD
Allocation

**Allocation — 15% to 30% Equity**
Funds in allocation categories seek to provide both income and capital appreciation by investing in multiple asset classes, including stocks, bonds, and cash. These portfolios are dominated by domestic holdings and have equity exposures between 15% and 30%.

Category Group Index: Morningstar Moderate Target Risk TR USD
Category Index: Morningstar Con Tgt Risk TR USD
Morningstar Index: Morningstar Con Tgt Risk TR USD

**Allocation — 30% to 50% Equity**
Funds in allocation categories seek to provide both income and capital appreciation by investing in multiple asset classes, including stocks, bonds, and cash. These portfolios are dominated by domestic holdings and have equity exposures between 30% and 50%.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Mod Con Tgt Risk TR USD
Morningstar Index: Morningstar Mod Con Tgt Risk TR USD

**Allocation — 50% to 70% Equity**
Funds in allocation categories seek to provide both income and capital appreciation by investing in multiple asset classes, including stocks, bonds, and cash. These portfolios are dominated by domestic holdings and have equity exposures between 50% and 70%.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Mod Tgt Risk TR USD
Morningstar Index: Morningstar Mod Tgt Risk TR USD

**Allocation — 70% to 85% Equity**
Funds in allocation categories seek to provide both income and capital appreciation by investing in multiple asset classes, including stocks, bonds, and cash. These portfolios are dominated by domestic holdings and have equity exposures between 70% and 85%.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Mod Agg Tgt Risk TR USD
Morningstar Index: Morningstar Mod Agg Tgt Risk TR USD
Allocation (continued)

**Allocation — 85%+ Equity**
Funds in allocation categories seek to provide both income and capital appreciation by investing in multiple asset classes, including stocks, bonds, and cash. These portfolios are dominated by domestic holdings and have equity exposures of over 85%. These funds typically allocate at least 10% to equities of foreign companies and do not exclusively allocate between cash and equities.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Agg Tgt Risk TR USD
Morningstar Index: Morningstar Agg Tgt Risk TR USD

**Convertibles**
Convertible-bond portfolios are designed to offer some of the capital-appreciation potential of stock portfolios while also supplying some of the safety and yield of bond portfolios. To do so, they focus on convertible bonds and convertible preferred stocks. Convertible bonds allow investors to convert the bonds into shares of stock, usually at a preset price. These securities thus act a bit like stocks and a bit like bonds.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: BofAML Convertible Bonds All Qualities
Morningstar Index: Morningstar US Core Bd TR USD

**World Allocation**
World-allocation portfolios seek to provide both capital appreciation and income by investing in three major areas: stocks, bonds, and cash. While these portfolios do explore the whole world, most of them focus on the U.S., Canada, Japan, and the larger markets in Europe. It is rare for such portfolios to invest more than 10% of their assets in emerging markets. These portfolios typically have at least 10% of assets in bonds, less than 70% of assets in stocks, and at least 40% of assets in non-U.S. stocks or bonds.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Gbl Allocation TR USD
Morningstar Index: Morningstar Mod Tgt Risk TR USD
Tactical Allocation

Tactical Allocation portfolios seek to provide capital appreciation and income by actively shifting allocations across investments. These portfolios have material shifts across equity regions, and bond sectors on a frequent basis. To qualify for the tactical allocation category, the fund must have minimum exposures of 10% in bonds and 20% in equity. Next, the fund must historically demonstrate material shifts in sector or regional allocations either through a gradual shift over three years or through a series of material shifts on a quarterly basis. Within a three-year period, typically the average quarterly changes between equity regions and bond sectors exceeds 15% or the difference between the maximum and minimum exposure to a single equity region or bond sector exceeds 50%.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Mod Agg Tgt Risk TR USD
Morningstar Index: Morningstar Mod Tgt Risk TR USD

Target-Date 2000-2010

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2000-2010) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2010 TR USD
Morningstar Index: Morningstar Lifetime Mod 2010 TR USD

Target-Date 2015

Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2011-2015) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2015 TR USD
Morningstar Index: Morningstar Lifetime Mod 2015 TR USD
Target-Date 2020
Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2016-2020) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2020 TR USD
Morningstar Index: Morningstar Lifetime Mod 2020 TR USD

Target-Date 2025
Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2021-2025) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2025 TR USD
Morningstar Index: Morningstar Lifetime Mod 2025 TR USD

Target-Date 2030
Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2026-2030) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2030 TR USD
Morningstar Index: Morningstar Lifetime Mod 2030 TR USD
Target-Date 2035
Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2031-2035) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2035 TR USD
Morningstar Index: Morningstar Lifetime Mod 2035 TR USD

Target-Date 2040
Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2036-2040) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2040 TR USD
Morningstar Index: Morningstar Lifetime Mod 2040 TR USD

Target-Date 2045
Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2041-2045) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2045 TR USD
Morningstar Index: Morningstar Lifetime Mod 2045 TR USD
Allocation (continued)

Target-Date 2050
Target-date portfolios provide diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2046-2050) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2050 TR USD
Morningstar Index: Morningstar Lifetime Mod 2050 TR USD

Target-Date 2055
Target-date portfolios provide a diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the years 2051-2055 and beyond) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2055 TR USD
Morningstar Index: Morningstar Lifetime Mod 2055 TR USD

Target-Date 2060+
Target-date portfolios provide a diversified exposure to stocks, bonds, and cash for those investors who have a specific date in mind (in this case, the year 2060 and beyond) for retirement. These portfolios aim to provide investors with an optimal level of return and risk, based solely on the target date. Management adjusts the allocation among asset classes to more-conservative mixes as the target date approaches, following a preset glide path. A target-date portfolio is part of a series of funds offering multiple retirement dates to investors.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod 2060 TR USD
Morningstar Index: Morningstar Lifetime Mod 2060 TR USD
Target-Date Retirement
Target-Date Retirement portfolios provide a mix of stocks, bonds, and cash for those investors already in or entering retirement. These portfolios tend to be managed to more of a conservative asset-allocation strategy. These portfolios aim to provide investors with steady income throughout retirement.
Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Lifetime Mod Incm TR USD
Morningstar Index: Morningstar Lifetime Mod Incm TR USD
International Equity

Foreign Large-Value
Foreign large-value portfolios invest mainly in big international stocks that are less expensive or growing more slowly than other large-cap stocks. Most of these portfolios divide their assets among a dozen or more developed markets, including Japan, Britain, France, and Germany. These portfolios primarily invest in stocks that have market caps in the top 70% of each economically integrated market (such as Europe or Asia ex-Japan). Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow). These portfolios typically will have less than 20% of assets invested in U.S. stocks.
Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI ACWI Ex USA Value NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD

Foreign Large-Blend
Foreign large-blend portfolios invest in a variety of big international stocks. Most of these portfolios divide their assets among a dozen or more developed markets, including Japan, Britain, France, and Germany. These portfolios primarily invest in stocks that have market caps in the top 70% of each economically integrated market (such as Europe or Asia ex-Japan). The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios typically will have less than 20% of assets invested in U.S. stocks.
Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI ACWI Ex USA NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD

Foreign Large-Growth
Foreign large-growth portfolios focus on high-priced growth stocks, mainly outside of the United States. Most of these portfolios divide their assets among a dozen or more developed markets, including Japan, Britain, France, and Germany. These portfolios primarily invest in stocks that have market caps in the top 70% of each economically integrated market (such as Europe or Asia ex-Japan). Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields). These portfolios typically will have less than 20% of assets invested in U.S. stocks.
Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI ACWI Ex USA Growth NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD
International Equity (continued)

**Foreign Small/Mid-Value**
Foreign small/mid-value portfolios invest in international stocks that are smaller and less expensive than other stocks. These portfolios primarily invest in stocks that fall in the bottom 30% of each economically integrated market (such as Europe or Asia ex-Japan). Value is defined based on low valuations (low price ratios and high dividend yields) and slow growth (low growth rates for earnings, sales, book value, and cash flow). These portfolios typically will have less than 20% of assets invested in U.S. stocks.

Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI World Ex USA SMID NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD

**Foreign Small/Mid-Blend**
Foreign small/mid-blend portfolios invest in a variety of international stocks that are smaller. These portfolios primarily invest in stocks that fall in the bottom 30% of each economically integrated market (such as Europe or Asia ex-Japan). The blend style is assigned to portfolios where neither growth nor value characteristics predominate. These portfolios typically will have less than 20% of assets invested in U.S. stocks.

Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI World Ex USA SMID NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD

**Foreign Small/Mid-Growth**
Foreign small/mid-growth portfolios invest in international stocks that are smaller, growing faster, and higher-priced than other stocks. These portfolios primarily invest in stocks that fall in the bottom 30% of each economically integrated market (such as Europe or Asia ex-Japan). Growth is defined based on fast growth (high growth rates for earnings, sales, book value, and cash flow) and high valuations (high price ratios and low dividend yields). These portfolios typically will have less than 20% of assets invested in U.S. stocks.

Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI World Ex USA SMID NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD
International Equity (continued)

**World Stock**
World-stock portfolios have few geographical limitations. It is common for these portfolios to invest the majority of their assets in the U.S., Europe, and Japan, with the remainder divided among the globe’s smaller markets. These portfolios typically have 20%-60% of assets in U.S. stocks.

- Category Group Index: MSCI ACWI Ex USA NR USD
- Category Index: MSCI ACWI NR USD
- Morningstar Index: Morningstar Gbl Mkts GR USD

**Diversified Emerging Markets**
Diversified emerging-markets portfolios tend to divide their assets among 20 or more nations, although they tend to focus on the emerging markets of Asia and Latin America rather than on those of the Middle East, Africa, or Europe. These portfolios invest predominantly in emerging market equities, but some funds also invest in both equities and fixed income investments from emerging markets.

- Category Group Index: MSCI ACWI Ex USA NR USD
- Category Index: MSCI EM NR USD
- Morningstar Index: Morningstar EM GR USD

**Diversified Pacific/Asia**
Diversified Pacific/Asia stock portfolios have a wider investment range than other Asia-oriented portfolios. These portfolios can invest throughout the Pacific Rim, including Australia and New Zealand. As a result, country weightings for these portfolios vary tremendously, though most retain some exposure to Japan and Hong Kong. These portfolios invest at least 70% of total assets in equities and invest at least 75% of stock assets in Pacific countries, including at least 10% in Japan.

- Category Group Index: MSCI ACWI Ex USA NR USD
- Category Index: MSCI Pacific NR USD
- Morningstar Index: Morningstar Gbl Mkts xUS GR USD

**Miscellaneous Region**
Miscellaneous Region stock portfolios invest in countries or smaller regions that do not have their own category. They typically have a narrow geographical range.

- Category Group Index: MSCI ACWI Ex USA NR USD
- Category Index: MSCI ACWI Ex USA NR USD
- Morningstar Index: Morningstar Gbl Mkts xUS GR USD
International Equity (continued)

**Europe Stock**
Europe-stock portfolios invest at least 70% of total assets in equities and invest at least 75% of stock assets in Europe. Most of these portfolios emphasize the region's larger and more developed markets, including Britain, the Netherlands, Germany, France, and Switzerland. Many also invest in the region's smaller markets, including the emerging markets of eastern Europe.

Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI Europe NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD

**Latin America Stock**
Latin America stock portfolios invest almost exclusively in stocks from Latin America. Most of these portfolios strongly favor the area's large markets, specifically Brazil, Mexico, and Argentina. Smaller markets such as Peru or Colombia aren't generally as well-represented in these portfolios. These portfolios invest at least 70% of total assets in equities and invest at least 75% of stock assets in Latin America.

Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI EM Latin America NR USD
Morningstar Index: None

**Pacific/Asia ex-Japan Stock**
Pacific/Asia ex-Japan stock portfolios cover a wide geographic range. Most of these portfolios focus on export-oriented nations such as Hong Kong, Singapore, Taiwan, and Korea. These portfolios invest at least 70% of total assets in equities and invest at least 75% of stock assets in Pacific countries, with less than 10% in Japan.

Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI AC Far East Ex Japan NR USD
Morningstar Index: Morningstar Gbl Mkts xUS GR USD

**China Region**
China-region stock portfolios invest almost exclusively in stocks from China, Taiwan, and Hong Kong. These portfolios invest at least 70% of total assets in equities and invest at least 75% of stock assets in one specific region or a combination of China, Taiwan, and/or Hong Kong.

Category Group Index: MSCI ACWI Ex USA NR USD
Category Index: MSCI China NR USD
Morningstar Index: None
International Equity (continued)

**India Equity**
India-stock portfolios emphasize companies based in India. These portfolios invest at least 70% of total assets in equities and invest at least 75% of stock assets in India.

- Category Group Index: MSCI ACWI Ex USA NR USD
- Category Index: MSCI India NR USD
- Morningstar Index: None

**Japan Stock**
Japan-stock portfolios emphasize companies based in Japan. The Japanese stock market is one of the largest in the world, so these portfolios' holdings vary significantly. Some portfolios concentrate on Japan's larger companies, while others concentrate on the nation's smaller firms. These portfolios invest at least 70% of total assets in equities and invest at least 75% of stock assets in Japan.

- Category Group Index: MSCI ACWI Ex USA NR USD
- Category Index: MSCI Japan NR USD
- Morningstar Index: None
Alternative

**Bear Market**
These funds dedicate a majority of the fund’s assets to equities. Most of the portfolio is dedicated to short stock positions in an attempt to take advantage of anticipated market or stock declines producing a net exposure to equities of less than or equal to negative 20%. Some managers invest the proceeds from their short positions in low-risk assets, while others dedicate a portion to long stock positions in order to hedge against broad market rallies. In the event of a broad market rally, these funds will lose money on their short positions but will experience a gain on their long positions. Short positions typically account for 60% to 85% of fund active exposure, although some funds may be 100% short after excluding regulatory collateral. These funds will typically have a beta of less than negative 0.3 to equity indexes such as the S&P 500 or MSCI World.

Category Group Index: S&P 500 TR USD
Category Index: S&P 500 TR USD
Morningstar Index: Morningstar US Market TR USD

**Multicurrency**
Currency portfolios invest in multiple currencies through the use of short-term money market instruments; derivative instruments including and not limited to forward currency contracts, index swaps, and options; and cash deposits. These funds include both systematic currency traders and discretionary traders.

Category Group Index: BofAML USD LIBOR 3 Mon CM
Category Index: Morningstar Gbl Lng/Shrt Curr TR USD
Morningstar Index: Morningstar Gbl Lng/Shrt Curr TR USD

**Single Currency**
Currency portfolios invest in a single currency through the use of short-term money market instruments; derivative instruments including and not limited to forward currency contracts, index swaps, and options; and cash deposits.

Category Group Index: BofAML USD LIBOR 3 Mon CM
Category Index: BofAML USD LIBOR 3 Mon CM
Morningstar Index: Morningstar Cash TR USD
Alternative (continued)

**Long-Short Credit**
Funds in the Long-Short Credit category seek to profit from changes in the credit conditions of individual bond issuers and credit markets segments represented by credit indexes. Typically, portfolios purchase bonds, or sell credit default swaps, with the expectation of profiting from narrowing credit spreads; or, the funds sell bonds, or purchase credit default swaps, with the expectation of profiting from the deteriorating credit of the underlying issuer. This category includes funds that use credit derivatives to hedge systematic risk of credit markets to isolate credit selection returns. Funds in this category frequently use derivatives to hedge interest rate risk.

- Category Group Index: Barclays US Agg Bond TR USD
- Category Index: BofAML USD LIBOR 3 Mon CM
- Morningstar Index: Morningstar US Core Bd TR USD

**Long-Short Equity**
Long-short portfolios hold sizeable stakes in both long and short positions in equities and related derivatives. Some funds that fall into this category will shift their exposure to long and short positions depending on their macro outlook or the opportunities they uncover through bottom-up research. Some funds may simply hedge long stock positions through exchange-traded funds or derivatives. At least 75% of the assets are in equity securities or derivatives.

- Category Group Index: S&P 500 TR USD
- Category Index: S&P 500 TR USD
- Morningstar Index: Morningstar US Market TR USD

**Market Neutral**
These funds attempt to reduce systematic risk created by factors such as exposures to sectors, market-cap ranges, investment styles, currencies, and/or countries. They try to achieve this by matching short positions within each area against long positions. These strategies are often managed as beta-neutral, dollar-neutral, or sector-neutral. A distinguishing feature of funds in this category is that they typically have low beta exposures (< 0.3 in absolute value) to market indexes such as MSCI World. In attempting to reduce systematic risk, these funds put the emphasis on issue selection, with profits dependent on their ability to sell short and buy long the correct securities.

- Category Group Index: Barclays US Agg Bond TR USD
- Category Index: USTREAS T-Bill Auction Ave 3 Mon
- Morningstar Index: Morningstar Cash TR USD
Alternative (continued)

**Multialternative**
These funds offer investors exposure to several different alternative investment tactics. Funds in this category have a majority of their assets exposed to alternative strategies. An investor’s exposure to different tactics may change slightly over time in response to market movements. Funds in this category include both funds with static allocations to alternative strategies and funds tactically allocating among alternative strategies and asset classes. The gross short exposure is greater than 20%.

Category Group Index: Morningstar Mod Tgt Risk TR USD
Category Index: Morningstar Mod Tgt Risk TR USD
Morningstar Index: Morningstar Mod Tgt Risk TR USD

**Managed Futures**
These funds primarily trade liquid global futures, options, swaps, and foreign exchange contracts, both listed and over-the-counter. A majority of these funds follow trend-following, price-momentum strategies. Other strategies included in this category are systematic mean-reversion, discretionary global macro strategies, commodity index tracking, and other futures strategies. More than 60% of the fund's exposure is invested through derivative securities. These funds obtain exposure primarily through derivatives; the holdings are largely cash instruments.

Category Group Index: Credit Suisse Mgd Futures Liquid TR USD
Category Index: Credit Suisse Mgd Futures Liquid TR USD
Morningstar Index: Morningstar Diversd Futures TR USD

**Option Writing**
Option writing funds aim to generate a significant portion of their returns from the collection of premiums on options contracts sold. This category includes covered call strategies, put writing strategies, as well as options strategies that target returns primarily from contract premiums. In addition, option writing funds may seek to generate a portion of their returns, either indirectly or directly, from the volatility risk premium associated with options trading strategies.

Category Group Index: S&P 500 TR USD
Category Index: CBOE S&P 500 BuyWrite BXM
Morningstar Index: Morningstar US Market TR USD
Alternative (continued)

Volatility
Volatility strategies trade volatility as an asset class. Directional volatility strategies aim to profit from the trend in the implied volatility embedded in derivatives referencing other asset classes. Volatility arbitrage seeks to profit from the implied volatility discrepancies between related securities.

Category Group Index: S&P 500 VIX Short Term Futures TR USD
Category Index: S&P 500 VIX Short Term Futures TR USD
Morningstar Index: Morningstar Cash TR USD

Trading—Leveraged Commodities
These funds seek to generate returns equal to a fixed multiple of short-term returns of a commodity index. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. For example, a fund attempting to achieve 2 times the returns of a given index on a daily basis is unlikely to deliver anything like 2 times the index’s returns over periods longer than one day. Many of these funds seek to generate a multiple of the daily or weekly return of the reference index. Trading funds are not considered suitable for a long-term investor and are designed to be used by traders.

Category Group Index: Morningstar Lng-Only Cmdty TR USD
Category Index: Morningstar Lng-Only Cmdty TR USD
Morningstar Index: Morningstar Lng-Only Cmdty TR USD

Trading—Inverse Commodities
These funds seek to generate returns equal to an inverse multiple of short-term returns of a commodity index. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. For example, a fund attempting to achieve negative 2 times the returns of a given index on a daily basis is unlikely to deliver anything like negative 2 times the index’s returns over periods longer than one day. Many of these funds seek to generate a multiple typically negative 1 to negative 3 times of the daily or weekly return of the reference index. Trading funds are not considered suitable for a long-term investor and are designed to be used by active traders.

Category Group Index: Morningstar Shrt-Only Cmdty TR USD
Category Index: Morningstar Shrt-Only Cmdty TR USD
Morningstar Index: Morningstar Shrt-Only Cmdty TR USD
Alternative (continued)

Trading — Leveraged Debt
These funds seek to generate returns equal to a fixed multiple of the short-term returns of a fixed-income index. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. For example, a fund attempting to achieve 2 times the returns of a given index on a daily basis is unlikely to deliver anything like 2 times the index’s returns over periods longer than one day. Many of these funds seek to generate a multiple of the daily or weekly return of the reference index. Trading funds are not considered suitable for a long-term investor and are designed to be used by active traders.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Agg Bond TR USD
Morningstar Index: Morningstar US Core Bd TR USD

Trading — Inverse Debt
These funds seek to generate returns equal to an inverse fixed multiple of short-term returns of a fixed-income index. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. For example, a fund attempting to achieve negative 2 times the returns of a given index on a daily basis is unlikely to deliver anything like negative 2 times the index’s returns over periods longer than one day. Many of these funds seek to generate a multiple typically negative 1 to negative 3 times of the daily or weekly return of the reference index. Trading funds are not considered suitable for a long-term investor and are designed to be used by active traders.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Agg Bond TR USD
Morningstar Index: Morningstar US Core Bd TR USD

Trading — Leveraged Equity
These funds seek to generate returns equal to a fixed multiple of the short-term returns of an equity index. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. For example, a fund attempting to achieve 2 times the returns of a given index on a daily basis is unlikely to deliver anything like 2 times the index’s returns over periods longer than one day. Many of these funds seek to generate a multiple of the daily or weekly return of the reference index. Trading funds are not considered suitable for a long-term investor and are designed to be used by active traders.

Category Group Index: S&P 500 TR USD
Category Index: S&P 500 TR USD
Morningstar Index: Morningstar US Market TR USD
Alternative (continued)

**Trading — Inverse Equity**
These funds seek to generate returns equal to an inverse fixed multiple of short-term returns of an equity index. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. For example, a fund attempting to achieve negative 2 times the returns of a given index on a daily basis is unlikely to deliver anything like negative 2 times the index’s returns over periods longer than one day. Many of these funds seek to generate a multiple typically negative 1 to negative 3 times the daily or weekly return of the reference index. Trading funds are not considered suitable for a long-term investor and are designed to be used by active traders.

Category Group Index: S&P 500 TR USD
Category Index: S&P 500 TR USD
Morningstar Index: Morningstar US Market TR USD

**Trading — Miscellaneous**
These funds seek to generate returns equal to a fixed multiple (positive or negative) of short-term returns of an index. The reference index for this category is not equity, fixed-income, or commodity linked. The compounding of short-term returns results in performance that does not correspond to those of investing in the index with external leverage. For example, a fund attempting to achieve 2 times the returns of a given index on a daily basis is unlikely to deliver anything like 2 times the index’s returns over periods longer than one day. Many of these funds seek to generate a multiple of the daily or weekly return of the reference index. Trading funds are not considered suitable for a long-term investor and are designed to be used by active traders.

Category Group Index: BofAML USD LIBOR 3 Mon CM
Category Index: BofAML USD LIBOR 3 Mon CM
Morningstar Index: Morningstar Cash TR USD
Commodities

**Commodities Agriculture**
Agriculture portfolios invest in grain and feed products, oilseeds, cotton, dairy, livestock, poultry, and/or horticultural products. Investment can be made directly in physical assets or commodity-linked derivative instruments.

- Category Group Index: Morningstar Lng-Only Cmdty TR USD
- Category Index: Morningstar Agriculture Cmdty TR USD
- Morningstar Index: Morningstar Agriculture Cmdty TR USD

**Commodities Broad Basket**
Broad-basket portfolios can invest in a diversified basket of commodity goods including but not limited to grains, minerals, metals, livestock, cotton, oils, sugar, coffee, and cocoa. Investment can be made directly in physical assets or commodity-linked derivative instruments, such as commodity swap agreements.

- Category Group Index: Morningstar Lng-Only Cmdty TR USD
- Category Index: Morningstar Lng-Only Cmdty TR USD
- Morningstar Index: Morningstar Lng-Only Cmdty TR USD

**Commodities Energy**
Energy portfolios invest in oil (crude, heating, and gas), natural gas, coal, kerosene, diesel fuel, and propane. Investment can be made directly in physical assets or commodity-linked derivative instruments.

- Category Group Index: Morningstar Lng-Only Cmdty TR USD
- Category Index: Morningstar Energy Cmdty TR USD
- Morningstar Index: Morningstar Energy Cmdty TR USD

**Commodities Industrial Metals**
Industrial-metals portfolios invest in such industrial metals as aluminum, copper, lead, nickel, and zinc. Investment can be made directly in physical assets or commodity-linked derivative instruments.

- Category Group Index: Morningstar Lng-Only Cmdty TR USD
- Category Index: Morningstar Metals Cmdty TR USD
- Morningstar Index: Morningstar Metals Cmdty TR USD
Commodities (continued)

Commodities Miscellaneous
Miscellaneous portfolios invest in a specific commodity that does not fit into any of Morningstar’s existing commodity categories and for which not enough funds exist to merit the creation of a separate category.
Category Group Index: Morningstar Lng-Only Cmdty TR USD
Category Index: Morningstar Lng-Only Cmdty TR USD
Morningstar Index: Morningstar Lng-Only Cmdty ER USD

Commodities Precious Metals
Commodities precious-metals portfolios invest in precious metals such as gold, silver, platinum, and palladium. Investment can be made directly in physical assets or commodity-linked derivative instruments.
Category Group Index: Morningstar Lng-Only Cmdty TR USD
Category Index: Bloomberg Sub Precious Metals TR USD
Morningstar Index: Morningstar Metals Cmdty TR USD
Taxable Bond

**Long Government**
Long-government portfolios have at least 90% of their bond holdings invested in bonds backed by the U.S. government or by government-linked agencies. This backing minimizes the credit risk of these portfolios, as the U.S. government is unlikely to default on its debt. They are not risk-free, though. Because these portfolios have durations of typically more than 6.0 years, they are more sensitive to interest rates, and thus riskier, than portfolios that have shorter durations. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Long term is defined as 125% of the three-year average effective duration of the MCBI.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Government Long TR USD
Morningstar Index: Morningstar US Lng Gov Bd TR USD

**Intermediate Government**
Intermediate-government portfolios have at least 90% of their bond holdings in bonds backed by the U.S. government or by government-linked agencies. This backing minimizes the credit risk of these portfolios, as the U.S. government is unlikely to default on its debt. These portfolios have durations typically between 3.5 and 6.0 years. Consequently, the group's performance—and its level of volatility—tends to fall between that of the short government and long government bond categories. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Intermediate is defined as 75% to 125% of the three-year average effective duration of the MCBI.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Government TR USD
Morningstar Index: Morningstar US Inter Gov Bd TR USD
Taxable Bond (continued)

**Short Government**
Short-government portfolios have at least 90% of their bond holdings in bonds backed by the U.S. government or by government-linked agencies. This backing minimizes the credit risk of these portfolios, as the U.S. government is unlikely to default on its debt. These portfolios have durations typically between 1.0 and 3.5 years, so they have relatively less sensitivity to interest rates and, thus, low risk potential. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Short is defined as 25% to 75% of the three-year average effective duration of the MCBI.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays Government 1-5 Yr TR USD
Morningstar Index: Morningstar US Shrt Gov Bd TR USD

**Inflation-Protected Bond**
Inflation-protected bond portfolios invest primarily in debt securities that adjust their principal values in line with the rate of inflation. These bonds can be issued by any organization, but the U.S. Treasury is currently the largest issuer for these types of securities.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Treasury US TIPS TR USD
Morningstar Index: Morningstar TIPS TR USD

**Long-Term Bond**
Long-term bond portfolios invest primarily in corporate and other investment-grade U.S. fixed-income issues and typically have durations of more than 6.0 years. Because of their long durations, these portfolios are exposed to greater interest-rate risk. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Long-term is defined as 125% of the three-year average effective duration of the MCBI.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Govt/Credit Long TR USD
Morningstar Index: Morningstar US Lng Corp Bd TR USD
Taxable Bond (continued)

**Intermediate-Term Bond**
Intermediate-term bond portfolios invest primarily in corporate and other investment-grade U.S. fixed-income issues and typically have durations of 3.5 to 6.0 years. These portfolios are less sensitive to interest rates, and therefore less volatile, than portfolios that have longer durations. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Intermediate-term is defined as 75% to 125% of the three-year average effective duration of the MCBI.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Agg Bond TR USD
Morningstar Index: Morningstar US Core Bd TR USD

**Short-Term Bond**
Short-term bond portfolios invest primarily in corporate and other investment-grade U.S. fixed-income issues and typically have durations of 1.0 to 3.5 years. These portfolios are attractive to fairly conservative investors, because they are less sensitive to interest rates than portfolios with longer durations. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Short-term is defined as 25% to 75% of the three-year average effective duration of the MCBI.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays US Govt/Credit 1-5 Yr TR USD
Morningstar Index: Morningstar US Shrt Core Bd TR USD

**Ultrashort Bond**
Ultrashort-bond portfolios invest primarily in investment-grade U.S. fixed-income issues and have durations typically of less than one year. This category can include corporate or government ultrashort bond portfolios, but it excludes international, convertible, multisector, and high-yield bond portfolios. Because of their focus on bonds with very short durations, these portfolios offer minimal interest-rate sensitivity and therefore low risk and total return potential. Morningstar calculates monthly breakpoints using the effective duration of the Morningstar Core Bond Index in determining duration assignment. Ultrashort is defined as 25% of the three-year average effective duration of the MCBI.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays Govt/Corp 1 Yr Duration TR USD
Morningstar Index: Morningstar US Shrt Core Bd TR USD
Taxable Bond (continued)

**Bank Loan**
Bank-loan portfolios primarily invest in floating-rate bank loans instead of bonds. In exchange for their credit risk, these loans offer high interest payments that typically float above a common short-term benchmark such as the London Interbank Offered Rate, or LIBOR.

- Category Group Index: Barclays US Agg Bond TR USD
- Category Index: S&P/LSTA Leveraged Loan TR
- Morningstar Index: Morningstar US Shrt Core Bd TR USD

**Stable Value**
Stable-value portfolios seek to provide income while preventing price fluctuations. The most common stable-value portfolios invest in a diversified portfolio of bonds and enter into wrapper agreements with financial companies to guarantee against fluctuations in their share prices. These wrapper agreements typically provide price stability on a day-to-day basis, thereby insulating each portfolio's net asset value from interest-rate volatility. Therefore, the duration for each of these funds is essentially zero. This category is only used in Morningstar’s custom fund, separate account, and collective investment trust databases.

- Category Group Index: Barclays US Agg Bond TR USD
- Category Index: USTREAS T-Bill Cnst Mat Rate 3 Yr
- Morningstar Index: Morningstar Cash TR USD

**Corporate Bond**
Corporate Bond portfolios concentrate on bonds issued by corporations. These tend to have more credit risk than government or agency-backed bonds. These portfolios hold more than 65% of their assets in corporate bonds, hold less than 40% of their assets in foreign bonds, less than 35% in high yield bonds, and have an effective duration of more than 75% of the Morningstar Core Bond Index.

- Category Group Index: Barclays US Agg Bond TR USD
- Category Index: Barclays US Corp IG TR USD
- Morningstar Index: Morningstar US Corp Bd TR USD

**Preferred Stock**
Preferred stock portfolios concentrate on preferred stocks and perpetual bonds. These portfolios tend to have more credit risk than government or agency backed bonds, and effective duration longer than other bond portfolios. These portfolios hold more than 65% of assets in preferred stocks and perpetual bonds.

- Category Group Index: Barclays US Agg Bond TR USD
- Category Index: BofAML Preferred Stock Fixed Rate TR USD
- Morningstar Index: None
Taxable Bond (continued)

**High-Yield Bond**
High-yield bond portfolios concentrate on lower-quality bonds, which are riskier than those of higher-quality companies. These portfolios generally offer higher yields than other types of portfolios, but they are also more vulnerable to economic and credit risk. These portfolios primarily invest in U.S. high-income debt securities where at least 65% or more of bond assets are not rated or are rated by a major agency such as Standard & Poor’s or Moody’s at the level of BB (considered speculative for taxable bonds) and below.

- **Category Group Index:** Barclays US Agg Bond TR USD
- **Category Index:** BofAML US HY Master II TR USD
- **Morningstar Index:** None

**Multisector Bond**
Multisector-bond portfolios seek income by diversifying their assets among several fixed-income sectors, usually U.S. government obligations, U.S. corporate bonds, foreign bonds, and high-yield U.S. debt securities. These portfolios typically hold 35% to 65% of bond assets in securities that are not rated or are rated by a major agency such as Standard & Poor’s or Moody’s at the level of BB (considered speculative for taxable bonds) and below.

- **Category Group Index:** Barclays US Agg Bond TR USD
- **Category Index:** Barclays US Universal TR USD
- **Morningstar Index:** None

**World Bond**
World-bond portfolios invest 40% or more of their assets in foreign bonds. Some world-bond portfolios follow a conservative approach, favoring high-quality bonds from developed markets. Others are more adventurous and own some lower-quality bonds from developed or emerging markets. Some portfolios invest exclusively outside the U.S., while others regularly invest in both U.S. and non-U.S. bonds.

- **Category Group Index:** Barclays US Agg Bond TR USD
- **Category Index:** Citi WGBI NonUSD USD
- **Morningstar Index:** Morningstar Gbl xUS Gov Bd TR LCL

**Emerging-Markets Bond**
Emerging-markets bond portfolios invest more than 65% of their assets in foreign bonds from developing countries. The largest portion of the emerging-markets bond market comes from Latin America, followed by Eastern Europe. Africa, the Middle East, and Asia make up the rest.

- **Category Group Index:** Barclays US Agg Bond TR USD
- **Category Index:** JPM EMBI Global TR USD
- **Morningstar Index:** Morningstar EM Composite Bd TR USD
Taxable Bond (continued)

Emerging-Markets Local-Currency Bond
Emerging-markets local-currency bond portfolios invest more than 65% of their assets in foreign bonds from developing countries in the local currency. Funds in this category have a mandate to maintain exposure to currencies of emerging markets. The largest portion of the emerging-markets bond market comes from Latin America, followed by Eastern Europe, Africa, the Middle East, and Asia.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: Barclays EM Local Currency Govt TR USD
Morningstar Index: Morningstar EM Composite Bd TR USD

Nontraditional Bond
The Nontraditional Bond category contains funds that pursue strategies divergent in one or more ways from conventional practice in the broader bond-fund universe. Many funds in this group describe themselves as "absolute return" portfolios, which seek to avoid losses and produce returns uncorrelated with the overall bond market; they employ a variety of methods to achieve those aims. Another large subset are self-described "unconstrained" portfolios that have more flexibility to invest tactically across a wide swath of individual sectors, including high-yield and foreign debt, and typically with very large allocations. Funds in the latter group typically have broad freedom to manage interest-rate sensitivity, but attempt to tactically manage those exposures in order to minimize volatility. The category is also home to a subset of portfolios that attempt to minimize volatility by maintaining short or ultra-short duration portfolios, but explicitly court significant credit and foreign bond market risk in order to generate high returns. Funds within this category often will use credit default swaps and other fixed income derivatives to a significant level within their portfolios.

Category Group Index: Barclays US Agg Bond TR USD
Category Index: BofAML USD LIBOR 3 Mon CM
Morningstar Index: Morningstar US Core Bd TR USD
Municipal Bond

**Muni National Long**
Muni national long portfolios invest in bonds issued by various state and local governments to fund public projects. The income from these bonds is generally free from federal taxes. To lower risk, these portfolios spread their assets across many states and sectors. These portfolios have durations of more than 7.0 years (or, if duration is unavailable, average maturities of more than 12 years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 20 Yr 17-22 TR USD
Morningstar Index: None

**Muni National Intermediate**
Muni national intermediate portfolios invest in bonds issued by various state and local governments to fund public projects. The income from these bonds is generally free from federal taxes. To lower risk, these portfolios spread their assets across many states and sectors. These portfolios have durations of 4.5 to 7.0 years (or, if duration is unavailable, average maturities of five to 12 years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None

**Muni National Short**
Muni national short portfolios invest in bonds issued by state and local governments to fund public projects. The income from these bonds is generally free from federal taxes and/or from state taxes in the issuing state. To lower risk, some of these portfolios spread their assets across many states and sectors. Other portfolios buy bonds from only one state in order to get the state-tax benefit. These portfolios have durations of less than 4.5 years (or, if duration is unavailable, average maturities of less than five years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 3 Yr 2-4 TR USD
Morningstar Index: None
Municipal Bond (continued)

**High-Yield Muni**
High-Yield Muni portfolios typically invest a substantial portion of assets in high-income municipal securities that are not rated or that are rated at the level of or below BBB (considered high-yield within the municipal-bond industry) by a major ratings agency such as Standard & Poor’s or Moody’s.

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None

**Muni Single State Long**
Muni single-state long portfolios invest in bonds issued by state and local governments to fund public projects. The income from such bonds is generally free from federal taxes and from state taxes in the issuing state. To get the state-tax benefit, these portfolios buy bonds from only one state. These portfolios have durations of more than 7.0 years (or, if duration is unavailable, average maturities of more than 12 years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 20 Yr 17-22 TR USD
Morningstar Index: None

**Muni Single State Intermediate**
Muni single-state intermediate portfolios invest in bonds issued by state and local governments to fund public projects. The income from such bonds is generally free from federal taxes and from state taxes in the issuing state. To get the state-tax benefit, these portfolios buy bonds from only one state. These portfolios have durations of 4.5 to 7.0 years (or, if duration is unavailable, average maturities of five to 12 years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None

**Muni Single State Short**
Muni single-state short portfolios invest in bonds issued by state and local governments to fund public projects. The income from such bonds is generally free from federal taxes and from state taxes in the issuing state. To get the state-tax benefit, these portfolios buy bonds from only one state. These portfolios have durations of less than 4.5 years (or, if duration is unavailable, average maturities of less than five years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 3 Yr 2-4 TR USD
Morningstar Index: None
Municipal Bond (continued)

**Muni California Long**
Muni California long portfolios invest at least 80% of assets in California municipal debt. Because the income from these bonds is generally free from federal taxes and California state taxes, these portfolios are most appealing to residents of California. These portfolios have durations of more than 7.0 years (or, if duration is unavailable, average maturities of more than 12 years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal California Exempt TR
Morningstar Index: None

**Muni California Intermediate**
Muni California intermediate portfolios invest at least 80% of assets in California municipal debt. Because the income from these bonds is generally free from federal taxes and California state taxes, these portfolios are most appealing to residents of California. These portfolios have durations of 4.5 to 7.0 years (or, if duration is unavailable, average maturities of five to 12 years).

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal California Exempt TR
Morningstar Index: None

**Muni Massachusetts**
Muni Massachusetts portfolios invest at least 80% of assets in Massachusetts municipal debt and can include long-, intermediate-, and short-duration portfolios. Because the income from these bonds is generally free from federal taxes and Massachusetts state taxes, these portfolios are most appealing to residents of Massachusetts.

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None

**Muni Minnesota**
Muni Minnesota portfolios invest at least 80% of assets in Minnesota municipal debt and can include long-, intermediate-, and short-duration portfolios. Because the income from these bonds is generally free from federal taxes and Minnesota state taxes, these portfolios are most appealing to residents of Minnesota.

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None
Municipal Bond (continued)

**Muni New Jersey**
Muni New Jersey portfolios invest at least 80% of assets in New Jersey municipal debt and can include long-, intermediate-, and short-duration portfolios. Because the income from these bonds is generally free from federal taxes and New Jersey state taxes, these portfolios are most appealing to residents of New Jersey.
Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None

**Muni New York Long**
Muni New York long portfolios invest at least 80% of assets in New York municipal debt. Because the income from these bonds is generally free from federal taxes and New York state taxes, these portfolios are most appealing to residents of New York. These portfolios have durations of more than 7.0 years (or, if duration is unavailable, average maturities of more than 12 years).
Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal New York Exempt TR
Morningstar Index: None

**Muni New York Intermediate**
Muni New York intermediate portfolios invest at least 80% of assets in New York municipal debt. Because the income from these bonds is generally free from federal taxes and New York state taxes, these portfolios are most appealing to residents of New York. These portfolios have durations of 4.5 to 7.0 years (or, if duration is unavailable, average maturities of five to 12 years).
Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal New York Exempt TR
Morningstar Index: None

**Muni Ohio**
Muni Ohio portfolios invest at least 80% of assets in Ohio municipal debt and can include long-, intermediate-, and short-duration portfolios. Because the income from these bonds is generally free from federal taxes and Ohio state taxes, these portfolios are most appealing to residents of Ohio.
Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None
Municipal Bond (continued)

**Muni Pennsylvania**
Muni Pennsylvania portfolios invest at least 80% of assets in Pennsylvania municipal debt and can include long-, intermediate-, and short-duration portfolios. Because the income from these bonds is generally free from federal taxes and Pennsylvania state taxes, these portfolios are most appealing to residents of Pennsylvania.

Category Group Index: Barclays Municipal TR USD
Category Index: Barclays Municipal 10 Yr 8-12 TR USD
Morningstar Index: None
Money Market

Money Market—Taxable
These portfolios invest in short-term money market securities in order to provide a level of current income that is consistent with the preservation of capital. These funds do not designate themselves as Prime in form N-MFP and transact at a fixed net asset value.

Category Group Index: USTREAS T-Bill Auction Ave 3 Mon
Category Index: BofAML USD LIBOR 3 Mon CM
Morningstar Index: None

Money Market—Tax-Free
These portfolios invest in short-term municipal money market securities that are often exempt from some federal and state taxes. These funds provide current income and aim to preserve capital. These funds do not designate themselves as Prime in form N-MFP and transact at a fixed net asset value.

Category Group Index: USTREAS T-Bill Auction Ave 3 Mon
Category Index: BofAML USD LIBOR 3 Mon CM
Morningstar Index: None

Prime Money Market
These portfolios invest in short-term money market securities in order to provide a level of current income that is consistent with the preservation of capital. These funds designate themselves as Prime in form N-MFP and are required to sell and redeem shares based on the current market value of the securities in their underlying portfolios (transact at a "floating" net asset value).

Category Group Index: USTREAS T-Bill Auction Ave 3 Mon
Category Index: BofAML USD LIBOR 3 Mon CM
Morningstar Index: None