Morningstar Institutional Categories

For portfolios available for sale in the United States.

Morningstar Methodology
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Contents

Important Disclosure

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Introduction

The Morningstar Institutional Categories were launched in May 2009 in response to feedback from Morningstar's institutional clients. They felt the Morningstar Categories are typically too broad to support their business processes, such as manager compensation discussions and expense peer grouping. The Morningstar Institutional Categories were developed to address those needs by using more granular definitions to assign portfolios to peer groups. The result is a system with many more categories that more thoroughly identify distinct investment strategies.

The Morningstar Institutional Categories allocate portfolios into peer groups using the same holdings-based methodology already employed by the Morningstar Categories, which were introduced in 1996. The two structures are also parallel in that one category is assigned to each portfolio in Morningstar's managed funds database. The key difference is that the Institutional Categories have narrower parameters, allowing for more sophisticated and detailed peer group comparisons. This new system is intended to help institutional investors identify true peers, build more thoroughly diversified portfolios, and gain more insight into an individual portfolio's strategy.

Morningstar assigns Institutional Categories to various types of portfolios, including but not limited to, mutual funds, exchange-traded funds and separate account strategies. Portfolios are placed in a given category based primarily on their average holdings statistics over the past three years. If the portfolio is new and has no history, Morningstar assigns the best Institutional Category possible given the investment objectives stated in the prospectus, then reevaluates as portfolio holdings become available. Morningstar will periodically review Institutional Category assignments and may make changes as necessary based on recent changes to the portfolio.

The driving principles behind the Institutional Categories system are consistent with Morningstar's existing methodologies:

- Individual portfolios within an Institutional Category invest in similar types of securities and therefore share the same risk factors
- Individual portfolios within an Institutional 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.
- Institutional Categories have enough constituents to form the basis for reasonable peer group comparisons

The distinctions between the Institutional Categories are meaningful to institutional investors and assist in their investment-related business processes

In contrast to Morningstar Categories, registered fund products are ranked collectively, but separate account composites are ranked in isolation. Registered products have specific investment restrictions and reporting requirements, separate accounts and other unregistered products have few reporting standards and investment restrictions can be negotiated on a client by client basis. These factors make separate accounts less appropriate to compare to open end funds and other registered fund products.

Domestic Equity

Domestic equity portfolios are defined as maintaining at least 85% exposure to equity and investing at least 70% of assets in US-domiciled securities. Particular style and market cap focuses are identified via Morningstar's Style Box methodology in which equity securities are given a style and size score, based on their style and market capitalization characteristics, respectively. Each fund is then assigned a style and size score, based on an asset-weighted average of the scores assigned to each stock within the portfolio.

Value is generally defined by slow growth (low growth rates for earnings, sales, book value and cash flow) and low valuations (low price ratios and high dividend yield). Conversely, growth is described by fast growth (high growth rates for earnings, sales, book value and cash flow) and high valuations (high price ratios and low dividend yields).

Giant cap stocks comprise the top 40% of total US market capitalization. Large cap stocks make up the next 30%. Mid-cap stocks are defined as being part of the next 20% while small and micro-cap stocks comprise the smallest 10% of the total US market. The absolute breakpoints are updated periodically to ensure the definitions of each capitalization range fluctuate appropriately with the market. Generally though, market cap breakpoints will be as follows:

Giant:	> $40 billion
Large:	$8 billion-$40 billion
Mid:	$1 billion-$8 billion
Small:	$500 million-$1 billion
Micro:	< $500 million

Giant Growth

Giant growth portfolios have the highest style and size scores of all funds focused on the US equity market. These funds seek returns through capital appreciation by focusing on stocks that continue to reinvest in the business and grow operations.

Giant Core

Giant core portfolios have value-growth scores in the mid range because neither growth nor value characteristics dominate the portfolio.

Giant Value

Portfolios from this group combine the largest size scores with lower style scores. These portfolios generally offer a sizeable amount of current income because many of the giant cap stocks they hold are well-established firms with consistent dividend histories.

Large High Growth

Large high growth portfolios have lower size scores than giant cap-focused portfolios but maintain the highest style scores of funds in the large capitalization range. These portfolios tend to maintain exposure to the most rapidly growing industries as they seek opportunities for capital appreciation regardless of the price.

Large Core Growth

Large core growth portfolios typically exhibit classic growth characteristics. These funds favor returns through capital appreciation and tend to focus on proven industries that still have opportunities for expansion. Their style scores are somewhat lower than those of their high growth counterparts.

Large Valuation Sensitive Growth

Large valuation sensitive growth portfolios typically exhibit both growth and value characteristics, as managers in this group are generally interested in growing companies but are also sensitive to valuations. Stocks in these portfolios may have somewhat lower projected growth ratios than high growth stocks but come with lower price valuations. As a result, the style scores for these funds are lower than both high growth and core growth funds.

Large Core

Value-growth scores for funds in the large core space are exactly in the mid-range for large cap funds. This can be the result of a strategy that looks for stocks with growth expectations and price characteristics roughly equivalent to the average for large cap stocks. Alternatively, these portfolios may hold a broad representation of stocks from across the style spectrum. Returns for these funds tend to be highly correlated with market returns as these portfolios are generally representative of the total US market.

Large Relative Value

Large relative value portfolios hold stocks that exhibit attractive price multiples but that also have some sort of growth catalyst. These funds may seek returns through dividend income but also through capital appreciation. Style scores for this group are a step lower than funds with a blended style, reflecting the additional emphasis on low valuation.

Large Core Value

Large core value portfolios exhibit classic value characteristics. As a result, their style scores generally end up directly in the middle of the value-oriented range. These managers generally seek capital appreciation at low prices but also favor a notable amount of dividend income.

Large Deep Value

Large-income oriented value portfolios favor stocks that promise high current income through reliable dividends. These portfolios may also choose some stocks considered to be in distress or out of favor. Style scores for this group are the lowest of funds in the large cap range.

S&P 500 Tracking

S&P 500 Tracking portfolios are passively managed and provide broad exposure to the US equity market by directly mirroring the S&P 500 Index. These funds may hold each of the 500 stocks in direct proportion to the index and may also gain exposure through futures contracts.

Mid High Growth

The size scores for mid high growth funds occupy the mid-range of all funds. These portfolios likely favor stocks from this capitalization range but could also seek exposure to stocks from a variety of cap ranges, leading to a mid-range size score. Style scores from this group are the highest for the mid-cap range, reflecting a focus on firms actively pursuing rapid expansion with above-average valuations.

Mid Core Growth

Mid core growth portfolios exemplify classic growth characteristics. Their style scores are directly in the middle of the growth spectrum as these managers seek solid opportunities for capital appreciation with valuations that are somewhat lower than high growth members. Most likely, these portfolios are exposed primarily to mid-cap firms though it is possible they could invest in stocks from a variety of cap ranges.

Mid Valuation-Sensitive Growth

Mid valuation-sensitive portfolios typically exhibit both value and growth characteristics as these managers seek stocks with solid growth expectations but lower valuation multiples than high or core growth stocks. As a result, these funds exhibit style scores a step below their core growth counterparts.

Mid Core

Mid core portfolios provide middle-of-the-road exposure to the US equity market. These portfolios may hold mid-cap stocks specifically or a wider array of large to small stocks, leading to a mid-range size score. Similarly, the style scores of funds in this group are roughly equal to the average for funds in the mid-cap range, either because they seek stocks offering both growth potential and low valuations or because they choose stocks from a variety of style ranges.

Mid Relative Value

Mid-cap relative value portfolios hold stocks available at attractive prices relative to some measure of actual value that still maintain healthy growth rates. This is reflected by style scores that are higher than other funds in the value spectrum.

Mid Core Value

These portfolios pursue a classic value-style approach as reflected by their style scores, which generally land in the middle of the value range. They may choose some stocks that are currently out of favor in the market, though management sees the potential for a turnaround. Alternatively, they may focus on achieving returns through consistent income.

Mid Deep Value

Mid-cap income-oriented value portfolios focus on stocks in the mid-range of US market capitalization that provide the opportunity for high current income through reliable dividends. These portfolios may also choose some stocks considered to be in distress or out of favor.

SMID Growth

SMID Growth portfolios focus on investment in small and mid-size companies. Investments in this category focus on returns through capital appreciation and favor companies who are expected to expand at an above average rate relative to the market. This category contains portfolios with size scores that fall between large and micro capitalization and style score that fall in the highest range, indicating a SMID Cap Growth approach. Key strategies of SMID portfolios include but are not limited to, investment in smaller mid cap companies, investment in small cap and smaller mid cap companies, and movement between small and mid capitalizations.

SMID Core

Funds in SMID Core have a flexible investing strategy that allows for pursuit of investments in small and mid capitalization ranges. The style score of portfolios in this group falls in the middle of the spectrum, either because of a focus on both growth and value investing or because they select stocks from a variety of styles. Key strategies of SMID portfolios include but are not limited to, investment in smaller mid cap companies, investment in small cap and smaller mid cap companies, and movement between small and mid capitalizations.

SMID Value

SMID Value portfolios invest primarily in small and mid-size companies. All funds in this category focus on the purchase of stocks that are less expensive or growing more slowly than the overall market. This category captures portfolios which have a size score indicative of small or mid capitalization and a low style score, indicative of a value approach. Key strategies of SMID portfolios include but are not limited to, investment in smaller mid cap companies, investment in small cap and smaller mid cap companies, and movement between small and mid capitalizations.

Small High Growth

Small high growth portfolios are defined as having style scores at the very top of funds in the small cap range. Funds in this group tend to focus on young firms or companies from emerging industries. The nature of these companies combined with market expectations of high growth generally contributes to relatively volatile returns.

Small Core Growth

Small core growth portfolios are also subject to relatively higher volatility as they may also favor young firms or firms from growing industries that have not yet established a consistent revenue stream; however, core growth portfolios prefer stocks that offer solid growth potential without the extreme price tag. Funds in this group will have low size scores.

Small Valuation Sensitive Growth

Small valuation sensitive growth funds seek those firms that are expected to grow steadily in the future but have reasonable price valuations, potentially because the market has not yet established certainty about the firm's prospects or because the relevant industry is somewhat mature. This combination of growth at a reasonable price is depicted by style scores a step higher than those of blended strategies.

Small Core

Funds in the small core group typically pursue one of two strategies. These funds either seek exposure to firms with a ride range of value and growth characteristics or they choose companies with growth and valuation characteristics roughly equivalent to the average for US small cap stocks. As a result, their style scores fall directly in the center of the score distribution for small cap funds.

Small Relative Value

Small relative value portfolios maintain a somewhat middle-of-the-road approach with a distinct value tilt. They seek promising stocks available at a discount to some measure of their intrinsic value. This slight preference for value is borne out by the style score, which is just lower than the average for small cap funds.

Small Core Value

Small core value portfolios typify the value investing principle of seeking stocks with the potential for capital gains available at prices that reflect a discount to book value, or some other measure of actual value. As a result, their style scores tend be in the middle of the value-oriented range.

Small Deep Value

Small deep value portfolios seek stocks that are trading at a deep discount relative to their book value. These companies are most likely in some distress but fund management sees potential for turnaround. Small deep value funds have both low size and style scores.

Micro Cap

Funds in this group focus primarily on the very smallest stocks in the US market and may seek either value or growth opportunities. Micro cap companies are typically very young or in extremely new industries and due to this, they may have unproven revenue streams. As a result, these funds may be subject to high return volatility. Micro cap funds may have a wide range of style scores but have the lowest size scores possible.

All-Cap Growth

All-cap growth funds seek to maintain balanced exposure to stocks of all sizes, preferring those with strong prospects for growth and capital appreciation. These portfolios will invest at least 20% of assets in each of the large, mid and small market capitalization ranges. Funds in this group have a style score reflective of either valuation-sensitive, core or high growth characteristics.

All-Cap Core

All-cap core funds exhibit a profile broadly representative of the entire US market. They maintain at least 20% exposure to each of the large, mid and small market capitalization groups and they select stocks with a variety of growth and price characteristics. Style scores in this group will be roughly equivalent to the overall average.

All-Cap Value

All-cap value portfolios seek opportunities for reasonably priced returns, either through capital appreciation or current income, across the US market capitalization spectrum. These portfolios invest at least 20% of assets in the each of the three broad cap ranges: large, mid and small. The style scores will range from relative value to income-oriented value.

Nontraditional Equity

The nontraditional-equity strategies offer exposure to equity market risk, but at a modified level, often resulting in a lower equity market beta compared with traditional equity strategies. These funds may implement short positions and make heavy use of derivatives, such as options. Examples include the long-short equity and derivative income Morningstar Categories.

Derivative Income

Derivative income strategies primarily use an options overlay to generate income while maintaining significant exposure to equity market risk. Income is typically generated through covered call writing strategies, for example, while traditional equity risk factors dictate a substantial portion of the return. Funds in the category will typically have beta values to relevant benchmarks of between 0.6 and 0.9.

Long-Short Equity

Long-short portfolios hold sizable 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. Funds in this institutional category use individual short positions rather than derivatives to obtain short exposure. At least 75% of the assets are in equity securities or derivatives.

Alternative Strategies

Alternative strategies funds employ a unique investment approach designed to offer returns different than those of the long-only investments in the stock, bond, or commodity markets. These funds are not defined by their region, sector or market cap exposure but rather by their long or short exposure to the market at large. Typically, the asset allocation attained by these "hedge-fund like" strategies is the result of substantial exposure to derivative instruments.

Alternative Risk Premia

Alternative Risk Premia portfolios offer exposure to a diversified portfolio of assets, often in a format designed to be market neutral. Rather than bet on specific asset classes, sectors, or individual securities, these strategies aim to capture the premiums of well-known factors that drive returns across asset classes, such as value and momentum, usually with a modicum of leverage and lower costs.

Bear Market

Bear market portfolios invest in short positions and derivatives in order to profit from stocks that drop in price. Because these portfolios often have extensive holdings in shorts or puts, their returns generally move in the opposite direction of the benchmark index.

Equity Market Neutral

These funds attempt to significantly reduce or eliminate systematic risk created by factors such as exposures to stock market sectors, market-cap ranges, or investment styles. This is with the goal of generating profits almost solely from selecting the correct equities long and short. 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.

Event Driven

These funds attempt to profit when securities prices change in response to certain corporate actions, such as bankruptcies, restructuring, mergers and acquisitions, changes in management, and other atypical events. Activist shareholders and distressed securities investors also fall into this category. Event driven funds often use a combination of event strategies including merger arbitrage.

Global Macro

These funds offer exposure to at least three global asset classes, which include equities, fixed-income, currencies, and commodities, and maintain more than 20% gross short exposure. The relative proportion of assets devoted to each asset class varies over time as these funds do not adhere to a predefined target mix. The investors may take a discretionary or systematic approach to investing. They are not primarily trend followers.

Hedge Fund Tracking

Hedge fund tracking portfolios use advanced mathematical techniques (such as regression) to attempt to replicate the returns of hedge fund or managed futures indexes. These funds invest in liquid ETFs or futures to gain long or short risk exposures to various traditional asset classes, such as emerging markets, or more alternative asset classes, such as precious metals or volatility.

Leveraged

Leveraged portfolios seek to achieve overall exposure to the market consistently larger than the sum of fund assets. This is achieved through borrowed cash invested in securities that can provide income or capital appreciation in excess of the borrowing costs. This allows management to achieve returns through stocks held on a long-term basis as well as through short-term opportunities. These portfolios are defined by greater than 110% net equity exposure.

Leveraged Net Long

Leveraged net long funds are typically referred to as "130/30" funds. These portfolios seek to maintain long equity exposure in excess of total fund assets (130% long, for example) which is offset by short positions that bring the net equity exposure to roughly 100% of net assets. The result is that these funds achieve positive returns in line with the overall market but also benefit from a few opportunistic stock declines.

Long/Short Credit

The Long/Short Credit category contains funds whose portfolios hold both long and short credit positions. 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. Funds in this institutional category typically use credit default swaps to obtain short exposure.

Systematic Trend

Systematic trend strategies primarily implement trend-following, price-momentum strategies by trading long and short liquid global futures, options, swaps, and foreign exchange contracts. The remaining exposure may be invested in a mix of other complementary nontraditional risk premia. These portfolios typically obtain exposure referencing a mix of diversified global markets, including commodities, currencies, government bonds, interest rates and equity indexes.

Multimanager

Multimanager portfolios invest with multiple managers. The advisor has discretion to pick which underlying managers and strategies to utilize within the fund structure. By investing in multiple managers, significant left tail risk is usually minimized, but there are usually higher costs associated with a multimanager program from the added layer of subadvisor fees.

Multistrategy

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%.

Options Trading

Options-trading strategies use a variety of options trades, including put writing, options spreads, options-based hedged equity, and collar strategies, among others. In addition, strategies in this group that engage in option writing may seek to generate a portion of their returns, either indirectly or directly, from the volatility risk premium associated with options trading strategies. Funds in the category will typically have beta values to relevant benchmarks of less than 0.6.

Relative Value Arbitrage

Relative value strategies seek out pricing discrepancies between pairs or combinations of securities regardless of asset class. They often employ one or a combination of debt, equity, and convertible arbitrage strategies, among others. They can use significant leverage and typically seek to profit from the convergence of values between securities. Funds in this category typically have low beta exposures to major market indexes due to their offsetting long and short exposures.

Digital Assets

Digital assets that utilize blockchain technology can be described as an immutable, permissionless and often decentralized digital database. Digital asset portfolios will invest the majority of their assets into one or more broadly classified areas including; Decentralized Finance (DeFi) assets, stable coins, currency assets, smart contracts platforms, exchange assets, privacy assets, yield farming, and nonfungible tokens (NFTs) among others. Digital assets are often characterized by two risk style factors momentum and volatility. Portfolios may gain access to digital assets through physical or derivative exposures and incorporate both long only investments and other hedging techniques. To qualify for inclusion, funds in this category must have a material portion of risk coming from digital assets.

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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.

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.

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.

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.

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.

Sector Specific

Sector-specific funds are usually equity funds, in that they maintain at least 85% exposure to equity. Occasionally though, these funds may also gain the given sector exposure through bonds or derivative instruments with bond-like exposure.

The sector designations are based on the GICS (Global Industry Classification Standard) classification system. Membership in one of the following categories is defined by having at least 70% exposure to the indicated sector.

Domestic Energy

Domestic energy portfolios invest at least 70% of assets in US securities that provide exposure to the GICS Energy sector. Companies in this sector will be involved in the exploration, production, marketing and transportation of oil, gas and coal products. They may also provide energy-related services or equipment.

World Energy

World energy funds seek companies from the US and throughout the world that engage in energy exploration, production, refinement, transportation and sales. These funds may focus on oil, gas, coal or other consumable fuel-based products.

Health Care

Funds in this group maintain at least 70% exposure to US companies in the GICS Health Care sector. Domestic health portfolios may select a wide variety of firms, including those that manufacture health care equipment and supplies, provide health-related services or engage in research and development of pharmaceuticals.

Technology

Technology-focused portfolios look for returns from the broad Information Technology sector, which is comprised of companies involved in the development, production and marketing of hardware or software products and services. Technology funds may invest in domestic or international stocks, focusing specifically on Internet-related firms or choosing a broad swath of exposure to database management, electronics equipment or semiconductor firms.

Communications

Communications portfolios invest domestically or globally in firms that provide communications services through fixed-line, cellular, wireless or fiber optic cable networks. These firms belong to the GICS Telecommunications sector.

Utilities

Portfolios from this group focus on stocks from the GICS Utilities sector. These are generally mature and stable firms that operate as electric, gas and water utilities in either US or international markets.

Domestic Financial

Domestic financial portfolios focus at least 70% of assets on US stocks of companies that engage in banking, finance, asset management and insurance services. These companies comprise the GICS Financial sector, less the REITs segment.

World Financial

Global financial funds hold stocks of US and international firms that comprise the GICS Financial sector, less the REITs segment. These companies engage in banking, finance, asset management and insurance services. Global portfolios maintain at least 30% exposure to domestic firms.

Domestic Real Estate

Domestic real estate portfolios primarily invest in real-estate investment trusts (REITs), of which there are various types. Some focus on apartment, hotel, industrial or shopping-center properties. These portfolios maintain at least 70% exposure to US stocks.

World Real Estate

These portfolios seek capital appreciation through investing primarily in REITs, though some do invest directly in real-estate operating companies. Global portfolios commit 30-70% of assets to the US.

Foreign Real Estate

Foreign real estate portfolios seek favorable real estate investment opportunities outside of the US market. Primarily, these investments are non-US REITs but may also include real-estate operating companies.

Consumer Cyclical

Consumer cyclical firms are those involved in manufacturing of durable household goods, textiles and automobiles. Firms in service industries like travel and leisure, apparel retail and media production are also included. Funds that focus on these types of stocks can be vulnerable to market fluctuations as these goods and services are sensitive to economic cycles. Funds in this group can invest in both US and international stocks.

Consumer Defensive

Consumer defensive portfolios invest domestically or internationally in companies that produce non-durable household goods and other products that are generally less sensitive to market cycles. These funds could focus on a wide variety of products and services, from food and beverage manufacturers to operators of large retail centers.

Industrials

Funds that focus on stocks from the Industrials sector may provide exposure to companies active in a broad range of industry segments, from aerospace and defense manufacturing to the provision of transportation and employment services. They may invest domestically and internationally. Some may specialize in a particular segment, such as transportation, while others may seek to reduce risk via diversification across the spectrum.

Materials

Materials-focused portfolios can be described as commodity funds as this sector is comprised of firms involved in the manufacture of paper and forest products, construction materials and steel products. Funds in this group may provide exposure to US or foreign markets.

Infrastructure

These strategies focus on equity securities of companies that directly participate in or contribute to local and national infrastructure. Examples of companies that meet this requirement include those that build, operate or maintain highways, tunnels, ports, mass transit systems, wireless and cable networks or public buildings, such as hospitals and schools. Typically, these strategies may seek opportunities both internationally and domestically.

Precious Metals

Most precious metals funds invest primarily in mining-related stocks though some do invest directly in gold bullion. Funds in this group may focus specifically on gold or they may be exposed to a variety of precious- or base-metal mining stocks.

International Equity

International equity portfolios expand their focus to include stocks domiciled in diverse countries outside the United States though most invest primarily in developed markets. World or global funds keep 30-70% of assets in domestic securities but typically invest the remaining assets in foreign stocks. In contrast, foreign funds devote no less than 70% of assets to international markets. Market cap or style specialties are identified via the same Morningstar Style Box methodology that applies to domestic equities though breakpoints are adjusted to account for market differences.
Individual region or country focuses are defined by at least 70% exposure to the indicated markets, as presented through portfolio holdings.

Foreign Giant

Foreign giant-capitalization portfolios invest in stocks from the very largest international companies. These portfolios provide exposure to a wide range of prices and growth expectations, as well as a variety of developed markets. Size scores for these funds are the highest possible while style scores may span the spectrum.

Foreign Large Growth

Portfolios from this group choose stocks that offer solid potential for capital appreciation. These funds have the highest style scores of funds in this capitalization range, which reflect their appetite for growth and relatively higher prices.

Foreign Large Core

Foreign large core managers seek exposure to well-established, sizeable firms that represent broad exposure to foreign markets. These portfolios may closely follow the MSCI EAFE index or may actively seek firms with a combination of growth and valuation characteristics. Style scores are in the middle of the range for large-cap funds.

Foreign Large Value

Foreign large value portfolios exhibit classic value attributes. They may provide exposure to dividend-paying stocks or firms considered out of favor by the market. These funds have lower style scores, as the valuation ratios and projected growth of their favored stocks are lower.

Foreign Small/Mid Growth

Portfolios from this group invest in smaller firms with ambitious expectations for growth. These funds generate returns primarily through capital appreciation since the firms they hold reinvest excess cash in other growth opportunities. High style scores reflect fast growth and high price multiples while small to mid size scores reflect the preference for stocks in the lowest 30% of each economically integrated market (such as Europe or Asia ex-Japan).

Foreign Small/Mid Core
Foreign sm/mid core portfolios choose stocks from the smallest 30% of international market capitalization. Style scores for funds in this category span from value to growth.

Foreign Small/Mid Value
Foreign sm/mid value funds look for smaller international companies that offer returns at attractive prices. These portfolios may choose value stocks because they offer high dividend yields or turnaround potential at cheap prices. Both style and size scores for these funds will be low relative to most international equity portfolios.

World Large Growth
World large growth portfolios seek classic growth opportunities among international and domestic firms. The preference for fast growth is borne out by the highest style scores of large-cap portfolios with global exposure.

World Large Core
These funds exhibit style scores roughly equal to the average for funds in the global large-cap range, either because they seek stocks offering both growth potential and low valuations or because they choose stocks from a variety of style ranges. Stocks found in these portfolios will typically come from the largest 70% of world market capitalization.

World Large Value
Portfolios in this group pursue a classic value approach as reflected by their style scores, which are typically in the low-end of the large cap range. World large value managers seek to generate returns through either dividends or discounted growth from firms in the largest 70% of market capitalization.

World Mid Cap
World mid-cap portfolios may hold global mid-cap stocks specifically or a wider array of large to small stocks, resulting in a mid-range size score. Funds in this category span the style spectrum.

World Small Cap
World small-cap portfolios invest primarily in stocks that comprise the smallest 30% of global markets. These firms may be young or from emerging industries worldwide. Style scores in this group may vary greatly.

World All-Cap
World all-cap portfolios favor a broad sampling of global stocks, which is achieved by investing at least 20% of assets in each of the large, mid and small market cap ranges. These funds may pursue either value or growth strategies, leading to a broad range of style scores.

Europe

Europe funds typically invest in large, economically developed European countries, including Germany, France, the Netherlands and Britain. Some may also provide limited exposure to the emerging areas of Eastern Europe.

Emerging Europe

These portfolios invest the majority of fund assets in the emerging markets of Europe, which are typically thought of as the Eastern European nations, but can include western countries such as Portugal and Greece. The Russian market is a popular focus for these funds.

Japan

Japan-focused funds invest primarily in the large and highly developed Japanese market. Reflecting Japan's economic maturity, these funds may vary their investment focus between large or small cap and growth or value stocks.

Pacific Asia ex-Japan

These portfolios may focus on a variety of Asian financial markets, excluding Japan. Most invest primarily in Hong Kong, Singapore, Taiwan and Korea. Due to the export-oriented nature of these markets, many of the stocks found in these portfolios will be from manufacturing industries.

Diversified Pacific/Asia

Portfolios in Diversified Pacific/Asia maintain a high exposure to countries located in the Pacific Rim, specifically those countries in the Australasia and Asia regions, including Japan. Country weightings may vary across portfolios; however, most maintain exposure to Japan and Hong Kong. Portfolios in this category have a broader geographic exposure than Asia-focused portfolios, and invest at least 40% of equity assets in Pacific countries, including at least 10% in Japan.

China

China funds seek focused exposure to the diverse Chinese market. These funds may choose from a wide variety of market capitalizations and industry segments, though many emphasize the financial and telecom sectors.

Latin America

These funds typically focus on the largest economies in Latin America such as Brazil, Mexico and Argentina. The smaller, less well-developed markets, such as Peru and Colombia, tend to be largely unrepresented in these portfolios.

India

These funds invest the majority of assets in firms based in India. Portfolios from this group may provide focused exposure to India's information technology and industrial materials sectors.

Diversified Emerging Markets

Diversified emerging markets portfolios invest at least 70% of assets in emerging markets from around the world. Though these portfolios typically invest in 20 or more countries, they tend to put more emphasis on companies based in Latin America or Asia. Firms from the Middle East or Africa are generally less well represented.

Balanced

Balanced portfolios employ diverse asset allocation strategies to divide investable assets into an optimal mix of exposure to equity, fixed income and cash or cash-like securities. Domestic allocation funds invest at least 70% of total assets in domestic securities while global portfolios limit US exposure to 30-70%. Foreign balanced funds invest 70% or more in international markets. The proportion of equity exposure to fixed income exposure determines a portfolio's relative placement.

Aggressive Allocation

Aggressive allocation portfolios invest between 70% and 85% of total assets in equity securities; remaining assets are allocated among bonds or cash. Portfolios in this group may focus on a wide range of market capitalization and valuation characteristics, though under normal market conditions they tend to maintain a fairly static asset allocation.

Moderately Aggressive Allocation

Moderate allocation portfolios distribute assets among all three major asset classes: equity, bonds and cash. These portfolios take a balanced approach with a more aggressive tint, investing 50-70% of assets in equity securities and 30-50% in fixed income. Typically, exposure to each asset class remains within specified ranges.

Moderate Allocation

Moderate allocation portfolios distribute assets among all three major asset classes: equity, bonds and cash. These portfolios take a balanced approach, investing 50-70% of assets in equity securities and 30-50% in fixed income. Typically, exposure to each asset class remains within specified ranges.

Moderately Conservative Allocation

Moderate allocation portfolios distribute assets among all three major asset classes: equity, bonds and cash. These portfolios take a balanced approach with a more conservative tint, investing 50-70% of assets in equity securities and 30-50% in fixed income. Typically, exposure to each asset class remains within specified ranges.

Conservative Allocation

Conservative allocation funds pursue exposure to each major asset class, with a preference for fixed income. These portfolios typically invest 20-50% of assets in equities, with the remainder focused on bonds and some cash. Relative exposure to each asset type typically falls within specified ranges.

Foreign Allocation

These funds typically invest in a mix of international stocks, bonds or cash. The asset allocation of these portfolios is likely to remain somewhat fixed over time, especially given normal market conditions. Foreign allocation funds may be either aggressive or conservative with respect to equity exposure.

Global Allocation

Global allocation portfolios provide exposure to stocks, bonds and cash globally. These funds generally specify a preferred asset allocation mix and adhere to that over time, though funds in this group may be more heavily-weighted in either stocks or bonds.

Flexible Allocation

Funds in this group allocate funds among stocks, bonds and cash. The relative proportion of assets devoted to each asset class varies over time as these funds do not adhere to a pre-defined target mix.

Global Flexible Allocation

Portfolios from this group offer exposure to all of the major asset classes globally, but do not have a specific target asset allocation, thus they may invest in variable proportions of stocks, bonds or cash.

Convertibles

Convertible bond portfolios have a stated focus on convertible bonds and convertible preferred stocks. These securities tend to behave like both stocks and bonds. They can be converted to shares of stock under optimal conditions, providing the upside exposure of stocks; however, they generally provide a stream of consistent income, which also gives them some fixed-income characteristics.

Tactical Asset Allocation Balanced

This institutional category is specific to the Separate Account universe. This does not include Insurance Group Separate Account universe.

These strategies pursue balanced exposure to the main asset classes but allow managers the flexibility to rebalance the asset mix based upon their perception of the strongest market segments or to take advantage of temporary price anomalies. Additionally, these strategies can typically invest in alternative asset classes, such as commodities or precious metals.

Target Risk

Target-risk funds invest in both stocks and bonds, and the split between those broad asset classes corresponds to investors' desired level of risk, with higher-risk portfolios holding more in stocks and lower-risk ones holding more in bonds. A fund's name typically indicates its risk profile, using labels such aggressive, moderate, and conservative.

Multi-Asset Income

Multi-asset income funds have generating income as a primary objective and invest across a variety of asset classes, including stocks and bonds, in pursuit of that objective. Common areas of focus include dividend-paying stocks, high-yield bonds, bank loans, and preferred stock, among others.

Multi-Asset Inflation Protection

Multi-asset inflation-protection funds seek to preserve the purchasing power of investors' assets by investing across a variety of asset classes tied to inflation. Common areas of focus include Treasury Inflation-Protected Securities, REITs, and commodities, among others.

Multi-Asset Retirement Income

Multi-asset retirement-income funds are intended to provide retirees with a diversified portfolio, often including both stocks and bonds, that assists in delivering income to retirees in some manner. These funds include managed-payout funds and other funds tailored for retirees, but do not include funds that are part of a series of target-date funds.

Diversified Tactical Asset Allocation

Diversified tactical asset allocation strategies typically utilize levered exposure to multiple themes and asset classes such that they are diversified to a point of offering absolute returns. These strategies tend to have persistently lower sensitivity to traditional markets and are intended to have very limited drawdowns. Diversified tactical asset allocation strategies rely on many sources of expected return but often will have relative value exposure to traditional asset classes.

Target Date

Target date portfolios are generally intended to provide a comprehensive solution to an investor's retirement savings needs. Fund providers create target date solutions in series. Series of target date funds offer individual portfolios for specific expected retirement date ranges, most frequently in 5-year increments. The series are designed by the firms' investment team with strategic allocations to asset classes that are generally disclosed in reporting or marketing materials. The allocations based upon years to retirement are known as the glide-path in industry parlance. Morningstar collects and standardizes the glide-path information. While many glide-path disclosures include more specific sector and risk exposure information, for institutional category purposes, Morningstar aggregates the exposures into risky equity and less risky fixed income proportions. Over time, the relative proportion in the riskier asset, equity, is reduced as the investor draws nearer to retirement. Within this asset allocation glide path framework, managers vary widely in-regards to their appetite for risk, as do investors.

The published glide paths are frequently used for retirement plans to select one series to include for future retirees. Morningstar has determined that it is most informative for all constituent investments following the same glide path to be classified into one of three buckets: Aggressive, Moderate, or Conservative.

Using the aggregated glide path data, Morningstar evaluates equity proportions relative to other series across the periods of 40-years pre-retirement to 20-years post-retirement, effectively the single solution for ages 25 through 85. Rather than using simple means, to remove biases of larger numbers the harmonic mean of the equity percentages is used. The harmonic mean of all equity percentages for all disclosed series for the 13 subject periods is identified as the central tendency of equity. To this the standard deviation for each of the 13 periods is averaged to develop a bounded range of moderate risk. Series that fall more than 1 standard deviation above the harmonic mean are assigned to aggressive institutional target date categories. Series that have an equity percentage more than 1 standard deviation below the harmonic mean of the universe of target date series reporting a glide path are assigned to conservative target-date institutional categories.

Target Date Aggressive

The funds in these categories belong to a series with a higher than typical equity weighting across the glide-path. The dates in the category names represent the expected retirement dates. Categories in this group include:

Target Date 2000-2010 Aggressive

Target Date 2011-2015 Aggressive

Target Date 2016-2020 Aggressive

Target Date 2021-2025 Aggressive

Target Date 2026-2030 Aggressive

Target Date 2031-2035 Aggressive

Target Date 2036-2040 Aggressive

Target Date 2041-2045 Aggressive

Target Date 2046-2050 Aggressive

Target Date 2051+ Aggressive

Target Date Retirement Income Aggressive

Target Date Moderate

The funds in these categories belong to a series with a typical equity weighting across the glide-path. The dates in the category names represent the expected retirement dates. Categories in this group include:

Target Date 2000-2010 Moderate

Target Date 2011-2015 Moderate

Target Date 2016-2020 Moderate

Target Date 2021-2025 Moderate

Target Date 2026-2030 Moderate

Target Date 2031-2035 Moderate

Target Date 2036-2040 Moderate

Target Date 2041-2045 Moderate

Target Date 2046-2050 Moderate

Target Date 2051+ Moderate

Target Date Retirement Income Moderate

Target Date Conservative

The funds in these categories belong to a series with a lower than typical equity weighting across the glide-path. The dates in the category names represent the expected retirement dates. Categories in this group include:

Target Date 2000-2010 Conservative

Target Date 2011-2015 Conservative

Target Date 2016-2020 Conservative

Target Date 2021-2025 Conservative

Target Date 2026-2030 Conservative

Target Date 2031-2035 Conservative

Target Date 2036-2040 Conservative

Target Date 2041-2045 Conservative

Target Date 2046-2050 Conservative

Target Date 2051+ Conservative

Target Date Retirement Income Conservative

Taxable Bond

Taxable bond portfolios invest at least 80% of assets in securities that provide bond or cash exposure. Duration and credit quality placement are determined using Morningstar's Fixed Income Style Box methodology. A fund's fixed-income style box placement is calculated using average effective duration and credit quality distribution data provided by the fund's management. Average effective duration classifications are as follows:

Long: > 6 years
Intermediate: 4-6 years
Short-Intermediate: 2.5-4
Short: 1-2.5
Ultrashort: < 1

Taxable bond portfolios are also differentiated by focus on a specific sector. A sector focus is defined by consistent investment of at least 70% of assets in the given sector.

Ultrashort Investment Grade
Ultrashort investment grade portfolios focus on AAA- or AA-rated securities that mature in less than one year. These securities may include corporate or government issues.

Short-Term Government
Short government portfolios invest the majority of assets in securities backed by the US government or government agencies. These portfolios offer low risk potential and limited total return potential.

Short-Term Investment Grade
Short investment grade portfolios may provide exposure to both high quality corporate bonds and government issues. Both types of securities offer low risk of default while the short-term focus of these portfolios leads to low interest rate risk.

Short/Intermediate Government
Portfolios in this group prefer bonds issued either by the US government or by government-linked agencies. As a result, these portfolios have minimal credit risk. Given their short to intermediate duration focus, interest rate risk is also muted.

Short/Intermediate Investment Grade
Short/intermediate investment grade portfolios invest primarily in corporate bonds with an AAA or AA credit rating or government-guaranteed bonds. Total risk and return potential for funds in this group is marginally higher than funds with a strict focus on government securities.

Intermediate Government

Intermediate government portfolios focus on bonds issued by the US government or government-linked agencies. While these portfolios are not subject to high default risk because of the government's backing, they are subject to interest rate risk. Total risk and return potential for these funds will naturally fall between that of short- and long-government-focused portfolios.

Intermediate Investment Grade

Portfolios from this group focus on bond issues rated AA or higher. Typically, these funds will have exposure to both corporate and government securities. Because high-quality bonds are usually more creditworthy, the primary investment risk comes from interest-rate sensitivity.

Long Government

Long government portfolios invest heavily in long-term bonds backed by the US government or its agencies. While default risk of these securities is considered very low, these portfolios will experience higher returns and volatility than other government portfolios because interest rate fluctuations will have a bigger impact on their longer-duration bonds.

Long Investment Grade

Long investment grade portfolios buy long-term bonds from issuers rated AA or higher. These can include corporate or government issues. Funds from this group may have higher returns and volatility than most other bond funds as they are generally subject to more default and duration risk.

GNMA

These portfolios have a stated focus on securities issued by the Government National Mortgage Association (Ginnie Mae or GNMA). GNMA mortgage-backed securities carry an explicit government guarantee, making them the safest mortgage-backed investments. These portfolios typically have high average credit quality.

Mortgage-Backed

Mortgage-backed portfolios invest the majority of assets in mortgage-backed securities from a wide variety of issuers and with a wide range of maturities. These funds are exposed to both credit quality and interest rate risk, leading to both high risk and high return potential.

A-Rated

These portfolios maintain average credit quality exposure equivalent to A-rated securities either through a specific focus on those securities or through balanced exposure to securities rated in the range between high and low quality. Typically, these portfolios will be primarily invested in corporate bonds.

BBB-Rated
BBB-rated portfolios maintain exposure to securities rated in the middle ground between high and low quality. These portfolios are typically invested heavily in corporate bonds of various maturities.

Multisector Bond
Multisector bond portfolios invest in mortgages, foreign bonds, and high-yield debt. These funds tend to hold 35-65% of assets in unrated or high yield bonds.

High Yield Bond
Portfolios in this group seek returns via significant exposure to low quality bonds, those that are either unrated or rated by a major agency as BB or lower. These securities offer higher yields because they have a higher probability of default and are generally more vulnerable to economic fluctuations. These funds tend to have higher total return and risk potential than investment-grade bond portfolios.

Bank Loan
Bank loan funds focus on floating-rate bank loans instead of bonds. These securities carry credit risk but also have a relatively high, adjustable current income based on a common short-term benchmark whose interest rate adjusts periodically, such as the LIBOR.

World Bond
World bond portfolios invest 30-70% of assets in fixed income securities issued by non-US entities. These funds may focus primarily on developed markets or provide some exposure to emerging market issuers.

Foreign Bond
Foreign bond funds invest at least 70% of assets in international fixed-income securities. Most likely these portfolios are primarily exposed to developed markets and high-quality bonds; however, they may also invest in low-quality issues or emerging markets. As a result, these portfolios may be exposed to several sources of risk, including credit quality, interest rate, and currency.

Emerging Markets Bond
Emerging markets bond funds focus on fixed-income securities from emerging markets around the world. These portfolios will most likely include exposure to Latin America and Eastern Europe.

Emerging-Markets Local-Currency Bond
Emerging markets bond funds focus on fixed-income securities from emerging markets around the world. Funds in this category have a mandate to maintain exposure to currencies of emerging markets. These portfolios will most likely include exposure to Latin America and Eastern Europe.

Inflation-Protected Bond

Funds in this group invest the majority of assets in securities whose principal values are adjusted with inflation rates in order to mitigate inflation risk. While any entity could issue such securities, the United States Treasury is currently the primary source of inflation-hedged bonds.

Core Plus Bond

These strategies invest primarily in investment grade, intermediate-term bonds, similar to those listed in the BarCap US Aggregate Bond index, but they attempt to outpace the returns of that benchmark by investing 10-20% of assets in high yield securities. As a result, these strategies are subject to more credit risk than their strictly high-grade counterparts.

Enhanced Cash Management

This institutional category is specific to the Separate Account universe. This does not include the Insurance Group Separate Account universe.
By investing in short-term government securities, asset-backed securities and corporate bonds, these strategies attempt to provide a higher-yield alternative to money market funds with a comparable level of principal stability. Duration is typically up to 1.5 years and average credit quality is around AA.

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.

Currency

Currency portfolios seek exposure directly to US and foreign currencies via money market instruments and derivative securities. Examples of these include forward currency contracts and index options.

Municipal Bond

Municipal bond strategies are generally defined by state or national focus and duration exposure. A fund is considered state-specific if at least 70% of its assets are invested in municipal securities issued by the various government entities of a single state. Average effective duration and credit-quality distribution are calculated and provided by fund management. These figures lead to duration- and credit-quality-based category assignments via Morningstar's Fixed Income Style Box methodology. Average effective duration classifications are as follows:

Long: > 7 years
Intermediate: 5-7 years
Short-Intermediate: 3.5-5
Short: < 3.5

Muni National Long

These portfolios focus on long-term bonds issued by states and municipalities from across the country. The income earned through these portfolios is generally federal tax-exempt. While these portfolios do not experience substantial credit risk, their long-duration focus gives them interest rate sensitivity.

Muni National Intermediate

Muni national intermediate portfolios invest the majority of assets in municipal bonds issued by various state and local governments. The advantage of these portfolios is that the income earned is exempt from federal taxes.

Muni National Short/Intermediate

Muni national short/intermediate portfolios invest in bonds issued by various states and municipalities to fund public projects. Income garnered by bondholders is generally free from federal taxes.

Muni National Short

Muni national short portfolios invest in short-term bonds issued by state and local governments from across the country. The revenue from these bonds is used to fund public projects and the income provided to bondholders is typically exempt from federal taxes.

High Yield Muni

High yield municipal portfolios maintain substantial exposure to low quality municipal bonds, which include those that are not rated or are rated BBB or lower by a major rating agency such as Standard & Poor's or Moody's. These portfolios offer higher total return and risk than most other municipal portfolios.

Muni Insured
These portfolios invest primarily in municipal securities that are insured, either by the issuer or the underwriter of the bond, to guarantee timely payment of principal and interest. Funds from this group invest in securities issued by various state and local governments.

Muni Single State Insured
Muni single state insured portfolios focus on insured municipal securities issued by the state or local governments of a single state. Insured securities carry a guarantee, made by either the bond issuer or underwriter, to make timely principal and interest payments.

Muni California Insured
Muni California insured portfolios invest the majority of assets in insured municipal securities issued by the state of California or individual city and county governments. Insured securities carry a guarantee, made by either the bond issuer or underwriter, to make timely principal and interest payments. The income earned by these portfolios is typically free from California state tax.

Muni Arizona
Muni Arizona portfolios invest in Arizona municipal debt. Income earned from these portfolios is typically free from both federal and Arizona state taxes.

Muni California Long
Muni California long portfolios invest primarily in California municipal debt and have an average effective duration greater than seven years. These portfolios have increased interest rate sensitivity relative to short or intermediate portfolios. The income earned by these portfolios is free from federal and California state taxes.

Muni California Intermediate
Muni California portfolios invest in bonds issued by the state and local governments of California, and have an average effective duration between five and seven years. The income earned by these portfolios is free from federal and California state taxes.

Muni California Short - Intermediate
These portfolios invest primarily in California municipal debt and have an average effective duration less than five years. The income earned by these portfolios is free from federal and California state taxes.

Muni Colorado
Muni Colorado portfolios invest specifically in Colorado municipal debt. This group includes funds spread across the duration spectrum. . The primary advantage of these portfolios is that income earned is typically exempt from both federal and Colorado state taxes.

Muni Connecticut

Muni Connecticut funds purchase securities issued by the state of Connecticut or its various local governments. The income earned through these portfolios is free from federal and Colorado state taxes. These portfolios may focus on long, intermediate or short-term bonds.

Muni Florida

Muni Florida portfolios invest primarily in Florida municipal debt, the income from which is exempt from both federal and Florida state taxes. This group may include funds with a focus on short, intermediate, or long-term bonds.

Muni Georgia

Muni Georgia portfolios invest in bonds issued by the state of Georgia or any of its local governments to fund public projects. The income paid to bondholders is generally free from federal and Georgia state taxes. This group may include long, intermediate or short-term portfolios.

Muni Maryland

These portfolios invest heavily in Maryland municipal debt and offer exposure across the duration spectrum. The income earned through these portfolios is free from both federal and Maryland state taxes.

Muni Massachusetts Long

These portfolios focus on Massachusetts municipal debt, and have an average effective duration greater than seven years. Because of the additional interest-rate sensitivity associated with longer duration bonds these funds may have greater total return potential than their short or intermediate counterparts. The income earned by these portfolios is free from federal and Massachusetts state taxes.

Muni Massachusetts Short & Intermediate

Muni Massachusetts Short & Intermediate funds invest the majority of assets in Massachusetts municipal debt. In particular, funds in this group have an average effective duration less than seven years. The income earned by these portfolios is free from federal and Massachusetts state taxes.

Muni Michigan

Muni Michigan portfolios invest primarily in Michigan municipal debt, issued to raise funding for public projects. These portfolios may have exposure across the duration spectrum or focus specifically on long, intermediate or short-term bonds. Income earned by these portfolios is free from federal and Michigan state taxes.

Muni Minnesota
Muni Minnesota portfolios primarily invest in bonds issued by the state of Minnesota or its local governments to fund public projects. The income earned by these securities is exempt from federal and Minnesota state taxes. Portfolios from this group may focus on long, intermediate or short-term bonds.

Muni Missouri
These portfolios buy bonds issued by the state of Missouri or its local governments. The primary benefit of these portfolios, as compared to more diversified bond funds, is that the income earned is tax-exempt at both the federal and state level. Funds from this group may provide a wide range of duration exposure.

Muni New Jersey
Muni New Jersey portfolios invest primarily in New Jersey municipal debt. These funds may have a preference for long, intermediate or short-term bonds. Income earned through these portfolios is generally exempt from federal and New Jersey state taxes.

Muni New York Long
These portfolios buy bonds issued by the state of New York or its local governments issued in order to raise funds for public projects. These portfolios have an average effective duration greater than seven years, leading to somewhat higher risk and return potential than a short or intermediate portfolio. Income earned through these portfolios is generally exempt from federal and New York state taxes.

Muni New York Short & Intermediate
These portfolios invest heavily in New York municipal debt, and have an average effective duration less than seven years. Income earned through these portfolios is generally exempt from federal and New York state taxes.

Muni North Carolina
Muni North Carolina portfolios invest the majority of assets in North Carolina municipal debt. These portfolios may be focused on any duration range and the income earned by shareholders is generally exempt from federal and North Carolina state taxes.

Muni Ohio
Muni Ohio portfolios invest primarily in Ohio municipal debt, issued to raise funding for public projects. These portfolios may offer exposure across the duration spectrum or focus specifically on long, intermediate or short-term bonds. Income earned by these portfolios is free from federal and Ohio state taxes.

Muni Pennsylvania

Muni Pennsylvania portfolios invest in Pennsylvania municipal debt. Income earned from these portfolios is typically free from both federal and Pennsylvania state taxes.

Muni Virginia

Muni Virginia funds purchase securities issued by the state of Virginia or its various local governments. The income earned through these portfolios is free from federal and Virginia state taxes. These portfolios may focus on long, intermediate or short-term bonds.

Muni Single State Long

These portfolios invest primarily in municipal debt issued by a single state or its local governments. Income earned from these portfolios will be free from federal taxes state level taxes, making them attractive investments for residents of the target state. Funds in this group will maintain average effective duration greater than seven years.

Muni Single State Intermediate

Muni single state intermediate funds have an average effective duration between five and seven years. Municipal securities are typically exempt from federal taxes. These funds also take advantage of state-tax benefits by focusing on bonds from a single state.

Muni Single State Short - Intermediate

These portfolios invest primarily in municipal debt issued by a single state or its local governments. Income earned from these portfolios will be free from federal taxes and state taxes, making them attractive investments for residents of the target state. Funds in this group will maintain an average effective duration of less than five years.

Money Market

Money market portfolios are generally described as those that invest in short-term securities that mature in less than one year, and are low risk enough to be considered cash equivalents. Examples of qualifying securities include US T-bills, high quality commercial paper and short-term CDs. These portfolios are differentiated by preference for taxable or tax-free securities.

Money Market Taxable

These portfolios invest in highly liquid, ultra-short securities. The goal is to provide a level of current income that is consistent with the preservation of capital.

Money Market Tax-Free

Tax-free money market portfolios invest primarily in ultra-short and highly liquid municipal securities that are typically exempt from some federal and state taxes. The primary goal of these portfolios is to provide current income consistent with capital preservation.

Miscellaneous

The miscellaneous portfolios contain strategies that do not fit neatly into the other asset-class groups. Strategies in these categories may be employed as short-term trading vehicles, offering leveraged or inverse exposure to certain market segments.

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.

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.

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.

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.

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.

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.

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.

Additional Information

Click here for the current Morningstar Lifetime Allocation Indexes Summary, as referenced throughout the above methodology document.

For more information on the Morningstar Lifetime Allocation Indexes, please click here to access the methodology documents and other related materials.

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