Guided Investing Programs

Hypothetical Projections Tool

Important: The projections or other information shown in this analysis regarding the likelihood of various investment outcomes are hypothetical in nature, pre-tax (do not account or adjust for the deduction of any taxes), do not reflect actual investment results and are not guarantees of future results. Results may vary with each use and over time. These projections are based on capital market assumptions for asset classes like equities, fixed income and cash (as applicable) and do not reflect performance expectations for any specific investment or portfolio of investments.

Hypothetical projections: Methodology, assumptions and limitations

Overview

The presentation of hypothetical projections is educational in nature, and is intended to provide you with information to help you understand how a mix of assets may perform over time. This document provides information about how the hypothetical projections are calculated for an account's recommended Target Asset Allocation (referred to in this document as "Allocation Profile"). The Allocation Profile used for these calculations is derived from information obtained through the online profiling process and uses the same methodology to recommend your initial and ongoing Target Asset Allocation for the Merrill Guided Investing programs (Merrill Guided Investing and Merrill Guided Investing with Advisor; collectively referred to herein as the "Guided Investing Programs"). It describes how we use the information you provide to us and the methodology, assumptions and limitations of the tool we use to calculate the hypothetical projections. The hypothetical projections do not reflect the actual investment performance of any investor, of any investment strategy that you may select or the underlying exchange-traded funds (ETFs) or mutual funds that may be included in such investment strategy. The hypothetical projections are not guarantees of future results and do not predict actual future performance.

Understanding the hypothetical projections chart

Understanding the hypothetical projections chart
The tool presents hypothetical values in the projections chart representing the potential range of values for an Allocation Profile based on your investment amount, including any ongoing investments, over the course of the projection period. The bottom of the chart shows the projection time period, and the right side of the chart shows the estimated value of the assets that could be reached at three different confidence level scenarios:

• **5% likelihood**: This represents predominantly "strong" market performance over the investment period. The scenario result means that this asset level was achieved in 5% of the simulations used by the probabilistic modeling tool.

• **25% likelihood**: This represents predominantly "above average" market performance over the investment period. The scenario results means that this asset level (or more) was achieved in 25% of the simulations used by the probabilistic modeling tool. This scenario is viewable by selecting the "show projected balances" dropdown below the hypothetical projection chart.

• **50% likelihood**: This represents "average" market performance over the investment period. The scenario result means that this asset level (or more) was achieved in 50% of the simulations used by the probabilistic modeling tool.

• **75% likelihood**: This represents predominantly "below average" market performance over the investment period. The scenario results means that this asset level (or more) was achieved in 75% of the simulations used by the probabilistic modeling tool. This scenario is viewable by selecting the "show projected balances" dropdown below the hypothetical projection chart.

• **95% likelihood**: This represents predominantly "weak" market performance over the investment period. The scenario result means that this asset level (or more) was achieved in 95% of the simulations used by the probabilistic modeling tool.

Our methodology

In order to generate the hypothetical projections, the tool uses a combination of inputs provided by you, various assumptions and a series of calculations as described below.

Your information for the calculation

We use the information you provided to us for the account as part of the online profiling process. The tool assumes the information you provided remains the same for the entire time period. The types of information we use include:

- The type of account you selected:
  - a taxable investing account ("Taxable Account"), or
  - a tax-advantaged retirement account ("Retirement Account")
- Your investment amount:
  - Before enrollment: If the account is not yet enrolled in one of the Guided Investing Programs, this amount will be your intended initial Investment amount that you inputted.
  - While enrolled: If your account is currently enrolled in one the Guided Investing Programs, this amount is the current value of your account at the time of the calculation.
- Your scheduled ongoing (i.e., monthly) contribution amounts in the future, if any
- The risk tolerance for your account ("Risk Tolerance")

- Projection time period:
  - If you have a general investing, home, family support, travel, special occasion, or other large purchase goal, it is the period between the current year and your Target Year.
  - If you have a retirement goal, it is the period between the current year and the year you are targeting to begin receiving those cash flows (i.e., Retirement Age).
  - If you have an Education goal, it is the period between the current year and the year you are targeting to begin receiving those cash flows (i.e., Year Starting School).
- Monthly withdrawal period (retirement goals only): This is the period between the year of your Retirement Age and the last year of your Years in Retirement. Projections will continue through this period, but the contributions end and the estimated monthly withdrawals begin and continue through the end of your Years in Retirement.
- Annual withdrawal period (Education goals only): This is the period between the year of your Year Starting School and the last year of your Years in School. Projections will continue through this period, but the contributions end and the estimated annual withdrawals begin and continue through the end of your Years in School.

The tool also uses your account's time horizon ("Time Horizon"), which may change depending upon the current year and your Target Year for general investing, home, family support, travel, special occasion, or other large purchase goals; the current year and the end of your Years in School for education goals; and your current age and your age at the end of your Years in Retirement for retirement goals. When the current year reaches the last calendar year included in the projection time period, then you are close to finishing the time you have indicated for your goal, and we will not present a hypothetical projection for your account.

How does it work?

As part of the online profiling process, you will receive a recommendation for a Target Asset Allocation for your account. The tool uses the same client information and methodology as is used to recommend your initial and ongoing Target Asset Allocation for your account. In order to generate the hypothetical projections, we construct a theoretical model portfolio aligned to the account's Target Asset Allocation or Allocation Profile that reflects percentage allocations among the cash, equity and fixed income asset classes based on the Strategic Asset Allocations developed by the Chief Investment Office ("CIO"). The individual forward-looking growth assumptions for each asset class are referred to as "capital market assumptions," and are described in greater detail below. The projected growth of the theoretical model portfolio is based on the combined projected performance of each individual asset class included in the theoretical model portfolio.

The tool uses statistical modeling (sometimes referred to as Monte Carlo simulation) in which a set of future outcomes are projected based on forward looking assumptions to generate a hypothetical range of values for a given set of assets every year. These future outcomes are used to generate 5,000 scenarios of the model portfolios performance for each year in the projection time-period, incorporating the growth of assets over each year you plan to invest. In addition, the analysis takes into consideration factors such as economic conditions, the market value of the investments and market volatility.

The tool also takes into account expected allocation changes to the theoretical model portfolio if the Allocation Profile changes over the projection time period as the Time Horizon becomes smaller. This means that, unless your account's Allocation Profile is "Conservative," your account's Allocation Profile will become more conservative over time as your account Time Horizon becomes smaller. Therefore, the Allocation Profile used by the tool at the start date and the end date in the chart may be different due simply to the passage of time.

Assumptions and Limitations

The following assumptions and limitations affect the hypothetical projections calculations:

Capital market assumptions: The tool uses capital market assumptions that were developed by the CIO based on (among other things) data relating to the historical performance of its corresponding index proxy or benchmark and the consideration of special events or circumstances. The asset class assumptions reflect estimates for the long-term (25-year) future returns for the asset classes indicated in the table on the next page. Each asset class assumption includes estimates of expected return, expected standard deviation and the correlation coefficient among all asset classes. The asset class assumptions were developed following a rigorous process and do not merely assume that historic returns will continue to be realized in the future; instead they considered a number of factors and analyses, including the following:

- A close examination of asset class performance over several economic cycles with the inclusion of recent market movements
- Consideration of special events or circumstances, with the appreciation that future performance may not necessarily follow past patterns
- Review of academic research and advanced analytical forecasting and statistical models

Index proxies are used as a data input in constructing the forward-looking assumptions, and the relevant indices are listed in the table below. Additional information about the Index proxies can be found in the "Glossary" section of this document.

Asset Class		Index Proxy
Equity	U.S. Large Cap Growth	Russell 1000 Growth TR
	U.S. Large Cap Value	Russell 1000 Value TR
	U.S. Small Cap Growth	Russell 2000 Growth TR
	U.S. Small Cap Value	Russell 2000 Value TR
	International Developed Equity	MSCI Daily TR Net World Ex USA USD
	Emerging markets	MSCI Daily TR net EM USD
Fixed Income	U.S. Government	ICE BofA AAA U.S. Treasury/Agency Master
	U.S. Mortgages	ICE BofA Mortgage Master
	U.S. Corporates	ICE BofA U.S. Corp Master
	U.S. High Yield	ICE BofA Cash Pay High Yield
	International Fixed Income	ICE BofA Global Broad Market TR ex USD (hedged)
Cash	Cash	IA SBBI 30 Day Treasury Bill

Note: Indices in the table are as of November 2023 and are used for illustrative purposes only, are unmanaged, assume the reinvestment of dividends and do not reflect the impact of management or performance fees. Indices do not represent actual individual accounts. One cannot invest directly in an index. The asset classes used for the projections may differ from the actual asset classes in your selected investment strategy.

Impact of fees and certain expenses: The tool applies the annual asset-based fee from the relevant Guided Investing Program to the estimated balance at the beginning of each year (or from the start date of the first year) for the purpose of the hypothetical projections.

In contrast, each Guided Investing Program assesses such annual asset-based fee on a monthly basis in advance for clients.

However, the hypothetical projections do not reflect the impact of other fees and expenses associated with being an investor in ETFs, mutual funds, or money market funds that may be held in your account or fees not covered by the applicable Program fee, such as exchange fees charged by third parties. Had they been factored in, the hypothetical projections would reflect lower asset levels.

Inflation: The tool assumes the current long-term expected inflation rate is 2.44%. This value could change over time.

Intervals approach and limits: The hypothetical projections are shown in whole-year intervals regardless of the point in time during the calendar year when the chart is presented. Before enrollment, the minimum period for the hypothetical projections is three years from current year (or age). While enrolled, the minimum period for the hypothetical projections is one year. For purposes of the calculations, a person's age in his/her Target Year, Year Starting School, or Retirement Age plus Years in Retirement cannot exceed 115. When the current year reaches the last calendar year included in the projection time period, then you are close to finishing the time you have indicated for your goal. In this scenario, an estimate of your current account value and future contributions will replace the hypothetical projections view.

Ongoing investments (contributions): The tool multiplies the monthly contributions (if any) by 12 and assumes that the resulting value is invested once at the end of each year. Depending upon the time the chart is presented, this may result in a first-year contribution assumption that is greater than actual contributions. Any changes in investment value are applied only in one-year time periods. We assume the amount of the monthly contributions does not change over the projected period except as specified in the "retirement goal-related calculations" section.

Taxes: The tool does not factor in any taxes that may be applicable except as described in the "retirement goal-related calculations" section.

Rebalancing: Projections assume the theoretical model portfolio is automatically rebalanced annually back to the applicable Target Asset Allocation for the account for each year in the projection time period. For Guided Investing, strategies and client accounts enrolled in the Program may be rebalanced at any time, as explained in the relevant Guided Investing Program Brochure.

Retirement goal-related calculations: Assets in your Retirement Account are estimated based on continued tax-deferred growth until the year you designated as your Retirement Year. These tax-deferred growth assumptions do not apply if your retirement goal is using a Taxable Account. For retirement goals, by checking the "Show projected monthly withdrawals" box below the chart, you will also be able to see estimated projected withdrawals starting on the year of your Retirement Age and continuing through the last year of the Years in Retirement you selected. The withdrawal values are presented in today's dollars (using the 2.44% annual inflation rate stated previously) at three different confidence level scenarios (5%, 50%, and 95% confidence levels). “Understanding the hypothetical projections chart” provides an explanation of the three confidence levels. This feature is only available for retirement goals. If you indicated you intend to convert your assets to cash when you reach your stated retirement year (“0” Years in Retirement), the monthly withdrawals feature will not be available.

Annual withdrawals calculation (Education goal only): The estimated annual withdrawal values are computed the projected annual amount taken at the start of each one-year period in the Years in School. If you chose a Years in School value of one year, the estimated monthly values will be the same for all three confidence levels.

Monthly withdrawals calculation: The estimated monthly withdrawal values are computed as 1/12th of the projected annual amount taken at the start of each one-year period in the Years in Retirement. If you chose a Years in Retirement value of one year, the estimated monthly values will be the same for all three confidence levels. As stated above, the tool generally does not incorporate taxes into the calculations. However, there is a withholding assumption that affects the analysis as follows:

Traditional, SEP, or SIMPLE IRA: The calculation assumes a 20% withholding for Traditional, SEP, and SIMPLE IRA distributions. The withholding tax is applied to the total annual distributed amount at the beginning of each year, rather than at the time of each monthly distribution. This means each monthly distribution is taken from an amount reduced by the 20% withholding. However, the amount resulting from the 20% “withholding” at the beginning of each year is then added back to the total balance for the beginning of the following year. Thus, depending on your particular circumstances, the calculations may overestimate the amount available to be distributed during your Years in Retirement. The withholding tax on the final year’s withdrawal is not recovered and is not added back into the balance used in the drawdown calculation

Roth IRA or Taxable Account: Calculations assume there is no withholding for distributions from a Roth IRA or Taxable Account.

Required minimum distributions (RMDs): IRS rules require that minimum distributions be taken from a Traditional, SEP, or SIMPLE IRA when you turn age 73. The RMD amount is based on life expectancy assumptions the IRS uses. The calculations used in the hypothetical projections make certain assumptions regarding RMDs that may have an impact on the estimated withdrawal amounts. If RMDs are applicable, and your estimated withdrawal is less than the estimated RMD adjusted for withholding, the tool assumes that your withdrawal amount is equivalent to the estimated withdrawal amount and not the full RMD. This means that if the RMD amount were actually higher than the estimated withdrawal amount and you were to take the full RMD, the calculations might overstate the amount available to withdraw in your Years in Retirement. The tool assumes that RMDs do not affect Roth IRAs.

IRA Contribution Limits: If you are investing in a Traditional, Roth, or SEP, IRA and your stated monthly contributions exceed the annual contribution limits currently set by the IRS, the calculations assume that you contributed the annual maximum. The calculations then assume that your stated monthly contributions restart in January of the following year. You will be limited to the current year’s limit on IRA contributions.

For a Traditional or Roth IRA, the limit is $7,000 for a client under age 50 as of the end of 2024 or $8,000 for clients older than 50 years old in 2024. In accordance with the SECURE Act, anyone may make a Traditional IRA contribution if they have earned income regardless of their age.

For a SEP IRA, the limit for employer contributions in 2024 is $69,000 ($66,000 in 2023). For a SIMPLE IRA, the contributions you enter should include both employer and employee estimated contributions.

The maximum employee contributions to a SIMPLE IRA for a client under age 50 for 2024 is $16,000. The maximum employee contributions to a SIMPLE IRA for a client age 50 or older for 2024 is $19,500. To allow for both estimated employer and employee contributions, the calculations do not impose a limit on contributions to a SIMPLE IRA. In future years, the calculations will assume the contribution limits grow at the rate of inflation. This would cause the limited contributions to grow with inflation until they reach the stated amount, as well as being adjusted at age 50 to take advantage of the additional catch-up contribution. For purposes of computing the annual limit, no portion of the existing account balance, rollover or transfer will be considered as made in the initial year.

Limitations. When reviewing the hypothetical projections, please also consider the limitations described below:

- The estimated market values presented are highly dependent on the accuracy of the growth assumptions discussed in the “Our methodology” and “Assumptions” sections.

- The asset classes used in the model portfolios for the purpose of the hypothetical projections may at times differ from the allocation in your investment strategy, both in terms of the actual asset classes included in the investment strategy and in terms of the percent allocation of the overall portfolio. This difference is based on the fact that the investment strategies are actively managed, and the actual allocations in your investment strategy may reflect tactical asset allocation changes based on the CIO investment decisions as well as rebalancing decisions that are not modeled by the tool and are not reflected in the model portfolios. You should be aware that this could result in the projected value not reflecting the performance of certain asset classes included in the analysis and does not depict results that would occur from an extreme market event, either positive or negative, due to the low probability of such an occurrence.

- This analysis is limited to the information you provide for your Guided Investing Program account as described in this document; the tool does not take into account any assets, investments or income you have (such as pension, Social Security benefits or other retirement income) other than (1) either your stated initial investment or current Account balance and (2) your stated monthly contributions.

- Probabilistic modeling does not analyze specific security holdings like the ETFs and/or mutual funds in the Investment strategies used in the Guided Investing Program.

- The tool assumes that your stated Risk Tolerance and monthly contributions do not change over the projection time period. If you change this or other information such as your Time Horizon, the amount of your initial contribution or ongoing contributions, the projections will be adjusted. In addition, the hypothetical projections are presented as of the date indicated on the chart. If you perform the calculation on a different date, the results may be different due to the difference in time or if any of the underlying assumptions change, even if your information hasn't changed.

- While the Allocation Profiles make use of asset allocation, this approach does not ensure a profit or protect against a loss in declining markets and does not eliminate the risk of fluctuating prices and uncertain returns.

Glossary

Allocation Profile: A description of various factors, including Risk Tolerance and Time Horizon, based on what you tell us. The overall risk characterization of the investor profile — conservative, moderately conservative, moderate, moderately aggressive or aggressive — serves as the foundation for a Target Asset Allocation. The five Allocation Profiles are as follows:

- **Conservative**: For investors who are predominantly risk averse. Primary focus is on portfolio stability and preservation of capital. Investors using this Allocation Profile should be willing to achieve investment returns (adjusted for inflation) that are low or, in some years, negative, in exchange for reduced risk of principal loss and a high level of liquidity. A typical portfolio will be heavily weighted toward cash and fixed income asset classes.

- **Moderately Conservative**: For investors who are somewhat risk-averse. Primary focus is to achieve a modest level of portfolio appreciation with minimal principal loss and volatility. Investors using this Allocation Profile should be willing to absorb some level of volatility and principal loss. A typical portfolio will include primarily cash and fixed income asset classes with a modest allocation to the equity asset class.

- **Moderate**: For investors who are willing to take a moderate level of risk. Primary emphasis is to strike a balance between portfolio stability and portfolio appreciation. Investors using this Allocation Profile should be willing to assume a moderate level of volatility and risk of principal loss. A typical portfolio will primarily include a balance of the fixed income and equity asset classes.

- **Moderately Aggressive**: For investors who are willing to take a fair amount of risk. Primary emphasis is on achieving portfolio appreciation over time. Investors using this Allocation Profile should be willing to assume a high level of portfolio volatility and risk of principal loss. A typical portfolio will have exposures to various asset classes but will be primarily weighted toward the equity asset class.

- **Aggressive**: For investors who are willing to take substantial risk. Primary emphasis is on achieving above-average portfolio appreciation over time. Investors using this Allocation Profile should be willing to assume a significant level of portfolio volatility and risk of principal loss. A typical portfolio will have exposures to various asset classes but will be heavily weighted toward the equity asset class

Asset Allocation: The mix of investment classes — equities, fixed income, cash, and, where appropriate, alternative investments — for an investor's portfolio.

Asset class: A term used to classify and distinguish between types of assets. Examples include equities (stocks) and fixed income (bonds).

Capital market assumptions: These forward-looking assumptions reflect views on future asset class performance and anticipated levels of risk and volatility and were developed by the Chief Investment Office ("CIO").

Equities (stocks): Investments representing ownership in a corporation. As a part owner or shareholder, an investor could profit from the company's successes in the form of increased share prices, dividends or both. On the other hand, equities have no fixed value and are only worth what another investor is willing to pay at any given moment.

- Large Cap Growth: Securities of large capitalization companies (with at least $16.25 billion in market capitalization) that have high forecasted growth, high return on equity and low dividend payout.

- Large Cap Value: Securities of large capitalization companies (with at least $16.25 billion in market capitalization) that have low forecasted price-earnings ratio, low price-to-book ratio and high dividend yield.

- Small Cap Growth: Securities of small capitalization companies (with less than $4.83 billion in market capitalization) that have high forecasted growth, high return on equity and low dividend yield.

- Small Cap Value: Securities of small capitalization companies (with less than $4.83 billion in market capitalization) that have low forecasted price-earnings ratio, low price-to-book ratio and high dividend yield.

- International Equities: Securities trading primarily in markets outside of the United States that represent equity ownership in a company.

Fixed Income (bonds): Debt investments representing money that investors lend to a government or corporation (the issuer). The issuer, in return, promises to pay the investor a fixed or floating rate (coupon rate) at stated intervals over a predetermined period of time. At the end of this time (maturity date), the principal is returned to the investor. Prior to maturity, the value of the security fluctuates as current interest rates rise or fall.

- **Short-Term Fixed Income:** Securities issued by the U.S. government and debt issues of federal agencies, state or local governmental entities and private corporations, having a maturity of 0 to 5 years.

- **Intermediate Term Fixed Income:** Securities issued by the U.S. government and debt issues of federal agencies, state or local governmental entities and private corporations, having a maturity of 5 to 15 years.

- **Long-Term Fixed Income:** Securities issued by the U.S. government and debt issues of federal agencies, state or local governmental entities and private corporations, having a maturity of 15 years or more**.**

Inflation rate: The rise in the prices of goods and services, as happens when spending increases relative to the supply of goods on the market.

Likelihood levels (confidence/probability levels): A statistical measure of likelihood based on the ratio of "successful" occurrences to the total number of possible occurrences.

Probabilistic (Monte Carlo) modeling: A statistical modeling technique in which a set of future outcomes is forecasted based on the variability or randomness associated with historical occurrences and forward-looking assumptions. The likelihood that an event will occur (e.g., asset balances will not drop below a specific value) is determined by analyzing the range of potential outcomes. In this tool, a probabilistic approach is used to determine the range of potential wealth outcomes that could be realized. It involves generating thousands of scenarios, each simulating the growth of assets over a specified period of time, taking into account various factors, such as economic conditions, the allocation of assets, and market volatility. Of course, outcomes based on this modeling technique are not guaranteed and your actual results could significantly differ for many reasons.

Proxy index (benchmark) information

- **Russell 1000® Growth Total Return Index** measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.
- **Russell 1000® Value Total Return Index** measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.
- **Russell 2000® Growth Total Return Index** measures the performance of the small-cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.
- **Russell 2000® Value Total Return Index** measures the performance of the small-cap value segment of the U.S. equity universe. It includes those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.
- **MSCI Daily TR Net World Ex USA USD (MSCI World Ex USA)** captures the large- and mid- cap representation across 22 of 23 Developed Markets (DM) countries –excluding the United States. The Index covers approximately 85% of the free float-adjusted market capitalization in each country.
- **MSCI Daily TR Net EM USD** captures large and mid cap representation across 23 Emerging Markets countries and targets coverage of approximately 85% of the free float adjusted market capitalization in each country.
- **ICE BofA AAA U.S. Treasury/Agency Master** tracks the performance of US dollar denominated US Treasury and non-subordinated US agency debt issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch). In addition, qualifying securities must have at least one year remaining term to final maturity, at least 18 months to maturity at time of issuance, a fixed coupon schedule and a minimum amount outstanding of $1 billion for sovereigns and $250 million for agencies.
- **ICE BofA Mortgage Master** tracks the performance of US dollar denominated fixed rate and hybrid residential mortgage pass-through securities publicly issued by US agencies in the US domestic market. 30-year, 20-year, 15-year and interest-only fixed rate mortgage pools are included in the Index provided they have at least one year remaining term to final maturity and a minimum amount outstanding of at least $5 billion per generic coupon and $250 million per production year within each generic coupon.
- **ICE BofA U.S. Corp Master** tracks the performance of US dollar denominated investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have an investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule and a minimum amount outstanding of $250 million.
- **ICE BofA US Cash Pay High Yield** tracks the performance of US dollar denominated below investment grade corporate debt, currently in a coupon paying period, that is publicly issued in the US domestic market.
- **ICE BofA Global Broad Market TR ex USD** tracks the performance of investment grade debt publicly issued in the major domestic and Eurobond markets, including sovereign, quasi-government, corporate, securitized and collateralized securities, excluding all securities denominated in US dollars.
- **IA SBBI U.S. 30 Day TBill TR USD:** For the IA SBBI U.S. Treasury Bill Index, data from The Wall Street Journal is used for 1977-Present; The CRSP U.S. Government Bond File is the source from 1926 to 1976. Each month a one-bill portfolio containing the shortest-term bill having not less than one month to maturity is constructed. (The bill's original term to maturity is not relevant).

Retirement age (client input for a retirement goal only): Your Retirement Age is the age at which you estimate you will retire and will be reflected as both an age as well as the associated year. Your Retirement Age and your Years in Retirement will be combined to determine your Retirement goal's Time Horizon.

Standard deviation: A measure of the extent to which observations in a series vary from the arithmetic mean of the series. The Standard Deviation of a series of asset returns is a measure of volatility, or risk, of the asset and it is a measure of the amount of risk present in a portfolio. It gives an indication of the range of returns to be expected in an average year. For example, if a portfolio has an average annual return of 10% and a Standard Deviation of 6%, 2/3 of the time, returns were between 4% and 16% in a year. Generally, the higher the Standard Deviation, the higher the variability or risk.

Strategic asset allocation (SAA): An asset allocation developed with a 20-30-year time horizon in mind that systematically diversifies portfolio allocations across multiple asset classes, which can then be used as part of a disciplined investment approach. Set by the Global Wealth & Investment Management Investment Strategy Committee (GWIM ISC), SAA targets are intended to control exposure to market volatility and assist clients in achieving their investment goals within their defined Risk Tolerance. The primary objective of the use of SAA is therefore to help achieve efficient returns while minimizing portfolio risk.

Tactical Asset Allocation: A disciplined investment approach whereby the firm makes active decisions to overweight or underweight asset classes relative to their established SAA targets. These decisions are informed by a 12-36-month outlook, which is reviewed monthly, with a goal of potentially adding to investment returns by taking advantage of near-term market dislocations.

Target Asset Allocation: Means a recommended allocation of assets for a goal across one or more asset classes.

Y**ears in Retirement (client input, for a Retirement goal only):** The Years in Retirement input is a reflection of how long you intend to use the assets in your account after retirement. Your Retirement Age and your Years in Retirement will be combined to determine your Retirement goal's Time Horizon.

Years in School (client input, for Education goal only): The Years in School input is a reflection of how long you intend to use the assets in your account after the Year Starting School. Your Years in School and your Year Starting School will be combined to determine your Education goal's time horizon.

Year Starting School (client input, for Education goal only): The Year Starting School is the year in which you estimate the student will start. Your Year Starting School and your Year Years in School will be combined to determine your Education goal's time horizon.

Important Disclosures

You are not required to transact business with Merrill or to implement any of the suggestions made by us in connection with the Merrill Guided Investing Programs.

There are important considerations when investing in an investment advisory program, including the type of advice, services, and assistance provided, the type of fees charged and how you pay for those fees (for example, an asset-based fee), and the rights and obligations of the parties, as indicated in the Program Agreement and Program Brochure.

It is important for you to understand that the hypothetical projections, estimates, analysis and hypothetical values provided are not a financial plan. If you are interested in a formal analysis of your entire financial situation, ask us about Merrill's range of services, including the fees that may be applicable.

Merrill, its affiliates, and financial advisors do not provide legal, tax, or accounting advice. You should consult your legal and/or tax advisors before making any financial decisions.

Investing in securities involves risks, and there is always the potential of losing money when you invest in securities.

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The Chief Investment Office (CIO) develops the investment strategies for Merrill Guided Investing and Merrill Guided Investing with Advisor, including providing its recommendations of ETFs, mutual funds and related asset allocations. Managed Account Advisors LLC (MAA), Merrill's affiliate, is the overlay portfolio manager responsible for implementing the Merrill Guided Investing strategies for client accounts, including facilitating the purchase & sale of ETFs and mutual funds in client accounts and updating account asset allocations when the CIO's recommendations change while also implementing any applicable individual client or firm restriction(s).

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