WELLS FARGO
Investment Institute

2025 Capital Market Assumptions

Strategic asset allocation recommendations

Tracie McMillion, CFA
Head of Global Asset Allocation

Michael Taylor, CFA
Investment Strategy Analyst

Michelle Wan, CFA
Global Investment Strategist

Douglas Beath
Global Investment Strategist

Veronica Willis
Global Investment Strategist

Jeremy Folsom
Investment Strategy Analyst

Key takeaways

- We believe that meeting long-term financial goals requires an equally long-term horizon and tools to manage wealth.
- Capital market assumptions (CMAs) are the foundation for our Strategic Asset Allocation portfolios and are based on the trends we expect to persist or change over the long term as the global economy slowly evolves.*
- Inflation is the basic building block we use to create the CMAs. We believe inflation will remain below its long-term average of 3.3% over the long-term strategic time frame. Our inflation forecast of 2.5% is above the Federal Reserve's (Fed's) target. This forecast reflects our expectation for inflation to remain elevated through 2025 before returning to levels closer to the Fed's target.
- We also have noted that real (or inflation-adjusted) cash returns have been negative for most of the past 20 years. That's because cash alternatives yielded less than inflation. Over the forecast period, we expect cash alternatives to return at a premium to the inflation rate, 2.8%. Our expectation for a premium reflects the end of the zero interest-rate policy environment as global central banks keep rates higher than they were in the period following the global financial crisis.
- We think that U.S. economic growth will continue to outpace the economic growth of other developed market countries.
- Our strategic asset allocation recommendations include:
  - *Fixed income:* Allocations favor U.S. fixed income over international fixed income.
  - *Equity:* Allocations favor U.S. equities over international equities.
  - *Real assets:* Allocations to commodities and private real estate seek to provide attractive diversification benefits.
  - *Alternative investments:* Allocations continue to favor private capital and a mix of hedging strategies in an effort to improve risk-adjusted return expectations.

*CMA forecasts are not promises of actual returns or performance that may be realized. They are based on estimates and assumptions that may not occur.

Long-term expectations

Investing poses many challenges in the pursuit of accumulating or managing existing wealth. Investors have financial goals that coincide with various points in their lifetimes. These goals can be immediate, short term, or long term. Therefore, it is important to differentiate between what's happening now, what may happen next, and what may happen later.

Because they're forward-looking expectations, our CMAs focus on what may happen in the future.

Because they're forward-looking expectations, our CMAs focus on what may happen in the future. They are long-term averages designed to reflect what investors may experience through multiple market cycles. During this period, equity markets and interest rates are likely to rise and fall as the economy goes through both expansions and recessions. These assumptions take historical relationships into consideration but do not assume the future will be exactly like the past. In other words, they are not strictly historical averages.

This year, we maintain an inflation expectation of 2.5%, acknowledging that inflation could remain elevated over the next couple of years before eventually trending to lower levels over time. Our inflation expectation is also consistent with the historical observation that Consumer Price Index (CPI) inflation has run historically around 50 basis points (bps; 100 bps equal 1.00%) higher than personal consumption expenditures (PCE), which is the inflation measure that the Fed targets. Inflation is the basic building block we use to create the CMAs for asset classes. Our inflation forecast is below the longer-term average of 3.3% (since 1913).

We also have noted that real (or inflation-adjusted) cash returns have been negative for most of the past 20 years. That's because cash alternatives yielded less than inflation. Over the forecast period, we now expect cash alternatives to return at a premium consistent with the long-term historical cash premium as central banks move away from zero interest-rate policies.

Deriving long-term expectations

When anticipating the performance of the economy and markets over the long run, it's important to understand the long-term trends. The economy and the markets may have short-term fluctuations, but we believe long-term trends reflect the underlying fundamentals of our economic and political system. Historically, these have not changed substantially from year to year. It's difficult to know what will happen in any given year, but it may be possible to estimate what we believe is likely to happen, on average, over a long time period based on long-term trends and the variability of those trends.

Expecting long-term trends to continue

In developing our forward-looking, long-term CMAs, we take historical performance into consideration but also consider potential changes to existing trends. For example, the economy's quick recovery from the pandemic downturn allowed for a sharp reversal in inflation beginning in 2021, and we expect elevated inflation to persist at least through 2026. However, we also expect a moderate pace of economic growth in the post-pandemic world to lessen the risk of inflation that exceeds the Fed's target rate over the longer term.

While we do expect inflation to moderate from current levels, we are expecting increased inflation compared with the years from the global financial crisis to the pandemic, when zero interest-rate policies proliferated in most developed markets. Several broad trends may boost inflation going forward, however, not to the level of long-term averages. We believe the regionalization and re-shoring effort in global supply chains will lead to higher inflation in the long run. Added wage pressures in a tighter labor market, higher commodity prices, the risk of U.S. dollar weakness over the strategic time frame, and the erosion of other structural restraints on inflation in recent decades should also contribute to elevated inflation. For example, low financing costs of the past that eased barriers to industry entry are increasing. Meanwhile, over the long term, improved productivity as the adoption of artificial intelligence advances should serve as a disinflationary force, bringing average inflation closer to the Fed's target over time.

We assume that cash alternatives will return a premium to inflation over our strategic horizon and that bond investors will require a premium above cash for duration[1] and credit risk. We also expect the long-term upward trend in corporate profits to persist as inflation remains below its long-term average and competition creates an incentive for businesses to innovate and grow in order to survive. We expect investors to continue to demand more return for additional risk, which supports our view that equities are likely to continue to outperform fixed income over the long run.

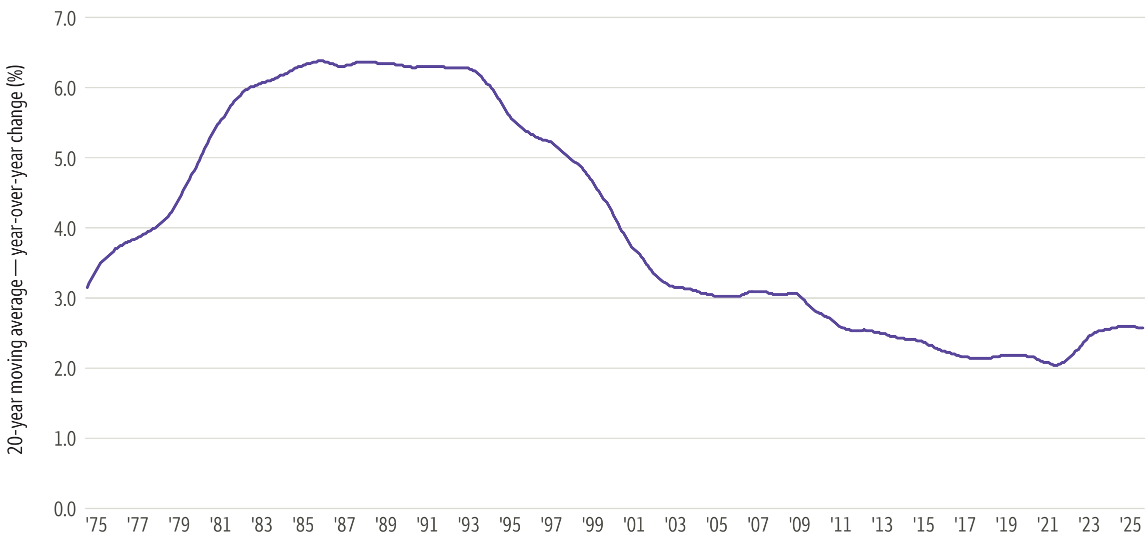
Inflation remains sticky but expected to moderate

Inflation is one of the greatest threats to accumulating and preserving wealth. Even a little inflation can add up to big price increases over many years, eroding the purchasing power of accumulated savings. U.S. consumer price inflation has averaged 2.9% during the past 10 years. At a 2.9% average yearly increase in prices, the cost of consumer goods and services would have increased a total of 32.7% during the past decade. Investors will need to hold assets that can grow faster than the inflation rate, or the overall purchasing power of their investments will diminish. While we expect inflation to remain elevated over the next couple of years, we believe inflation will moderate post-2026. For the long term, we assume consumer price inflation will average 2.5%, which is above the Fed's target rate and consistent with the 20-year historical average.

Looking ahead, we assume inflation will average 2.5%.

Long-term trend in inflation is starting to stabilize

20-year average of 12-month change in consumer price inflation



Sources: Bloomberg, Bureau of Labor Statistics, and Wells Fargo Investment Institute. Monthly data from January 1, 1975 to May 31, 2025. Chart is for illustrative purposes only. Start date chosen to reflect 50 years of data.

The Consumer Price Index is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them.

Interest rates remain elevated after historically low-rate environment

Long-term interest rates had been in a downward trend for more than 40 years but appear to have bottomed in 2020 and have reset higher after the Fed's monetary policy tightening in 2022 and 2023. Over our strategic time horizon, we think interest rates will remain below longer-term averages and periodically deviate from current levels. As interest rates and bond yields rise, the prices of outstanding bonds tend to drop in value and vice versa.

Of course, the total return (price return plus current yield) on fixed-income instruments should still be positive even if rates increase modestly. Fixed-income securities can play an important role in diversifying a portfolio and helping to manage risk. Therefore, we recommend that most portfolios include an allocation to fixed income.

1. Duration is a measure of interest-rate sensitivity.

Interest rates have broken their long-term trend lower

10-year U.S. Treasury note yields

Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1965 to May 31, 2025.

Yields represent past performance. **Past performance is no guarantee of future results.** The current yield may be lower or higher than that quoted. Yields fluctuate as market conditions change.

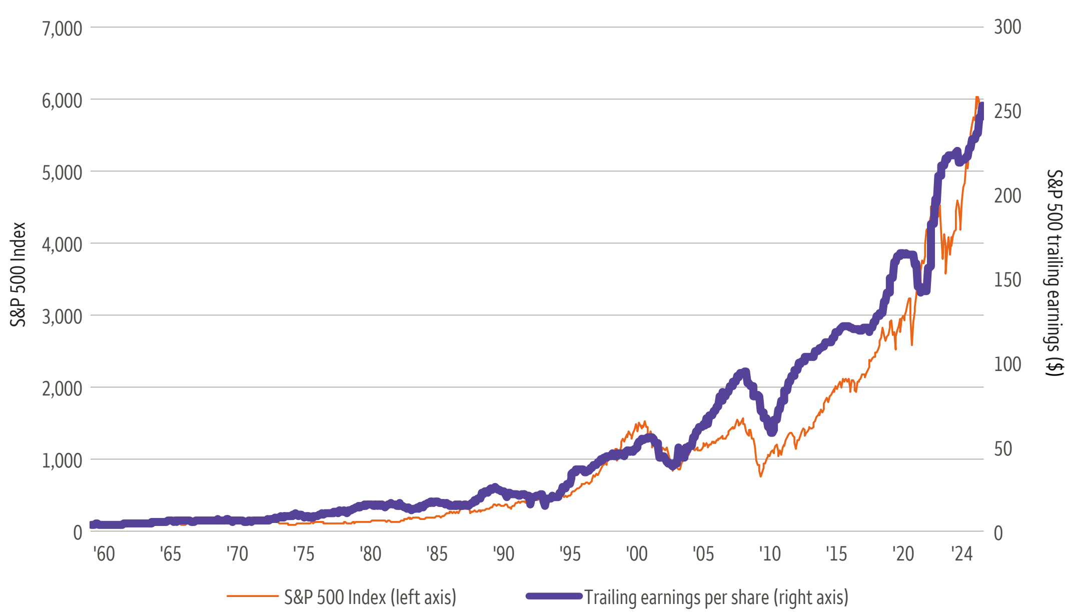
Corporate profits may be peaking

Economic growth is gradually slowing, and the S&P 500 Index has had a volatile start to 2025 on concerns over economic growth, trade policy, and inflation. Earnings have continued to move higher, and we expect U.S. economic growth to improve over the next year. Over the long-term strategic time frame, we do expect that profits will rise and equities will offer higher returns (although with more volatility) than fixed income.

We expect that over the long-term strategic time frame, equities will offer higher returns (although with more volatility) than fixed income.

U.S. stock earnings continue to move higher

S&P 500 Index and corporate profits



Sources: Bloomberg and Wells Fargo Investment Institute. Monthly data from January 1, 1960 to May 31, 2025.

The S&P 500 Index is a capitalization-weighted index of 500 stocks designed to measure performance of the broad U.S. economy through changes in the aggregate market value of 500 stocks representing all major industries. Trailing earnings per share is based on the S&P 500 Index and is the sum of the earnings per share over the most recent 12 months.

For illustrative purposes only. An index is unmanaged and is not available for direct investing. **Past performance is no guarantee of future results.**

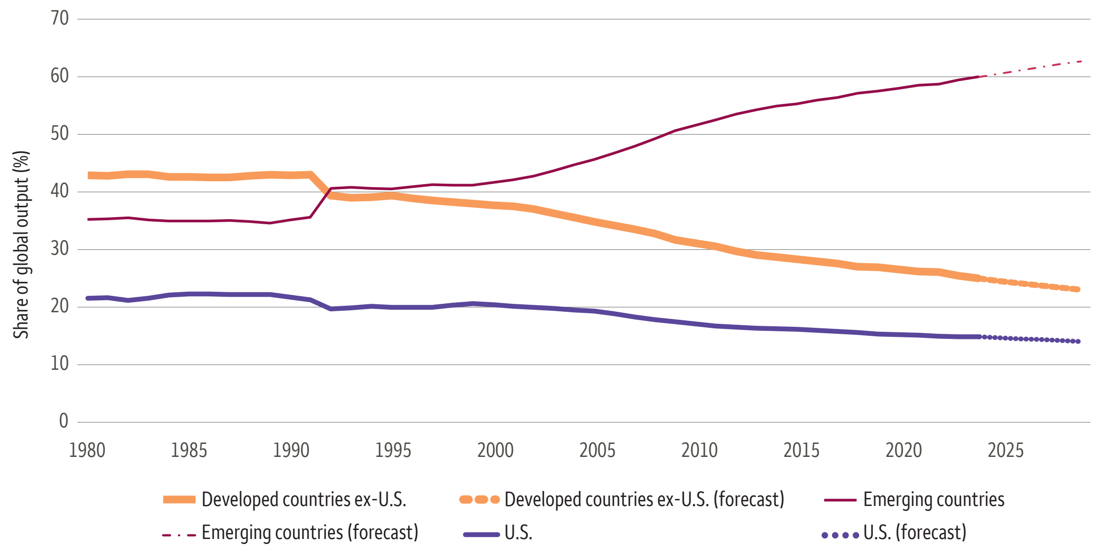
International opportunities

As the chart below shows, the global economy continues to evolve, with the percentage of economic activity outside the U.S. growing over time. Global economic cycles that differ from U.S. economic cycles could create opportunities to earn positive international (developed and emerging markets) returns, possibly even during times when the U.S. economy slows. We believe investors should consider maintaining exposure to international markets in an effort to help reduce volatility risk during various parts of the economic cycle. At the same time, we foresee that the historical ebb and flow in the U.S. dollar's value could continue to generate some periods of dollar weakness that may contribute to international investment returns. Looking forward, we expect the long-term opportunity to exploit broadening and widespread international economic growth to add to the return potential of a diversified portfolio.

Global economic performance that's unsynchronized with the U.S. economy could produce opportunities to earn positive international returns at times when the U.S. economy struggles.

Global economy continues to evolve

Share of global output, as measured by gross domestic product



Source: International Monetary Fund. Annual data from January 1, 1980 to December 31, 2029. Actual data through December 31, 2024; forecast data through December 31, 2029.

Dotted lines represent International Monetary Fund estimates for years after 2024. For illustrative purposes only. Forecasts are not guaranteed and are based on certain assumptions and on views of market and economic conditions, which are subject to change.

The building-block approach

One of the underlying long-term relationships we do not expect to change is the trade-off between risk and reward. Investors are generally risk-averse. This premise is the basis for the building-block approach, a methodology that uses estimates for various risk premia to forecast longer-term return assumptions. We assume that investors are generally willing to accept a lower rate of return on less-volatile assets but demand a higher return for more-volatile assets.

Our CMAs start with the basic building block of expected inflation. Investors may be willing to purchase assets with returns below the rate of inflation in the short run under certain economic conditions, but we do not expect investors will accept a rate of return below inflation over the long term.

After setting what we believe to be the expected rate of inflation, we add risk premia that we anticipate investors are likely to require to hold assets with increasing volatility risk. Historically, fixed-income investments have been less volatile than equities and, therefore, command a lower risk premium. We do not know the exact return a fixed-income asset is likely to produce in a specific year. But historical market relationships among asset classes have tended to be relatively stable over time and can help determine the risk premium that investors are likely to demand for fixed-income instruments over many years.

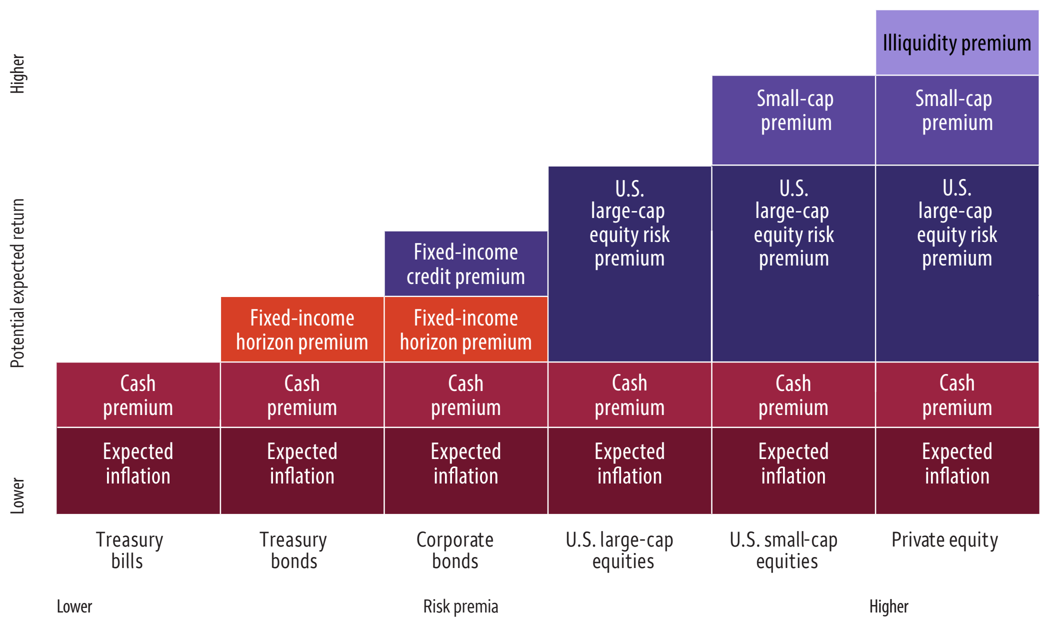
After deriving the cash premium or discount (our estimation of the risk-free rate of return), we add the extra risk premium that investors will likely require to hold equities and then add an illiquidity premium qualified investors are likely to require to purchase private capital. These building blocks sum to the total return investors are likely to demand to invest in increasingly risky assets over the long run.

Applying this technique, we started with the assumption that inflation is likely to average 2.5% over the long term. We assume that interest rates on cash alternatives will increase over the course of our strategic horizon, with a rate of return higher than inflation at 2.8%.

As we moved to more historically volatile asset classes, we increased the risk premia to reflect returns that we anticipate investors will accept to take on the higher risk of those more volatile assets. The following illustration shows conceptually how the components of return build as risk increases.

These building blocks sum to the total return investors are likely to demand to invest in increasingly volatile assets over the long run.

Conceptual view of building-block risk premia



Source: Wells Fargo Investment Institute. For illustrative purposes only. Chart is conceptual and does not reflect any actual returns or represent any specific asset classifications.

Understanding risk

Two different statistical measures are often used within the investment industry to calculate volatility risk. One is the the standard deviation (a measure of volatility) of gain and losses on an asset over many periods. The other measure, downside risk, focuses on the potential loss an asset could experience in a particularly bad year. Downside risk is not the maximum risk of loss on the asset or a peak-to-trough expected loss during a downside event. It is the level a loss is likely to exceed, on average, about 5% of the time or once in 20 years over a 12-month period. The loss in that event is estimated to be as bad as the downside risk figure or worse.

We assume a log-normal distribution (meaning the logarithm of returns is assumed to be normally distributed) when deriving the standard deviation and downside risk for a given asset class.

Of course, statistical measures cannot tell us what will happen in any specific year, and actual experience does not always follow long-term statistical averages. Therefore, a one-in-20-year event could happen more than once in 20 years, similar to a one-in-two chance of flipping a coin and getting heads could happen several times in a row, not just every other time. Despite these shortcomings, measures of variability risk can help an investor compare the risk and return characteristics of individual assets or portfolios to better assess the potential risk of holding those positions.

2025 asset-class return and volatility assumptions

Capital market assumptions (long-term time horizon)

Asset class	Arithmetic return	Geometric return	Standard deviation	Yield	Downside risk	Sharpe ratio
Inflation	2.5%	–	–	–	–	–
Taxable Cash Alternatives	2.8%	2.8%	0.5%	2.8%	2.0%	–
Tax Exempt Cash Alternatives	2.4%	2.4%	0.5%	2.4%	1.6%	-0.85
U.S. Taxable Investment Grade Fixed Income	4.3%	4.2%	4.0%	4.2%	-2.1%	0.37
U.S. Short Term Taxable Fixed Income	3.5%	3.5%	1.5%	3.5%	1.1%	0.46
U.S. Intermediate Term Taxable Fixed Income	4.3%	4.3%	3.5%	4.3%	-1.3%	0.42
U.S. Long Term Taxable Fixed Income	5.5%	5.1%	9.0%	5.1%	-8.6%	0.29
High Yield Taxable Fixed Income	7.3%	6.9%	8.5%	6.9%	-6.1%	0.52
U.S. Tax Exempt Investment Grade Fixed Income	3.7%	3.6%	4.3%	3.6%	-3.2%	0.20
U.S. Short Term Tax Exempt Fixed Income	3.0%	3.0%	1.8%	3.0%	0.1%	0.09
U.S. Intermediate Term Tax Exempt Fixed Income	3.7%	3.6%	4.0%	3.6%	-2.8%	0.21
U.S. Long Term Tax Exempt Fixed Income	4.7%	4.5%	5.3%	4.5%	-3.7%	0.35
High Yield Tax Exempt Fixed Income	6.2%	5.9%	7.5%	5.9%	-5.7%	0.44
Developed Market ex-U.S. Fixed Income	3.3%	3.0%	8.0%	3.0%	-9.3%	0.06
Emerging Market Fixed Income	7.3%	6.9%	9.5%	6.9%	-7.6%	0.47
Inflation-Linked Fixed Income	4.0%	3.8%	7.5%	3.8%	-7.8%	0.16
Preferred Stock	5.4%	4.7%	11.5%	4.7%	-12.4%	0.22
U.S. Large Cap Equities	9.5%	8.3%	16.0%	1.8%	-14.7%	0.41
U.S. Mid Cap Equities	9.8%	8.5%	17.0%	1.7%	-15.7%	0.41
U.S. Small Cap Equities	9.6%	7.8%	20.0%	1.5%	-20.0%	0.34
Developed Market ex-U.S. Equities	8.6%	7.4%	16.0%	2.9%	-15.6%	0.36
Emerging Market Equities	9.7%	7.8%	21.0%	2.7%	-21.1%	0.33
Private Real Estate	8.3%	7.6%	13.0%	4.8%	-11.6%	0.42
Private Infrastructure	8.8%	8.2%	12.0%	4.3%	-9.7%	0.50
Master Limited Partnerships (MLPs)	9.1%	7.7%	18.0%	7.3%	-17.7%	0.35
Commodities	7.8%	6.6%	16.0%	0.0%	-16.4%	0.31
Global Hedge Funds	6.6%	6.4%	6.3%	0.0%	-3.4%	0.59
Hedge Funds — Relative Value	6.8%	6.6%	7.0%	0.0%	-4.3%	0.57
Hedge Funds — Macro	5.7%	5.5%	7.8%	0.0%	-6.5%	0.37
Hedge Funds — Event Driven	7.3%	7.0%	7.5%	0.0%	-4.6%	0.59
Hedge Funds — Equity Hedge	7.0%	6.7%	8.5%	0.0%	-6.4%	0.49
Global Liquid Alternatives	3.8%	3.7%	4.0%	0.0%	-2.7%	0.23
Private Equity	14.2%	12.8%	18.0%	0.0%	-12.8%	0.63
Private Debt	9.3%	8.8%	10.5%	7.0%	-7.0%	0.62

Source: Wells Fargo Investment Institute, as of July 16, 2025.

Capital market and asset-class assumptions are estimates of how asset classes may respond during various market environments. For example, downside risk is based on our assumptions about average returns and the variability of returns. It represents the minimum return that would be statistically likely in 95% of annual returns. In other words, in 19 out of 20 years, performance would likely be better than this figure, and in the 20th year, it would likely be worse. There is no guarantee that any particular 20-year period would follow this pattern. Expected returns represent our estimate of likely average returns over the next several market cycles. They do not represent the returns that an investor should expect in any particular year. Geometric return is the compounded annual growth rate of an investment (asset class or portfolio) over a specified period of time longer than one year. Standard deviation is a measure of volatility. It reflects the degree of variability surrounding the outcome of an investment decision; the higher the standard deviation, the greater the risk. Yield on a bond assumes constant maturity. Dividend yield on an equity or real-asset investment represents the projected dividend as a percentage of the purchase price. Sharpe ratio measures the additional return that an investor could expect to receive for accepting additional risk. The assumptions are not designed to predict actual performance, and there are no assurances that any estimates used will be achieved. The information given has been provided as a guide to help with investment planning and does not represent the maximum loss a portfolio could experience. An index is unmanaged and not available for direct investment. **Past performance is no guarantee of future results.** See pages 19-21 for index definitions.

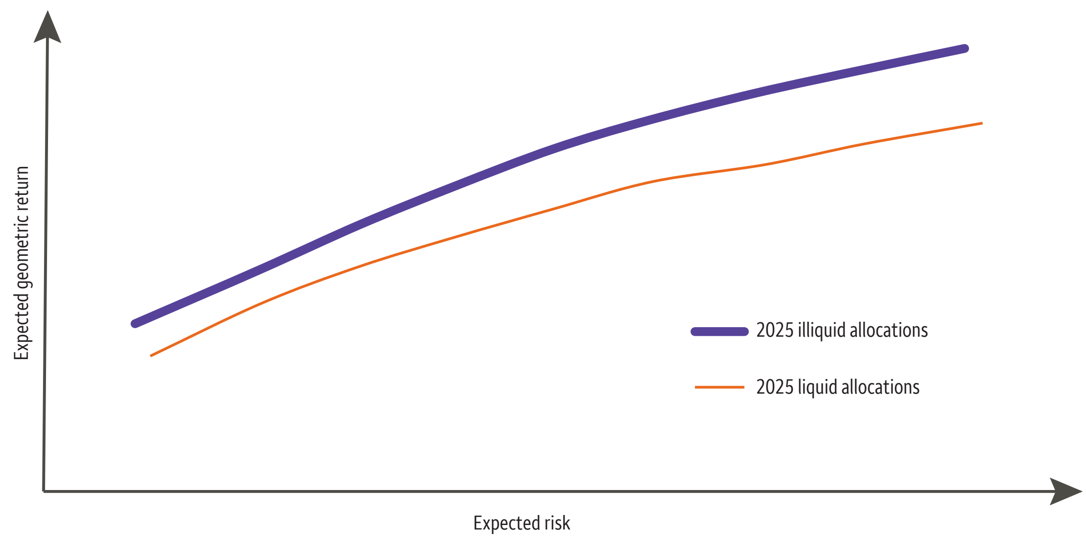
Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

Risk and return statistics of investment objective allocations

Our investment objective allocations are designed to provide a progression of return and risk from lower to higher, as illustrated below.

Income — conservative	Income — moderate	Income — aggressive	Growth & income — conservative	Growth & income — moderate	Growth & income — aggressive	Growth — conservative	Growth — moderate	Growth — aggressive

Lower return and risk → Higher return and risk



Source: Wells Fargo Investment Institute

Chart is conceptual and does not reflect any actual returns or represent any specific asset classification.

An efficient frontier represents the theoretical set of diversified allocations that maximizes return given a specific level of risk.

Asset allocation recommendations

- We offer 36 (four sets of nine) unique allocations to help match diverse investor risk and return objectives:
  1. Nine illiquid allocations[2]
  2. Nine liquid allocations[3]
  3. Nine illiquid tax-efficient allocations[4]
  4. Nine liquid tax-efficient allocations[4]
- We maintain a bias for U.S. assets over international assets, with allocations to domestic assets at levels that are higher than global market cap alone would suggest. Yet, we still expect international assets to play an important role in a diversified portfolio.
- In the illiquid allocations, we reallocated from U.S. Investment Grade Fixed Income to Private Debt in the Income allocations. We reallocated from U.S. Small Cap Equities to U.S. Large Cap Equities in Aggressive Growth & Income and Growth allocations.
- In the liquid allocations, we reallocated from U.S. Small Cap Equities to U.S. Large Cap Equities in Growth & Income and Growth allocations.
- In the tax-efficient allocations, we reallocated from U.S. Investment Grade Fixed Income to Private Debt in the Illiquid Income allocations. We reallocated from U.S. Small Cap Equities to Private Equity in Aggressive Growth & Income and Growth Illiquid allocations and from U.S. Small Cap Equities to U.S. Large Cap Equities in Growth & Income and Growth Liquid allocations.
- Allocations continue to favor private capital and a mix of hedge fund strategies in an effort to improve risk-adjusted return expectations.

In the 2025 strategic asset allocations, recommended changes include redistributing within equity to better align the allocations to the U.S. equity benchmark.

Summary — Diversify to help manage risk

Changes to the 2025 strategic asset allocations include reducing allocations to small-cap equities and adding to either large-cap equities or private equity. The number of non-earning companies in the small-cap universe has continued to increase, making this segment of the U.S. equity market less attractive from a risk-return perspective. Additionally, many higher quality small-cap companies are remaining private longer and entering the public market as mid- or large-cap companies. Even so, the expected return for this asset class should outpace less risky asset classes over long periods of time, so it remains an important asset class for certain strategic allocations.

We are also increasing exposure to Private Equity and Private Debt to reflect our continued expectations for favorable long-term risk-return dynamics for private capital.

Our allocation recommendations reflect our current assumptions and seek to provide consistency across the various sets of investment objectives. The CMAs are not historical averages or return-to-trend calculations. They reflect the trends that we believe investors are most likely to experience over the long term.

Keep in mind, CMA forecasts are not promises of actual returns or performance that may be realized. They are based on estimates that might not be achieved and assumptions that may not occur. The actual rate of return on any asset will not necessarily follow these long-term averages. Instead, returns are more likely to fluctuate around the averages. Therefore, it is important for investors to maintain a well-diversified asset allocation to help manage this volatility and seek to take advantage of evolving long-term opportunities. Of course, one size does not fit all. However, comparing the risk and return characteristics of various investment strategies may help investors choose the investment profile that best meets their individual financial objectives.

The data provided on the next page is for illustrative and information purposes only and does not constitute advice or a recommendation of any investment strategy, including strategies that allocate to alternative investments. Consult your investment professional before taking any action based on this information.

2. These may include allocations to fixed income, equities, real assets, and alternatives (including private real estate and private equity).*
3. These may include allocations to fixed income, equities, and real assets.
4. See “Addressing the needs of highly taxed investors with tax-efficient asset allocation” for more details on the tax-efficient asset allocations.

Strategic asset allocations — Illiquid

May include fixed income, equities, real assets, and alternative investments

Income	Conservative 2025	Conservative 2024	Conservative Change	Moderate 2025	Moderate 2024	Moderate Change	Aggressive 2025	Aggressive 2024	Aggressive Change
Taxable Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Taxable Investment Grade Fixed Income	61%	63%	-2%	45%	48%	-3%	30%	35%	-5%
High Yield Taxable Fixed Income	2%	2%	–	2%	2%	–	4%	4%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	3%	3%	–	5%	5%	–	8%	8%	–
Total Global Fixed Income	66%	68%	-2%	52%	55%	-3%	42%	47%	-5%
U.S. Large Cap Equities	8%	8%	–	12%	12%	–	15%	15%	–
U.S. Mid Cap Equities	0%	0%	–	4%	4%	–	6%	6%	–
U.S. Small Cap Equities	0%	0%	–	0%	0%	–	0%	0%	–
Developed Market ex-U.S. Equities	0%	0%	–	4%	4%	–	4%	4%	–
Emerging Market Equities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Equities	8%	8%	–	20%	20%	–	25%	25%	–
Private Real Estate	5%	5%	–	6%	6%	–	7%	7%	–
Commodities	2%	2%	–	2%	2%	–	2%	2%	–
Total Global Real Assets	7%	7%	–	8%	8%	–	9%	9%	–
Global Hedge Funds	11%	11%	–	11%	11%	–	11%	11%	–
Private Equity	0%	0%	–	0%	0%	–	0%	0%	–
Private Debt	6%	4%	2%	7%	4%	3%	11%	6%	5%
Total Alternative Investments*	17%	15%	2%	18%	15%	3%	22%	17%	5%
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Growth and income	Conservative 2025	Conservative 2024	Conservative Change	Moderate 2025	Moderate 2024	Moderate Change	Aggressive 2025	Aggressive 2024	Aggressive Change
Taxable Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Taxable Investment Grade Fixed Income	29%	29%	–	19%	19%	–	12%	12%	–
High Yield Taxable Fixed Income	4%	4%	–	4%	4%	–	3%	3%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	3%	3%	–	4%	4%	–	6%	6%	–
Total Global Fixed Income	36%	36%	–	27%	27%	–	21%	21%	–
U.S. Large Cap Equities	18%	18%	–	20%	20%	–	26%	24%	2%
U.S. Mid Cap Equities	6%	6%	–	8%	8%	–	8%	8%	–
U.S. Small Cap Equities	0%	0%	–	0%	0%	–	0%	2%	-2%
Developed Market ex-U.S. Equities	5%	5%	–	6%	6%	–	7%	7%	–
Emerging Market Equities	3%	3%	–	4%	4%	–	5%	5%	–
Total Global Equities	32%	32%	–	38%	38%	–	46%	46%	–
Private Real Estate	5%	5%	–	6%	6%	–	6%	6%	–
Commodities	4%	4%	–	4%	4%	–	4%	4%	–
Total Global Real Assets	9%	9%	–	10%	10%	–	10%	10%	–
Global Hedge Funds	10%	10%	–	10%	10%	–	7%	7%	–
Private Equity	8%	8%	–	10%	10%	–	11%	11%	–
Private Debt	3%	3%	–	3%	3%	–	3%	3%	–
Total Alternative Investments*	21%	21%	–	23%	23%	–	21%	21%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

*Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

(Continued on page 13.)

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Growth	Conservative			Moderate			Aggressive		
	2025	2024	Change	2025	2024	Change	2025	2024	Change
Taxable Cash Alternatives	1%	1%	–	1%	1%	–	1%	1%	–
U.S. Taxable Investment Grade Fixed Income	7%	7%	–	2%	2%	–	0%	0%	–
High Yield Taxable Fixed Income	3%	3%	–	2%	2%	–	0%	0%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	10%	10%	–	4%	4%	–	0%	0%	–
U.S. Large Cap Equities	29%	26%	3%	28%	26%	2%	27%	24%	3%
U.S. Mid Cap Equities	9%	9%	–	13%	13%	–	15%	15%	–
U.S. Small Cap Equities	0%	3%	-3%	2%	4%	-2%	3%	6%	-3%
Developed Market ex-U.S. Equities	12%	12%	–	14%	14%	–	17%	17%	–
Emerging Market Equities	6%	6%	–	9%	9%	–	12%	12%	–
Total Global Equities	56%	56%	–	66%	66%	–	74%	74%	–
Private Real Estate	5%	5%	–	5%	5%	–	2%	2%	–
Commodities	5%	5%	–	5%	5%	–	5%	5%	–
Total Global Real Assets	10%	10%	–	10%	10%	–	7%	7%	–
Global Hedge Funds	7%	7%	–	2%	2%	–	0%	0%	–
Private Equity	13%	13%	–	14%	14%	–	18%	18%	–
Private Debt	3%	3%	–	3%	3%	–	0%	0%	–
Total Alternative Investments*	23%	23%	–	19%	19%	–	18%	18%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Source: Wells Fargo Investment Institute, as of July 16, 2025.

*Alternative investments are not appropriate for all investors. They are speculative and involve a high degree of risk that is appropriate only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

Strategic asset allocations — Liquid

May include fixed income, equities, and real assets

Income	Conservative			Moderate			Aggressive		
	2025	2024	Change	2025	2024	Change	2025	2024	Change
Taxable Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Taxable Investment Grade Fixed Income	76%	76%	–	60%	60%	–	47%	47%	–
High Yield Taxable Fixed Income	3%	3%	–	4%	4%	–	6%	6%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	3%	3%	–	5%	5%	–	8%	8%	–
Total Global Fixed Income	82%	82%	–	69%	69%	–	61%	61%	–
U.S. Large Cap Equities	12%	12%	–	18%	18%	–	21%	21%	–
U.S. Mid Cap Equities	2%	2%	–	5%	5%	–	7%	7%	–
U.S. Small Cap Equities	0%	0%	–	0%	0%	–	0%	0%	–
Developed Market ex-U.S. Equities	0%	0%	–	4%	4%	–	7%	7%	–
Emerging Market Equities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Equities	14%	14%	–	27%	27%	–	35%	35%	–
Commodities	2%	2%	–	2%	2%	–	2%	2%	–
Total Global Real Assets	2%	2%	–	2%	2%	–	2%	2%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Growth and income	Conservative			Moderate			Aggressive		
	2025	2024	Change	2025	2024	Change	2025	2024	Change
Taxable Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Taxable Investment Grade Fixed Income	39%	39%	–	30%	30%	–	20%	20%	–
High Yield Taxable Fixed Income	6%	6%	–	6%	6%	–	7%	7%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	5%	5%	–	5%	5%	–	6%	6%	–
Total Global Fixed Income	50%	50%	–	41%	41%	–	33%	33%	–
U.S. Large Cap Equities	25%	23%	2%	30%	27%	3%	34%	31%	3%
U.S. Mid Cap Equities	8%	8%	–	10%	10%	–	12%	12%	–
U.S. Small Cap Equities	0%	2%	-2%	0%	3%	-3%	0%	3%	-3%
Developed Market ex-U.S. Equities	7%	7%	–	8%	8%	–	9%	9%	–
Emerging Market Equities	4%	4%	–	5%	5%	–	6%	6%	–
Total Global Equities	44%	44%	–	53%	53%	–	61%	61%	–
Commodities	4%	4%	–	4%	4%	–	4%	4%	–
Total Global Real Assets	4%	4%	–	4%	4%	–	4%	4%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Growth	Conservative			Moderate			Aggressive		
	2025	2024	Change	2025	2024	Change	2025	2024	Change
Taxable Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Taxable Investment Grade Fixed Income	16%	16%	–	8%	8%	–	0%	0%	–
High Yield Taxable Fixed Income	3%	3%	–	3%	3%	–	0%	0%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	19%	19%	–	11%	11%	–	0%	0%	–
U.S. Large Cap Equities	35%	33%	2%	37%	35%	2%	39%	37%	2%
U.S. Mid Cap Equities	13%	13%	–	14%	14%	–	16%	16%	–
U.S. Small Cap Equities	3%	5%	-2%	4%	6%	-2%	5%	7%	-2%
Developed Market ex-U.S. Equities	14%	14%	–	15%	15%	–	18%	18%	–
Emerging Market Equities	9%	9%	–	12%	12%	–	15%	15%	–
Total Global Equities	74%	74%	–	82%	82%	–	93%	93%	–
Commodities	5%	5%	–	5%	5%	–	5%	5%	–
Total Global Real Assets	5%	5%	–	5%	5%	–	5%	5%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Source: Wells Fargo Investment Institute, as of July 16, 2025.

Strategic asset allocations — Tax-efficient illiquid

May include fixed income, equities, real assets, and alternative investments

Income	Conservative			Moderate			Aggressive		
	2025	**2024**	**Change**	**2025**	**2024**	**Change**	**2025**	**2024**	**Change**
Tax Exempt Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Tax Exempt Investment Grade Fixed Income	78%	80%	-2%	56%	58%	-2%	41%	43%	-2%
High Yield Tax Exempt Fixed Income	0%	0%	–	7%	7%	–	14%	14%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	78%	80%	-2%	63%	65%	-2%	55%	57%	-2%
U.S. Large Cap Equities	6%	6%	–	16%	16%	–	19%	19%	–
U.S. Mid Cap Equities	0%	0%	–	5%	5%	–	6%	6%	–
U.S. Small Cap Equities	0%	0%	–	0%	0%	–	0%	0%	–
Developed Market ex-U.S. Equities	0%	0%	–	0%	0%	–	5%	5%	–
Emerging Market Equities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Equities	6%	6%	–	21%	21%	–	30%	30%	–
Private Real Estate	7%	7%	–	7%	7%	–	7%	7%	–
Commodities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Real Assets	7%	7%	–	7%	7%	–	7%	7%	–
Global Hedge Funds	5%	5%	–	5%	5%	–	4%	4%	–
Private Equity	0%	0%	–	0%	0%	–	0%	0%	–
Private Debt	2%	0%	2%	2%	0%	2%	2%	0%	2%
Total Alternative Investments*	7%	5%	2%	7%	5%	2%	6%	4%	2%
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Growth and income	Conservative			Moderate			Aggressive		
	2025	**2024**	**Change**	**2025**	**2024**	**Change**	**2025**	**2024**	**Change**
Tax Exempt Cash Alternatives	2%	2%	–	1%	1%	–	1%	1%	–
U.S. Tax Exempt Investment Grade Fixed Income	38%	38%	–	30%	30%	–	23%	23%	–
High Yield Tax Exempt Fixed Income	7%	7%	–	5%	5%	–	6%	6%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	45%	45%	–	35%	35%	–	29%	29%	–
U.S. Large Cap Equities	19%	19%	–	22%	22%	–	25%	25%	–
U.S. Mid Cap Equities	6%	6%	–	7%	7%	–	9%	9%	–
U.S. Small Cap Equities	0%	2%	-2%	0%	2%	-2%	0%	2%	-2%
Developed Market ex-U.S. Equities	7%	7%	–	9%	9%	–	10%	10%	–
Emerging Market Equities	0%	0%	–	2%	2%	–	3%	3%	–
Total Global Equities	32%	34%	-2%	40%	42%	-2%	47%	49%	-2%
Private Real Estate	7%	7%	–	7%	7%	–	7%	7%	–
Commodities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Real Assets	7%	7%	–	7%	7%	–	7%	7%	–
Global Hedge Funds	4%	4%	–	4%	4%	–	0%	0%	–
Private Equity	10%	8%	2%	13%	11%	2%	16%	14%	2%
Private Debt	0%	0%	–	0%	0%	–	0%	0%	–
Total Alternative Investments*	14%	12%	2%	17%	15%	2%	16%	14%	2%
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Note: Tax-efficient allocations use tax-exempt cash alternatives and fixed income, and before-tax allocations use taxable cash alternatives and fixed income.

***Alternative investments, such as hedge funds, private capital, and private real estate funds, are not suitable for all investors.** They are speculative and involve a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

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Growth	Conservative			Moderate			Aggressive		
	2025	2024	Change	2025	2024	Change	2025	2024	Change
Tax Exempt Cash Alternatives	1%	1%	–	1%	1%	–	1%	1%	–
U.S. Tax Exempt Investment Grade Fixed Income	14%	14%	–	4%	4%	–	0%	0%	–
High Yield Tax Exempt Fixed Income	6%	6%	–	5%	5%	–	0%	0%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	20%	20%	–	9%	9%	–	0%	0%	–
U.S. Large Cap Equities	28%	28%	–	32%	32%	–	33%	33%	–
U.S. Mid Cap Equities	11%	11%	–	11%	11%	–	13%	13%	–
U.S. Small Cap Equities	0%	3%	-3%	2%	4%	-2%	2%	4%	-2%
Developed Market ex-U.S. Equities	11%	11%	–	12%	12%	–	12%	12%	–
Emerging Market Equities	4%	4%	–	8%	8%	–	13%	13%	–
Total Global Equities	54%	57%	-3%	65%	67%	-2%	73%	75%	-2%
Private Real Estate	7%	7%	–	7%	7%	–	7%	7%	–
Commodities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Real Assets	7%	7%	–	7%	7%	–	7%	7%	–
Global Hedge Funds	0%	0%	–	0%	0%	–	0%	0%	–
Private Equity	18%	15%	3%	18%	16%	2%	19%	17%	2%
Private Debt	0%	0%	–	0%	0%	–	0%	0%	–
Total Alternative Investments*	18%	15%	3%	18%	16%	2%	19%	17%	2%
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Source: Wells Fargo Investment Institute, as of July 16, 2025.

Note: Tax-efficient allocations use tax-exempt cash alternatives and fixed income, and before-tax allocations use taxable cash alternatives and fixed income.

***Alternative investments, such as hedge funds, private capital, and private real estate funds, are not suitable for all investors.** They are speculative and involve a high degree of risk that is suitable only for those investors who have the financial sophistication and expertise to evaluate the merits and risks of an investment in a fund and for which the fund does not represent a complete investment program.

Strategic asset allocations — Tax-efficient liquid

May include fixed income, equities, and real assets

Income	Conservative 2025	Conservative 2024	Conservative Change	Moderate 2025	Moderate 2024	Moderate Change	Aggressive 2025	Aggressive 2024	Aggressive Change
Tax Exempt Cash Alternatives	3%	3%	–	3%	3%	–	2%	2%	–
U.S. Tax Exempt Investment Grade Fixed Income	91%	91%	–	68%	68%	–	50%	50%	–
High Yield Tax Exempt Fixed Income	0%	0%	–	6%	6%	–	16%	16%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	91%	91%	–	74%	74%	–	66%	66%	–
U.S. Large Cap Equities	6%	6%	–	14%	14%	–	17%	17%	–
U.S. Mid Cap Equities	0%	0%	–	5%	5%	–	7%	7%	–
U.S. Small Cap Equities	0%	0%	–	0%	0%	–	0%	0%	–
Developed Market ex-U.S. Equities	0%	0%	–	4%	4%	–	8%	8%	–
Emerging Market Equities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Equities	6%	6%	–	23%	23%	–	32%	32%	–
Commodities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Real Assets	0%	0%	–	0%	0%	–	0%	0%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Growth and income	Conservative 2025	Conservative 2024	Conservative Change	Moderate 2025	Moderate 2024	Moderate Change	Aggressive 2025	Aggressive 2024	Aggressive Change
Tax Exempt Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Tax Exempt Investment Grade Fixed Income	45%	45%	–	35%	35%	–	25%	25%	–
High Yield Tax Exempt Fixed Income	8%	8%	–	8%	8%	–	7%	7%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	53%	53%	–	43%	43%	–	32%	32%	–
U.S. Large Cap Equities	23%	21%	2%	29%	26%	3%	33%	30%	3%
U.S. Mid Cap Equities	10%	10%	–	12%	12%	–	14%	14%	–
U.S. Small Cap Equities	0%	2%	-2%	0%	3%	-3%	0%	3%	-3%
Developed Market ex-U.S. Equities	8%	8%	–	9%	9%	–	13%	13%	–
Emerging Market Equities	4%	4%	–	5%	5%	–	6%	6%	–
Total Global Equities	45%	45%	–	55%	55%	–	66%	66%	–
Commodities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Real Assets	0%	0%	–	0%	0%	–	0%	0%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Growth	Conservative 2025	Conservative 2024	Conservative Change	Moderate 2025	Moderate 2024	Moderate Change	Aggressive 2025	Aggressive 2024	Aggressive Change
Tax Exempt Cash Alternatives	2%	2%	–	2%	2%	–	2%	2%	–
U.S. Tax Exempt Investment Grade Fixed Income	18%	18%	–	11%	11%	–	5%	5%	–
High Yield Tax Exempt Fixed Income	4%	4%	–	3%	3%	–	0%	0%	–
Developed Market ex-U.S. Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Emerging Market Fixed Income	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Fixed Income	22%	22%	–	14%	14%	–	5%	5%	–
U.S. Large Cap Equities	37%	34%	3%	39%	36%	3%	37%	33%	4%
U.S. Mid Cap Equities	15%	15%	–	16%	16%	–	18%	18%	–
U.S. Small Cap Equities	2%	5%	-3%	3%	6%	-3%	4%	8%	-4%
Developed Market ex-U.S. Equities	14%	14%	–	13%	13%	–	18%	18%	–
Emerging Market Equities	8%	8%	–	13%	13%	–	16%	16%	–
Total Global Equities	76%	76%	–	84%	84%	–	93%	93%	–
Commodities	0%	0%	–	0%	0%	–	0%	0%	–
Total Global Real Assets	0%	0%	–	0%	0%	–	0%	0%	–
Total Portfolio	100%	100%	–	100%	100%	–	100%	100%	–

Source: Wells Fargo Investment Institute, as of July 16, 2025.

Note: Tax-efficient allocations use tax-exempt cash alternatives and fixed income, and before-tax allocations use taxable cash alternatives and fixed income.

Investment expertise and advice to help investors succeed financially

Wells Fargo Investment Institute is home to 240+ investment professionals focused on investment strategy, asset allocation, portfolio management, manager reviews, and alternative investments. Its mission is to deliver timely, actionable advice that can help investors achieve their financial goals.

For assistance with your investment planning or to discuss the points in this report, please talk to your investment professional.

Risk considerations

Asset allocation is an investment method used to help manage risk. It does not guarantee investment returns or eliminate the risk of loss. All investing involves risks, including the possible loss of principal. There can be no assurance that any investment strategy will be successful. Investments fluctuate with changes in market and economic conditions and in different environments due to numerous factors, some of which may be unpredictable. Each asset class has its own risk and return characteristics. The level of risk associated with a particular investment or asset class generally correlates with the level of return the investment or asset class might achieve. The risks associated with the representative asset classes discussed in this report include:

Alternative investments: Alternative investments, such as **hedge funds, private capital, and private real estate funds**, are speculative and entail significant risks that can include losses due to leveraging or other speculative investment practices, lack of liquidity, volatility of returns, restrictions on transferring interests in a fund, potential lack of diversification, absence and/or delay of information regarding valuations and pricing, complex tax structures and delays in tax reporting, less regulation, and higher fees than mutual funds. Hedge fund, private capital, and private real estate fund investing involve other material risks, including capital loss and the loss of the entire amount invested. They are intended for qualified, financially sophisticated investors who can bear the risks associated with these investments. Hedge fund strategies, such as **Equity Hedge, Event Driven, Macro, and Relative Value,** may expose investors to risks such as short selling, leverage, counterparty, liquidity, volatility, the use of derivative instruments, and other significant risks.

Cash alternatives: Cash alternatives typically offer lower rates of return than longer-term equity or fixed-income securities and provide a level of liquidity and price stability generally not available to these investments. Each type of cash alternatives has advantages and disadvantages which should be discussed with your financial advisor before investing.

Commodities: Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. The commodities markets are considered speculative, carry substantial risks, and have experienced periods of extreme volatility. Commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or other factors affecting a particular industry or commodity.

Equities: Equity securities are subject to market risk, which means their value may fluctuate in response to general economic and market conditions and the perception of individual issuers. Investments in equity securities are generally more volatile than other types of securities. Mid- and small-cap stocks are generally more volatile, are subject to greater risks, and are less liquid than large-company stocks.

Preferred stocks are subject to issuer-specific and market risks. They are generally subordinated to bonds or other debt instruments in an issuer's capital structure, subjecting them to a greater risk of nonpayment than more senior securities.

Fixed income: Investments in fixed-income securities are subject to interest rate, credit/default, call, liquidity, inflation, and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in a decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and/or principal. This risk is heightened in lower-rated bonds. If sold prior to maturity, fixed-income securities are subject to market risk. All fixed-income investments may be worth less than their original cost upon redemption or maturity. Inflation-link fixed-income securities are subject to interest rate risk, especially when real interest rates rise. Municipal bonds offer interest payments exempt from federal taxes, and potentially state and local income taxes. These bonds are subject to interest rate and credit/default risk and potentially the alternative minimum tax (AMT). Quality varies widely depending on the specific issuer.

Foreign investing: Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging and frontier markets.

Infrastructure: Investments in infrastructure companies expose an investment to potentially adverse economic, regulatory, political, and other changes affecting such companies. Infrastructure companies may also be subject to various other risks, including governmental regulations, high interest costs associated with capital construction programs, costs associated with compliance and changes in environmental regulation, economic slowdown and surplus capacity, competition from other providers of services, and other factors.

Master limited partnerships (MLPs): Investment in master limited partnerships (MLPs) involves certain risks that differ from an investment in the securities of a corporation. MLPs may be sensitive to price changes in oil, natural gas, etc.; regulatory risk; and rising interest rates. A change in the current tax law regarding MLPs could result in the MLP being treated as a corporation for federal income tax purposes, which would reduce the amount of cash flows distributed by the MLP. Other risks include the volatility associated with the use of leverage, volatility of the commodities markets, market risks, supply and demand, natural and man-made catastrophes, competition, liquidity, market price discount from net asset value, and other material risks.

Real estate: Investing in real estate has special risks, including the possible illiquidity of the underlying properties, credit risk, interest rate fluctuations, and the impact of varied economic conditions.

The below representative indexes are used to construct the CMA correlation matrix and are used when asset class and strategic asset allocation index-based performance is reported. CMAs are not expectations of performance of representative indexes. An index is unmanaged and not available for direct investment.

Index definitions

Consumer Price Index (CPI) produces monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services.

Personal consumption expenditures is a measure of consumer spending and includes all goods and services bought by U.S. households.

Cash Alternative (Taxable/Tax Exempt). **Bloomberg 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon U.S. Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non-convertible.

Investment Grade bonds - A rating that indicates that a municipal or corporate bond has a relatively low risk of default. Bond rating firms, such as Standard & Poor's, use different designations consisting of upper- and lower-case letters 'A' and 'B' to identify a bond's credit quality rating. 'AAA' and 'AA' (high credit quality) and 'A' and 'BBB' (medium credit quality) are considered investment grade. Credit ratings for bonds below these designations ('BB', 'B', 'CCC', etc.) are considered low credit quality, and are commonly referred to as "junk bonds".

Global Fixed Income representative indexes

U.S. Taxable Investment Grade Fixed Income. **Bloomberg U.S. Aggregate Bond Index** is a broad-based measure of the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market.

U.S. Short Term Taxable Fixed Income. **Bloomberg U.S. Aggregate 1–3 Year Bond Index** is unmanaged and is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of one to three years.

U.S. Intermediate Term Taxable Fixed Income. **Bloomberg U.S. Aggregate 5–7 Year Bond Index** is unmanaged and is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of five to seven years.

U.S. Long Term Taxable Fixed Income. **Bloomberg U.S. Aggregate 10+ Year Bond Index** is unmanaged and is composed of the Bloomberg U.S. Government/Credit Index and the Bloomberg U.S. Mortgage-Backed Securities Index and includes Treasury issues, agency issues, corporate bond issues, and mortgage-backed securities with maturities of 10 years or more.

High Yield Taxable Fixed Income. **Bloomberg U.S. Corporate High-Yield Index** covers the universe of fixed-rate, non-investment-grade debt.

U.S. Investment Grade Tax Exempt Fixed Income. **Bloomberg U.S. Municipal Bond Index** represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least $3 million and a remaining maturity of at least one year.

U.S. Short Term Tax Exempt Fixed Income. **Bloomberg U.S. Municipal Bond 3 Year (2-4) Index** represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least $3 million and a remaining maturity of two to four years.

U.S. Intermediate Term Tax Exempt Fixed Income. **Bloomberg U.S. Municipal Bond Intermediate (5-10) Index** represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least $3 million and a remaining maturity of five to ten years.

U.S. Long Term Tax Exempt Fixed Income. Bloomberg U.S. **Municipal Bond 15 Year (12-17) Index** represents municipal bonds with a minimum credit rating of at least Baa, an outstanding par value of at least $3 million and a remaining maturity of 12 to 17 years.

High Yield Tax Exempt Fixed Income. **Bloomberg U.S. Municipal High Yield Index** measures the non-investment grade and non-rated U.S. dollar-denominated, fixed-rate, tax-exempt bond market within the 50 United States and four other qualifying regions (Washington DC, Puerto Rico, Guam and the Virgin Islands).

Developed Market Ex-U.S. Fixed Income. **J.P. Morgan GBI Global ex-US Index** in USD is an unmanaged index market representative of the total return performance in U.S. dollars on an unhedged basis of major non-U.S. bond markets.

Emerging Market Fixed Income. **J.P. Morgan Emerging Markets Bond Index** (EMBI Global) currently covers 27 emerging market countries. Included in the EMBI Global are U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

Inflation-Linked Fixed Income. **Bloomberg Global Inflation Linked Index** measures the investment-grade, government inflation-linked debt from 12 different developed market countries.

Preferred Stock. **ICE BofA Fixed Rate Preferred Securities Index** tracks the performance of fixed rate US dollar-denominated preferred securities issued in the US domestic market.

Global Equity representative indexes

U.S. Large Cap Equities. **S&P 500 Index** is a market capitalization-weighted index composed of 500 widely held common stocks that is generally considered representative of the U.S. stock market.

U.S. Mid Cap Equities. **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index.

U.S. Small Cap Equities. **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

Russell 3000 Index is composed of 3000 large U.S. companies, as determined by market capitalization.

Developed Market ex-U.S. Equities. **MSCI EAFE Index** is designed to represent the performance of large and mid-cap securities across 21 developed markets, including countries in Europe, Australasia and the Far East, excluding the U.S. and Canada.

Emerging Market Equities. **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets.

Global Real Assets representative indexes

Private Real Estate. The **NCREIF Property Index** is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only.

Private Infrastructure. The **MSCI Infrastructure Index** is a pooled quarterly time weighted rate of return series based on data compiled by MSCI from over 250 private infrastructure funds formed after 1994. The return series is net of fees, expenses, and carried interest. The benchmark is issued on a quarterly basis, approximately 80 calendar days after quarter end. Index returns do not represent fund performance.

Master Limited Partnerships (MLPs). **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for this emerging asset class. The index, which is calculated using a float-adjusted, capitalization-weighted methodology, is disseminated real-time on a price-return basis and on a total-return basis.

Commodities. **Bloomberg Commodity Index** is calculated on an excess return basis and reflects commodity futures price movements.

Global Alternative Investments representative indexes

Global Hedge Funds. **HFRI Fund Weighted Composite Index** is a fund-weighted (equal-weighted) index designed to measure the total returns (net of fees) of the approximately 2,000 hedge funds that comprise the Index. Constituent funds must have either $50 million under management or a track record of greater than 12 months. Substrategies include HFRI Event-Driven, Distressed/ Restructuring Index, and HFRI Event Driven Index.

Hedge Funds – Relative Value. **HFRI Relative Value Index** strategy is predicated on realization of a valuation discrepancy in the relationship between multiple securities. Managers employ a variety of fundamental and quantitative techniques to establish investment theses, and security types range broadly across equity, fixed income, derivative or other security types. Fixed income strategies are typically quantitatively driven to measure the existing relationship between instruments and, in some cases, identify attractive positions in which the risk adjusted spread between these instruments represents an attractive opportunity for the investment manager. RV position may be involved in corporate transactions also, but as opposed to ED exposures, the investment thesis is predicated on realization of a pricing discrepancy between related securities, as opposed to the outcome of the corporate transaction.

Hedge Funds – Macro. **HFRI Macro Index** encompasses a broad range of strategies predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard-currency, and commodity markets. Managers employ a variety of techniques, both discretionary and systematic analysis, combinations of top-down and bottom-up theses, quantitative and fundamental approaches and long- and short-term holding periods. Although some strategies employ RV techniques, Macro strategies are distinct from RV strategies in that the primary investment thesis is predicated on predicted or future movements in the underlying instruments rather than on realization of a valuation discrepancy between securities. In a similar way, while both Macro and equity hedge managers may hold equity securities, the overriding investment thesis is predicated on the impact movements in underlying macroeconomic variables may have on security prices, as opposed to EH, in which the fundamental characteristics on the company are the most significant are integral to investment thesis.

Hedge Funds – Event Driven. **HFRI Event Driven Index** maintains positions in companies currently or prospectively involved in corporate transactions of a wide variety including mergers, restructurings, financial distress, tender offers, shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments. Security types can range from most senior in the capital structure to most junior or subordinated and frequently involve additional derivative securities. Exposure includes a combination of sensitivities to equity markets, credit markets and idiosyncratic, company-specific developments. Investment theses are typically predicated on fundamental (as opposed to quantitative) characteristics, with the realization of the thesis predicated on a specific development exogenous to the existing capital structure.

Hedge Funds – Equity Hedge. **HFRI Equity Hedge Index** maintains positions both long and short in primarily equity and equity derivative securities. A wide variety of investment processes can be employed to arrive at an investment decision, including both quantitative and fundamental techniques; strategies can be broadly diversified or narrowly focused on specific sectors and can range broadly in terms of levels of net exposure, leverage employed, holding period, concentrations of market capitalizations and valuation ranges of typical portfolios. EH managers would typically maintain at least 50 percent exposure to, and may in some cases be entirely invested in, equities, both long and short.

Note: While the HFRI Indexes are frequently used, they have limitations (some of which are typical of other widely used indexes). These limitations include survivorship bias (the returns of the indexes may not be representative of all the hedge funds in the universe because of the tendency of lower performing funds to leave the index); heterogeneity (not all hedge funds are alike or comparable to one another, and the index may not accurately reflect the performance of a described style); and limited data (many hedge funds do not report to indexes, and, therefore, the index may omit funds, the inclusion of which might significantly affect the performance shown. The HFRI Indexes are based on information hedge fund managers decide on their own, at any time, whether or not they want to provide, or continue to provide, information to HFR Asset Management, L.L.C. Results for funds that go out of business are included in the index until the date that they cease operations. Therefore, these indexes may not be complete or accurate representations of the hedge fund universe, and may be biased in several ways. Returns of the underlying hedge funds are net of fees and are denominated in USD.

Global Liquid Alternatives. The **Wilshire Liquid Alternative Index℠** measures the collective performance of the five Wilshire Liquid Alternative strategies that make up the Wilshire Liquid Alternative Universe. The Wilshire Liquid Alternative Index is designed to provide a broad measure of the liquid alternative market by combining the performance of the Wilshire Liquid Alternative Equity Hedge Index℠, Wilshire Liquid Alternative Global Macro Index℠, Wilshire Liquid Alternative Relative Value Index℠, Wilshire Liquid Alternative Multi-Strategy Index℠, and Wilshire Liquid Alternative Event Driven Index℠.

Private Equity. The **MSCI Private Equity Index** is based on the pool of private equity funds sourced by MSCI and is asset weighted. The index is calculated using cash flow and valuation histories of the underlying funds within MSCI manager universe. The underlying funds are classified by Burgiss private capital classification system and the cash flow data is sourced from institutional investors around the world.

Private Debt. The **MSCI Private Debt Index** is a pooled quarterly time weighted rate of return series based on data compiled by MSCI from over 800 private debt funds (generalist, senior, mezzanine, and distressed debt), including fully liquidated partnerships, formed after 1986. The return series is net of fees, expenses, and carried interest. The benchmark is issued on a quarterly basis, approximately 80 calendar days after quarter end. Index returns do not represent fund performance.

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