



Research

From our partners in the U.S.

Capital market assumptions: A comprehensive global approach for the next 20 years

We believe that asset returns over the next 20 years will be lower than their long-term averages, with stocks outperforming bonds and emerging markets generating the highest returns.

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KEY TAKEAWAYS

- Our secular return expectation for U.S. equities is below the long-term average due to lower growth potential and higher starting valuations.
- Our fixed income return expectations are near the long-term average, reflecting the broad alignment of starting bond yields with our secular views.
- As a result, we continue to expect U.S. stocks to outperform bonds, but by a smaller margin relative to history.
- We expect non-U.S. equity returns, especially in emerging markets, to exceed those of the U.S. while remaining lower than their respective long-term averages.
- Our capital market assumptions can help inform strategic asset allocation decisions by focusing on how economic and financial market inputs influence asset returns over long periods of time.

Expectations based on our 2025 capital market assumptions¹

U.S. Equities

- We expect a 3.2% annualized real return for U.S. stocks through 2044, about a third of the 9.9% average gain since 2005 and far below the 7.0% advance since 1926. Our 20-year real return estimate increased slightly from 3.1% in 2024. Risk-adjusted return estimates remain lower than their historical norms.
- Valuations for U.S. stocks remain elevated relative to our long-term estimates and compared with the rest of the world. We believe the gap vs. other developed markets will narrow over time.
- However, if productivity growth were to pick up, stocks would benefit from higher earnings and a stronger valuation backdrop.

U.S. Bonds

- We expect investment-grade bonds to produce a real return of 2.5% annualized over the next 20 years, vs. 2.0% per year historically (since 1926). This estimate fell from 2.6% in 2024.
- One meaningful risk is that higher-than-expected inflation over the next two decades could reduce the returns of long-duration nominal fixed-income assets, such as 30-year Treasury bonds.

EXHIBIT 1: EM equities have the highest real return potential over the long term.

Fidelity Secular CMA Return and Volatility Estimates

| ASSET CLASS | REAL RETURNS | NOMINAL RETURNS | VOLATILITY |
|--|--------------|-----------------|------------|
| Emerging Market Equity | 5.5% | 8.1% | 21% |
| Global Equities (ex-U.S.) | 4.1% | 6.7% | 16% |
| U.S. High Yield | 4.0% | 6.6% | 9% |
| Developed Market (ex-U.S.) Equity | 3.5% | 6.1% | 16% |
| U.S. Equity | 3.2% | 5.8% | 15% |
| U.S. Bonds (Agg) | 2.5% | 5.1% | 6% |
| Developed non-U.S. Bonds USD Hedged | 2.4% | 5.0% | 4% |
| U.S. TIPS | 2.4% | 5.0% | 7% |
| U.S. 10-Year Treasury Bond | 2.2% | 4.8% | 8% |
| U.S. Long-Term Debt (30-Year Treasury Bond) | 2.2% | 4.8% | 10% |
| Developed non-U.S. Sovereign Debt USD Hedged | 2.1% | 4.7% | 5% |
| Municipal Bonds | 1.8% | 4.4% | 6% |
| Commodities (Bloomberg Index) | 1.0% | 3.6% | 16% |
| U.S. Cash | 0.6% | 3.2% | 2% |

Our CMAs are forward-looking estimates but are not presented as investment recommendations or guarantees of actual future performance.

Volatility: Standard deviation of returns. See appendix for index details. Real returns are geometric annualized average return expectations over 20 years, adjusted for inflation. Source: Fidelity Investments (AART), as of 4/30/25.

Emerging-Market Equities

- Emerging equities may represent the most promising area in the public markets, due to our expectations for higher real GDP growth and moderate starting valuations.
- We anticipate a 5.5% real return for emerging markets in the next 20 years, compared with a 3.1% real return over the past two decades
- That said, weaker corporate governance could negatively impact emerging-market equities valuations and hinder results.

Developed-Market Equities (ex-U.S.)

- We expect most non-U.S. developed countries, including Japan and several in Western Europe, to lag the real GDP growth of the U.S. through 2044. This is expected to keep earnings growth subdued relative to the U.S. and emerging markets.

- Return estimates for developed-equity markets outside the U.S. are 3.5% in real terms over the next 20 years, surpassing those of U.S. stocks due to better starting valuations. Also, we expect the dollar to weaken over the next 20 years, supporting the returns of non-U.S. assets.

U.S. Bonds vs. U.S. Stocks

We expect the lower return environment will result in less attractive risk-adjusted returns for global equities compared with the historical average Sharpe ratios and fixed income (Exhibit 2).

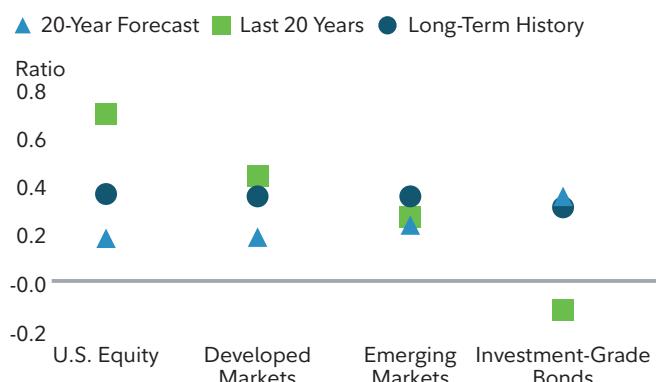
Our forecasts estimate a 0.7% gap between the real returns of U.S. equities and U.S. investment-grade bonds. Our estimate is currently in the 5th percentile relative to history (Exhibit 3).

EXHIBIT 2: Risk-adjusted return estimates for equities are lower than their historical levels.

Historical and forecasted returns

| REAL GEOMETRIC ANNUALIZED AVG RETURNS | 20-YEAR FORECAST | LAST 20 YEARS | LONG-TERM HISTORY |
|---------------------------------------|------------------|---------------|-------------------|
| U.S. Equity | 3.2% | 9.9% | 7.0% |
| Developed Markets (ex-U.S.) | 3.5% | 5.2% | 5.4% |
| Emerging Markets | 5.5% | 3.1% | 7.0% |
| Investment-Grade Bonds | 2.5% | -1.9% | 2.0% |
| Cash | 0.6% | -1.2% | 0.4% |

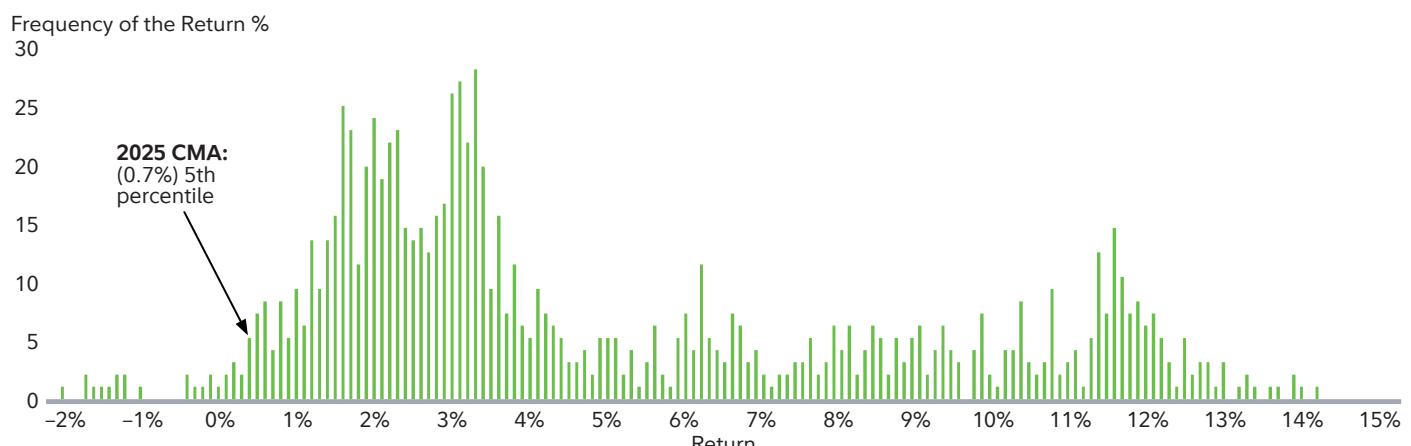
Historical and forecasted Sharpe ratios



Real annualized returns calculated as geometric average returns. Long-term history: since 1926, except emerging markets (since 1950). Sharpe ratio compares portfolio returns above the risk-free rate relative to overall portfolio volatility, with a higher Sharpe ratio implying better risk-adjusted returns. Past performance is no guarantee of future results. You cannot invest directly in an index. Asset class total returns are represented by indexes from the following sources: Fidelity Investments, MSCI, and Bloomberg Finance L.P. Source: Fidelity Investments proprietary analysis of historical asset class returns, as of 4/30/25.

EXHIBIT 3: Over the next 20 years, we expect U.S. equities to outperform bonds by a smaller-than-historical margin.

U.S. Equity Excess Returns over Investment-Grade Bonds (1926–2025)



Past performance is no guarantee of future results. U.S. Equities—Dow Jones U.S. Total Stock Market Index; Investment-Grade Bonds—Bloomberg U.S. Aggregate Bond Index. Source: Fidelity Investments (AART), as of 4/30/25.

Scenario analysis: Other factors could lead to higher or lower returns

Our CMAs are 20-year estimates. We acknowledge a range of outcomes can influence returns, volatility levels, and asset correlations. In particular, shifts in growth and inflation regimes could cause realized returns to deviate from our forecasts.

The impact of inflation on returns

We see potential upside risks to inflation from several secular trends leading to supply-side price pressures. These trends include workforce aging, less globalized production, and disruptions from climate change. In addition, high government debts create policy challenges that may contribute to inflationary dynamics. See our paper “Unsustainable debt: Strategic asset allocation for a new era.”

Inflation is a prime example of how varying yield and valuation trajectories can impact our CMAs. High and unexpected inflation tends to weigh on the real returns of stocks—and especially bonds.

- Within fixed income categories, higher inflation often corresponds with more inflation uncertainty, which tends to increase nominal bond yields and bring down real returns.

- On the equity side, the upward pressure that inflation puts on interest rates can drag on returns by bringing down valuations, increasing interest expense, and reducing the incentive to use leverage. All three factors can dampen profit margins and earnings potential.

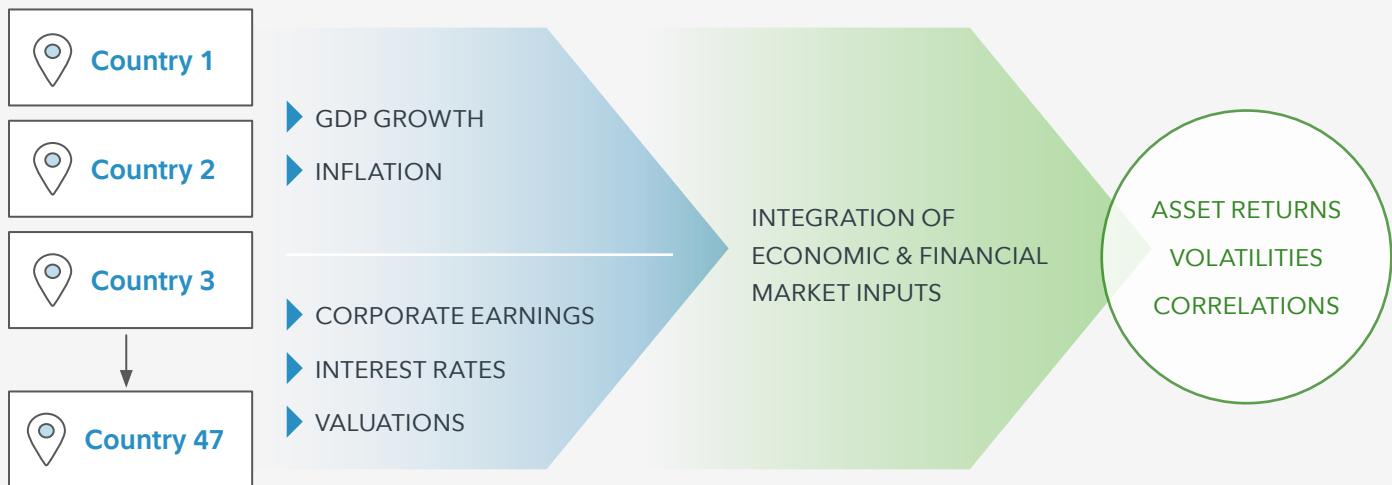
The impact of growth on returns

We see the risks to growth as relatively more balanced. Although aging demographics and diminished immigration will almost certainly dampen long-term growth prospects, we see potential for an upside productivity scenario driven by recent breakthroughs in artificial intelligence technologies, as well as higher capital spending necessary for onshoring production and addressing climate change.

Both equities and bonds would suffer from a slowdown in labor force growth but benefit from higher productivity, with equities likely garnering the largest positive impact. For details, see our papers, “A Strategic Allocator’s Guide to Productivity and Profits” and, “Artificial Intelligence: An X-factor in a New Investment Regime.”

Fidelity CMA process details

EXHIBIT 4: Our CMA process is global, forward-looking, and dynamic.



For illustrative purposes only. Source: Fidelity Investments (AART).

- Although demographic constraints dampen growth, an increase in productivity would have a positive impact on equity earnings. It would also lower inflation, potentially resulting in higher equity valuations.
- Fixed income categories would also benefit from higher productivity that would support growth and lower inflation, bolstering real yields.

Details of our CMA framework and philosophy

Product and investment decisions reflect an asset manager's views of a client's goals, needs, and sensitivities, as well as views on the expected performance of different assets across the capital markets. For example, the amount of retirement income in a liquid payout solution depends on the asset manager's views and decisions on the portfolio's allocation, expected returns and volatility, and client needs. The following section provides greater detail regarding our methodology for estimating asset-class returns and volatility.

Our beliefs

Long-term capital market assumptions (CMAs) can serve as valuable inputs for investment decisions. These assumptions can help financial advisors position their clients to reach their long-term goals; assist institutional money managers in making strategic asset allocation decisions; and aid pension fund managers in creating assumptions on equity returns and interest rates to support their decisions for managing defined benefit plans.

Our CMA framework focuses on the specifics of how economic and financial market inputs influence asset returns over long periods of time (Exhibit 4). While other approaches assume the connection between GDP growth and asset returns is either perfect or nonexistent, our framework is built on the following beliefs:

- There is a principal relationship between economic trends and asset-class performance.
- By deriving country-specific assumptions, we generate estimates that are global and adaptive across diverse economies and asset categories.

What makes our CMAs different

We focus on a 20-year horizon to build our secular (long-term) CMAs to align with investment planning and portfolio construction considerations.

While secular CMAs are intended primarily for strategic allocation decisions, we develop other types of forecasts for shorter-horizon decisions. As an example, our business cycle research focuses on economic trends, which form a basis for return and volatility patterns over shorter time horizons to add value through active asset allocation. (See our “Quarterly Market Update” and “Business Cycle Update” series for more details.)

We develop 20-year forecasts because asset returns often deviate significantly from long-term historical averages, providing opportunity for forward-looking estimates to add to an investment process. Since 1926, 20-year real (inflation-adjusted) U.S. equity returns have averaged 7.0%, but have ranged from 0% to 14% due to differences in the economic growth and inflation landscape, valuations, and the interest rate environment.

We also develop unconditional CMAs, which represent our return expectations in a steady-state environment that is independent of current market conditions. (See, “Unconditional capital market assumptions: Harvesting centuries of asset history to build a robust view of the future.”) The unconditional assumptions are designed to inform longer-horizon decisions and complement our secular CMAs.

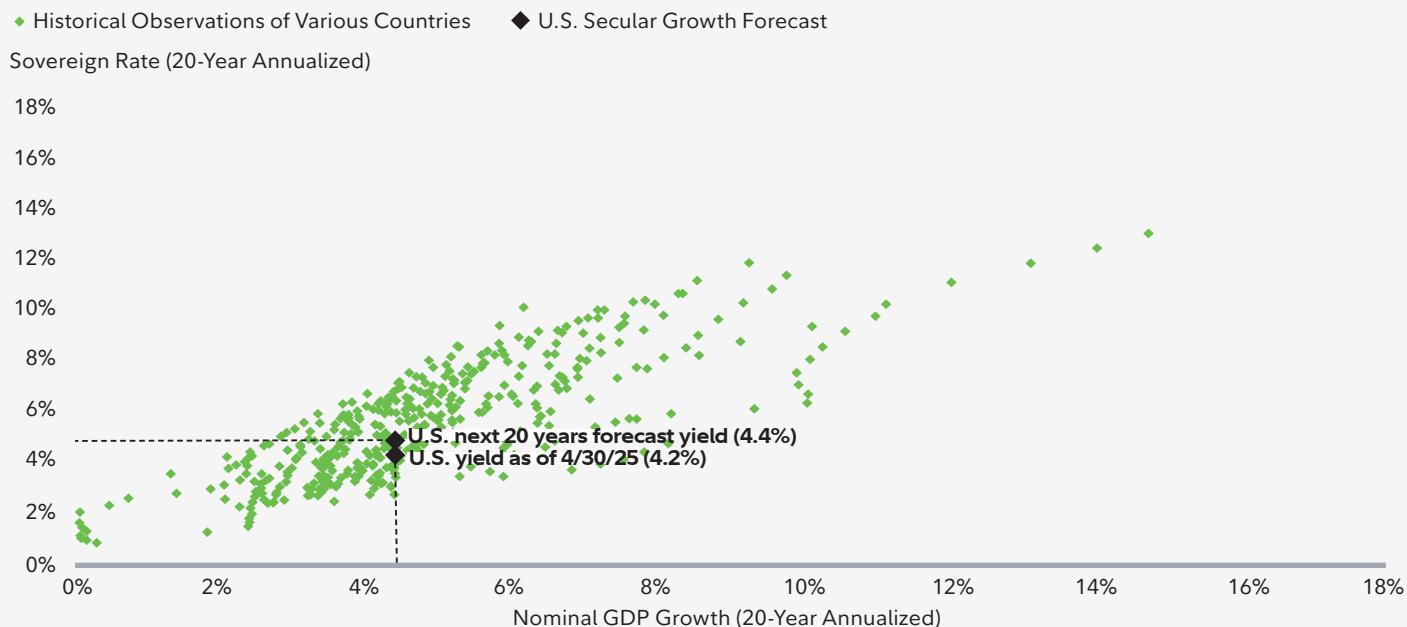
We believe our CMA research process provides a better sense of whether the next 20 years will be on the high or low end of historical outcomes. We therefore incorporate the core themes of global GDP growth with a deep consideration of the current capital market composition.

A global perspective

Lastly, by adapting to today’s global environment, in which developing countries account for a growing share of the world economy and the investment universe, our approach avoids the limitations of backward-looking data that can be dominated by the history of the U.S. and other developed markets.

EXHIBIT 5: Government bond yields and GDP growth have been highly correlated over the long term.

Nominal GDP Growth vs. Sovereign Bond Yields, 1985–2025



GDP: Gross Domestic Product. Source: Official country estimates, Haver Analytics, Bloomberg Finance L.P., and Fidelity Investments (AART), as of 4/30/25.

Our multidimensional, scalable approach—based on fundamentals such as growth, earnings, and valuations—can be applied to diverse economies to provide the building blocks for CMAs at the country, sector, and sub-asset-class level. The 20-year time horizon is flexible enough to capture shifts in the economic and market landscape but stable enough to serve as the basis for assumptions informing long-term investment strategies. By focusing on the specifics of how GDP growth and assets returns are related—and how they differ—our approach avoids the overly simplistic assumptions of some CMA frameworks.

Our forward-looking approach

A dynamic blending of market composition, profit margins, interest rates, debt levels, inflation, and our first-in-class GDP growth forecasts can produce a thoughtful forward-looking view that limits the dependence on historical averages. The basis for our asset return assumptions is our 20-year forecast of GDP growth for the 47 largest countries in the MSCI All Country World Index, described in the Fidelity article, “Secular Outlook for Global Growth: The Next 20 Years.” Our forecasts are based on a panel approach that combines trends over time across multiple countries. We believe this approach makes our forecasts more robust than those derived from individual country data.

Return assumptions: A blend of economic and financial measures

Fixed income

Our secular rate outlook is based on the strong relationship between GDP and bond yields, since, in faster-growing economies, higher returns on capital support higher costs of capital (Exhibit 5).

We base our fixed income return expectations on the assumption that sovereign—or government—bond yields will gravitate toward the rate of nominal economic growth in the long term. Specifically, we assume that the yield on 10-year U.S. Treasury bonds will converge nonlinearly to our nominal GDP forecast of 4.4% annually over a 20-year time horizon.

Government bonds: The returns on government bonds combine coupon income, price adjustment, and roll-down returns achieved as bonds mature along the yield curve. We expect coupon income to be the most important source of returns. Because the 10-year Treasury yield is broadly in line with our secular expectation, the return contribution of price adjustment is relatively modest. We also expect the yield curve to gradually regain its normally positive slope, generating positive roll-down returns. These considerations resulted in our estimate of 2.2% annualized real return for a constant maturity 10-year Treasury note and 2.2% for a constant maturity 30-year Treasury bond.²

Investment-grade bonds: The returns to credit-sensitive bonds are a function of both the “risk-free” rate calculated for government bonds and the additional return potentially generated by the credit spread, which compensates investors for the uncertainty and default risk of corporate bonds.³ We also adjust returns to match the duration of the investment-grade bond universe. Using these assumptions, we arrived at our estimate of a 2.5% return for the Bloomberg Aggregate Bond Index over the next 20 years.⁴ (Exhibit 1).

Cash/Short-term debt: Given our estimated government bond yields, we then calculate term premia to forecast potential returns of short-maturity government securities.⁵ Due to the very short duration of cash, price adjustment will be minimal, while higher yields can increase coupon returns. Our resulting real return estimate for cash is positive at 0.6%.

Equities

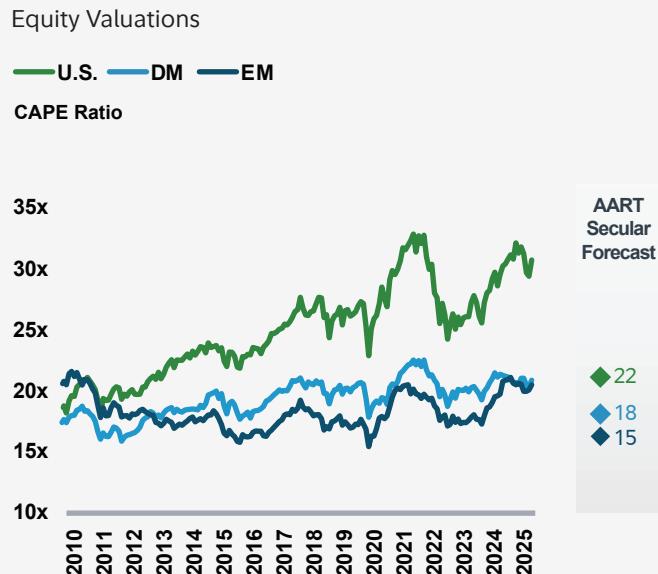
Corporate earnings growth is the bedrock of our forward equity view. We model future earnings growth by linking GDP growth and financial market inputs and then incorporate a forward-looking valuation estimate that is not based on historical averages.

Earnings: We base our earnings expectations on GDP growth prospects adjusted for the industry mix of the equity market, to reflect the productivity rates specific to the universe of publicly traded companies, rather than the productivity rate of the overall economy.

For example, the equity market-capitalization weight of the highly productive U.S. technology sector significantly exceeds its weight in GDP, which implies that the productivity of the equity market exceeds overall economic productivity. Also, interest rates and leverage are a significant driver of earnings growth. For example, higher leverage increases the return on equity while lower interest rates reduce interest costs, and provide a boost to earnings expectations. Recently, rising longer-term market yields have reduced our assumptions for equities.

Valuations: We develop estimates based on the key drivers of a country's cyclically adjusted price-to-earnings (CAPE) multiple, such as market composition, growth, and inflation, rather than assuming that valuations will revert to historical averages.

EXHIBIT 6: We expect U.S. equity valuations to converge lower over the next 20 years.



DM: Developed markets. EM: Emerging markets. Price-to-earnings (P/E) ratio (or multiple): Stock price divided by earnings per share, which indicates how much investors are paying for a company's earnings power. Cyclically adjusted earnings are 10-year averages adjusted for inflation. Source: FactSet, countries' statistical organizations, MSCI, and Fidelity Investments (AART), as of 4/30/25.

For instance, higher inflation rates tend to increase uncertainty and risk premia, resulting in lower valuations. Also, a larger weight of high-valuation industries such as technology boosts valuations. For the U.S., we expect the CAPE to average 22x over the next 20 years, which is above its long-term average of 17x earnings. For emerging markets, we also incorporate the quality of governance, which tends to constrain their valuations relative to developed markets. In the aggregate, our worldwide valuation estimates for the next 20 years are higher than historical averages, reflecting the increased importance of high-productivity industries and continued credibility of global central banks in containing inflationary pressures.

Whether a country's equity market return will be boosted or hindered by repricing back to this long-term trend also depends on starting valuations.⁶ The CAPE for the U.S. stock market was 32x earnings, well above our long-term expectations as of April 30, 2025 (Exhibit 6). Outside the U.S., equity valuations were lower but somewhat expensive relative to our expectations.

Equity return expectations: Overall, we expect equities to have lower returns over the next 20 years as a result of slower global growth and elevated U.S. stock valuations. That said, we expect the dollar to weaken over the next 20 years, supporting the returns of non-U.S. assets. We expect emerging-market equities to outperform the returns of developed-market equities, including the U.S. (Exhibit 1).

Volatility and correlations

Most approaches to portfolio optimization use asset volatilities and correlations that are calculated from past historical returns. However, asset volatilities and correlations change over time. For example, during the past 60 years, the 20-year correlation between U.S. equities and investment-grade bonds ranged from -0.1 to 0.4.

We built a forward-looking process for forecasting volatilities and correlations using a regime-based simulation engine.⁷ We use historical data to simulate return paths starting from a state most closely resembling the current environment. We take a core set of asset classes with relatively reliable historical data beginning in the 1950s and identify these core assets as factors. For non-core asset classes, we can estimate factor exposures and calculate a covariance matrix using 20-year simulations of the secular state, beginning from today's starting conditions and using a transition matrix to account for the potential transitions to a different growth or inflation regime.

At a given point in time, whether inflation or growth is the more dominant factor will influence correlations. As of April 2025, our starting secular state is low growth and a mix of high and low inflation. As a result, we expect that correlations will be generally higher over the next 20 years relative to the last 20 years. Against this backdrop, we expect fixed income assets, including Treasuries, as well as commodities, to provide meaningful diversification benefits in investment portfolios.

Conclusions

Following are some of our key findings when comparing our return, volatility, and correlation estimates:

- We expect stocks to have lower real returns relative to their long-term histories, with bonds expected to have real returns broadly in line with historical averages.
- We expect non-U.S.—especially emerging market—equity returns to exceed those in the U.S.
- We continue to expect stocks to outperform bonds, but by a smaller margin relative to history.

As with any financial planning or portfolio construction process, comparing relative returns across asset categories is essential. Although we expect equity returns will be lower than they have been historically, our base case is for equities to outperform bonds over the next 20 years.

Appendix

Asset classes shown in Exhibit 1 are represented by the following indexes: Emerging-Market Stocks—MSCI Emerging Markets Index; Global Equities ex. U.S.—MSCI All Country World Index (ACWI) ex USA Index; Developed Market ex. U.S. Equities—MSCI World ex USA Index; U.S. Equities—Dow Jones U.S. Total Stock Market Index; U.S. High-Yield Bonds—ICE Bank of America (BofA) U.S. High Yield Index; Investment-Grade Bonds—Bloomberg U.S. Aggregate Bond Index; Developed Market Non-U.S. Bonds USD Hedged—Bloomberg Global Aggregate ex USD Total Return Index Value Hedged USD; Municipal Bonds—Bloomberg Municipal Bond Index; U.S. TIPS—Bloomberg U.S. Treasury Inflation Protected Notes; Developed Market Non-U.S. Sovereign Debt USD Hedged—Bloomberg Global Treasury DM ex U.S. 30% EUR 10% Country Cap Total Return Index Hedged USD; U.S. Cash/ Short-Term—Bloomberg 1-3 Month US Treasury Bill Index.

Index Definitions

Bloomberg Global Aggregate ex USD Total Return Index Value Hedged USD measures the performance of global investment-grade debt from 24 local currency markets. It is a multi-currency index that includes fixed-rate treasury, government-related, corporate, and securitized bonds from developed- and emerging-market issuers while excluding U.S.-denominated debt.

Bloomberg Global Treasury DM ex U.S. 30% EUR 10% Country Cap Total Return Index Hedged USD measures the total return of fixed-rate, local currency government debt of investment-grade developed-market countries (excluding the United States), hedged to USD. The index maintains 30% exposure to eurozone countries and includes a 10% country cap.

Bloomberg Commodity Index measures the performance of the commodities market. It is calculated on an excess return basis and reflects commodity futures price movements.

Bloomberg 1-3 Month US Treasury Bill Index is designed to measure the performance of public obligations of the U.S. Treasury that have a remaining maturity of greater than or equal to 1 month and less than 3 months.

Bloomberg Municipal Bond Index is a market value-weighted index of investment-grade municipal bonds with maturities of one year or more.

Bloomberg U.S. Aggregate Bond Index is an unmanaged, market value-weighted performance benchmark for investment-grade fixed-rate debt issues, including government, corporate, asset-backed, and mortgage-backed securities with maturities of at least one year.

Bloomberg U.S. Treasury Inflation Protected Notes Index is a market value-weighted index that measures the performance of inflation-protected securities issued by the U.S. Treasury.

Consumer Price Index (CPI) is an inflationary indicator that measures the change in the cost of a fixed basket of products and services, including housing, electricity, food, and transportation.

Dow Jones U.S. Total Stock Market IndexSM is a full market capitalization-weighted index of all equity securities of U.S.-headquartered companies with readily available price data.

ICE BofA U.S. High Yield Index is a market capitalization-weighted index of U.S. dollar-denominated, below-investment-grade corporate debt publicly issued in the U.S. market.

MSCI ACWI (All Country World Index) ex USA Index is a market capitalization-weighted index designed to measure investable equity market performance for global investors of large and mid cap stocks in developed and emerging markets, excluding the United States.

MSCI Emerging Markets (EM) Index is a market capitalization-weighted index designed to measure the investable equity market performance for global investors in emerging markets.

MSCI Emerging Markets Index ex-China is a market capitalization-weighted index that is designed to measure the investable equity market performance for global investors in emerging markets, excluding China.

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Endnotes

¹ Past performance is not a guarantee of future results. All historical performance data quoted is as of 4/30/25, unless otherwise noted.

² The roll-down return is the gain (loss) caused by a falling (rising) yield when a bond approaches its maturity date. Therefore, as bonds approach their maturity date, they should roll down the positively sloped yield curve to a lower yield, creating a gain.

³ Treasury securities are considered "risk free" because they are backed by the full faith and credit of the U.S. government.

⁴ The composition of the combined investment-grade bond portfolio has a similar weighting of government and corporate bonds as the Bloomberg U.S. Aggregate Bond Index. Investment-grade bonds are bonds rated BBB-/Baa3/BBB- or higher by Standard & Poor's/Moody's/Fitch.

⁵ The term premium is the excess yield that investors require to commit to holding a long-term bond instead of a series of shorter-term bonds.

⁶ We define current valuations as today's cyclically adjusted P/E ratio, or the Shiller CAPE, which is the ratio of today's stock market index price divided by the average of the last 10 years of operating earnings per share.

⁷ Correlation measures interdependencies between two random variables, with coefficients indicating perfect negative correlation at -1, absence of correlation at 0, and perfect positive correlation at +1.

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The Asset Allocation Research Team (AART) conducts economic, fundamental, and quantitative research to develop asset allocation recommendations for Fidelity's portfolio managers and investment teams. AART is responsible for analyzing and synthesizing investment perspectives across Fidelity's asset management unit to generate insights on macroeconomic and financial market trends and their implications for asset allocation.

Fidelity Thought Leadership Vice President Michael Tarsala provided editorial direction for this article.



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Although bonds generally present less short-term risk and volatility than stocks, bonds do contain interest rate risk (as interest rates rise, bond prices usually fall, and vice versa) and the risk of default, or the risk that an issuer will be unable to make income or principal payments. • Additionally, bonds and short-term investments entail greater inflation risk—or the risk that the return of an investment will not keep up with increases in the prices of goods and services—than stocks. Increases in real interest rates can cause the price of inflation-protected debt securities to decrease.

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