LPL RESEARCH

Strategic Asset Allocation

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Strategic Asset Allocation & Capital Market Assumptions

LPL Research evaluates asset classes for sensitivity to the following factors, which may influence the expected returns of equities, fixed income, diversifying strategies, and cash over a three-to-five year investment horizon:

- Economic Growth
- Inflation
- Interest Rates
- Business Cycle
- Valuations
- Fundamentals
- Geopolitical Risk
- Volatility
- Dispersion

LPL Research's Strategic and Tactical Asset Allocation Committee (STAAC) is pleased to provide our Capital Market Assumptions (CMA) and Strategic Asset Allocation (SAA) as of January 2025. The CMA and SAA provide guidance on our long-term asset allocation and insight into our strategic market views over the next three-to-five years.

Executive Summary

LPL Research advises clients to reduce risk in portfolios with long-term investment horizons, as the risk-reward trade-off for stocks and bonds is increasingly challenged in today's slow growth, elevated inflation, and higher-for-longer rate environment, particularly as equity multiples expanded in 2024.
The STAAC recommends:

- Decreasing exposure to domestic growth equities to reflect a wider spread in market expectations relative to higher-yielding fixed income, international, emerging market, and domestic value equities.
  - Rotating international equity exposure from developed to emerging markets, as the risk-reward is increasingly favorable, and less correlated to U.S. equities.
- Decreasing exposure to nominal Treasuries to reflect an improving outlook for economic growth, less stable stock-bond correlation assumptions than realized historically, and expectations that longer-duration fixed income may not offer significant protection in ordinary financial market corrections.
- Increasing exposure to off-benchmark asset classes and diversifying strategies:
  - Real assets to hedge potential inflation risks via a diversified basket of commodities, global listed infrastructure, and short-duration Treasury Inflation-Protected Securities (TIPS).
  - Alternatives to hedge potential volatility and market concentration risks via a diversified basket of long/short equity, managed futures, and global macro strategies.
- Maintaining an underweight position in cash, favoring short-duration TIPS due to elevated inflation expectations over a long-term 3–5-year investment horizon.
- Maintaining balance across stocks, bonds, and cash when considering underlying factor exposures that drive risk premia across diversifying asset classes. For example, we view real assets, such as global listed infrastructure as less economically sensitive equities, and alternatives, such as managed futures, as risk mitigation tools that may dampen portfolio volatility like Treasuries.

Methodology

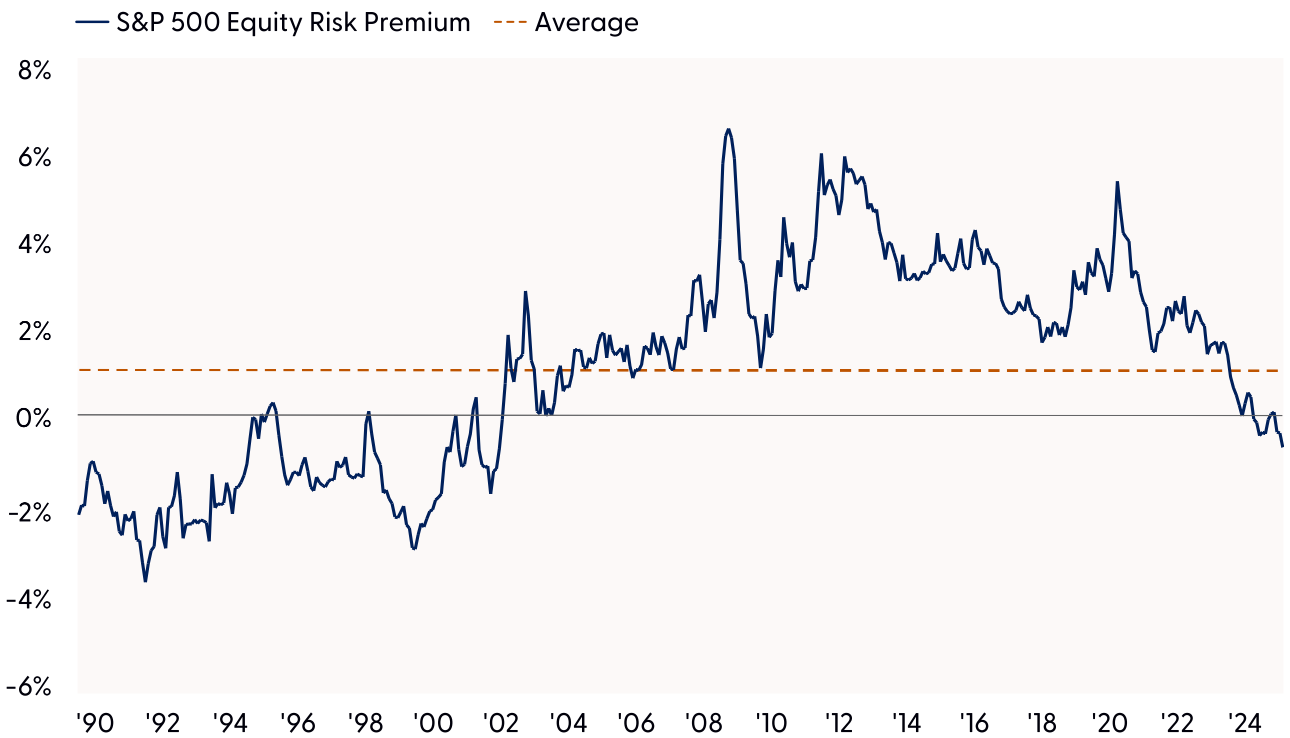
LPL Research brings a structured analytical approach to developing our strategic return outlook, which emphasizes quantitative fundamental drivers of long-term returns and incorporates explicit financial market views from our investment committee (STAAC). We implement this approach through a team-based Black-Litterman[1] modeling exercise, which combines multiple independent signal inputs into an optimized asset allocation that seeks to maximize risk-adjusted returns within each individual investment objective (IO). We then validate the outputs of this process to ensure consistency with the STAAC's team-based investment committee outlook.

STAAC Outlook

Despite looking out over a strategic horizon, there can be meaningful changes in our outlook from year to year if there are significant shifts in the drivers of long-term returns, a large structural change in the macroeconomic environment, or a change in asset class characteristics. As interest rates rise to near 2023 highs on the 10-year Treasury yield, with less than two Federal Reserve (Fed) cuts priced in, we have entered 2025 with an equity risk premium[2] (ERP) below zero and upward pressure on global bond yields. Comparing the ERP to the long-term historical average below suggests stocks have dropped below fair-value relative to bonds for the first time in nearly two decades. The STAAC continues to expect below-average economic growth over the next few years due to structural factors (e.g., slow population growth, deficit spending, and the increased cost of debt) and does not anticipate inflation falling back to the Fed's target rate.

Stock Valuations Fall Below Parity with Bonds at Higher Interest Rate Levels

Equity Risk Premium Offers Investors Little Compensation for Taking on Equity Risk



1. This approach "allows us to generate optimal portfolios that start at a set of neutral weights and then tilt in the direction of the investor's views". Black, Fischer, and Robert Litterman. "Global Portfolio Optimization." Financial Analysts Journal 48, no. 5 (1992): 28–43. www.jstor.org/stable/4479577
2. This statistic compares the earnings yield on the S&P 500 (the inverse of the P/E) to the 10-year U.S. Treasury yield. Essentially, an ERP compares the earnings generated by stocks to the income generated by bonds (in this case, the yield on the 10-year Treasury). By putting stocks and bonds in the same terms, they can be compared on an apples-to-apples basis to see if investors are getting enough earnings "compensation" for the additional risk they are taking by owning equities relative to lower-risk Treasury bonds.

Below we highlight the primary long-term thematic inputs into our strategic asset allocation process and model:

Long-Term Thematic Inputs	Implications for Strategic Asset Allocation
Systematic Rebalancing	• Domestic equities are expensive relative to bonds; forward returns continue to fall with earnings multiple expansion. • Growth-oriented equity valuations are increasingly stretched relative to value-oriented equities. • Foreign equities (and emerging markets in particular) remain attractive over longer-term horizons.
Elevated Inflation Expectations	• Breakeven rates anticipate a low level of inflation relative to our expectations; producer and consumer price levels may surprise to the upside. • Global listed infrastructure equities provide stable real yields and lower economic sensitivity. • Commodities provide exposure to growth and inflation, with low correlation to stocks and bonds.
Rates Stuck in Neutral	• Core fixed income remains attractive versus equities, but interest rates are likely to remain rangebound. • We expect bonds to provide multi-asset portfolios with diversification, liquidity, and income. • Don't chase higher yields in non-core fixed income, as spreads remain historically tight.
Heightened Volatility and Cross-Asset Dispersion	• Geopolitical and macroeconomic uncertainty remains heightened amidst a lower expected-return environment. • Multi-strategy alternatives may hedge volatility from rising valuations and equity index concentration. • Global macro and managed futures may hedge economic surprises and benefit from divergent trends.

STAAC Core Strategic Asset Allocation (SAA)

The following page contains a summary of our updated core SAA model, which spans all five investment objectives (IOs) and may be implemented in both taxable accounts (via core fixed income) and tax-aware accounts (via core municipal bonds).

Complementary insights into the STAAC's tactical views and asset allocation advice, which target a three-month to one-year time horizon, are available in our monthly Global Portfolio Strategy publication.

Asset Class	Aggressive Growth (AG)	Growth (G)	Growth with Income (GWI)	Income with Moderate Growth (IMG)	Income with Capital Preservation (ICP)
Equities	**85%**	**75%**	**56%**	**38%**	**20%**
US Equity	**64%**	**57%**	**43%**	**29%**	**15%**
Large & Mid Cap Growth*	25%	21%	16%	11%	5%
Large & Mid Cap Value	23%	22%	17%	12%	8%
Small Cap Growth	7%	6%	4%	2%	0%
Small Cap Value	9%	8%	6%	4%	2%
Foreign Equity	**21%**	**18%**	**13%**	**9%**	**5%**
Developed International	12%	10%	8%	5%	4%
Emerging Market	9%	8%	5%	4%	1%
Fixed Income	**3%**	**12%**	**31%**	**49%**	**66%**
Core (Taxable)**	**0%**	**9%**	**28%**	**44%**	**58%**
US Government Treasuries	0%	3%	8%	17%	24%
US Investment Grade Corporates	0%	3%	10%	15%	20%
US Mortgage-Backed Securities	0%	3%	10%	12%	14%
Plus (Taxable)**	**3%**	**3%**	**3%**	**5%**	**8%**
US TIPS	3%	3%	3%	5%	8%
Emerging Market Debt	0%	0%	0%	0%	0%
International Aggregate	0%	0%	0%	0%	0%
US High Yield Credit	0%	0%	0%	0%	0%
Diversifying Strategies	**10%**	**11%**	**11%**	**11%**	**12%**
Real Assets	**6%**	**5%**	**4%**	**3%**	**2%**
Commodities	3%	2%	2%	1%	1%
Precious Metals	0%	0%	0%	0%	0%
Global REITs	0%	0%	0%	0%	0%
Global Infrastructure	3%	3%	2%	2%	1%
Alternatives* **	**4%**	**6%**	**7%**	**8%**	**10%**
Market Neutral	0%	0%	0%	0%	0%
Multi-Strategy	2%	2%	3%	3%	4%
Global Macro	1%	2%	2%	2%	3%
Managed Futures	1%	2%	2%	3%	3%
Cash	**2%**	**2%**	**2%**	**2%**	**2%**

Source: LPL Research, 12/19/24

* Accounts with distinct mid-cap allocations may disaggregate mid caps from the "Large & Mid" exposure shown in the table roughly in-line with relative market cap values: 75% Large Cap 25% Mid Cap.

** Tax-aware accounts may implement fixed income allocations by replacing the Core (Taxable) Fixed Income allocation with Investment-Grade Municipal Bonds.

*** Accounts implementing without alternative investments may note that allocations were funded from US Government Treasuries.

1.00 | 0.99 – 0.67 | 0.66 – 0.34 | 0.33 – 0.01 | 0.00 | (0.01) – (0.33) | (0.34) – (0.66) | (0.67) – (0.99) | (1.00)

	Asset Class	Capital Market Assumptions*		Correlation Matrix**														
				Equity						Fixed Income								
				US Equity				Foreign Equity		Core (Taxable)			Tax-Aware		Plus (Taxable)			
		Return	Volatility	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Large & Mid Cap Growth	6.6%	20.8%	1.00														
2	Large & Mid Cap Value	8.0%	18.8%	0.76	1.00													
3	Small Cap Growth	9.8%	26.7%	0.86	0.86	1.00												
4	Small Cap Value	10.3%	27.3%	0.67	0.93	0.88	1.00											
5	Developed International	8.2%	19.4%	0.81	0.89	0.86	0.81	1.00										
6	Emerging Markets	9.8%	21.2%	0.74	0.80	0.81	0.74	0.90	1.00									
7	US Government Treasuries	4.8%	6.4%	0.12	-0.16	-0.04	-0.22	0.01	0.02	1.00								
8	US Investment Grade Corporates	5.4%	8.5%	0.67	0.54	0.60	0.45	0.65	0.62	0.66	1.00							
9	US Mortgage-Backed Securities	5.4%	5.6%	0.31	0.19	0.23	0.14	0.33	0.29	0.88	0.78	1.00						
10	Investment Grade Municipal Bonds	4.0%	5.0%	0.50	0.40	0.43	0.31	0.53	0.47	0.73	0.87	0.89	1.00					
11	High Yield Municipal Bonds	5.0%	7.8%	0.67	0.62	0.61	0.54	0.68	0.64	0.46	0.84	0.68	0.88	1.00				
12	US TIPS***	5.0%	5.6%	0.60	0.40	0.43	0.31	0.53	0.53	0.74	0.85	0.80	0.78	0.73	1.00			
13	Emerging Market Debt	5.9%	10.2%	0.73	0.69	0.71	0.58	0.82	0.81	0.40	0.90	0.62	0.78	0.83	0.74	1.00		
14	International Aggregate	2.6%	11.4%	0.43	0.38	0.37	0.27	0.54	0.60	0.62	0.79	0.74	0.78	0.74	0.79	0.81	1.00	
15	US High Yield Credit	6.3%	10.1%	0.81	0.84	0.85	0.80	0.86	0.83	0.10	0.75	0.36	0.53	0.72	0.60	0.87	0.56	1.00
16	Commodities	2.7%	21.7%	0.26	0.52	0.32	0.49	0.40	0.45	-0.47	-0.01	-0.33	-0.21	0.10	0.06	0.17	0.06	0.44
17	Precious Metals	9.0%	18.1%	0.35	0.29	0.22	0.13	0.41	0.52	0.49	0.63	0.50	0.54	0.55	0.72	0.64	0.73	0.46
18	Global REITS***	11.1%	20.2%	0.70	0.86	0.74	0.80	0.81	0.75	0.17	0.73	0.48	0.64	0.81	0.61	0.77	0.59	0.81
19	Global Infrastructure	8.7%	15.6%	0.65	0.86	0.69	0.77	0.79	0.76	0.16	0.69	0.46	0.60	0.74	0.61	0.74	0.61	0.79
20	Market Neutral	1.1%	5.4%	0.46	0.59	0.57	0.62	0.58	0.44	-0.30	0.25	-0.02	0.18	0.42	0.00	0.39	0.13	0.48
21	Multi-Strategy	2.3%	6.0%	0.79	0.82	0.87	0.81	0.84	0.81	-0.16	0.51	0.06	0.25	0.51	0.38	0.65	0.27	0.86
22	Global Macro	1.8%	7.2%	0.33	0.32	0.38	0.31	0.27	0.23	-0.20	0.01	-0.26	-0.17	-0.02	0.03	0.05	-0.18	0.26
23	Managed Futures	1.2%	10.1%	-0.22	-0.13	-0.16	-0.11	-0.30	-0.26	-0.29	-0.33	-0.42	-0.38	-0.24	-0.39	-0.41	-0.42	-0.32
24	Cash	2.5%	1.3%	0.13	0.03	0.00	-0.07	0.12	0.07	0.23	0.19	0.27	0.19	0.15	0.12	0.21	0.18	0.14

Diversifying Strategies								Cash
Real Assets				Alternatives				
16	17	18	19	20	21	22	23	24
1.00								
0.25	1.00							
0.36	0.44	1.00						
0.44	0.54	0.93	1.00					
0.19	0.07	0.56	0.42	1.00				
0.55	0.29	0.67	0.63	0.56	1.00			
0.33	-0.04	0.12	0.12	0.24	0.56	1.00		
0.05	-0.19	-0.21	-0.21	0.07	-0.06	0.35	1.00	
-0.12	0.25	0.04	0.07	0.16	0.05	0.11	-0.11	1.00

The chart to the left contains a summary of the capital market assumption (CMA) inputs into our strategic asset allocation (SAA) model.

As a result of these changes in our assessment of the long-term return environment, in the January 2025 update to our SAA we have primarily:

- Decreased exposure to equities (particularly large and mid-cap growth, and to a lesser extent, developed international) to reflect less fairly-priced valuations relative to fixed income.
- Decreased exposure to Treasuries to reflect an improving outlook on economic growth and a higher for longer rate environment where fixed income may not deliver significant protection in a garden-variety market downturn.
- Increased alternatives exposures by adding exposure to multi-strategy managers to hedge volatility risk and enhance portfolio diversification in a concentrated equity market.
- Added a diversified real asset basket (including commodities, global listed infrastructure, and short-duration TIPS), to hedge inflation risk.
- Maintained our underweight position in cash, favoring short-duration TIPS due to elevated inflation expectations over a long-term 3–5-year investment horizon.

* LPL Research's expected 3-to-5-year compound annual growth rate (return) based on historical drivers of long-term returns, and 10-year historical standard deviation (volatility).

** Correlation is a measure of two assets' tendency to move together, and ranges from +1 to -1. A lower correlation indicates a greater potential diversification benefit.

*** Treasury Inflation-Protected Securities (TIPS), Real Estate Investment Trusts (REITs)

IMPORTANT DISCLOSURES

Investing involves risks including possible loss of principal. No investment strategy or risk management technique can guarantee return or eliminate risk in all market environments.

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This material is for general information only and is not intended to provide specific advice or recommendations for any individual.

There is no guarantee that a diversified portfolio will enhance overall returns or outperform a non-diversified portfolio. Diversification does not protect against market risk.

Rebalancing a portfolio may cause investors to incur tax liabilities and/or transaction costs and does not assure a profit or protect against a loss.

Asset allocation does not ensure a profit or protect against a loss.

Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value.

ASSET DISCLOSURES

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price.

Municipal bonds are subject to availability and change in price. They are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise. Interest income may be subject to the alternative minimum tax. Municipal bonds are federally tax-free but other state and local taxes may apply. If sold prior to maturity, capital gains tax could apply.

The market value of corporate bonds will fluctuate, and if the bond is sold prior to maturity, the investor's yield may differ from the advertised yield.

Treasury Inflation-Protected Securities (TIPS) help eliminate inflation risk to your portfolio as the principal is adjusted semiannually for inflation based on the Consumer Price Index – while providing a real rate of return guaranteed by the U.S. Government.

Alternative investments may not be suitable for all investors and involve special risks such as leveraging the investment, potential adverse market forces, regulatory changes and potentially illiquidity. The strategies employed in the management of alternative investments may accelerate the velocity of potential losses.

Managed futures are speculative, use significant leverage, may carry substantial charges, and should only be considered suitable for the risk capital portion of an investor's portfolio.

The fast price swings in commodities will result in significant volatility in an investor's holdings. Commodities include increased risks, such as political, economic, and currency instability, and may not be suitable for all investors. Precious metal investing involves greater fluctuation and potential for losses.

Mortgage backed securities are subject to credit, default, prepayment, extension, market, and interest rate risk.

Investing in Real Estate Investment Trusts (REITs) involves special risks such as potential illiquidity and may not be suitable for all investors. There is no assurance that the investment objectives of this program will be attained.

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