

2025 Outlook

Bridging the Divide

From Market Fragility to Portfolio Durability

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Key Observations

- *Full valuations, concentrated U.S. large-cap indexes and the risk of reigniting inflation are shaping the key themes we believe will drive markets and portfolio positioning in 2025.*
- *Recent market successes have pushed our 2025 10-year forecasts lower across most major asset classes. Long-term return premium for equities over fixed income is now at its narrowest since 2007, sparking important conversations about portfolio posture and risk allocation.*
- *Rising reinflation risk leads us to increase our allocation to more flexible fixed income strategies (dynamic bonds) and TIPS while eliminating our global bond allocation.*
- *We have modestly increased our preference for assets outside of U.S. equity to help mitigate concentration risk and skewed relative valuations.*
- *Moving beyond passive toward active management and alternatives may offer a compelling opportunity to enhance portfolio resilience and adapt to the shifting landscape.*

As we wrap up the year, we reflect on our 2024 outlook, "Prepare, Not Predict," and the dynamic and unpredictable nature of the financial markets. Our 2024 themes manifested with varying impact. Inflation remained in the **Messy Middle** and stabilized within a manageable range. The Federal Reserve (the Fed) ultimately began to cut interest rates in September, which brought fixed income yields broadly lower from 2023. In 2023, we emphasized the importance of **Preparation over Prediction**, a sentiment that proved prescient as we navigated a landscape marked by continued volatility, unexpected geopolitical events and a presidential election. Yet markets broadly performed quite well, and the economy remains resilient, despite the recent uptick in unemployment. Our third theme of **Concentrated Consequences** carries through as

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we turn towards 2025. We highlighted the fragility within U.S. equities, driven by the narrow leadership of the "Magnificent 7" and the potential for opportunity in areas beyond U.S. large-cap equities. That narrative only intensified and by November 30, 2024, the top 10 stocks of the S&P 500 accounted for 35% of the index, up from 31% at the start of the year¹. Still, green shoots remain. Small caps outpaced large caps for the one-year period ending November 30, 2024². As we step into 2025, our focus sharpens on resilience and adaptability that empower us to navigate any fragility that may lie ahead.

10-Year Market Forecasts

		2025	2024	Y / Y Change	
Fixed Income	<p>Inflation continued to moderate in 2024 and the Federal Reserve began to ease monetary conditions by cutting rates in September. Yields fell broadly across the fixed income landscape resulting in lower return expectations from the year prior, but still healthy overall levels.</p> <p>High yield was one of the best performing fixed income asset classes in 2024. The change in forecast was further impacted by tighter credit spreads (the additional yield above Treasuries), which now approach pre-GFC levels⁴.</p> <p>Municipal bond market experienced similar dynamics, resulting in lower forecasts for 2025.</p>	U.S. Bonds	4.7%	5.7%	-1.0%
		TIPS	4.4%	5.2%	-0.8%
		Dynamic Bonds ¹	4.9%	6.5%	-1.6%
		High Yield Bonds	6.4%	7.7%	-1.3%
		Global Bonds	4.8%	5.6%	-0.8%
		Muni Bond ²	5.0%	6.3%	-1.3%
		Muni High Yield ²	8.6%	10.2%	-1.6%
Global Equity	<p>Equity forecasts were lower across regions. U.S. equities saw valuations rise, particularly driven by U.S. large cap. Valuations moved higher abroad as well, but not to the same extent as domestic markets. Valuations remain well above long-term averages in the U.S., while non-U.S. markets sit closer to average over the last 20 years.</p>	U.S. All Cap	5.6%	6.5%	-0.9%
		Intl Developed Equity	7.3%	8.2%	-0.9%
		Emerging Markets	8.4%	10.1%	-1.7%
Real Assets & Alternatives	<p>Real assets experienced momentum in 2024. Inflation fell from the start of the year, but positive price movements in underlying segments and lower yields have led to reduced return expectations for the asset class.</p> <p>Marketable alternatives expectations came down as both the outlook for underlying equity and fixed income asset classes fell from last year.</p> <p>Generally higher valuations in spite of modest deal activity have lowered our return expectation for private equity.</p>	Real Estate	6.0%	7.0%	-1.0%
		Broad Real Assets ³	6.6%	7.5%	-0.9%
		Marketable Alts	7.3%	8.4%	-1.1%
		Private Equity	8.6%	9.5%	-0.9%

1) Dynamic bonds are a blend of 33% Cash, 33% Corp HY and 34% Global Bonds. 2) Tax Equivalent yield based on highest marginal Federal tax rate (37%). 3) Broad Real Assets is 20% REITS, 20% Global Infrastructure, 20% Commodities, 20% US Bonds, 15% Corp High Yield, 5% TIPS. 4) FactSet, as of November 30, 2024.

Source: Fiducient Advisors Capital Market Assumptions. Market and economic data including, but not limited to, valuations, fixed income yields and inflation, are used to derive forecasts. Outputs and opinions are as of the date referenced and are subject to change. Information is intended for general information purposes only and does not represent any specific investment recommendation. Please consult with your advisor, attorney and accountant, as appropriate, regarding specific advice. There is no guarantee that any of these expectations will become actual results. Past performance does not indicate future performance and there is a possibility of a loss.

For additional information on forecast methodologies, please speak with your advisor. Please see Index Proxy Summary information at the end of this paper for summary of indices used to represent each asset class.

¹ Morningstar, Standard and Poor's. As of November 30, 2024

² Morningstar. As of November 30, 2024. Small cap = Russell 2000 Index, Large Cap = S&P 500 Index

2025 Themes

Markets stand at a fascinating crossroads. While opportunities and optimism remain, the path forward for allocations is anything but straightforward. This year, our outlook centers on three pivotal themes: fragility, durability and the age of alpha. **Fragility** captures the vulnerabilities embedded in global markets derived from full valuations, concentration and inflationary pressures. It is a call for caution and strategic foresight to mitigate risks. **Durability** shifts the focus to building resilience through thoughtfully diversified asset allocations designed to withstand today's risks and position portfolios for long-term success. Finally, **The Age of Alpha** highlights the growing potential of active management and alternative investments to drive outcomes in a market where traditional beta opportunities are scarce. Together, we believe these themes provide a framework for addressing uncertainty while identifying opportunities to enhance portfolio resilience and performance.

Fragility

Elevated valuations, intensified market concentration and the risk of a second wave of inflation sow the seeds of vulnerability in markets today. Both equity and fixed income valuations hover at precariously high levels. U.S. equity markets have surged in 2024, with the S&P 500 Index gaining 28.1% through November³. Valuations for the index, as measured by price-to-earnings ratio, sit above 22x, close to the 20 year high and more than one standard deviation above the long-term average⁴. When compared globally, U.S. large-cap equities appear even more stretched relative to their non-U.S. counterparts, adding a layer of risk for investors overly concentrated in this space. Meanwhile, in the bond market, credit spreads (one valuation measure for fixed income) have compressed close to levels last seen before the '07-'09 financial crisis.

Fueling a portion of these valuations has been the continued strength of large cap companies concentrated at the top of the market. This narrow market leadership means that the fortunes of a handful of companies disproportionately influence the broader market. Any misstep—be it a disappointing earnings report or adverse development—could lead to significant volatility.

Further adding to the complexity is the threat of reflation. While inflation has eased in recent years (U.S. CPI now sits at 2.6%⁵), it has not vanished, and there are potential inflationary pressures which could surface. Should reflation materialize, it could upend expectations for financial markets.

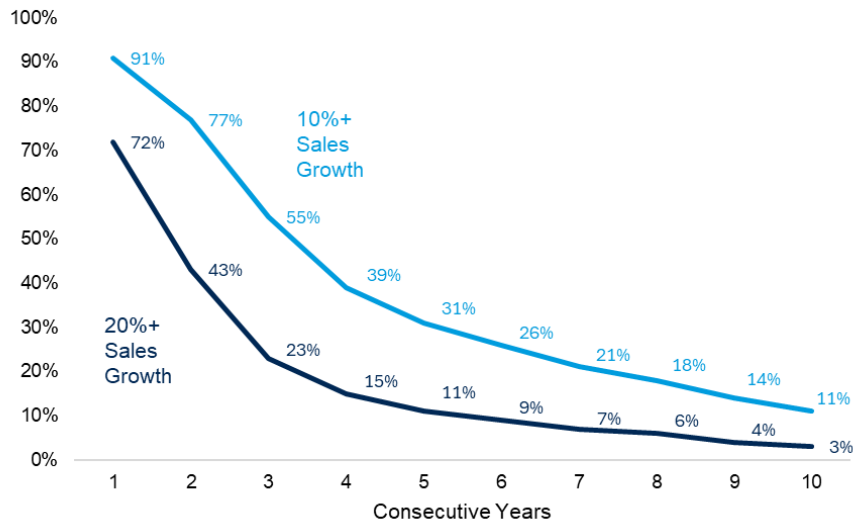
³ Morningstar. Year to date 2024 performance through November 30, 2024.

⁴ FactSet. As of November 30, 2024. Based on forward 12-month price-to-earnings.

⁵ FactSet, Bureau of Labor Statistics. As of October 31, 2024.

Can the Party Keep Going?

Share of Individual S&P 500 Companies with Sustained High Sales Growth (1985-Present)



Concentration within U.S. large-cap equities has increased in 2024. The S&P 500 market capitalization as a percent of U.S. GDP now sits at 168%, the highest level in over 50 years¹. This increased concentration has resulted in the top ten constituents accounting for over 47% of the Index's return year-to-date².

Is this sustainable? The data would indicate that it is extremely difficult for companies to maintain high growth levels for multiple consecutive years. As we explore more below, a reversion in these high-flying names could have large ramifications on performance.

With this in mind, it comes as no surprise that higher market concentration has historically been associated with higher realized volatility.

Sources: Goldman Sachs as of October 18, 2024. ¹Strategas as of October 21, 2024. ²Morningstar as of November 30, 2024.

Inflation Reignition?

We have made progress on the inflation front, but we're not out of the woods yet.

Long-term forces like globalization, population growth and technological advancements continue to influence price stability, but near-term risks to reignition appear to be rising.

Potential policy change around tariffs and immigration, geological disruption, high deficits and money supply and the Federal Reserve's potential rate cuts – despite low unemployment – could tip the scales of risk upward. While rising inflation is not imminent, it does bear watching.

Market expectations are anchored on moderate inflation and an easing Fed. Should those expectations shift, it could have meaningful implications for prices and volatility.

Inflationary

- Deglobalization/onshoring
- Political factors (e.g., potential tariffs, immigration policy, etc.)
- Growing deficits
- Money supply
- Decarbonization

Disinflationary

- Slowing population growth
- Technology
- AI productivity enhancement

Portfolio Impact

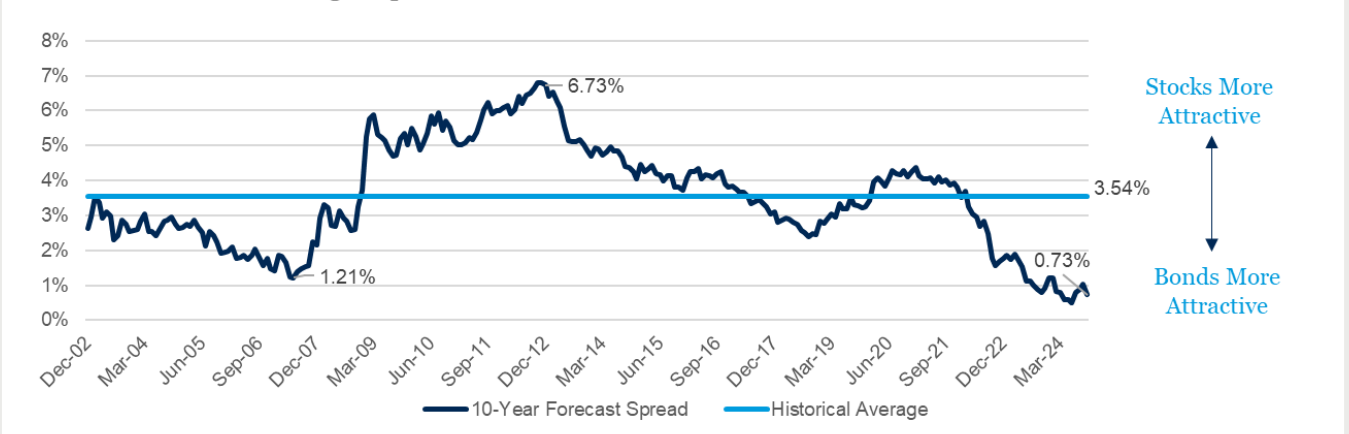
High valuations in both equity and fixed income markets, coupled with market concentration and the growing risk of reinflation, have created a fragile market environment. As we look ahead, navigating this landscape requires a disciplined approach. With limited clear-cut opportunities – what some may call “fat pitches”- in today’s market, it may not be the time to take undue risk in portfolios. Rather, **consider strategies that balance opportunity with durability**. Diversification, reevaluation of risk tolerances, careful selection of asset managers and a keen eye on market developments will be essential in navigating 2025.

Durability

Investing is synonymous with taking risk and there are few, if any, investments that generate sufficient returns without it. While the risks we outlined above are not new to investing, they are particularly pronounced in today’s market. We believe this makes portfolio durability more critical than ever. The good news? Building a durable portfolio comes at a surprisingly modest “cost” for long-term investors. As we demonstrate below, the gap between our forward return expectations for fixed income and U.S. equities is the smallest it has been since 2007. Furthermore, incorporating global allocations may enhance durability by mitigating the acute concentration risks often seen in U.S.-centric portfolios.

Relative Value of Stocks vs Bonds

10-Year Forecast of U.S. Large Cap vs Core Bonds



The graphic illustrates the difference in our forward-looking 10-year return assumptions for U.S. large-cap stocks and U.S. core bonds. A wider spread signals a more compelling case for equities over bonds. Conversely, a narrower spread suggests less incentive to take on equity risk without adequate compensation. Our 2025 10-year outlook has the spread at just 0.73%. Aside from recent months at similar levels, the last time the gap between equity and fixed income returns was this narrow was in the summer of 2007.

Source: Fiducient proprietary 10-year forecasts for U.S. Large Cap Stocks vs U.S. Investment Grade Bonds as of October 31, 2024. Contact a Fiducient professional for a copy of capital markets assumptions and methodologies.

Portfolio Impact

Before simply shifting allocations from stocks to bonds, it is important to consider several factors. First and foremost, a portfolio's allocation should align with its long-term objectives. While minor adjustments may be appropriate, wholesale changes should only follow a fundamental shift in those goals. Moreover, reviewing your goals and risk tolerance is most effective when done proactively during calm market periods rather than times of volatility. With markets experiencing substantial gains in recent years, it is an opportune time to reaffirm or refine your portfolio's objectives. **We encourage investors to evaluate current portfolio allocations in light of recent returns with a focus on the relative positioning of stocks and bonds.**

The Impact from Concentration

		Flat Top 10	Top 10	Top 5	Top 3
Top X Return		0%	-13%	-19%	-28%
Remainder		7%	7%	7%	7%
Return		4.5%	0.00%	0.00%	0.00%
Name	Weight (%)				
NVIDIA CORP	7.2%	0%	-13%	-19%	-28%
APPLE INC	6.7%	0%	-13%	-19%	-28%
MICROSOFT CORP	6.2%	0%	-13%	-19%	-28%
AMAZON COM INC	3.9%	0%	-13%	-19%	7%
META PLATFORMS INC CLASS A	2.5%	0%	-13%	-19%	7%
ALPHABET INC CLASS A	2.1%	0%	-13%	7%	7%
TESLA INC	1.8%	0%	-13%	7%	7%
ALPHABET INC CLASS C	1.7%	0%	-13%	7%	7%
BERKSHIRE HATHAWAY INC CLASS B	1.7%	0%	-13%	7%	7%
BROADCOM INC	1.6%	0%	-13%	7%	7%
JPMORGAN CHASE & CO	1.3%	7%	7%	7%	7%
ELI LILLY	1.3%	7%	7%	7%	7%
UNITEDHEALTH GROUP INC	1.1%	7%	7%	7%	7%
REMAINING CONSTITUENTS	60.9%	7%	7%	7%	7%

The stylized scenarios of varying returns for the top ten stocks highlight the risks of concentration. For example, even if the rest of the S&P 500 achieves a typical long-term return of 7%, the overall index would return less than 5% if the top ten stocks were flat. Further, breakeven scenarios reveal how much price movement in the top ten stocks is required to offset gains across the broader index.

Moreover, sustained exceptional performance is exceedingly rare. Only 3% of companies maintain sales growth of 20% or more, and just 0.1% achieve an EBIT margin above 50% for 10 consecutive years¹. Inevitably, the largest stocks in the index will likely encounter headwinds.

For illustrative purposes only. Source: Factset as of October 31, 2024. 1) Goldman Sachs as of October 18, 2024

Portfolio Impact

Concentration amplifies outcomes—both wins and losses. A striking example is the return gap between the S&P 500 and its equal-weighted counterpart: over the past five years, the more concentrated S&P 500 has outperformed by over 3% annually⁶. While recent history demonstrates the upside of concentration, the downside risks are just as real. Investors have numerous options to mitigate this risk and increase durability.

One way is simple: reduce reliance on concentrated indices. This can mean diversifying into other equity asset classes or incorporating fixed income. Another approach is allocating to less concentrated areas like developed international markets, emerging economies and small- and mid-cap stocks. These indices typically feature less dominance by their top holdings, broader sector representation (including industries beyond technology) and greater geographic diversity. Simply put, at this point in the cycle, a globally diversified portfolio is likely to be more resilient than a narrowly focused one. **Our 2025 allocations will increase our underweight to U.S. equity and will maintain our overweight to mid-small cap stocks.**

The Age of Alpha

Let's start by saying the quiet part out loud: we do not get paid any more or less if our clients implement with active or passive management. Our sole aim is to help clients prosper. With that said, we believe three factors have converged making active management and alternatives more compelling today:

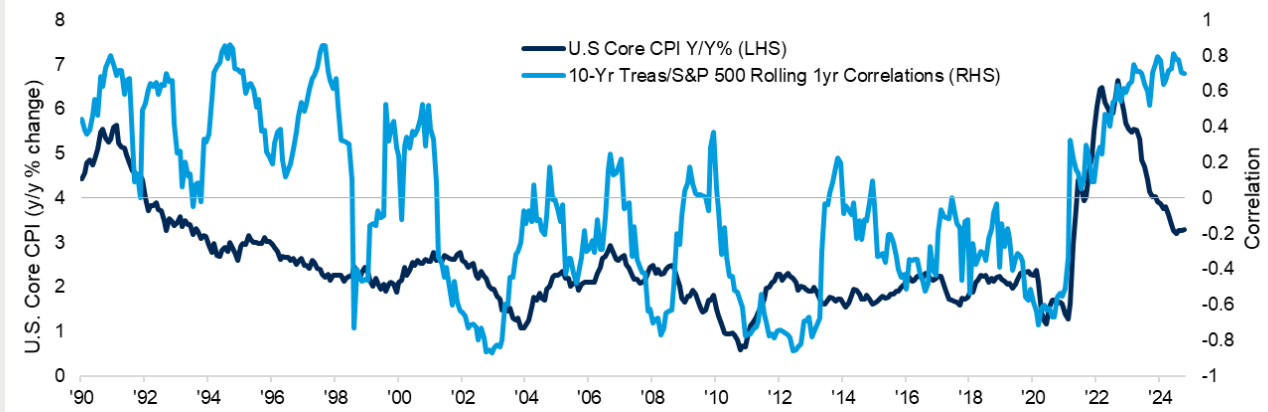
- **Valuations:** With U.S. markets trading at elevated valuations, our forward 10-year return forecast is a modest 5.6%⁷. We believe this presents a relatively low hurdle for alternative investments to outperform while potentially reducing exposure to full market risk.
- **Concentration:** A heavy reliance on a handful of stocks increases the overall risk for broader markets to sustain recent performance.
- **Volatility:** Higher market concentration typically results in increased volatility and inflation volatility may reduce the diversification of some traditional assets. Volatility has important impacts on asset allocation, but it also creates fertile ground for stock selection and targeted opportunities for active management.

⁶ Morningstar. As of October 31, 2024.

⁷ Source: Fiducient proprietary 10-year forecasts for U.S. All Cap Stocks as of October 31, 2024. Contact a Fiducient professional for a copy of capital markets assumptions and methodologies

Resiliency for Multiple Scenarios

10-Yr/S&P 500 Correlation and Inflation



We anticipate realized volatility in large cap U.S. equity markets will rise in the coming years, driven largely by index concentration. If this materializes, it could enhance the relative risk-adjusted performance of non-U.S. equities, alternatives and fixed income. That said, volatility linked to inflation presents a more complex challenge. As we have highlighted previously, the risk of a resurgence in inflation has increased. During inflationary periods, the correlation between fixed income and equities tends to rise, reducing fixed income's effectiveness as a portfolio stabilizer. To address this, alternatives that mimic fixed income's low volatility but are less sensitive to interest rates may provide a valuable enhancement to the durability of portfolios.

Sources: FactSet, Morningstar. As of October 31, 2024. Correlations are rolling 1-year correlations based on monthly returns of the S&P 500 Index and Bloomberg US Treasury Bellwethers 10 Year Index.

Portfolio Impact

The combination of full valuations, concentrated markets and the possibility of a renewed inflationary cycle sets the stage for alternative asset classes, active management and thoughtful portfolio construction to enhance durability.

As part of our 2025 strategy, **we are increasing allocations to dynamic fixed income and Treasury Inflation-Protected Securities (TIPS) while eliminating exposure to global fixed income.** Given the relative appeal of other fixed income opportunities and the potential for heightened currency volatility, we believe global fixed income has a less compelling value proposition.

We also suggest clients **evaluate the inclusion of alternative investments, such as hedge funds and private markets,** in their portfolios. While these strategies may not suit all investors—particularly those with constraints related to liquidity or allocation size—they represent a compelling opportunity in today's environment.

Within real assets, we are maintaining our overall weighting but **shifting toward a more diversified allocation.** The potential for inflationary pressures—driven by unpredictable factors like military conflict and policy changes, for example—underscores the importance of holding a broad array of real assets to hedge against unexpected inflationary spikes.

Portfolio Allocations

2025 Allocation Updates	Y / Y Change	Context
Fixed Income	U.S. Bonds	▼ We are modestly lowering our U.S. core bond allocation. While yields still remain attractive, the potential for additional interest rate volatility and uncertainty surrounding inflation has us compelled to allocate more to Dynamic Bonds and TIPS.
	TIPS	▲ While inflation has moderated, real yields on TIPS remain positive and breakeven levels sit higher than the Fed's 2% inflation target. Recent market developments and the potential for upside inflation risk has led us to add modestly to our TIPS allocation.
	Dynamic Bonds	▲ We are increasing our allocation to dynamic fixed income. Flexibility and an expanded investment universe may prove fruitful in the face of continued interest rate volatility, and risks of reinflation and high valuations within credit.
	High Yield Bonds	-- Credit rallied in 2024 and spreads (the yield above Treasuries) sit below long-term averages, making valuations less compelling. However, all-in yields remain attractive and as a result we are maintaining our allocation to high yield bonds.
	Global Bonds	▼▼ With expected increased volatility from currency and less compelling return expectations relative to other areas of fixed income, we have removed our allocation to global bonds.
Global Equity	U.S. Large Cap	▼ Strong performance in 2024 pushed the share of U.S. equities higher in the global market. Underlying concentration has also increased alongside valuations, creating fragility. As a result we're increasing our underweight to U.S. equities through a more diverse global allocation.
	U.S. Mid/Small Cap	-- We are maintaining our overweight to U.S. small cap equities. Relative valuations favor small cap over large cap and the asset class may benefit from further easing monetary policy. Additionally, the concentration risks that have built up in the large cap segment of the market are less pronounced within small cap.
	Int'l Developed Equity	▲ U.S. equity outperformance in 2024 has driven valuations relative to non-U.S. to 20-year highs and approximately two standard deviations above average ¹ . We are modestly increasing our underweight to U.S. equity. However, uncertainties persist as to the impact of potential trade policies and geopolitical tensions around the world. As such, our underweight to U.S. remains measured overall.
	Emerging Markets	▲ U.S. equity outperformance in 2024 has driven valuations relative to non-U.S. to 20-year highs and approximately two standard deviations above average ¹ . We are modestly increasing our underweight to U.S. equity. However, uncertainties persist as to the impact of potential trade policies and geopolitical tensions around the world. As such, our underweight to U.S. remains measured overall.
Real Assets & Alternatives	Real Estate	▼ Recent developments have contributed to a growing risk of reinflation. Our overall allocation to real assets will remain similar, however, our mix of real assets will broaden based on the variety of policy and geopolitical sources that could spark price increases. We have increased our broad real assets overall at expense of real estate. REITs have had a strong year and the relative valuation is less attractive.
	Broad Real Assets	▲ Recent developments have contributed to a growing risk of reinflation. Our overall allocation to real assets will remain similar, however, our mix of real assets will broaden based on the variety of policy and geopolitical sources that could spark price increases. We have increased our broad real assets overall at expense of real estate. REITs have had a strong year and the relative valuation is less attractive.

¹FactSet. As of November 30, 2024.

Final Thoughts

Full valuations, index concentration and the potential for a resurgence of inflation have set the stage for a fragile market environment. Can prices rise further from here? Absolutely. Yet the possibility of setbacks is equally real, underscoring the importance of durability as we head into 2025.

This year, intentionality is key. Reaffirming portfolio positioning and risk exposure is a prudent annual exercise, particularly in light of recent market gains. While timing markets is inherently fraught, the relatively modest long-term trade-off between equity and fixed income forecasts opens the door to thoughtful conversations about portfolio posture.

Mitigating acute risks, such as concentration and inflation, calls for thoughtful diversification—leveraging global equity allocations, tailored fixed income strategies and a broader spectrum of investments. Moving beyond passive

and traditional approaches into active management and alternatives has the potential to enhance portfolio resilience.

We recognize that some of these adjustments may not align with the comfort of chasing what has performed best recently. But as only Cliff Asness can turn a phrase: “Simply looking at historical results and urging investors to ‘buy the thing that’s gone up the most over the long term’ is not financial analysis; it’s finger painting.”

As we look to the year ahead and beyond, our commitment remains steadfast: to make disciplined, forward-looking decisions that empower portfolios to weather uncertainty with the goal of achieving long-term success.

For more information, please contact any of the professionals at Fiducient Advisors.

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Brad joined Fiducient Advisors in 2012. He is chair of the firm’s Investment Committee and a member of the firm’s Discretionary Committee, Research Forum, Capital Markets Team and Mission-Aligned Investing Committee. In 2019, Brad was named a “Rising Star” in City Wire’s annual Professional Buyer publication for his contributions in the investment manager research industry. Prior to joining the firm, Brad worked in various research capacities at Citigroup and Wells Fargo in New York. He received a BA in Finance and Minor in Economics from The University of Colorado and is a CFA® charterholder and member of the CFA Society of Chicago and CFA Institute. Additionally, he is active with Greenhouse Scholars, a nonprofit providing financial and personal support to under resourced college students. In his free time, Brad loves cooking and spending time with his wife and young sons.



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As a member of the Global Public Markets Team, Rob researches and performs due diligence on fixed income investment managers. He is also a member of our Capital Markets Team. Rob joined Fiduciary Investment Advisors LLC in 2011, which combined with Fiducient Advisors in 2020. Prior to joining the firm, he was an Investment Analyst at USI Advisors, Inc. He received his BA from Bucknell University, is a CFA® charterholder and a member of the CFA Institute and the Hartford CFA Society. Rob volunteers as a member of the Finance and Investment Committee for Chrysalis Center, Inc., a nonprofit organization in Hartford, CT providing support to those struggling with poverty, mental health issues and other challenges. In his free time, Rob enjoys biking with his wife and sons, golf, running and platform tennis.

Disclosures and Index Proxies

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When referencing asset class returns or statistics, the following indices are used to represent those asset classes, unless otherwise notes. Each index is unmanaged, and investors can not actually invest directly into an index:

INDEX DEFINITIONS

Indices used to generate historical risk and return metrics	Most Recent Index	Index Dates		Linked Index 1	Index Dates		Linked Index 2	Index Dates		Linked Index 2	Index Dates	
Cash	FTSE Treasury Bill 3 Mon USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
ST Bonds	Bloomberg US Govt/Cred 1-3 Yr TR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
TIPS	Bloomberg US Treasury US TIPS TR USD	11/24	- 3/97	Bloomberg US Agg Bond TR USD	2/97	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Muni Bond	Bloomberg Municipal 5 Yr 4-6 TR USD	11/24	- 1/88	Bloomberg US Agg Bond TR USD	12/87	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Muni High Yield	Bloomberg HY Muni TR USD	11/24	- 11/95	Bloomberg Municipal 5 Yr 4-6 TR USD	10/95	- 1/88	Bloomberg US Agg Bond TR USD	12/87	- 1/79	N.A.	N.A.	- N.A.
US Bond	Bloomberg US Agg Bond TR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
US Bonds - Dynamic	*Custom Blend of Indices	11/24	- 2/90	Bloomberg US Agg Bond TR USD	1/90	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
For. Dev. Bond	50%CIWGBI/NonUSD Hdg 50%CIWGBI/NonUSD	11/24	- 1/85	Bloomberg US Agg Bond TR USD	12/84	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
HY Bond	Bloomberg US Corporate High Yield TR USD	11/24	- 7/83	Bloomberg US Agg Bond TR USD	6/83	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
EM Bond	JPM Gbl-EM Global Diversified TR USD	11/24	- 1/03	JPM Gbl-EM Global Diversified TR USD	12/02	- 1/94	Bloomberg US Corporate High Yield TR USD	12/93	- 7/83	Bloomberg US Agg Bond TR USD	6/83	- 1/79
Global Bonds	Bloomberg Global Aggregate TR USD	11/24	- 2/90	Bloomberg US Agg Bond TR USD	1/90	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Global Equity	MSCI ACWI GR USD	11/24	- 1/88	S&P 500 TR USD	12/87	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
US Equity (LC)	S&P 500 TR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
US Equity (MC)	Russell Mid Cap TR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
US Equity (SC)	Russell 2000 TR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Int'l Dev. Equity	MSCI EAFE GR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
EM Equity	MSCI EM GR USD	11/24	- 1/88	MSCI EAFE GR USD	12/87	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Real Estate	FTSE Nareit All Equity REITs TR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Private Real Estate	Wilshire US RESI TR USD	11/24	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Broad Real Assets	S&P Real Asset TR USD	11/24	- 5/05	*Custom Real Assets Index	4/05	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Commod. Fut.	BCI+TIPS-CASH	11/24	- 3/97	BCI+TIPS-CASH	2/97	- 1/91	BCI+TIPS-CASH	12/90	- 1/79	N.A.	N.A.	- N.A.
Global Infrastructure	DJ Broadfld Global Infra TR USD	11/24	- 2/03	Alerian MLP TR USD	1/03	- 1/96	Wilshire US RESI TR USD	12/95	- 1/79	N.A.	N.A.	- N.A.
Marketable Alternatives	HFRI Fund of Funds Composite USD	11/24	- 1/90	HFRI Hedge Fund Aggregate Average	12/89	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Private Equity	Centage PE 6% Buyout vs. 3% Venture	11/24	- 4/86	Russell 2000 TR USD	3/86	- 1/79	N.A.	N.A.	- N.A.	N.A.	N.A.	- N.A.
Private Credit	Morningstar LSTA US LL TR USD	11/24	- 2/97	Bloomberg US Corporate High Yield TR USD	1/97	- 7/83	Bloomberg US Agg Bond TR USD	6/83	- 1/79	N.A.	N.A.	- N.A.

* US Bonds – Dynamic Index – 1/3 Bloomberg Gbl Agg EXUSD TR Hdg USD, 1/3 FTSE Treasury Bill Mon USD & 1/3 Bloomberg US Corporate High Yield TR USD

FTSE Treasury Bill 3 Month measures return equivalents of yield averages and are not marked to market. It is an average of the last three three-month Treasury bill month-end rates.

Bloomberg Capital US Treasury Inflation Protected Securities Index consists of Inflation-Protection securities issued by the U.S. Treasury.

Bloomberg Muni 5 Year Index is the 5 year (4-6) component of the Municipal Bond index.

Bloomberg High Yield Municipal Bond Index covers the universe of fixed rate, non-investment grade debt.

Bloomberg U.S. Aggregate Index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

FTSE World Government Bond Index (WGBI) (Unhedged) provides a broad benchmark for the global sovereign fixed income market by measuring the performance of fixed-rate, local currency, investment-grade sovereign debt from over 20 countries, **FTSE World Government Bond Index (WGBI) (Hedged)** is designed to represent the FTSE WGBI without the impact of local currency exchange rate fluctuations.

Bloomberg US Corporate High Yield TR USD covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

JP Morgan Government Bond Index-Emerging Market Index (GBI-EMI) is a comprehensive, global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.

JPMorgan EMBI Global Diversified is an unmanaged, market-capitalization weighted, total-return index tracking the traded market for U.S.-dollar-denominated Brady bonds, Eurobonds, traded loans, and local market debt instruments issued by sovereign and quasi-sovereign entities.

MSCI ACWI is designed to represent performance of the full opportunity set of large- and mid-cap stocks across multiple developed and emerging markets, including cross-market tax incentives.

The S&P 500 is a capitalization-weighted index designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries.

Russell 3000 is a market-cap-weighted index which consists of roughly 3,000 of the largest companies in the U.S. as determined by market capitalization. It represents nearly 98% of the investable U.S. equity market.

Russell Mid Cap measures the performance of the 800 smallest companies in the Russell 1000 Index.

Russell 2000 consists of the 2,000 smallest U.S. companies in the Russell 3000 index.

MSCI EAFE is an equity index which captures large and mid-cap representation across Developed Markets countries around the world, excluding the US and Canada. The index covers approximately 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets captures large and mid-cap representation across Emerging Markets countries. The index covers approximately 85% of the free-float adjusted market capitalization in each country

The Wilshire US Real Estate Securities Index (Wilshire US RESI) is comprised of publicly-traded real estate equity securities and designed to offer a market-based index that is more reflective of real estate held by pension funds.

Alerian MLP Index is a float adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis.

Bloomberg Commodity Index (BCI) is calculated on an excess return basis and reflects commodity futures price movements. The index rebalances annually weighted 2/3 by trading volume and 1/3 by world production and weight-caps are applied at the commodity, sector and group level for diversification.

Treasury Inflation-Protected Securities (TIPS) are Treasury bonds that are indexed to inflation to protect investors from the negative effects of rising prices. The principal value of TIPS rises as inflation rises.

HFRI Fund of Funds Composite is an equal-weighted index consisting of over 800 constituent hedge funds, including both domestic and offshore funds.

Cambridge Associates U.S. Private Equity Index (67% Buyout vs. 33% Venture) is based on data compiled from more than 1,200 institutional-quality buyout, growth equity, private equity energy, and mezzanine funds formed between 1986 and 2015.

HFN Hedge Fund Aggregate Average is an equal weighted average of all hedge funds and CTA/managed futures products reporting to the HFN Database. Constituents are aggregated from each of the HFN Strategy Specific Indices.

Goldman Sachs Commodity Index (GSCI) is a broadly diversified, unleveraged, long-only composite index of commodities that measures the performance of the commodity market.

Material Risks Disclosures

Fixed Income securities are subject to interest rate risks, the risk of default and liquidity risk. U.S. investors exposed to non-U.S. fixed income may also be subject to currency risk and fluctuations.

Cash may be subject to the loss of principal and over longer period of time may lose purchasing power due to inflation.

Domestic Equity can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry factors, or other macro events. These may happen quickly and unpredictably.

International Equity can be volatile. The rise or fall in prices take place for a number of reasons including, but not limited to changes to underlying company conditions, sector or industry impacts, or other macro events. These may happen quickly and unpredictably. International equity allocations may also be impacted by currency and/or country specific risks which may result in lower liquidity in some markets.

Real Assets can be volatile and may include asset segments that may have greater volatility than investment in traditional equity securities. Such volatility could be influenced by a myriad of factors including, but not limited to overall market volatility, changes in interest rates, political and regulatory developments, or other exogenous events like weather or natural disaster.

Private Equity involves higher risk and is suitable only for sophisticated investors. Along with traditional equity market risks, private equity investments are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility and/or the potential loss of capital.

Private Credit involves higher risk and is suitable only for sophisticated investors. These assets are subject to interest rate risks, the risk of default and limited liquidity. U.S. investors exposed to non-U.S. private credit may also be subject to currency risk and fluctuations.

Private Real Estate involves higher risk and is suitable only for sophisticated investors. Real estate assets can be volatile and may include unique risks to the asset class like leverage and/or industry, sector or geographical concentration. Declines in real estate value may take place for a number of reasons including, but are not limited to economic conditions, change in condition of the underlying property or defaults by the borrow.

Marketable Alternatives involves higher risk and is suitable only for sophisticated investors. Along with traditional market risks, marketable alternatives are also subject to higher fees, lower liquidity and the potential for leverage that may amplify volatility or the potential for loss of capital. Additionally, short selling involved certain risks including, but not limited to additional costs, and the potential for unlimited loss on certain short sale positions.