

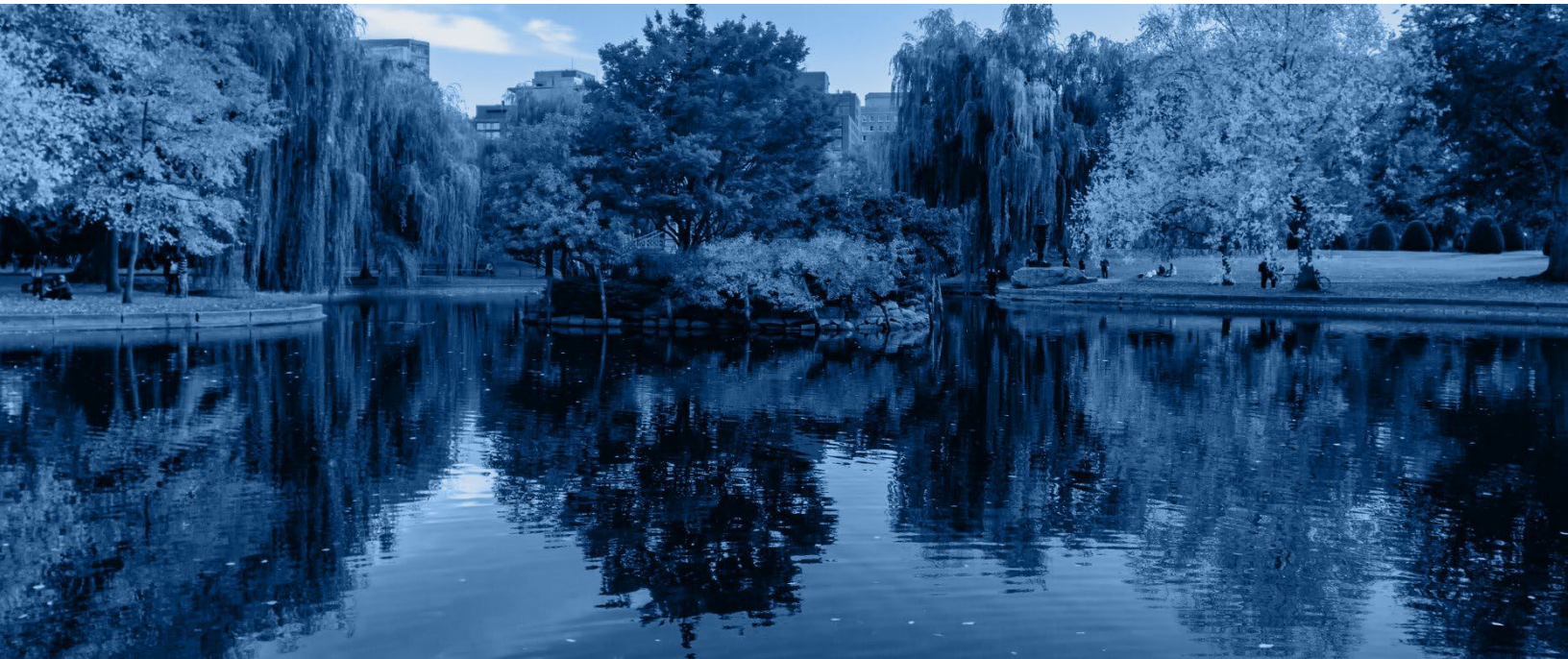


**FLPutnam**

Investment Management  
Company

**Market Outlook**

*March 31, 2025*



## CONTENTS

### **Tactical Asset Allocation Positioning**

Our current positioning and recommendations

### **Macroeconomic and Market Overview**

First quarter 2025 marked a change in trends: US tech stocks stumbled, while international markets shone

### **Equity Markets: A Crisis of Confidence**

A decline in consumer and CEO confidence drove higher volatility as macro uncertainty picks up

### **International Markets: The Benefits of Diversification**

International markets outperformed US markets as European countries promised

fiscal stimulus, while China and India economies looked fundamentally strong

### **Fixed Income: Caution Warranted**

Treasury yields declined and credit spreads widened

Plus, a focus on bonds

### **Direct Indexing: An Evolution in Tax-Managed Equity**

Tax mitigation opportunities

### **Sustainable Investing: Water – Are You Thirsty?**

Water – whet your appetite for solutions to pressing challenges

Overweight

Neutral

Underweight

No Exposure

## EQUITIES

US Large Cap	We are overweight US large-cap stocks, as they continue to represent market leadership. Though the Magnificent 7 have lost near-term relative strength on fears of overinvestment in artificial intelligence, the "Other 493" in the S&P 500 represent high-quality companies with diversified operations, strong balance sheets and less volatility compared to smaller firms, attributes we feel are important in this environment.
US Mid Cap	We are overweight US mid-cap stocks, though they are currently under-performing their large-cap brethren. Mid-cap companies tend to be in the expansion phase of their life cycle, offering faster earnings growth than large-caps. Further, they continue to trade at a discount to large-caps, while normally trading at a slight premium.
US Small Cap	We recently eliminated our US small-cap exposure, as small companies often rely on debt to fund operations (making them more vulnerable to high interest rates) and they tend to struggle with consistent profitability (making them more volatile and susceptible to economic downturns and unexpected shocks). While they trade at a big discount to large-caps, Trump's tariffs increase the chances of a downturn/shock materially.
Int'l Developed Large Cap	Developed international equities have long appeared attractive on a valuation basis but, lacking a catalyst, have underperformed US equities in every calendar year since 2017. A catalyst may have arrived, however, as US allies are now forced by Trump to invest in their own protection and economic well-being. Further, persistent US Dollar strength (long a headwind for international investments) is waning. As such, we recently invested the proceeds from our US small-cap sale in developed international equities.
Int'l Dev Small Cap	We eliminated exposure to this asset class in the summer of 2022, consistent with our preference for US equities.
Emerging Markets (EM)	Broad EM equity exposure hasn't made sense for some time, leaving us underweight. Historically the largest weight in the EM index, China has been slowing materially for years. More importantly, China's relationship with the US continues to deteriorate. We do hold a 2% weight in India, however, based on structural economic growth, demographics, and the ongoing shift of global supply chains from China to India.

## FIXED INCOME

US Treasuries	Treasury rates have decreased from their 2023 peak but are still at higher levels than at many times in the last 20 years. They are an effective hedge against volatility and provide a source of liquidity for client portfolios. We are maintaining our current exposure but would increase our allocation opportunistically, if needed.
US TIPS	We have an allocation to short-term TIPS to hedge against higher, more persistent inflation. Inflation pressures are gradually easing, but upside risks remain in an environment where tariffs are prominent. TIPS remain attractive as a diversifier and an inflation hedge, and we are maintaining our current exposure.
US Securitized	US securitized bonds offer attractive yields, limited interest rate risk, and stable cash flows backed by consumer-focused collateral. They also increase diversification with risk characteristics that differ from traditional corporate credit.
US Corporates	Recent volatility has caused investment-grade corporate spreads to widen, but the index is still below its 20-year median. We continue to favor corporate bonds due to their strong fundamentals and the incremental yield they offer over comparable US Treasuries. We are selectively choosing the bonds of issuers that are well-equipped to handle any softening in the US economy.
High Yield	We currently have no exposure to the traditional, syndicated High Yield asset class. Within this sector, credit fundamentals remain solid, and funding conditions remain favorable for companies. Spreads have mostly been below their long-term median values, so we intend to allocate to this sector in the future at wider spreads.
Floating Rate	Bank stress ramped up sharply in March 2023 and, given tightening financial conditions and banking sector issues, we eliminated our exposure to floating rate bank loans. We hold an allocation to investment grade floating rate notes for their ability to preserve principal in any interest rate environment.
Emerging Markets	We have no current exposure to emerging market debt due to historical US Dollar strength and attractive opportunities within US markets. A future expectation of US Dollar weakness and improving credit conditions outside of the US would lead us to an allocation in this sector.
Private Credit /Preferred Equity	Private credit offers an attractive yield and benefits from major banks' recent exit from various credit businesses. It maintains strong underlying issuer credit quality. We are using private credit for accredited clients and maintaining exposure to preferred stocks for clients that do not qualify for participation in the private credit fund we're using.

## ALTERNATIVES

Commodities	2022's elevated inflation made commodities look attractive as a hedge. The Fed's success in bringing inflation back down via higher interest rates resulted in our elimination of our position in early 2024.
Real Assets	This asset class offers attractive yields after inflation relative to bonds. It also improves diversification in portfolios and will likely dampen volatility in an environment of rising interest rates and/or inflation.

The first quarter of 2025 brought heightened economic uncertainty as trade policy shifts and recession risks reshaped US markets. The Federal Reserve Bank of Atlanta's GDPNow model, a real-time "nowcasting" tool that estimates the growth rate of US GDP for the current quarter, last forecast a 2.8% contraction, while inflation remained stubbornly above the US Federal Reserve's (Fed) 2% target. Both consumer and business confidence eroded amid tariff threats and stagflation fears (the combination of high inflation, stagnant economic growth, and elevated unemployment), with the Fed holding short-term interest rates at 4.25-4.50% despite financial market pressure. As a result, market action could not have been more different from the raging bull market of 2024, as equity bulls, artificial intelligence (AI) fans, and crypto enthusiasts all experienced significant pain. Bond investors, value and international equity investors, and those strongly bullish on gold on the other hand had a field day in a classic "mean reversion" trade.

Trade policy dominated the quarter, as the Trump administration prepared sweeping tariffs targeting multiple countries, scheduled for early April implementation. These measures aimed to counter Chinese economic influence but created deflationary pressures and supply-chain disruptions. The policy uncertainty and apparent economic ramifications sent the S&P 500 Index into its first 10% correction since July-October 2023 and to its worst quarterly result (-4.3%) since the third quarter of 2022.

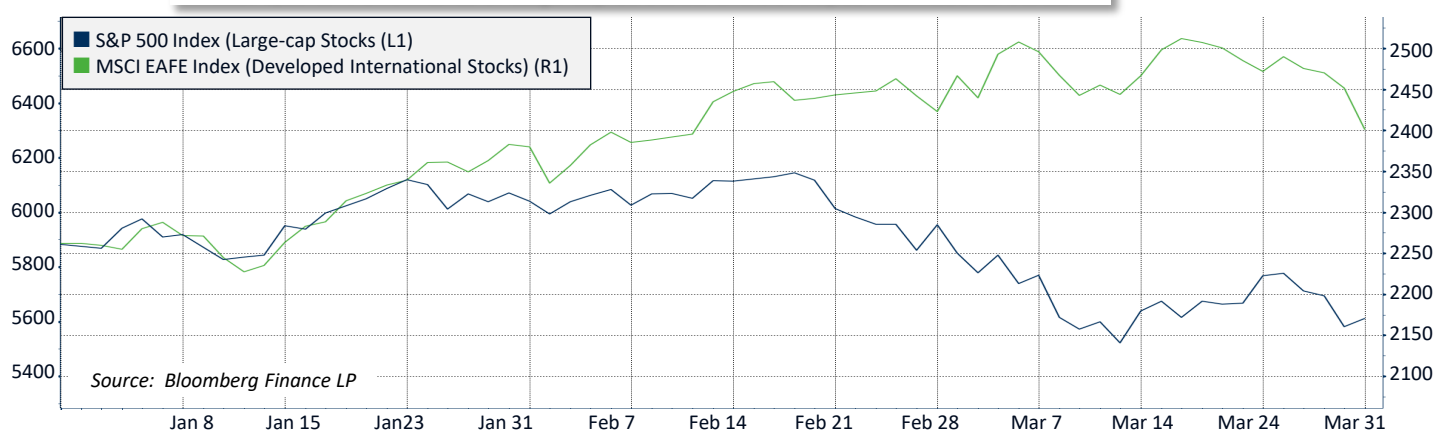
The technology-heavy Nasdaq Composite fared much worse, tumbling 10.3% in the quarter, only the sixth time since the Global Financial Crisis of 2008 that the benchmark fell by double digits in a quarter. The underlying thread was the Magnificent 7 (MAG7), which includes Apple, Microsoft, NVIDIA, Amazon, Alphabet, Meta, and Tesla. After dominating and leading the market higher in both 2023 and 2024, the MAG7 drove capitalization-weighted US equity indices like the S&P 500 and Nasdaq lower in Q1. All but one (Meta) underperformed, as the MAG7 fell 15.0% while the rest of the S&P 500 posted a modest 0.4% gain, according to Ned Davis Research.

Despite valuation discounts vs. the S&P 500, US mid- and small-cap stocks provided no refuge from the storm. The S&P Midcap 400 and S&P Smallcap 600 indices fell 6.1% and 8.9% respectively. The biggest story in equity markets, though – other than pronounced MAG7 weakness – was the resurgence of international equities. After years of underperforming the US, the MSCI EAFE Index of developed international equity markets climbed 7% in the quarter, while Emerging Market equities added 3%. A declining US dollar was a tailwind for non-US assets as the US Dollar Index fell nearly 4% during the quarter.

The risk-off sentiment that gripped US stocks extended to other assets as well. The Bloomberg US Aggregate Bond Index gained 2.8% in Q1 as a flight to safety pushed interest rates lower. After climbing as high as 4.79% in mid-January, the 10-Year US Treasury yield plunged as low as 4.16% in early March. Gold – also a traditional safe-haven asset – had a banner Q1, gaining 19% and reaching \$3,000 per ounce for the first time. The S&P GSCI Commodity Index gained a more tepid 3%, also aided by a weakening dollar and falling interest rates. However, stagnant oil prices hindered broad commodity indexes, as oil finished the quarter down despite significant geopolitical uncertainty.

Clearly, 2025 has brought major shifts in economic policy that are driving similarly major changes in asset class returns and leadership. As such, our asset allocation targets have also begun to change. We reduced our absolute equity weighting marginally during Q1 and are contemplating the outright sale of our small-cap equity exposure due to slowing economic growth and poor small-cap relative strength. The shift likely to come, however, is a material increase to our international equity weighting. As reflected in the return rundown above, Trump's tariff plan has clearly taken the bloom off historically expensive, global mega-cap technology stocks and catalyzed a rotation into historically cheap international equities. Our allocations to fixed income and alternative investments are likely to remain stable, although we'll be adding an interesting private market vehicle (private equity and private credit for accredited investors) to our alternatives allocation later this year. ■

First-Quarter Performance of Large-Cap US Stocks and Developed International Stocks



The first quarter of 2025 was a tumultuous one for the US stock market. The S&P 500 rose 4.6% in the first half of the quarter only to slump in the second half and finish down 4.3% as the Trump administration's tariff proposals fed fears of rising inflation and slowing economic activity. While headlines have been quick to proclaim doom and gloom, the stock market correction so far has reflected a sudden loss of consumer and business confidence rather than a collapse in economic activity. Economic data has remained consistent with ongoing growth while softening at the margin, and the notable development in the quarter was an unusual spike in policy uncertainty. Our initial outlook for 2025 anticipated a significant increase in volatility that ultimately resulted in modest gains driven by ongoing earnings growth, and this outlook remains intact with the important caveat that downside risks have meaningfully increased.

### The stock market correction so far has reflected a sudden loss of consumer and business confidence rather than a collapse in economic activity.

Earnings growth is still expected to be positive this year although estimates have begun to decline, and downside risks have increased. The chart at right illustrates the change in earnings estimates for the S&P 500, which have dropped for the first quarter as companies scramble to manage the short-term impact of tariffs. This has left the 2025 growth trajectory of large US corporations dependent on the scale, scope, and duration of proposed tariffs. If tariffs are not negotiated to manageable levels in short order, earnings growth will be at risk and the market outlook will be likely to get worse before it gets better.

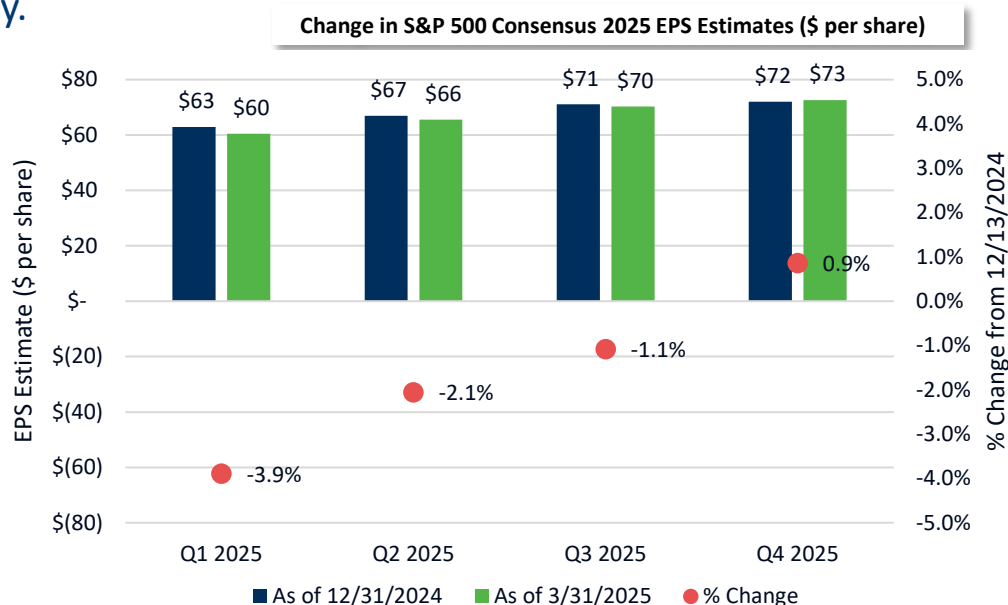
We noted at the beginning of the year that elevated valuations left the market vulnerable to disappointment, and valuations remain an important consideration going forward. The S&P 500's forward P/E ratio has compressed to levels that, while still above long-term historical averages, are far less frothy than earlier in the year. This revaluation process is a natural part of market cycles and can set the stage for a healthier long-term trajectory. At some point policy uncertainty will be adequately reflected in valuations and allow for a more favorable risk/reward profile for US equity investors even if the economic backdrop becomes increasingly bleak.

Market volatility has also triggered notable shifts in sector and style leadership. While growth and technology stocks had

dominated for much of the post-pandemic recovery, recent conditions have favored more defensive and value-oriented sectors. High-dividend and stable earnings businesses in sectors such as Consumer Staples, Utilities, and Healthcare, have outperformed relative to more speculative growth stocks.

Style rotation has also been evident in market capitalization dynamics. Large-cap stocks, particularly those with strong balance sheets and stable cash flows, have held up better than small-cap stocks, which are more vulnerable to rising interest rates and economic uncertainty. This shift suggests that investors are becoming more risk-averse, gravitating toward quality and stability over speculative high-growth opportunities.

Investors also seem to be shifting their attention outside the United States. As the technology and growth stocks that dominate the US equity markets lose their luster, equities in other parts of the world with more attractive fiscal and monetary policy dynamics and valuations have begun to gain traction. It's still early, but it seems the "bear market" in diversification – where the rising valuations of the largest



growth stocks in the US led to an increasingly concentrated market – may be waning.

The S&P 500 has retreated from recent highs, but this type of market behavior is neither unusual nor unexpected after a period of strong gains. The US stock market has experienced a pullback, but the current drawdown has been modest so far, relative to historical declines. However, risks have undoubtedly increased, particularly for lower-quality and smaller-cap companies. While earnings pressures and shifting investor sentiment are reshaping the market landscape, the improvement in valuations and sector rotation present opportunities for investors willing to navigate short-term risks in pursuit of long-term rewards. ■

Global equity markets ended the first quarter of 2025 in negative territory, with the MSCI All Country World Index (ACWI) declining by 1.2%. The retreat was primarily driven by investor concerns over escalating US-led trade tensions and the rising probability of a synchronized global economic slowdown. Despite these headwinds, macroeconomic data across major regions – particularly Europe and Asia – surprised to the upside. Stabilization in manufacturing activity, coupled with resilient consumer demand, supported a more constructive outlook for corporate earnings in these markets, partially offsetting broader bearish sentiment.

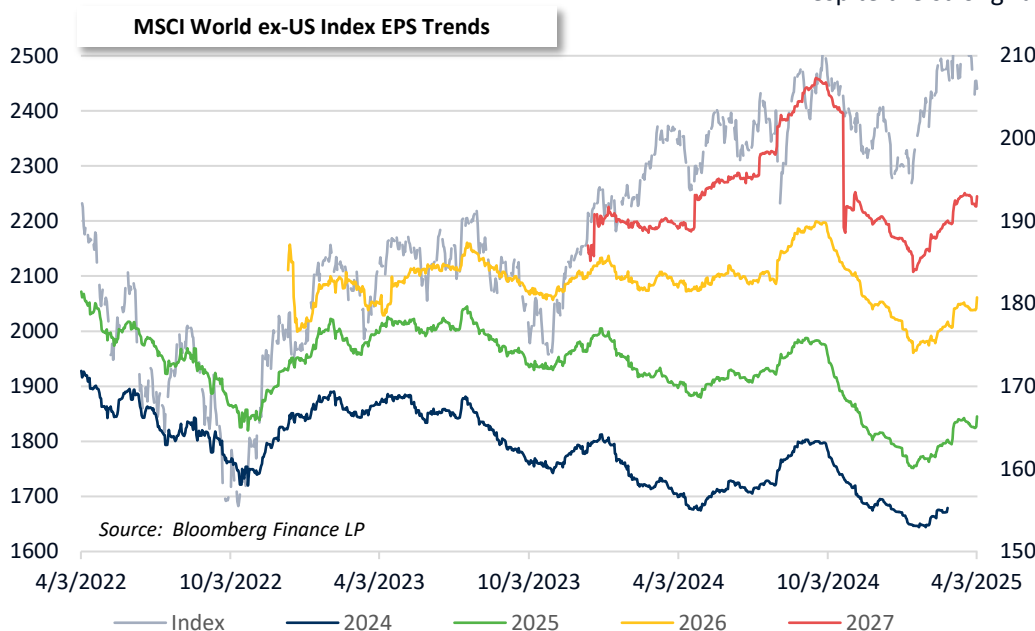
A standout theme for the quarter was the significant outperformance of international equities relative to US markets. The MSCI World ex-US Index gained 6.4% in Q1, while the S&P 500 declined by 4.3%. This divergence in relative performance was driven by a combination of fading US exceptionalism and a broad-based recovery in corporate earnings across international markets – most notably within the euro area (see chart below). Additionally, a 4% depreciation in the US dollar during the quarter further boosted returns for dollar-based investors in international equities, amplifying the relative strength of non-US markets.

Within developed markets, European equities delivered notable outperformance in Q1, with the MSCI Europe Index advancing by 10.6%. This performance marked a strong reversal from the prolonged pessimism that defined much of 2023 and 2024. This strength reflects a meaningful re-rating in European markets, supported by improving macroeconomic fundamentals, easing inflation, and a pivot toward more accommodative monetary policy. A key catalyst has been Germany's departure from its traditionally conservative fiscal approach, underscored by the approval of a landmark €500 billion infrastructure investment program and an additional €400 billion in emergency defense

spending. This fiscal stimulus is expected to materially bolster regional economic growth and provide a structural tailwind for European equities. In contrast, Japan's economy and equity market faced headwinds in the quarter, weighed down by global trade tensions and a contraction in PMI indicators. Nevertheless, we anticipate a gradual recovery supported by a rebound in consumer spending and improving corporate earnings momentum. Overall, we retain a constructive long-term outlook on developed market equities while remaining vigilant of near-term volatility stemming from trade policy uncertainty.

Emerging markets were characterized by a pronounced divergence between China and India, with the MSCI China Index rising 15% while the MSCI India Index declined by 2.9%. China's economy showed signs of recovery, highlighted by a 12-month high in March's manufacturing PMI and stabilization in the real estate sector. The rise of Chinese AI startup DeepSeek and President Xi Jinping's evolving stance toward private enterprise signal a strategic shift in China's approach to economic and technological development. We believe these developments enhance the near-term investment case, though heightened geopolitical tensions with the US remain a key source of long-term uncertainty. In contrast, India's equity market saw increased volatility, with a double-digit decline early in the quarter followed by a strong rebound in March. The underperformance reflected concerns over stretched valuations and softening earnings growth; however, India's economic outlook remains fundamentally strong, underpinned by demographic advantages and resilient domestic demand, supporting GDP growth expectations of 6.5% over the next two years. While near-term volatility may persist, we maintain a constructive long-term view on both markets, with selective opportunities emerging amid ongoing structural shifts.

Despite the strong rally in Q1, international equities continue to



offer compelling valuations relative to their US counterparts. In addition to favorable relative valuation, structural reforms across key markets – ranging from corporate governance enhancements in Japan to expansive fiscal initiatives in Germany and accelerating technological innovation in China and India – create a fertile backdrop for excess gains beyond the US. From a portfolio construction perspective, incorporating international equities supports broader diversification, mitigates concentration risk, and has the potential to enhance long-term risk-adjusted returns. ■

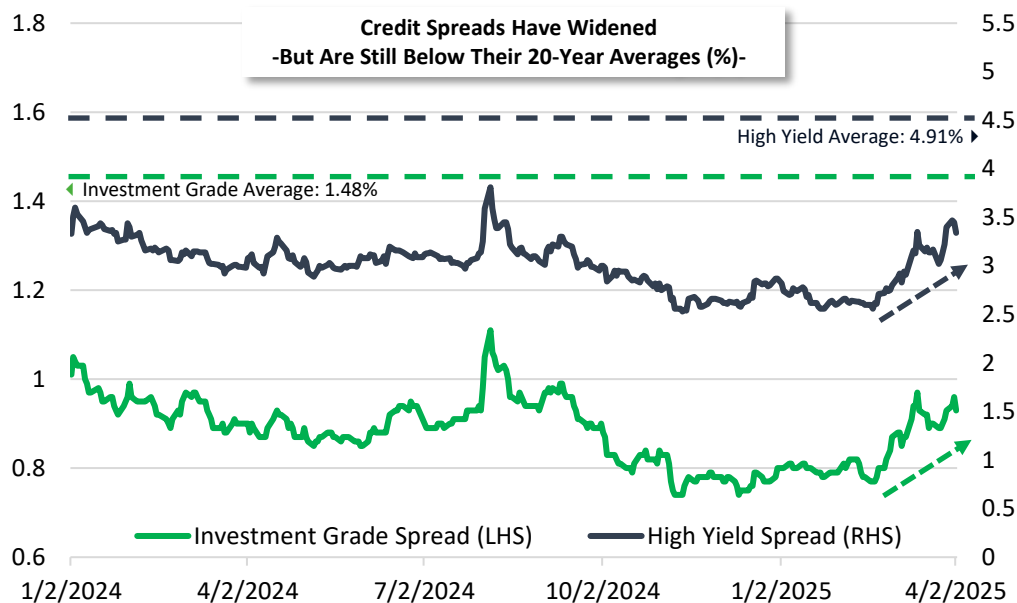
Headed into 2025 we anticipated an increase in interest rate volatility, and it quickly materialized in the first quarter. Headlines related to tariffs and government policy drove large intra-day moves in equity markets and fixed income markets alike. The most recent peak in interest rates occurred in the middle of January, but yields have moved steadily lower since then. In the first quarter, the 2-Year Treasury yield declined by 0.36% to 3.88% and the 10-Year Treasury dropped 0.39% to 4.21%. In the last six trading days of February alone, the 10-Year Treasury decreased by 0.30%.

The Trump administration's April 2nd announcement of substantial tariffs has sent rates sharply lower. The recent decrease in the 2-Year Treasury yield might appear counterintuitive considering the anticipated inflationary impact of tariffs, but we believe the bond market is looking through the

tariffs to an economic growth outlook that is increasingly discouraging. Evidence of this is apparent in intermediate-term, market-based indicators of inflation, which have actually been declining. High-yield bond spreads widened in March by the largest amount since late 2022, pointing to additional signs of economic weakness in credit markets. Interest rates, inflation indicators, and credit spreads are all signaling that risks have markedly increased, which makes us incrementally more cautious as we invest client fixed income portfolios.

The future path of interest rates looks uncertain. The US 10-year yield could easily rise to 5% in an inflationary case or decline to 3.65% in a recessionary case. Short maturity yields are more likely to decline than long maturity yields, as market participants are quickly factoring in additional rate cuts from the Fed in 2025. In fact, the consensus is now expecting a full percentage point reduction to the Fed Funds rate in the remainder of the year, whereas only one rate cut was previously expected.

Any rate cuts may help soften economic weakness, which is an incremental positive in the current environment. We remain encouraged by the strength of corporate and municipal balance sheets, which are incredibly robust. Most issuers are well-equipped to manage a soft patch in the US economy, and we do not expect a dramatic increase in defaults. Overall, to mitigate risk, we continue to focus on liquidity, inflation protection, and quality in client portfolios. ■



Source: Bloomberg Finance LP

## Fixed Income Focus:

### Are bonds cheap or expensive currently?

We often get asked whether bonds are attractive, given that yields are higher now than they were in the many years following the Global Financial Crisis of 2008. The answer to this question hinges on three main factors: the level of “real” interest rates, the attractiveness of credit spreads, and the level of nominal yields. A “real” rate refers to the expected yield that a bondholder receives net of inflation. With the 10-Year Treasury yield at 4% and future inflation expectations of 2.5%, the “real” yield on the 10-Year Treasury is around 1.5%. This is a fair amount higher than the 20-year average of 0.85%, but lower than the 50-year average of 2.08%.

The level of credit spreads can also indicate the attractiveness of bonds, especially in credit-sensitive sectors. The investment-grade corporate bond spread represents the incremental yield

that an investor can receive by investing in a high-quality corporate bond instead of a US Treasury. This measure is currently at a 0.93% spread, significantly lower than the 20-year average of 1.48%.

In addition to real rates and corporate spreads, the overall yield level of bonds is a factor in determining their attractiveness. The Bloomberg US Aggregate Index is a broad index of investment-grade bonds and currently yields close to 4%, which is higher than the 20-year average of 3.05%. Overall, real rates and the level of nominal yields indicate that bonds are relatively cheap, but corporate spreads are expensive historically.

Taken in summation, we view fixed income as moderately attractive. While we readily acknowledge that equities will deliver higher returns over the long term, fixed income can provide a solid yield while also dampening overall portfolio volatility. This may prove especially important in the year ahead.

# DIRECT INDEXING: AN EVOLUTION IN TAX-MANAGED EQUITY

## Taxes Matter

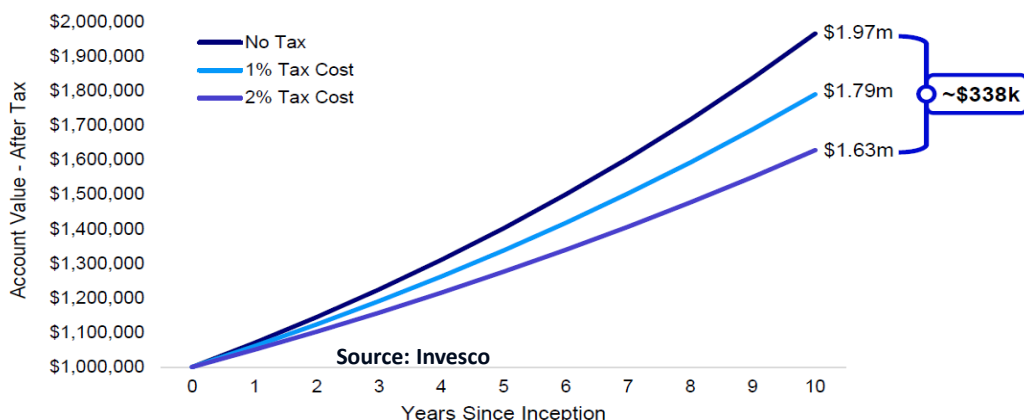
One of the most under-emphasized aspects of investing is taxes, or, more specifically, the tax cost generated by one's portfolio. As articulated in the chart below, the difference between paying zero taxes and losing just 1% is quite stark.

ETFs have been a useful innovation in mitigating this drag on net returns to clients, significantly reducing the taxes generated relative to mutual funds, even for actively managed strategies in many cases.

Direct Indexing offers another option for tax mitigation opportunity: harvesting tax losses while tracking an index.

### Tax efficiency (or lack thereof) can make a substantial difference in wealth creation

Cumulative returns of two tax efficiency scenarios through time, starting with \$1,000,000 and a return assumption of 7% annually



## Direct Indexing

Historically, direct indexing has been a “go-to” solution for taxable investors seeking personalized, tax-efficient equity exposure. This involves purchasing the stocks that make up an index in appropriate weights to replicate benchmark performance on paper. As time passes, some stocks increase in value and others decrease, creating opportunities to harvest the losses of the fallen stocks. This is what is referred to as “tax alpha.” There are even tax alpha opportunities in years where the markets rise.

In a [2020 study](#), researchers from MIT and Chapman University using conservative assumptions concluded that tax-loss harvesting in direct index portfolios added as much as 1.1% to annual after-tax performance over their 92-year sample period. Essentially, these strategies can turn a tax cost into a tax asset, on average, when funded with cash. In certain years the results will be higher or lower, and the results of all tax-loss harvesting strategies generally constitute a deferral rather than a permanent elimination of taxes.

	S&P 500® INDEX RETURNS (%)					RUSSELL 3000® INDEX RETURNS (%)					MSCI WORLD EX-USA INDEX RETURNS (%)				
Even in up years, there are opportunities for loss generation	18.4	28.71	-18.11	26.29	25.02	20.89	25.66	-19.21	25.96	23.81	7.59	12.62	-14.29	17.94	4.70
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Full period up (# of stocks)	25	134	46	127	127	115	837	148	657	425	31	206	40	304	159
Down during year (# of stocks)	475	368	455	374	372	2,499	1,955	2,751	2,266	2,477	928	706	836	563	711
% of stocks with loss harvesting opportunity during year	95%	73%	91%	75%	75%	96%	70%	95%	78%	85%	97%	77%	95%	65%	82%

Source: Russell Investments. Analysis as of 12/31/2024.

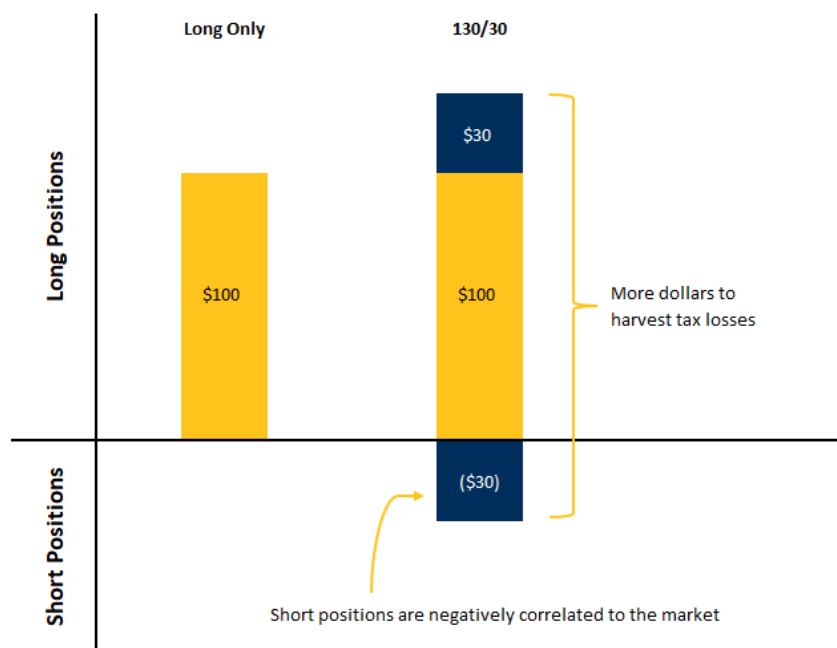
Direct index strategies are far from perfect. Drawbacks are mostly driven by the passage of time where the ability to harvest losses shrinks and often disappears. As the difference between cost basis and market prices increases it becomes more difficult to find losses, and to manage the tracking error without triggering capital gains. This is referred to as portfolio ossification. The portfolio becomes locked up to a degree and the ability to generate tax alpha disappears.

Recent innovations in the investment solution marketplace can help solve this problem.

## Enhanced Direct Indexing (EDI)

Enhanced direct indexing is evolving the tax-aware investment landscape by combining the benefits of traditional direct indexing with advanced strategies for tax efficiency, namely leverage and shorting stocks. By adding an additional 30% of long-market exposure (leverage) and shorting 30% of the original market exposure, investors can both amplify and prolong the tax-loss harvesting characteristics of their equity allocation.

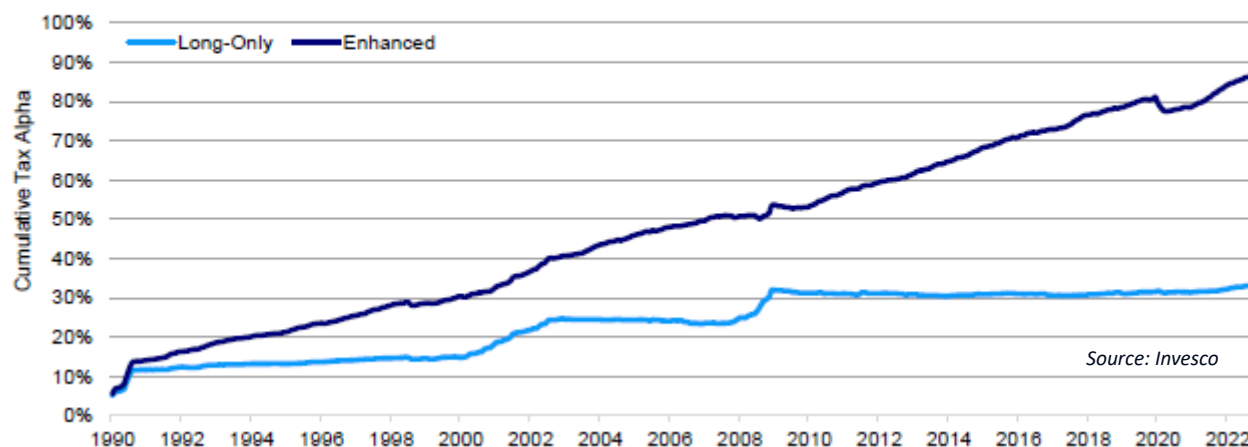
Simulations performed by Invesco outline the augmented tax alpha for an enhanced direct index relative to a traditional direct index over time. As shown below, the enhanced version of this strategy hits fewer plateaus and continues to produce tax-loss harvesting opportunities across time.



Enhanced direct indexing can play an important role in your overall portfolio when the goal is producing after-tax returns. Its ability to produce tax alpha consistently makes it especially valuable when paired with other portfolio allocations that produce capital gains like actively managed equities, private equity, and any segments of fixed income allocation producing realized capital gains. Offsetting realized capital gains from one part of your portfolio with losses harvested from another will help after-tax results.

### Comparing Simulated Tax Alphas for Long-Only and Enhanced Portfolios

Cumulative tax alpha relative to a full replication benchmark



Unfortunately, for many people the answer to the question in the title above is yes. This is also true for many companies, particularly those in semiconductor manufacturing and data centers, where water use is critical to operations. Although water appears abundant on Earth, readily available freshwater is remarkably scarce – a challenge made worse by climate change, pollution, and unsustainable extraction. While social, environmental, and business risks mount, there are potential opportunities for investors in companies that are working to address the growing problem of water scarcity.

The vast majority of water on planet earth is saltwater. Based on [USGS](#) information, the total freshwater resource on earth is only 2.5% of total water. Of this freshwater, almost 70% is locked up in glaciers and icecaps. McKinsey estimates that only 39% of the remaining freshwater in aquifers, lakes, and other sources is reliable and suitable for use.

As discussed in our letter on [natural capital](#), humans are using resources as if we had 1.8 Earths. Global renewable freshwater availability per capita has declined over 50% since 1970, according to World Bank data. Over half of freshwater aquifers are beyond sustainable tipping points, and roughly 1/3 of water running through pipes globally is lost to leakage. Global freshwater demand is [expected](#) to exceed supply by 40% by 2030. Half the world's population already [experiences](#) extremely high water stress at least one month per year, and this is expected to reach 60% by 2050. Population growth, climate change, pollution, and groundwater depletion all play roles in the supply/demand imbalance.

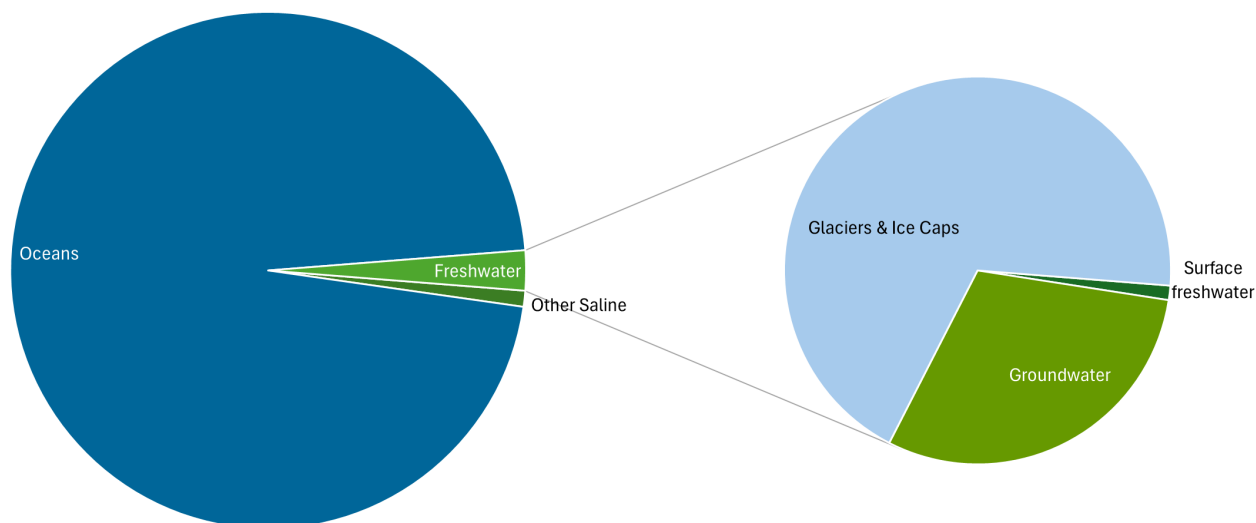
Water quality is an increasing concern as the global population grows. The World Economic Forum and National Geographic estimate that roughly 80% of global sewage is discharged into oceans without adequate treatment and

microplastics have been found in 83% of tap water. The UNEP [estimates](#) that 1/3 of all rivers in developing countries are severely polluted. Chemical toxicity is also a growing concern, particularly the presence of per- and poly-fluoroalkyl substances (PFAS), which have been linked to cancer, liver damage, and reproductive issues. PFAS chemicals have been used in nonstick coatings, waterproofing, and other applications for decades, and are now turning up in water supplies. In the US, 45% of tap water is estimated to have PFAS present. To make matters worse, climate change exacerbates quality risk as rainfall patterns shift, introducing instability into water systems.

World bank data shows that annual economic losses from inadequate water supply and sanitation total roughly \$260 billion – a figure expected to rise. Looking forward, the World Resources Institute estimates that \$70 trillion in global GDP will be exposed to high water stress by 2050.

Over two thirds of businesses have substantial water risk in their direct operations or value chain according to [McKinsey](#). While risk can take many forms, the two most immediately impactful for investors are physical and regulatory risks. Physical risks – often linked to drought and water shortages – can lead to both short-term operational disruptions and long-term cost pressures. ADM, a global agricultural supply chain company, incurred hundreds of millions of dollars in increased costs in 2022 as Mississippi River shipping stalled due to low water levels. Regulatory risks are also often related to shortages and government restrictions intended to protect access to water for citizens. In 2017, Pepsi operations in India were impacted by a state groundwater restriction of 75%, leading to the closure of a bottling plant. Perhaps the most glaring recent example of regulatory risk was the over \$10 billion in partial PFAS settlements at 3M.

*Continued, Page 10* ▶



◀ Continued from Page 9, Water

Solutions to water challenges can come in many forms. US data centers currently account for 2-3% of national freshwater use, a figure projected to rise to 8% as demand for AI and cloud computing grows, according to Bloomberg Intelligence. In Virginia's "Data Center Alley," large tech companies used 1.85 billion gallons of water in 2023, up 64% from 2019. Microsoft recently [unveiled](#) closed-loop cooling systems, which eliminate 33 million gallons of water use annually per data center – highlighting the role of infrastructure innovation in risk mitigation.

Other companies address water challenges directly through

products or services as part of a business model. Companies like AECOM are leaders in PFAS remediation through testing, monitoring and treatment services. Companies like Xylem provide hardware, sensors, and software that target leak detection, water analytics, and system efficiency, which helped customers detect over 80,000 water leaks in 2023, saving 13 billion gallons of water.

As available freshwater resources are increasingly strained by population growth, economic growth, and environmental degradation, both risks and opportunities are becoming more impactful. Investors are increasingly paying attention. ■

GLOBAL MARKET RETURNS		Last 3 Months	Last 12 Months*	20-Year Annual Return**
US Equities	S&P 500 ( <i>Large US Companies</i> )	-4.27%	8.25%	10.23%
	S&P 400 ( <i>Mid-size US Companies</i> )	-6.11%	-2.73%	9.34%
	S&P 600 ( <i>Small US Companies</i> )	-8.94%	-3.43%	8.55%
	Russell 3000 ( <i>All US Companies</i> )	-4.73%	7.20%	10.06%
	Dow Jones US Real Estate Index	3.49%	9.80%	6.94%
International Equities	MSCI World Index ex US ( <i>Developed Markets</i> )	6.35%	5.86%	5.78%
	MSCI EAFE ( <i>Developed Markets</i> )	7.03%	5.46%	5.77%
	MSCI Emerging Markets ( <i>Emerging Markets</i> )	3.01%	8.65%	6.43%
	MSCI World ex US Small Cap ( <i>Developed Markets Small Companies</i> )	3.53%	4.12%	6.05%
Fixed Income	Bloomberg Intermediate US Government/Credit TR	2.42%	5.65%	3.06%
	Bloomberg US Corporate High Yield Total Return	1.00%	7.69%	6.58%
	Bloomberg Intermediate Corporate Total Return	2.27%	6.32%	3.99%
	Bloomberg US Intermediate Treasury TR	2.49%	5.35%	2.67%
	Bloomberg US Treasury Inflation Notes TR	4.17%	6.17%	3.53%
	Bloomberg US MBS Index Total Return Value Unhedged	3.06%	5.39%	2.97%
	Bloomberg Global Aggregate ex USD 10% Issuer Capped (Hedged)	2.55%	1.97%	1.60%
	J.P. Morgan Emerging Market Bond Index Global Core	2.07%	6.84%	5.57%
Bloomberg Capital 5-Year Municipal Bond	0.91%	2.47%	2.47%	
Inflation	US CPI Urban Consumers ex Food and Energy NSA***	1.03%	3.12%	2.46%
Treasury Bill	US 3-Month Treasury Bill Index	1.04%	5.05%	1.72%

Source: Bloomberg Capital Markets

\* Includes dividends for equity indices

\*\* Annualized

\*\*\* CPI data for time periods is date ended 2/28/2025

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