Q1 2025 — STRATEGY & MARKET UPDATE

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EXECUTIVE SUMMARY

- Most Significant Market Milestone: Sweet 16th—Happy Anniversary!
  March 2025 marks the 16th anniversary of the bull market regime that began in 2009 and has compounded at a low-teens rate. Despite Q1's modest pullback and brief, correction-size drawdown amid negative headlines on tariffs and recession fears, we find no indication of a bearish regime shift or an impending recession.

- Concerns and Challenges: Market Noise vs. Strategy Signals
  - Recession Fears: Our strategies detect no imminent recessionary shift. Strong Energy sector performance in Q1 and ongoing AI rollup/arms race contradict these fears.
  - Tariff Impact: While tariffs dominate headlines, our analysis finds that Q1 declines were primarily driven by gaps and lags in the earnings of market leaders—most of which have minimal tariff exposure. Nonetheless, our strategies are stress-tested on historical market data encompassing various tariff regimes and are primed to adapt to upcoming changes.
  - Inflation, Market Volatility, & Uncertainty: More accurate data indicates inflation stabilization. Despite headline-driven concerns, volatility remains subdued, and 'uncertainty' should be embraced as it creates opportunities for adaptive strategies.

- Investors' Biggest Risk: The "UN-broken Chain" Fallacy
  Investors often fall into the trap of believing that Politics dictate Economics, Economics shape Markets, and Markets determine Portfolio success. Breaking free from this misconception is key to filtering out noise and focusing on actionable strategy signals (explained at the beginning of this Update).

- Ongoing Updates
  Our disciplined, adaptive approach empowers investors to navigate evolving markets confidently. Future updates on our assessments will be shared in upcoming Quarterly Reports and interim LinkedIn posts.

INVESTORS' BIGGEST RISK
The "UN-broken Chain" Fallacy: Politics > Economics > Markets > Portfolios

First, the bad news courtesy of cognitive science and behavioral finance:

In our integrated psyche, political sensibilities, economic understanding, market perception, and portfolio considerations are all fused into a single belief and reasoning system—one that is often shaped by cognitive biases, value judgments, and emotional dispositions.

Reflexively, investors perceive one unbroken chain linking Politics to Economics, Economics to Markets, and Markets to Portfolios—especially in this rigid order of subordination. During periods of heightened market activity, even pundits and professional investors adopt this perspective—so be mindful of whom you choose to follow and the mindset they bring!

And now the good news:

Fear not, this imaginary chain is really…broken—actually, it doesn't exist (unless you make the mistake of believing it does)!

This is easier to see once you resist the temptation to accept the suggested subordination and examine the chain hypothesis… backward:

First, we can observe that every year brings vast variability in portfolio performance and striking differences in individual investor success. In fact, there are reports (often presented as colorful "quilts" or "periodic tables of investment returns"[3]) showing how dramatically different the performance of various individual asset classes and blended portfolios is annually, monthly, or even weekly.

Additionally, Dalbar® reports reveal how individual investors' Buy/Sell/Hold decisions create winners and losers relative to the steady performance of the funds investors transact, while SPIVA® reports track how active managers fare differentially against the same benchmarks.

All of this immense variability happens within the same market, economic, and political environment!

When you string these differences across multiple years, they compound further, creating **significant divergences in personal financial outcomes regardless of the period's political shifts, economic trends, or market conditions.**

Every combination of political, economic, and market environments inevitably produces a spectrum of winners and losers, leaders and laggards. Given the inherently contrastive nature of most investments, no combination yields only winning or losing opportunities. It's the role of investment strategies to effectively sample this spectrum, constructing a stream of productive exposures.

For example, heavily investing in bonds over the past fifteen years—regardless of domicile, political issuing authority, or economic phase—has largely wasted capital and increased shortfall risk.

In contrast, adaptively selecting the right opportunities, even in seemingly disadvantageous environments (e.g., investing in Mid-Caps and internationals during the US's "lost decade" of 2000-2019 or in US securities during the international malaise of 2008-2024), has consistently generated robust performance.

Investors are strongly advised to break apart the imaginary chain linking Politics to Economics, Economics to Markets, and Markets to Portfolios. To wit:

- **Politics and economics occupy different galaxies**.
- **Economics and Markets exist in parallel universes**—after all, since 1980, US markets have risen in all periods of GDP contraction except for 2008 (amazing, right?)!
- **And Markets and Portfolios are non-deterministically linked**, as evidenced by the periodic tables of asset class and portfolio blend returns and the Dalbar and SPIVA reports.

Politics & Economics—
Different Galaxies;
Economics & Markets—
Parallel Universes;
Markets & Portfolios—
No determinism.

Which raises a final question:

If this chain doesn't exist, why do pundits and the financial press sound the alarm every time they believe they spot an unfavorable economic, (geo)political, or market development?

Simple—**Journalists** lead with what bleeds.

Pundits talk "their book" (reflecting their biases or defending and advertising their positioning).

And **Investors** who are locked into rigid, fixed-allocations and unadaptive portfolios that are not engineered to sidestep bear markets by lowering exposure and potentially moving to cash (representing many portfolios!) fear they can be at a disadvantage, every time the winds shift.

This is not us!

Our strategies are always data-driven, taking a market-adaptive, risk-controlled, and tax-aware orientation. Moreover, they are rigorously stress-tested across historical market data, encompassing a broad spectrum of adversities—wars, pandemics, interest rate shifts, **tariff schemes**, and taxation regimes—helping to ensure they remain primed for future adaptations. Designed to navigate market regime shifts[2], our strategies aim for a robust and sustainable growth rate in the high-single to low-teen digits, regardless of market gyrations and economic vagaries. Having successfully followed this approach for over a quarter of a century, we are fully prepared to continue this path for decades to come.

THE HARVEST OF Q1 AND THE PROSPECTS OF 2025

March 2025: Sweet 16th—Happy Anniversary!

You're probably being reminded about it for the first time here. It's arguably the most important market milestone, yet it has been completely overlooked—if not buried—amid the frenzy of this quarter's market coverage.

March marked the 16th anniversary of the ongoing bull regime, which began in March 2009, rising from the ashes of the 2008 Global Financial Crisis!

A celebration? Now?!

Isn't this untimely? Aren't we whistling past what some headlines suggest is this market's graveyard? After all, the market is in a correction, and concerns about tariff wars, slowing growth, and even estimates of rising recession odds seem to be fueling widespread consternation—at least, that's the prevailing refrain among market pundits.

Q1's message?
"I am 16 years strong!"

As we have written before—see our analyses on economic predictions and recession forecasts—Wall Street pundits have a track record that is, to put it mildly, **checkered**. They often miss real warning signs, as they did before the 2008 bear market, while repeatedly crying wolf—such as when the consensus of top economists wrongly predicted an "inevitable global recession in 2023."

So, how else should investors anchor their market assessment of Q1 and position their portfolios for the rest of the year?

Here is the scorecard at the end of Q1 2025: By March end, the widely watched S&P 500 index posted a modest pullback of -4.27% year-to-date, barely dipping into correction territory with a maximum peak-to-trough (Feb. 19 - Mar. 13) drawdown of -10.1%.

Two key questions arise, which we will address conjointly in the following sections:

- **How significant is Q1's decline?**
- **What should investors expect next, and how should they (re)position their portfolios?**

Q1 Decline—The Broader Perspective

To gauge the significance of this move, investors should consider the broader context of the ongoing bullish market regime, now in its 16th year. Recapping from our recent note "Dreaded Drawdowns:"

> "Drawdowns grow progressively more 'alarming' from Pullbacks (-5% to -10%) to Corrections (-10% to -20%) to Bears (deeper than -20%).
>
> Since 2009, we have seen 30 drawdowns: 5 Pullbacks, 21 Corrections (including the Q1 one), and even 4 breaches of the traditional 20% bear threshold. Yet, in this ongoing bull market regime, the S&P 500 has relentlessly compounded at a low-teens rate!"

But isn't today's backdrop particularly challenging?

2009 - 2025 (Q1):
5 Pullbacks, 21 Corrections, and 4 breaches of the -20% bearish threshold.

In general, this long-running bullish market regime has negotiated significant headwinds before. Consider these past crises and the corresponding S&P 500 drawdowns:

- The first wave of the pan-European debt crisis, coupled with global growth concerns and the US market flash crash in 2010, followed by the second wave of pan-European malaise in 2011 **(-21.6%).**
- Greece's near-default, China's stock crash, and the Emerging Market currency collapse of 2015-2016 **(-15.2%**).
- The first wave of trade/tariff wars with rising rates and housing slowdown in 2018 (**-20.2%).**

- The CoViD crash of 2020 **(-35.4%**).
- 2022's massive inflation surge and Fed-vs.-Market collision **(-27.5%**)—to mention a few.

One can observe that this has been the **typical rhythm of this market**:

On average, our enduring bull market regime has averaged nearly two significant drawdowns (deeper than -5%) per year, with a median duration of almost four weeks and a median decline of about -8%.

Moreover, as the market's enduring rhythm since 1928 demonstrates, drawdowns up to -10%—which occur in 34% of all months (!)—have historically been followed by above-average cumulative returns: +11% over the next year, +41% over three years, and +79% over five years.

Looking back at the drawdowns of the last sixteen years, one can say that in many ways, they have provided "a healthy reset, extending the bull market regime's longevity by rebalancing valuations, providing corrective feedback to corporations, and offering attractive reentry points for investors. Even the four bear market breaches of this period failed to derail the bull regime—each was swiftly followed by robust rebounds that more than offset the drawdowns[3].

As we have written elsewhere, investors must understand that bullish market **regimes** are overarching powerful formations that transcend even traditional bear market breaches (<-20%), degrading their derailing potential. Strategies that can correctly identify market regimes and navigate their shifts stand to benefit by boosting their returns while minimizing false-positive (crying wolf) and false-negative (ignoring derailing downturns) errors and decreasing the risk of **shortfall**—prematurely running out of money to meet their needs or funding goals)[1].

Q1 Decline—The Current Backdrop

At first glance, capricious political winds may seem to be whipping the markets.

Yet, a closer examination of the market's signals—backed by rigorous number crunching—reveals that **this correction has been unfolding in a typical, fundamentally sound, and ultimately constructive manner**. And that's good news!

Every correction has a catalyst, but Q1's drop is decisively related to Q4 2024 Earnings and 2025 Guidance.

Simply put, the Q4 2024 earnings and 2025 guidance reported between January and March have exposed a **gap and a lag between the gargantuan corporate capital expenditures**—driven largely by the AI rollup and the global arms race for AI supremacy—**and the monetization schedule of those investments**. To realign expectations, prices had to come down.

This is a necessary and healthy adjustment. Left unchecked, such mismatches tend to inflate into bubbles that eventually burst, ushering protracted bear market regimes, as we saw in the dot.com boom of the late 90s and its collapse from 2000 to 2002.

Of course, every correction has a catalyst, and financial media tend to focus on the surface-level trigger rather than the deeper forces at play—*what bleeds, leads*. This time, the headlines attribute everything to "tariff woes" and "growth/recession fears."

But for us, it's all the same. No matter the causes and triggers, if the market regime turns bearish, our rules-based strategies are tasked with turning defensive.

We believe our strategies have successfully navigated through 2008, the pandemic, and the last 21 corrections—(y)our strategies are stress-tested. They remain focused on delivering robust, sustainable growth with minimal shortfall risk, aiming to shield investors from derailment regardless of economic vagaries and market gyrations. Still, it's worth putting the headlines to the test—contrasting them against the signals uncovered in our research and highlighting the adaptations our strategies are implementing. Here is a rapid-fire comparison:

► **Concern: The US economy is tilting towards recession:**
We find no substantive support for this claim. In fact, our research identifies numerous signals contradicting it. A prime illustration:

By the end of Q1, Energy emerged as the year's top-performing sector. Across market history, Energy is a reliable indicator of economic expansion accompanied by moderate inflation, further confirmed by an average 7% decline in intermediate 5- and 10-year interest rates.

Investors should also remember that Wall Street has a dismal track record in forecasting recessions. We have explicitly written about this topic, and those following our work can find the refutations we provided over the years in our previous quarterly Strategy and Market Updates archived on our website.

No recession tilt, and Earnings gaps and lags outweigh potential tariff impact.

► **Concern: The market decline is mainly driven by the anticipated tariff impact:**
While this explanation dominates the headlines, the data tells a different story. By our calculations, over **three-quarters** of the S&P 500's Q1 market capitalization decline stems from price drops in companies with **little to no direct exposure to tariffs**—rumored, announced, or anticipated.

In Q1, the steepest declines came from tech, communications, media, and financial giants—companies that have led the ongoing market rally, driving their valuations to elevated levels yet remaining **largely insulated from tariffs**. Now, as gaps emerge between their massive capital expenditures and their unspecified and lagged monetization expectations, their price-to-earnings multiples are undergoing a **healthy recalibration**, preventing the formation of a valuation bubble.

In contrast, while companies genuinely exposed to trade wars have seen declines related to potential tariffs, their aggregate market footprint is too small to significantly impact the total market capitalization of major indices. In short, while tariffs make for attention-grabbing headlines, our research indicates that they are not the primary driver of this market correction.

► **Concern: The market has already spoken on tariffs:**
Not quite. While pundits have grown increasingly alarmed over potential tariff impacts, and early consumer confidence surveys reflect a souring sentiment, **the long-term economic and market effects of tariffs are far more complex than commonly analyzed.**

But there is good news:

- **We have seen this before, and we are prepared:**
  As we recently wrote (and it's worth revisiting), we are **deeply versed in the intricacies and the dynamic nature of tariffs**, which interact with taxation, inflation, corporate supply chains, and counterbalancing strategies from both consumers and producers. More specifically:

Tariff wars don't just create losers—they also surface winners across geographies, asset classes, factors, sectors, and industries. Even if one attributes Q1's decline entirely to tariff concerns, with US Large Cap/Growth/Innovation stocks coming under pressure, a distinct set of winners is emerging—several even within the US! These include Gold (+17.4%), Energy (S&P 500 Energy Sector, +10.2%), S&P 500 Low Volatility (+7.3%), Foreign Stocks (MSCI World ex-USA, +6.5%), and Health Care (S&P 500 Health Care Sector, +6.5%).

Trade wars also surface winners—our strategies are stress-tested in effort to successfully navigate history's tariff regime shifts.

- **Markets adapt, and so do we:**

Thankfully, trade wars and tariffs are nothing new. As our clients know, our investment models are **stress-tested against data spanning over a century of shifting economic regimes**—including wars, pandemics, global financial crises, and various interest rates, inflation, taxation, and **tariff cycles**! We believe this historical grounding allowed our strategies to successfully navigate the CoViD crash and the original tariff cycle of 2017 – 2020, with its extensions in 2021 -2024.

Whether it's tariffs, pandemics, recessions, wars, or any other challenge, **markets always generate <u>both</u> winners and losers**. Our strategies continuously track these shifting trends, looking for threshold signals indicating lasting regime shifts to reposition accordingly in an adaptive, risk-controlled, and tax-efficient way.

- **Markets rarely price in policy shifts as a one-time event—and often change their verdict**:

Markets crystallize their stance gradually, influenced by corporate adaptations, policy counter-responses, and competitive realignments. We are confident that our rigorous stress-testing and in-depth research, coupled with our strategies' market-adaptive and risk-vigilant nature, can keep us ahead of the curve. Our strategies specialize in distinguishing short-term noise from meaningful market signals—a critical capability designed to prevent market gyrations and economic vagaries from derailing our clients' long-term financial trajectory.

► **Concern: The economy has (re)embarked on a higher-inflation course:**

Hardly. Our readers know well that we have been critical of the Federal Reserve's policy, which we believe has unnecessarily burdened the market—decisively driving 2022's -27% drawdown —while materially disadvantaging the economy by hiking the borrowing cost of consumers, companies, and the nation.

The Fed first **vastly underestimated** inflation (dismissing it as "transitory" in 2021 -2022) and then **overestimated it** (2022-present). Now, it finds itself stalled—caught like a deer in the headlines—seemingly awaiting the ultimate impact of tariffs. Unfortunately, while the Fed claims to be "data dependent," its primary (PCE) and secondary (CPI) inflation gauges have lost traction with economic reality. In their current role in shaping policy, they may even **be contributing** to inflation*.

For a more accurate picture of inflation, investors can look at the "[Truflation US Inflation Index]"—a modern, state-of-the-art, real-time price-monitoring engine that has succeeded where the Fed's traditional gauges have fallen short. Unlike the Fed's misreads, Truflation accurately **captured the historic inflation surge** of 2021-2022, **its systematic decline** in 2022-2023, and its **stabilization around 2% for nearly the last two years!**

Notably, Truflation's index has even **declined year-to-date**, from around 3% **to nearly 1.4% by the end of Q1!** While history rarely repeats with exactitude, it often rhymes—and we see a disinflationary parallel emerging with the first wave of modern tariffs (2017-2020, followed by their continuation in 2020-2024).

- **Concern: High Volatility and Uncertainty are undermining portfolios:**
  Despite the increasingly frenzied market coverage in Q1, the three key measures of actual market turmoil—dispersion, volatility, and correlation—remained well within their historically 'tame' zone (25^{th}-75^{th} percentile).

No signs of inflation resurgence. Volatility remains tame. "Uncertainty" creates opportunities.

Even VIX® (The CBOE Volatility Index®), the widely-cited 'fear gauge,' stayed largely under control (~20), with only a brief seven-day spike above 25 in early March, peaking just above 29.

For perspective, in the roaring 2024, the VIX skyrocketed past 65 (!)—a moment of extreme fear that, by now, I wager most investors have entirely forgotten. (Back then, the panic stemmed from reignited recession fears and Fed policy "uncertainty"—what is new?!—plus a crash in the Japanese Nikkei index. Read here our contemporaneous commentary.)

Finally, a word on **the most overused and abused term in Finance—'uncertainty**.'

Is uncertainty bad for the markets, as commentators endlessly claim?!

This is a complex topic that warrants deeper exploration (look out for an upcoming research note from us), but for now, our research makes one thing clear:

While heightened uncertainty indeed represents a treacherous behavioral trap for investors, it is also a key driver of strong returns for adaptive strategies! History shows that as uncertainty mounts and VIX spikes, the probability of a highly profitable market entry point or a reversal increases. It's one of the most reliable plays among seasoned traders—***buy when VIX is high, sell when it's low!*** Unfortunately, following their conventional instincts, investors are tempted to do the opposite—sell as uncertainty and volatility increase and buy when they are low.

Our strategies distill 'uncertainty' down to its market manifestations of volatility, drawdowns, dispersion, and cross-correlations and risk-control them in an integrated way without behavioral biases with an eye on minimizing shortfall risk (you can read more about that here, esp. 'Part 3 – Risk Control').

LAST WORD

We invite you to spread the word about your investment experience within your circles of influence. The last six years have been challenging for most investors. They have been battered by the historic bond market fall and whipsawed in the steep downdraft of 2018, the crash of 2020, 2022's rolling turmoil, and the Earnings/Tariff woes of 2024/2025. And throughout the last fifteen years, they have been torn between the Scylla of speculation and greed and the Charybdis of worry and indecision. As our veteran clients have discovered, our strategies' adaptability and risk controls have been an excellent antidote to haphazard performance and a booster of investor confidence. Please assist us in spreading the word.

We remain grateful for your trust, loyalty, support, and friendship!

On behalf of GNH Capital Group's entire team with Henrik, Richard, Chad, and Isabel,

Kostas

Kostas Grigorakis, Managing Director – Investments, Senior PIM Portfolio Manager
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Chad Pate, Senior Registered Client Associate
Isabel Bassi, Registered Client Associate

[1] https://www.linkedin.com/posts/konstantinos-kostas-grigorakis-cfa-754264103_dreaded-drawdowns-portfolio-drawdowns-activity-7308941625051750401-zWc4?utm_source=share&utm_medium=member_desktop&rcm=ACoAABozTTAB7_bL6T6pkI6yFlzuM8rHnhF3zMQ
[2] Part 5 of https://fa.wellsfargoadvisors.com/gnh-capital-group/mediahandler/media/651694/GNH%20Capital%20Group%20-%20Scaling%20the%20Investment%20Tree%20-%20Insights%20from%20Our%20Process.pdf
[3] https://my.advisor-connection.com/infomax/PCG/research/wfii/wfii_reports/investment_strategy/liquid_moderate_growth.pdf?srcApp=search

Liquid – Moderate Growth

WELLS FARGO
Investment Institute

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	'10 – '24 average
US Small Cap Equity 26.9%	Emg Mkt Fixed Inc 8.5%	Emg Mkt Equity 18.6%	US Small Cap Equity 38.8%	US Large Cap Equity 13.7%	US Large Cap Equity 1.4%	US Small Cap Equity 21.3%	Emg Mkt Equity 37.8%	CPI 1.9%	US Large Cap Equity 31.5%	US Small Cap Equity 20.0%	US Large Cap Equity 28.7%	Commod 16.1%	US Large Cap Equity 26.3%	US Large Cap Equity 25.0%	US Large Cap Equity 13.9%
US Mid Cap Equity 25.5%	Inv Grade Fixed Inc 7.8%	Emg Mkt Fixed Inc 18.5%	US Mid Cap Equity 34.8%	US Mid Cap Equity 13.2%	Emg Mkt Fixed Inc 1.2%	High Yield Fixed Inc 17.1%	Dev ex US Equity 25.6%	Cash Alternative 1.8%	US Mid Cap Equity 30.5%	Emg Mkt Equity 18.7%	Commod 27.1%	CPI 6.5%	Dev ex US Equity 18.9%	US Mid Cap Equity 15.3%	US Mid Cap Equity 12.1%
Emg Mkt Equity 19.2%	Dev ex US Fixed Inc 5.9%	Dev ex US Equity 17.9%	US Large Cap Equity 32.4%	60%,40% Blend 10.6%	60%,40% Blend 1.2%	US Mid Cap Equity 13.8%	US Large Cap Equity 21.8%	Inv Grade Fixed Inc 0.0%	US Small Cap Equity 25.5%	US Large Cap Equity 18.4%	US Mid Cap Equity 22.6%	Cash Alternative 1.5%	60%,40% Blend 17.7%	60%,40% Blend 15.1%	US Small Cap Equity 10.3%
Commod 16.8%	High Yield Fixed Inc 5.0%	US Mid Cap Equity 17.3%	Dev ex US Equity 23.3%	Mod Grwth 6.0%	CPI 0.7%	US Large Cap Equity 12.0%	US Mid Cap Equity 18.5%	Dev ex US Fixed Inc -1.7%	Mod Grwth 23.8%	US Mid Cap Equity 17.1%	60%,40% Blend 16.0%	Hedge Funds -4.1%	US Mid Cap Equity 17.2%	Mod Grwth 13.6%	60%,40% Blend 9.5%
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Hedge Funds 10.2%	Mod Grwth -3.5%	Hedge Funds 6.4%	Cash Alternative 0.0%	CPI 0.8%	Mod Grwth -3.1%	Hedge Funds 5.4%	Hedge Funds 8.6%	Mod Grwth -7.1%	Hedge Funds 10.4%	Inv Grade Fixed Inc 7.5%	High Yield Fixed Inc 5.3%	Emg Mkt Fixed Inc -16.5%	Hedge Funds 8.1%	Commod 5.4%	Emg Mkt Equity 3.4%
Dev ex US Equity 8.2%	US Small Cap Equity -4.2%	Inv Grade Fixed Inc 4.2%	Inv Grade Fixed Inc -2.0%	Cash Alternative 0.0%	US Small Cap Equity -4.4%	Inv Grade Fixed Inc 2.6%	High Yield Fixed Inc 7.5%	US Mid Cap Equity -9.1%	Inv Grade Fixed Inc 8.7%	High Yield Fixed Inc 7.1%	Cash Alternative 0.0%	US Mid Cap Equity -17.3%	Inv Grade Fixed Inc 5.5%	Cash Alternative 5.3%	CPI 2.6%
Dev ex US Fixed Inc 6.8%	Hedge Funds -5.3%	CPI 1.7%	Emg Mkt Equity -2.3%	Emg Mkt Equity -1.8%	High Yield Fixed Inc -4.5%	CPI 2.1%	Inv Grade Fixed Inc 3.5%	US Small Cap Equity -11.0%	Commod 7.7%	Emg Mkt Fixed Inc 5.9%	Emg Mkt Fixed Inc -1.5%	US Large Cap Equity -18.1%	Cash Alternative 5.1%	Dev ex US Equity 4.3%	Inv Grade Fixed Inc 2.4%
Inv Grade Fixed Inc 6.5%	Dev ex US Equity -11.7%	Dev ex US Fixed Inc 0.8%	Dev ex US Fixed Inc -5.1%	Dev ex US Fixed Inc -2.5%	Dev ex US Fixed Inc -4.8%	Dev ex US Fixed Inc 1.9%	CPI 2.1%	Commod -11.2%	Dev ex US Fixed Inc 5.2%	CPI 1.4%	Inv Grade Fixed Inc -1.5%	Emg Mkt Equity -19.7%	Dev ex US Fixed Inc 4.0%	CPI 2.9%	Cash Alternative 1.2%
CPI 1.5%	Commod -13.3%	Cash Alternative 0.1%	Emg Mkt Fixed Inc -6.6%	Dev ex US Equity -4.5%	Emg Mkt Equity -14.6%	Dev ex US Equity 1.5%	Commod 1.7%	Dev ex US Equity -13.4%	CPI 2.3%	Cash Alternative 0.5%	Emg Mkt Equity -2.2%	US Small Cap Equity -20.4%	CPI 3.4%	Inv Grade Fixed Inc 1.3%	Dev ex US Fixed Inc -0.9%
Cash Alternative 0.1%	Emg Mkt Equity -18.2%	Commod -1.1%	Commod -9.5%	Commod -17.0%	Commod -24.7%	Cash Alternative 0.3%	Cash Alternative 0.8%	Emg Mkt Equity -14.2%	Cash Alternative 2.2%	Commod -3.1%	Dev ex US Fixed Inc -9.5%	Dev ex US Fixed Inc -21.9%	Commod -7.9%	Dev ex US Fixed Inc -7.8%	Commod -1.0%

Data as of 12/31/2024

Sources: Wells Fargo Investment Institute, © Morningstar Direct. All Rights Reserved.[1] Asset allocation does not guarantee a profit or protect against loss. Average is calculated as geometric mean. Average is calculated as 15 years from 2010-2024. Allocation blends are rebalanced quarterly. Moderate Growth and 60%,40% blend are for illustrative purposes only. Performance results for Moderate Growth and the 60%,40% blend are calculated using blended index returns. **Past performance does not guarantee future results.** An index is unmanaged and not available for direct investment.

Investment and Insurance Products: ➤ NOT FDIC Insured ➤ NO Bank Guarantee ➤ MAY Lose Value

Index definitions

An index is unmanaged and not available for direct investment.

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

Moderate Growth is composed of: 2% Bloomberg U.S. Treasury Bills (1–3 Month) Index, 8% Bloomberg U.S. Aggregate Bond Index, 3% Bloomberg U.S. Corporate High Yield Bond Index, 35% S&P 500 Index, 14% Russell Midcap Index, 6% Russell 2000 Index, 15% MSCI EAFE Index, 12% MSCI Emerging Markets Index, 5% Bloomberg Commodity Index.

60%,40% blend is composed of 60% S&P 500 Index and 40% Bloomberg U.S. Aggregate Bond Index.

Performance results for Moderate Growth and the 60%,40% blend are for illustrative purposes only. Dynamic allocations change as needed with adjustments to the strategic allocations. Results do not represent actual trading and the results achieved do not represent the experience of any individual investor. In addition, results do not reflect the impact of any fees, expenses or taxes applicable to an actual investment. The indexes reflect the historical performance of the represented assets and assume the reinvestment of dividends and other distributions. An index is unmanaged and not available for direct investment. **Past performance does not guarantee future results**.

U.S. Taxable Investment Grade Fixed Income (Inv Grade Fixed Inc):

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

High Yield Taxable Fixed Income (High Yield Fixed Inc):
Bloomberg U.S. Corporate High Yield Bond Index covers the U.S. dollar-denominated, non-investment grade, fixed-rate, taxable corporate bond market. Securities are classified as high-yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB= or below. Included issues must have at least one year until final maturity.

Taxable Cash Alternatives (Cash Alternative):
Bloomberg U.S. Treasury Bills (1–3 Month) Index is representative of money markets.

Commodities (Commod):
Bloomberg Commodity Index is comprised of 23 exchange-traded futures on physical commodities weighted to account for economic significance and market liquidity.

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

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

Emerging Market Fixed Income (Emg Mkt Fixed Inc):
JPMorgan Emerging Market Bond Index (EMBI) Global is a U.S. dollar-denominated, investible, market cap-weighted index representing a broad universe of emerging market sovereign and quasi-sovereign debt. While products in the asset class have become more diverse, focusing on both local currency and corporate issuance, there is currently no widely accepted aggregate index reflecting the broader opportunity set available, although the asset class is evolving. By using the same index provider as the one used in the developed-market bonds asset class, there is consistent categorization of countries among developed international bonds (ex. U.S.) and emerging market bonds.

Developed Market ex-U.S. Fixed Income (Dev ex US Fixed Inc):
JPMorgan Government Bond Index Global Ex United States (JPM GBI Global ex-U.S.) is a total return, market capitalization weighted index, rebalanced monthly, consisting of the following countries: Australia, Germany, Spain, Belgium, Italy, Sweden, Canada, Japan, United Kingdom, Denmark, Netherlands, and France.

Developed Market ex-U.S. Equity Dev ex US Equity):
MSCI EAFE Index (Europe, Australasia, Far East) Index is a free float-adjusted market capitalization index designed to measure the equity market performance of developed markets, excluding the U.S. and Canada.

Emerging Market Equities (Emg Mkt Equity):
MSCI Emerging Markets Index (MSCI EM) is a free float-adjusted market capitalization index designed to measure equity market performance of emerging markets.

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

Russell 3000 Index measures the performance of the 3,000 largest U.S. companies based on total market capitalization, which represents approximately 98% of the investable U.S. equity market.

U.S. Mid Cap Equities (US Mid Cap Equity):
Russell Midcap Index measures the performance of the 800 smallest companies in the Russell 1000 Index, which represent approximately 25% of the total market capitalization of the Russell 1000 Index.

Russell 1000 Index measures the performance of the 1,000 largest companies in the Russell 3000 Index, which represents approximately 92% of the total market capitalization of the Russell 3000 Index.

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

Disclosures

Risk considerations

Bonds: Investments in fixed-income securities are subject to interest rate, credit/default, liquidity, inflation, and other risks. Bond prices fluctuate inversely to changes in interest rates. Therefore, a general rise in interest rates can result in the decline in the bond's price. Credit risk is the risk that an issuer will default on payments of interest and principal. This risk is higher when investing in high yield bonds, also known as junk bonds, which have lower ratings and are subject to greater volatility. If sold prior to maturity, fixed income securities are subject to market risk. All fixed income investments may be worth less than their original cost upon redemption or maturity.

Cash Alternatives: Cash alternatives typically offer lower rates of return than longer-term equity or fixed-income securities and may not keep pace with inflation over extended periods of time.

Commodities: Investing in commodities is not appropriate for all investors. Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. Investments in commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates or factors affecting a particular industry or commodity.. Products that invest in commodities may employ more complex strategies which may expose investors to additional risks.

Foreign: Foreign investing involves risks not typically associated with U.S. investing, including currency fluctuations, political instability, uncertain economic conditions and different accounting standards. These risks are heightened in emerging markets.

Hedge Funds: Hedge funds trade in diverse complex strategies that are affected in different ways and at different times by changing market conditions. Investing in hedge funds involves the risks inherent in an investment in securities, as well as specific risks associated with limited liquidity, the use of leverage, short sales, options, futures, derivative instruments, and investments in non-U.S. securities, "junk" bonds, illiquid investments and arbitrage methodologies.

Stocks: Stocks are subject to market risk which means their value may fluctuate in response to general economic and market conditions, the prospects of individual companies, and industry sectors. The prices of small/mid-company stocks are generally more volatile than large company stocks. They often involve higher risks because of smaller and mid-sized companies may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

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The CBOE Volatility Index® (VIX®) shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. This volatility is meant to be forward looking and is calculated from both calls and puts. The VIX is a widely used measure of market risk and is often referred to as the "investor fear gauge.

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