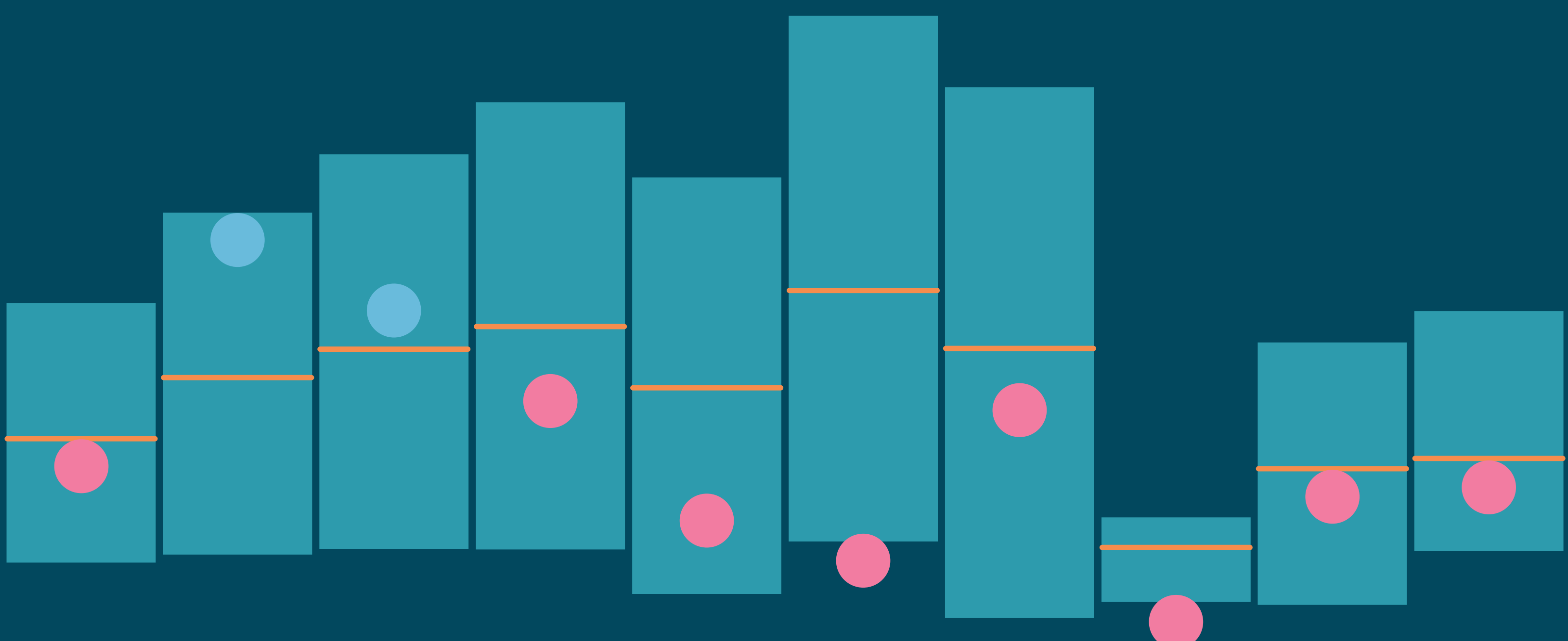
BNY MELLON
WEALTH MANAGEMENT

10-YEAR

CAPITAL MARKET ASSUMPTIONS 2024 EDITION

The Path to Normalization



Summary

THE PATH TO NORMALIZATION

The 2024 edition of our 10-Year Capital Market Assumptions (CMAs) offers our projections for asset class returns, volatilities and correlations over the next decade. This yearly exercise helps in shaping the design of our investors' long-term portfolios.

Every year BNY Mellon develops CMAs for 46 asset classes across equities, fixed income and alternatives. The CMAs cover a 10-year forward investment time horizon and incorporate the macroeconomic forecasts generated by the BNY Mellon Investment Management Global Economic and Investment Analysis Group. The return and risk assumptions are intended to guide investors in the development of long-term strategic asset allocations.

Our report also explores four key social, economic, technological and environmental themes that we believe will drive capital market returns over the coming decade and beyond:

- Accelerating Impact of an Aging Population
- Higher for Longer (Real) Interest Rates and Deglobalization
- Productivity and Disinflationary Promises of AI
- Unprecedented Investment in Lower Carbon Policies

While these themes do not directly impact our return expectations for the decade starting in 2024, we encourage readers to review and consider how they may impact capital markets and society in the future.

The full report also provides more information on the economic forecasts underlying our CMAs, and greater detail on how our expected returns for equity, fixed income and alternatives are derived. The 10-year expected correlation matrix for major asset classes is also included.

> Read the full report here.

The Use of Capital Market Assumptions

These CMAs serve as a useful guide for our internal investment teams across BNY Mellon as well as our clients, partners and academic colleagues. While each year's edition of our 10-year assumptions is highly anticipated, it's important to observe that, for the most part and in most years, the changes are evolutionary not revolutionary. While we always seek to employ new and better ways to make our assumptions more accurate, we are cognizant of the value of consistency in methodology over time.

CMAs are utilized across a range of investment and planning activities. These assumptions influence our strategic asset allocation models, which are tailored to our clients' objectives, risk tolerance and tax sensitivity. From this starting point, we recommend tactical asset allocation shifts based on shorter-term market dislocations. CMAs also provide an important input for other aspects of clients' wealth, such as developing a spending plan, managing for taxes or borrowing.

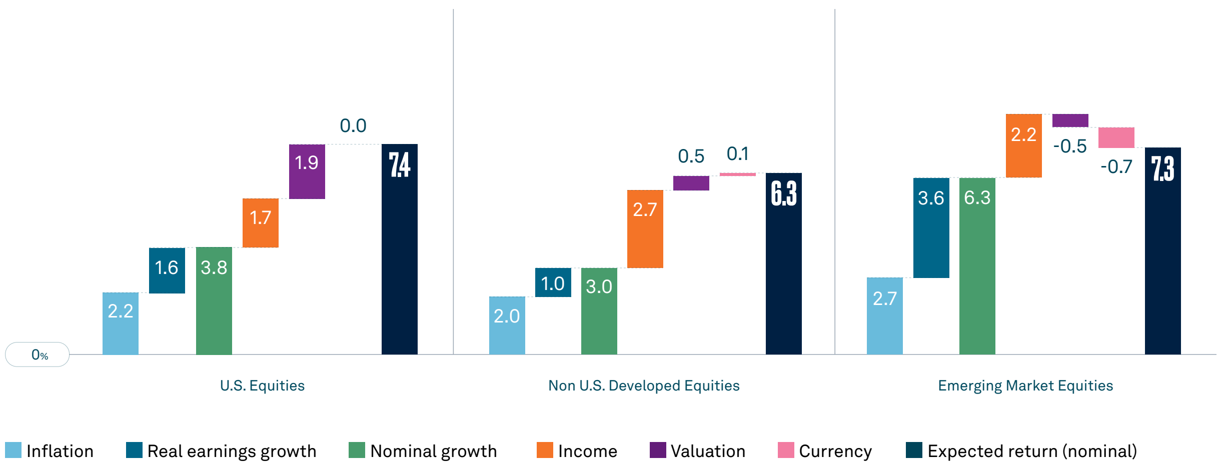
KEY TAKEAWAYS

- After a tumultuous period of monetary policy tightening, evidence of slowing inflation is gaining traction across many economies. Central banks are expected to start lowering interest rates in 2024, however we expect interest rates to remain at higher levels than over the decade or so following the Global Financial Crisis.
- Many assumptions now reflect moderately higher returns and volatility, in part driven by the current high-rate environment.
- U.S. equity returns are expected to improve on higher valuation adjustments, where the economy is well-positioned to benefit from growth, including new technological innovations, such as AI.
- Bonds should benefit from higher current yields and the potential for an easier rate path as inflation eases and the output gap widens.
- Alternatives may outperform as the rise in economic distress and asset price dislocations from higher interest rates increases the opportunity set for hedge funds and private asset managers to generate alpha.

Moderately Higher Returns for Several Key Assets

Equities: We see moderately higher returns for several key assets compared to last year's edition. For U.S. equities, an improved economic outlook compared to the 2023 edition has raised our assumption for ten year returns to 7.4%, from 6.5% previously. Outside of the U.S., global equities may have to navigate a more bifurcated and uncertain range of economic outcomes, including stickier inflation and rapidly slowing economies in Europe and a slumping property sector in China weighing heavily on the economy.

FIGURE 1 **2024 10-Year Equity Market Nominal Expected Return Building Blocks (probability-weighted economic scenarios)**



Source: BNY Mellon Investor Solutions. Data as of September 30, 2023.

Note: Percentage values represent a decomposition of the total return forecast. Numbers may not sum completely due to interaction effects, compounding and rounding.

Bonds: It has been a grueling three years for fixed income investors, but higher starting yields reduce the risk of further disappointments. A macroeconomic backdrop in which U.S. inflation has moderated substantially raises the likelihood of gradually lower interest rates, and thus fixed-income yields, in the years ahead. Accordingly, we see U.S. aggregate bond returns of 4.8% over the next ten years, compared to 4.1% last year.

60/40: Better return prospects from U.S. equities and fixed income accordingly mean that we see 6.4% returns over the next ten years from the traditional U.S. 60% Stock/40% Bond Portfolio[1], up from the 5.5% assumption last year.

We see a

6.4%

expected return over the next 10 years for the traditional 60/40 portfolio.

Cash, in the form of 3-6 month Treasury bills, is looking unusually attractive given its very low risks, with a ten year expected return of 3.3%, up from 2.3% last year (see Appendix). However, cash rates are likely to fall from current elevated levels, making now a good time to consider longer-duration fixed income. Over the long term, cash typically has a detrimental impact on portfolio returns.

[1] Assumes a hypothetical stock/bond portfolio with weights of 60% U.S. large cap equity and 40% U.S. aggregate investment grade bonds.

Note: The portfolio presented herein is not representative of a specific strategy managed by BNY Mellon Investor Solutions, LLC as of the date of this publication and is not intended to constitute an advertisement of a specific BNY Mellon Investor Solutions, LLC product or service; instead, all information, content and materials are for general informational purposes only.

Comparison of 2024 and 2023 10-Year Expected Returns

FIGURE 2 Snapshot of 2024 vs. 2023 10-Year Capital Market Return Assumptions

ASSET CLASS	*2024 10-Year CMAS* EXPECTED RETURN	*2023 10-Year CMAS* EXPECTED RETURN
EQUITY MARKETS		
U.S. Equity	7.4%	6.5%
Int'l. Dev. Market Ex-U.S. Equity	6.3%	6.9%
Emerging Markets Equity	7.3%	9.3%
FIXED INCOME		
U.S. Aggregate Bonds	4.8%	4.1%
U.S. High Yield Credit	5.8%	6.2%
U.S. Intermed. Municipal Bond	3.6%	2.8%
Global Aggregate Ex-U.S.	2.5%	3.0%
EM Sovereign Local Bond	2.9%	4.0%
ALTERNATIVES		
Absolute Return	5.0%	4.3%
Hedge Funds	5.5%	4.9%
Commodities	2.2%	2.9%
Private Equity	8.8%	8.2%
BENCHMARKS		
Global Balanced Multi-Asset Portfolio [1]	6.2%	5.9%
U.S. 60% Stock / 40% Bond Portfolio [2]	6.4%	5.5%
U.S. Fed Policy Rate (10y forward avg.)	2.9%	2.5%
U.S. CPI (10y forward avg.)	2.2%	2.9%

Source: BNY Mellon Investor Solutions. Data as of September 30, 2023.

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[1] Assumes a hypothetical balanced portfolio with weights of 20% U.S. large cap equity, 7% U.S. mid cap equity, 4% U.S. small cap equity, 16% international developed equity, 6% emerging equity, 2% U.S. REIT, 25% U.S. Aggregate fixed income, 5% U.S. high yield and 15% hedge funds.

[2] Assumes a hypothetical stock/bond portfolio with weights of 60% U.S. large cap equity and 40% U.S. aggregate investment grade bonds.

For investors who can take the risk, a $1M investment in a Global Balanced Multi-Asset Portfolio could outperform Treasury Bills by about

$441,000

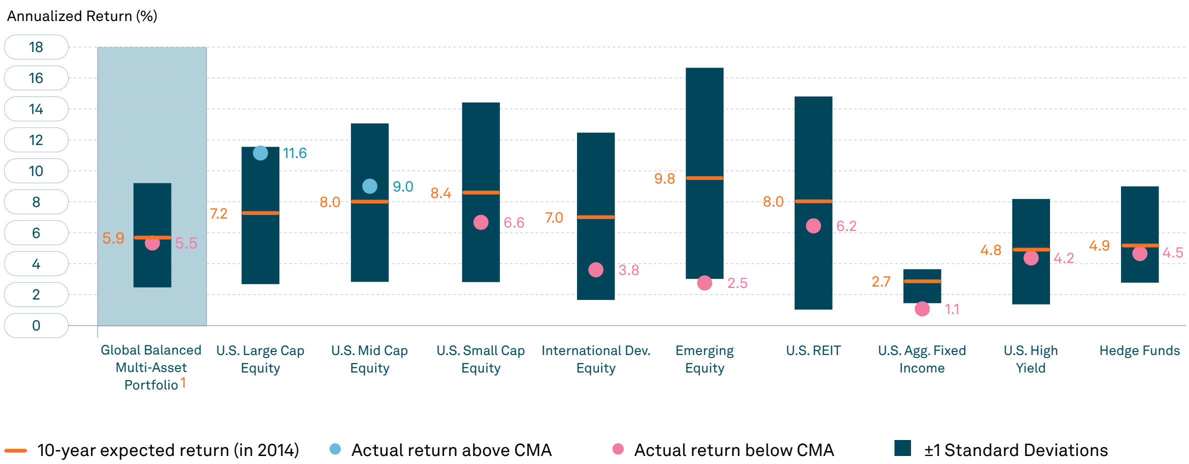
in the next 10 years if our return expectations come to pass.

A Time-Tested Approach That Approximates Real-World Results

For decades, BNY Mellon has developed CMAs to guide our institutional and high net worth clients in structuring their long-term asset allocations. Time is the ultimate arbiter of the accuracy of our long-term CMAs, as it allows us to validate our prior return assumptions against realized market returns in the subsequent ten years.

In the most recently completed 10-year period, we have found that our 10-year expected returns (published in 2014) were a relatively accurate assumption, with observed returns for nearly all major asset classes within one standard deviation of our ex ante assumption. Two exceptions where our assumptions were too optimistic were Emerging Market Equities (where the consumer demographic super-cycle thesis failed to take hold) and U.S. Aggregate Fixed Income (where a rate hike cycle not seen in decades crushed fixed income returns in the final year of the forecast window).

FIGURE 3 **2014 Capital Market Return Assumptions vs. Actual 10-Year Returns**



Source: BNY Mellon Investor Solutions. Data as of September 30, 2023.

[1] Refer to footnote ([1]) on page 5 for definition of the Global Balanced Multi-Asset Portfolio.

Realized returns for U.S. equities were generally higher than expected, whereas realized returns for fixed income were quite close to assumptions. Hedge funds slightly outperformed expectations (although there is significant dispersion of individual hedge fund returns around the broad HFRI Index).

An investor could review the individual asset class results shown in Figure 3 with disappointment as almost all returns were below expectations, excluding U.S. large and mid cap equities. We hold the opposite perspective. In our view, these results underscore the paramount importance of a diversified portfolio. For clarity, we define the Global Balanced Multi-Asset Portfolio[1] based on our estimate of "typical" institutional investment weightings, comprised of 55% equity, 30% fixed income and 15% alternatives. Note how returns of the Global Balanced Multi-Asset Portfolio were extremely close between expected and realized. In addition, we note the remarkable outperformance of U.S. equities over the last decade. While outside the scope of CMAs, we have observed that many U.S.-based investors have held an overweight position in U.S. equities for much of this period.

Implications for Investors

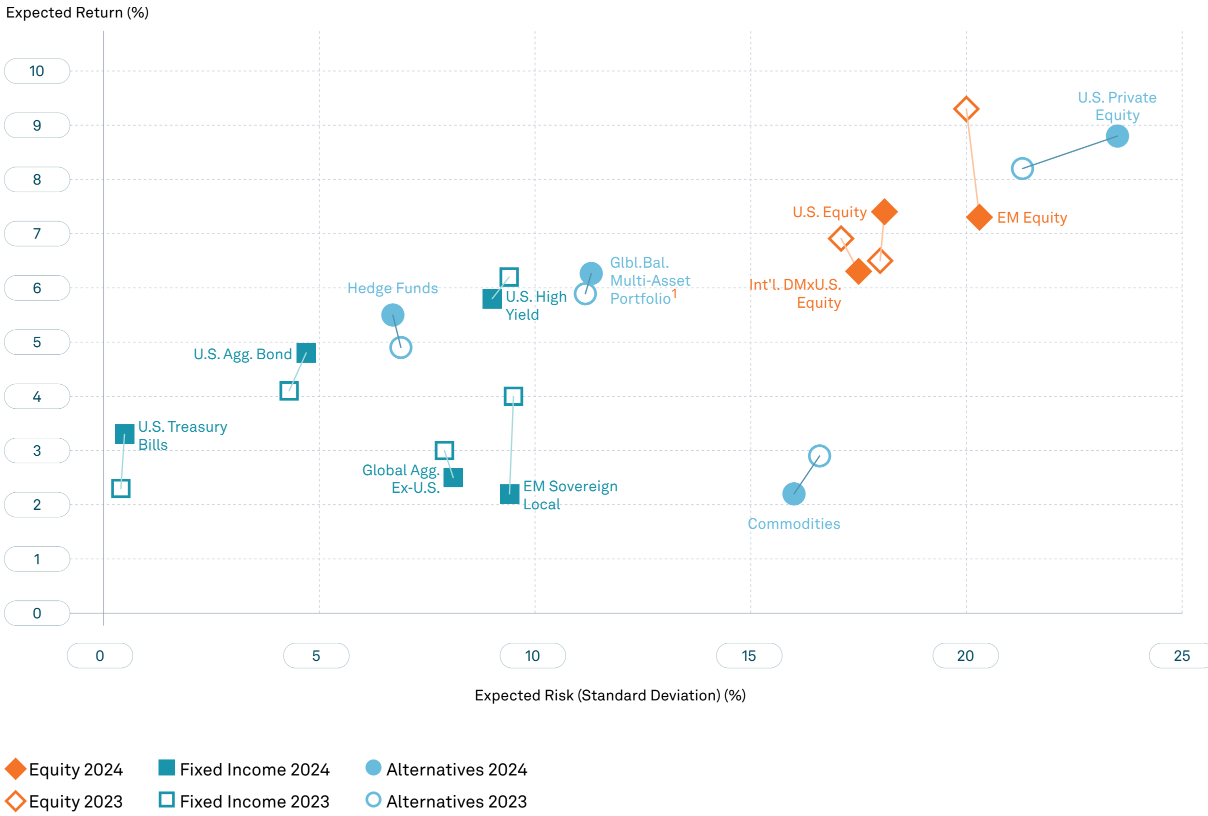
We believe that investors could lean into these long-term trends in the following ways:

- Review cash allocations and reduce or eliminate exposures, as we expect it will drag portfolio returns lower, particularly on an after-tax basis.
- Extend duration by adding fixed income exposure at current higher yields. For taxable investors municipal bonds are attractive, however security selection is critically important.
- Accelerate leaning into the AI revolution, which means overweighting U.S. equities as the market best placed to benefit.
- Pivot to private market exposures and alternatives to create a truly diversified portfolio, capture the liquidity premium, and capitalize on dislocations caused by a softening economy.

> Read the full report here.

Appendix

FIGURE 4 Risk/Return of 2024 vs. 2023 10-Year Capital Market Return Assumptions



Source: BNY Mellon Investor Solutions. Data as of September 30, 2023.

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