

APRIL 2024

2024 Mid-Year Capital Market
Assumptions



**PERSPECTIVES
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What's changed?

Below are some notable forecast changes for our March 2024 *mid-year* CMA update:

- Our equity forecasts moved lower across the **U.S.**, **International developed**, and **Emerging markets**. The Emerging market forecast saw the largest decline (-1.0%), as positive equity movements drove valuations off historical lows.
- Our **Cash** forecast slightly decreased to 4.0% from 4.1%. Short-term interest rates have been stable alongside unchanged policy rates from the Federal Reserve – whose last rate hike was in July of 2023.
 - High cash rates continue to have a mixed impact on our forecasts. While higher rates provide an elevated floor underneath our **Bank Loan** and **Commodities** forecasts, higher financing costs (*costs of leverage*) have had a negative impact on our **Private Equity** and **Risk Parity** models. Changes to our models implemented in the 2024 CMA's have mitigated some of these impacts.
- Falling yields and spread compression over the period resulted in lower forecasts across our Fixed income suite. Lower yields on the long-end of the curve drove the 0.4% decrease in the **U.S. Treasury** forecast. Our **Investment grade** and **Emerging market debt (hard)** saw the largest drops, as material spread compression and the aforementioned yield movements lowered expected returns.
- **Real Estate** was one of the few asset classes which saw an increase from the September forecasts, with the Core forecast moving to 7.2% from 6.8%. The increase was due to equal contributions from rising capitalization rates and higher real GDP expectations in the U.S.

10-year return & risk assumptions

Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio Forecast (g)	Sharpe Ratio Forecast (a)
		Geometric	Arithmetic			
Equities						
U.S. Large	S&P 500	5.3%	6.4%	15.5%	0.08	0.15
U.S. Small	Russell 2000	6.4%	8.4%	21.4%	0.11	0.21
International Developed	MSCI EAFE	7.4%	8.8%	17.6%	0.19	0.27
International Small	MSCI EAFE Small Cap	8.5%	10.6%	21.7%	0.21	0.30
Emerging Markets	MSCI EM	7.8%	10.4%	24.6%	0.15	0.26
Global Equity	MSCI ACWI	6.3%	7.6%	16.7%	0.14	0.22
Global Equity ex USA	MSCI ACWI ex USA	7.7%	9.4%	19.5%	0.19	0.28
Private Equity*	CA Private Equity	8.0%	10.9%	25.6%	0.16	0.27
Private Equity Direct	CA Private Equity	9.0%	11.8%	25.6%	0.20	0.30
Private Equity (FoF)	CA Private Equity	7.0%	9.9%	25.6%	0.12	0.23
Fixed Income						
Cash	30 Day T-Bills	4.0%	4.0%	1.1%	-	-
U.S. TIPS	Bloomberg U.S. TIPS 5-10	4.3%	4.4%	5.5%	0.05	0.07
Non-U.S. Inflation Linked Bonds	Bloomberg World Government Inflation Linked Bond ex U.S.	3.3%	3.6%	7.4%	(0.09)	(0.05)
U.S. Treasury	Bloomberg Treasury 7-10 Year	4.2%	4.4%	7.1%	0.03	0.06
Long U.S. Treasury	Bloomberg Treasury 20+ Year	4.3%	5.1%	13.2%	0.02	0.08
Global Sovereign ex U.S.	Bloomberg Global Treasury ex U.S.	2.3%	2.8%	9.9%	(0.17)	(0.12)
Global Aggregate	Bloomberg Global Aggregate	3.6%	3.8%	6.6%	(0.06)	(0.03)
Core Fixed Income	Bloomberg U.S. Aggregate Bond	4.6%	4.7%	4.8%	0.13	0.15
Core Plus Fixed Income	Bloomberg U.S. Universal	4.7%	4.8%	4.5%	0.16	0.18
Investment Grade Corp. Credit	Bloomberg U.S. Corporate Investment Grade	5.0%	5.3%	8.4%	0.12	0.15
Short-Term Gov't/Credit	Bloomberg U.S. Gov't/Credit 1-3 Year	4.3%	4.4%	3.6%	0.08	0.11
Short-Term Credit	Bloomberg Credit 1-3 Year	4.6%	4.7%	3.6%	0.17	0.19
Long-Term Credit	Bloomberg Long U.S. Credit	5.1%	5.7%	10.9%	0.10	0.16
High Yield Corp. Credit	Bloomberg U.S. Corporate High Yield	6.0%	6.6%	11.0%	0.18	0.24
Bank Loans	Morningstar LSTA Leveraged Loan	7.7%	8.1%	9.0%	0.41	0.46
Global Credit	Bloomberg Global Credit	4.7%	5.0%	7.7%	0.09	0.13
Emerging Markets Debt (Hard)	JPM EMBI Global Diversified	7.9%	8.4%	10.6%	0.37	0.42
Emerging Markets Debt (Local)	JPM GBI-EM Global Diversified	6.0%	6.7%	12.2%	0.16	0.22
Private Credit	Morningstar LSTA Leveraged Loan Index	9.0%	9.6%	11.9%	0.42	0.47
Private Credit (Direct Lending - Unlevered)	Morningstar LSTA Leveraged Loan Index	7.8%	8.2%	9.0%	0.42	0.47
Private Credit (Direct Lending - Levered)	Morningstar LSTA Leveraged Loan Index	9.3%	10.0%	12.6%	0.42	0.48
Private Credit (Credit Opportunities)	Morningstar LSTA Leveraged Loan Index	9.5%	10.2%	12.8%	0.43	0.48
Private Credit (Junior Capital / Mezzanine)	Morningstar LSTA Leveraged Loan Index	9.0%	9.6%	11.4%	0.44	0.49
Private Credit (Distressed)	Morningstar LSTA Leveraged Loan Index	9.1%	12.7%	29.1%	0.18	0.30

Investors wishing to produce expected geometric return forecasts for their portfolios should use the arithmetic return forecasts provided here as inputs into that calculation, rather than the single-asset-class geometric return forecasts. This is the industry standard approach, but requires a complex explanation only a heavy quant could love, so we have chosen not to provide further details in this document – we will happily provide those details to any readers of this who are interested.

10-year return & risk assumptions

Asset Class	Index Proxy	Ten Year Return Forecast		Standard Deviation Forecast	Sharpe Ratio Forecast (g)	Sharpe Ratio Forecast (a)
		Geometric	Arithmetic			
Other						
Commodities	Bloomberg Commodity	6.4%	7.6%	16.1%	0.15	0.22
Hedge Funds	HFRI Fund Weighted Composite	4.1%	4.4%	7.5%	0.01	0.05
Hedge Fund of Funds	HFRI Fund of Funds Composite	3.1%	3.4%	7.5%	(0.12)	(0.08)
Hedge Funds (Equity Style)	Custom HFRI Benchmark Mix*	6.7%	7.6%	14.1%	0.19	0.26
Hedge Funds (Credit Style)	Custom HFRI Benchmark Mix*	7.0%	7.4%	9.4%	0.32	0.36
Hedge Funds (Asymmetric Style)	Custom HFRI Benchmark Mix*	5.0%	5.2%	6.4%	0.16	0.19
Real Estate Debt	Bloomberg CMBS IG	7.4%	7.7%	7.5%	0.45	0.49
Core Real Estate	NCREIF Property	7.2%	7.9%	12.5%	0.26	0.31
Value-Add Real Estate	NCREIF Property + 200bps	9.2%	10.3%	15.4%	0.34	0.41
Opportunistic Real Estate	NCREIF Property + 300bps	10.2%	12.1%	21.1%	0.29	0.38
REITs	Wilshire REIT	7.2%	8.9%	19.2%	0.17	0.26
Global Infrastructure	S&P Global Infrastructure	8.3%	9.6%	16.9%	0.25	0.33
Risk Parity**	S&P Risk Parity 10% Vol Index	6.6%	7.2%	10.0%	0.26	0.32
Currency Beta	MSCI Currency Factor Index	2.1%	2.2%	3.4%	(0.55)	(0.52)
Inflation		2.4%	-	-	-	-

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*To represent hedge fund styles, we use a combination of HFRI benchmarks: Equity Style = 33% HFRI Fundamental Growth, 33% HFRI Fundamental Value, 33% HFRI Activist. Credit Style = 20% HFRI Distressed/Restructuring, 20% HFRI Credit Arbitrage, 20% HFRI Fixed Income-Corporate, 20% HFRI Fixed Income-Convertible Arbitrage, 20% HFRI Fixed Income-Asset Backed. Asymmetric Style = 50% HFRI Relative Value, 50% HFRI Macro

**The Risk Parity forecast shown here assumes a 10% target volatility strategy. We recommend customizing this forecast to the target volatility specifications of the risk parity strategy that an investor wishes to model. Please speak with your Verus consultant for customization needs.

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