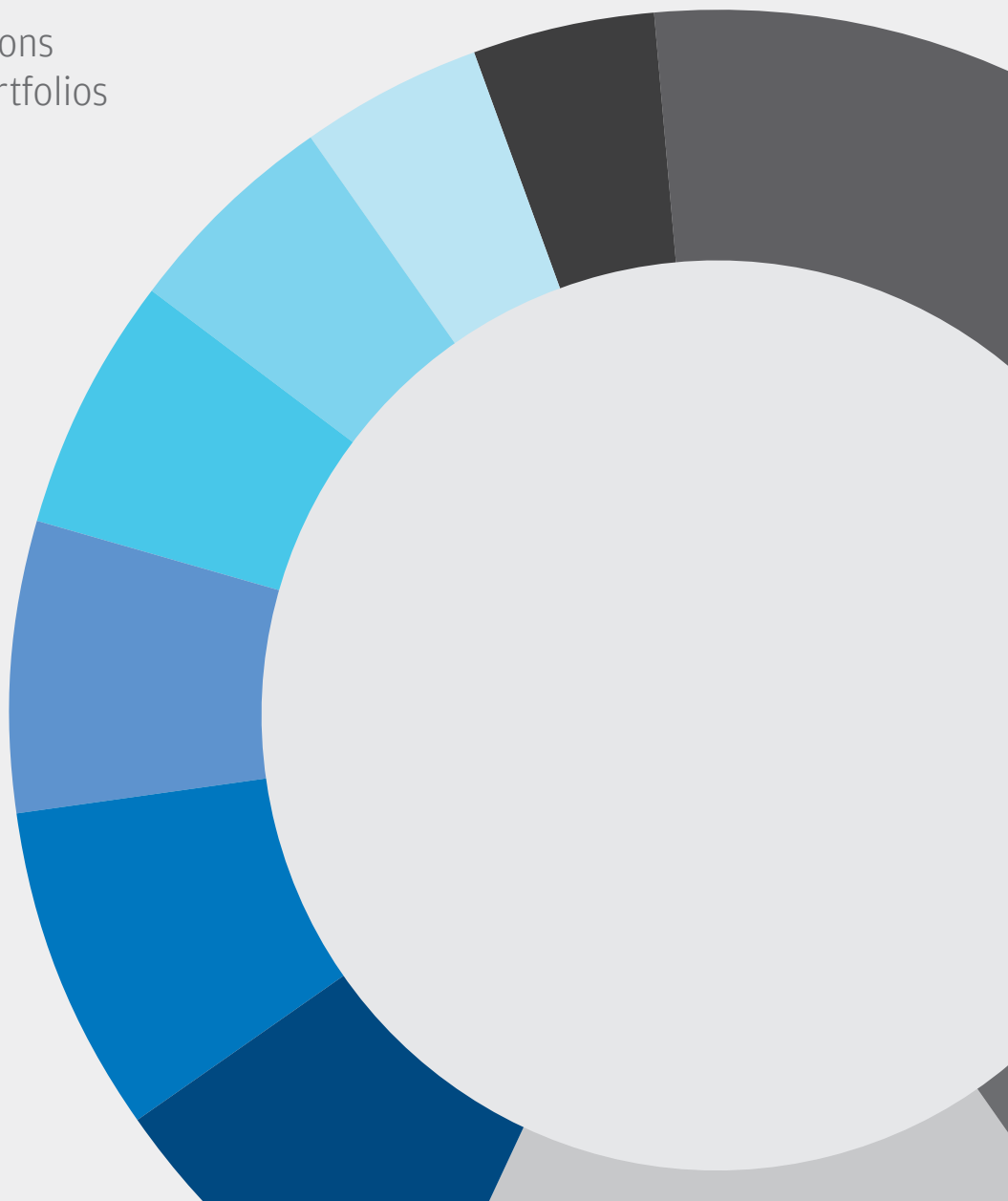


2022 Long-Term Capital Market Assumptions

26th Annual Edition | Assumptions matrix: Euro

Time-tested projections
to build stronger portfolios



Euro Assumptions

Note: All estimates on this page are in euro terms. Given the complex risk-reward trade-offs involved, we advise clients to rely on judgment as well as quantitative optimization approaches in setting strategic allocations to all of these asset classes and strategies. Please note that all information shown is based on qualitative analysis. Exclusive reliance on this information is not advised. This information is not intended as a recommendation to invest in any particular asset class or strategy or as a promise of future performance. Note that these asset class and strategy assumptions are passive only—they do not consider the impact of active management. References to future returns are not promises or even estimates of actual returns a client portfolio may achieve. Assumptions, opinions and estimates are provided for illustrative purposes only. They should not be relied upon as recommendations to buy or sell securities. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided here is reliable, but do not warrant its accuracy or completeness. This material has been prepared for information purposes only and is not intended to provide, and should not be relied on for, accounting, legal or tax advice.

Source: J.P. Morgan Asset Management; as of September 30, 2021. Alternative asset classes (including hedge funds, private equity, real estate, direct lending, transportation and infrastructure) are unlike other asset categories shown above in that there is no underlying investible index. The return estimates for these alternative asset classes and strategies are estimates of the industry average, net of manager fees. The dispersion of return among managers of these asset classes and strategies is typically significantly wider than that of traditional asset classes. Correlations of value-added and core real estate in their local currencies are identical since value-added local returns are scaled versions of their corresponding core real estate local returns. For equity and fixed income assumptions we assume current index regional weight in composite indices with multiple countries/regions. All returns are nominal. For the full opportunity set, please contact your J.P. Morgan representative.

COMPOUND RETURN 2021 (%)				Euro Inflation	Euro Cash	U.S. Aggregate Bonds hedged	Euro Aggregate Bonds	U.S. Inv Grade Corporate Bonds hedged	Euro Inv Grade Corp Bonds	U.S. High Yield Bonds hedged	Euro High Yield Bonds	U.S. Leveraged Loans hedged	Euro Government Bonds	Euro Govt Inflation-Linked Bonds	World Government Bonds hedged	World Government Bonds	World ex-Euro Government Bonds hedged	World ex-Euro Government Bonds	Global Multiverse Bonds hedged	Emerging Markets Sovereign Debt hedged	Emerging Markets Local Currency Debt	Emerging Markets Corporate Bonds hedged								
ANNUALIZED VOLATILITY (%)																														
ARITHMETIC RETURN 2022 (%)																														
COMPOUND RETURN 2022 (%)																														
FIXED INCOME	Euro Inflation	1.50	1.50	0.67	1.30	1.00																								
	Euro Cash	0.10	0.10	0.60	0.20	0.05	1.00																							
	U.S. Aggregate Bonds hedged	1.40	1.46	3.51	1.30	-0.21	0.21	1.00																						
	Euro Aggregate Bonds	1.20	1.27	3.64	0.80	-0.21	0.15	0.66	1.00																					
	U.S. Inv Grade Corporate Bonds hedged	1.50	1.70	6.46	1.70	-0.16	0.09	0.80	0.59	1.00																				
	Euro Inv Grade Corp Bonds	1.50	1.61	4.71	1.40	-0.11	0.02	0.52	0.72	0.79	1.00																			
	U.S. High Yield Bonds hedged	2.70	3.03	8.29	3.90	0.09	-0.07	0.18	0.09	0.55	0.57	1.00																		
	Euro High Yield Bonds	2.90	3.27	8.76	3.60	0.08	-0.11	0.10	0.17	0.48	0.66	0.87	1.00																	
	U.S. Leveraged Loans hedged	3.50	3.80	7.89	4.30	0.20	-0.14	-0.03	-0.05	0.35	0.46	0.83	0.88	1.00																
	Euro Government Bonds	1.10	1.19	4.21	0.70	-0.21	0.16	0.62	0.97	0.47	0.56	-0.04	0.03	-0.17	1.00															
	Euro Govt Inflation-Linked Bonds	0.80	0.92	4.84	0.30	-0.01	0.10	0.51	0.76	0.58	0.67	0.36	0.33	0.15	0.72	1.00														
	World Government Bonds hedged	0.80	0.85	3.09	0.50	-0.25	0.21	0.82	0.82	0.51	0.38	-0.17	-0.20	-0.35	0.85	0.54	1.00													
	World Government Bonds	1.00	1.24	7.05	0.40	-0.14	0.14	0.38	0.50	0.17	0.15	-0.32	-0.24	-0.26	0.51	0.16	0.60	1.00												
	World ex-Euro Government Bonds hedged	0.70	0.75	3.07	0.40	-0.23	0.20	0.83	0.59	0.47	0.21	-0.23	-0.32	-0.42	0.62	0.34	0.94	0.54	1.00											
	World ex-Euro Government Bonds	1.00	1.43	9.42	0.20	-0.13	0.13	0.28	0.34	0.07	0.04	-0.35	-0.27	-0.27	0.35	0.03	0.48	0.97	0.46	1.00										
	Global Multiverse Bonds hedged	1.20	1.24	2.94	1.10	-0.22	0.20	0.94	0.84	0.81	0.67	0.24	0.19	0.03	0.79	0.68	0.88	0.43	0.80	0.30	1.00									
Emerging Markets Sovereign Debt hedged	4.00	4.38	8.96	4.40	-0.02	0.00	0.50	0.36	0.72	0.62	0.71	0.54	0.45	0.26	0.54	0.22	-0.19	0.17	-0.29	0.55	1.00									
Emerging Markets Local Currency Debt	4.60	5.00	9.16	3.80	0.03	0.09	0.29	0.36	0.44	0.50	0.44	0.41	0.36	0.29	0.41	0.19	0.26	0.09	0.20	0.40	0.55	1.00								
Emerging Markets Corporate Bonds hedged	3.60	3.93	8.29	3.80	0.01	-0.05	0.42	0.31	0.73	0.69	0.76	0.67	0.58	0.17	0.47	0.09	-0.19	0.04	-0.27	0.46	0.90	0.53	1.00							
EQUITIES	European Large Cap	5.10	6.10	14.64	5.00	0.07	-0.21	-0.03	0.06	0.32	0.48	0.69	0.74	0.65	-0.04	0.31	-0.25	-0.28	-0.35	-0.32	0.07	0.50	0.46	0.55						
	European Small Cap	6.50	7.83	17.07	6.50	0.06	-0.21	-0.04	0.02	0.33	0.48	0.71	0.78	0.69	-0.09	0.25	-0.30	-0.31	-0.38	-0.34	0.05	0.46	0.38	0.55						
	U.S. Large Cap	2.80	3.76	14.20	2.70	0.08	-0.23	-0.10	0.05	0.18	0.38	0.52	0.56	0.56	-0.02	0.19	-0.23	0.02	-0.33	0.01	0.01	0.26	0.47	0.34						
	U.S. Large Cap hedged	2.80	3.87	15.04	3.30	0.11	-0.22	-0.01	0.00	0.31	0.42	0.70	0.63	0.58	-0.09	0.26	-0.25	-0.45	-0.32	-0.50	0.06	0.53	0.33	0.57						
	Euro Area Large Cap	5.80	7.09	16.78	5.20	0.04	-0.19	-0.02	0.06	0.31	0.45	0.67	0.71	0.60	-0.02	0.33	-0.24	-0.37	-0.34	-0.41	0.08	0.51	0.40	0.55						
	Euro Area Small Cap	6.20	7.63	17.75	6.40	0.04	-0.19	-0.01	0.05	0.34	0.47	0.70	0.75	0.65	-0.04	0.31	-0.25	-0.37	-0.34	-0.41	0.08	0.50	0.36	0.57						
	UK Large Cap	3.70	4.74	14.89	6.10	0.11	-0.21	-0.08	0.01	0.28	0.45	0.63	0.72	0.66	-0.09	0.21	-0.31	-0.17	-0.40	-0.19	0.00	0.41	0.48	0.50						
	UK Large Cap hedged	2.60	3.49	13.63	5.80	-0.02	-0.11	0.07	0.08	0.36	0.44	0.64	0.60	0.53	0.00	0.32	-0.15	-0.34	-0.22	-0.39	0.16	0.56	0.41	0.56						
	Japanese Equity	5.40	6.34	14.27	5.10	-0.02	-0.17	-0.08	0.07	0.22	0.35	0.42	0.48	0.46	-0.01	0.20	-0.20	0.09	-0.30	0.08	0.01	0.20	0.48	0.31						
	Japanese Equity hedged	5.00	6.44	17.66	5.20	0.10	-0.03	-0.18	-0.09	0.12	0.26	0.50	0.51	0.48	-0.14	0.19	-0.36	-0.49	-0.44	-0.52	-0.11	0.32	0.30	0.39						
	Chinese Domestic Equity	6.90	10.49	28.87	6.10	-0.06	0.00	-0.04	0.06	0.14	0.22	0.27	0.32	0.28	0.02	0.08	-0.12	-0.05	-0.19	-0.06	0.02	0.18	0.25	0.25						
	Emerging Markets Equity	5.60	6.92	16.93	5.80	0.06	-0.11	0.05	0.08	0.39	0.49	0.69	0.69	0.63	-0.02	0.32	-0.20	-0.22	-0.29	-0.26	0.12	0.55	0.63	0.62						
	AC Asia ex-Japan Equity	5.70	7.03	17.05	5.70	-0.01	-0.11	0.07	0.12	0.40	0.51	0.66	0.66	0.58	0.02	0.31	-0.15	-0.15	-0.25	-0.19	0.15	0.50	0.59	0.58						
	AC World Equity	3.70	4.57	13.60	3.70	0.06	-0.21	-0.04	0.07	0.30	0.48	0.65	0.70	0.66	-0.03	0.27	-0.24	-0.10	-0.35	-0.13	0.06	0.40	0.55	0.49						
	AC World ex-EMU Equity	3.50	4.37	13.54	3.60	0.07	-0.21	-0.05	0.07	0.29	0.47	0.64	0.68	0.65	-0.03	0.25	-0.24	-0.05	-0.35	-0.08	0.05	0.38	0.56	0.47						
	Developed World Equity	3.50	4.39	13.69	3.50	0.06	-0.22	-0.06	0.07	0.28	0.46	0.63	0.68	0.64	-0.03	0.25	-0.25	-0.08	-0.35	-0.11	0.05	0.37	0.52	0.46						
Global Convertible Bond hedged	4.30	4.80	10.22	3.80	0.01	-0.10	0.12	0.10	0.50	0.56	0.80	0.76	0.70	-0.01	0.35	-0.20	-0.41	-0.29	-0.47	0.18	0.63	0.38	0.70							
Global Credit Sensitive Convertible hedged	3.40	3.63	6.87	3.40	0.16	-0.25	0.03	0.14	0.26	0.39	0.36	0.46	0.39	0.06	0.15	-0.09	-0.16	-0.16	-0.20	0.11	0.26	0.17	0.34							
ALTERNATIVES	Private Equity	6.80	8.18	17.45	6.40	0.13	-0.20	-0.22	-0.11	0.20	0.35	0.60	0.58	0.65	-0.22	0.14	-0.41	-0.16	-0.47	-0.16	-0.12	0.41	0.48	0.49						
	U.S. Core Real Estate	4.50	5.25	12.61	4.50	0.28	-0.36	-0.17	-0.17	-0.03	0.08	0.33	0.34	0.43	-0.21	-0.06	-0.25	0.05	-0.24	0.10	-0.16	0.12	0.33	0.23						
	European Core Real Estate	4.80	5.29	10.16	5.00	0.25	-0.29	-0.37	-0.32	0.01	0.10	0.52	0.49	0.59	-0.39	-0.05	-0.54	-0.21	-0.56	-0.19	-0.34	0.25	0.31	0.37						
	European Value-Added Real Estate	6.80	8.01	16.30	7.70	0.25	-0.29	-0.37	-0.32	0.01	0.10	0.52	0.49	0.59	-0.39	-0.05	-0.54	-0.21	-0.56	-0.19	-0.34	0.25	0.31	0.37						
	Asia Pacific Core Real Estate	6.20	7.08	13.80	5.20	0.23	-0.32	-0.05	-0.13	0.22	0.24	0.49	0.48	0.56	-0.22	0.00	-0.28	0.01	-0.28	0.04	-0.05	0.31	0.39	0.39						
	Global REITs	4.60	5.42	13.19	5.40	0.02	-0.20	0.19	0.24	0.44	0.53	0.63	0.63	0.54	0.16	0.38	0.03	0.04	-0.06	0.01	0.29	0.47	0.59	0.49						

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