

# 2021 Long-Term Capital Market Assumptions

25<sup>th</sup> Annual Edition | Assumptions matrix: U.S. Dollar

Time-tested projections  
to build stronger portfolios



U.S. DOLLAR ASSUMPTIONS

		COMPOUND RETURN 2020 (%)				ANNUALIZED VOLATILITY (%)				ARITHMETIC RETURN 2021 (%)				COMPOUND RETURN 2021 (%)																					
						U.S. Inflation	U.S. Cash	U.S. Intermediate Treasuries	U.S. Long Treasuries																										
FIXED INCOME	U.S. Inflation	2.00	2.01	1.40	2.00	1.00																													
	U.S. Cash	1.10	1.10	0.44	1.90	0.09	1.00																												
FIXED INCOME	U.S. Intermediate Treasuries	1.50	1.54	2.83	2.70	-0.19	0.22	1.00																											
	U.S. Long Treasuries	0.40	1.03	11.38	1.60	-0.16	0.07	0.81	1.00																										
FIXED INCOME	TIPS	1.50	1.64	5.29	2.70	0.09	0.08	0.58	0.55	1.00																									
	U.S. Aggregate Bonds	2.10	2.16	3.43	3.10	-0.16	0.10	0.79	0.80	0.74	1.00																								
FIXED INCOME	U.S. Securitized	2.40	2.43	2.37	3.30	-0.11	0.15	0.74	0.68	0.67	0.89	1.00																							
	U.S. Short Duration Government/Credit	1.70	1.71	1.50	2.80	-0.18	0.36	0.77	0.48	0.60	0.76	0.68	1.00																						
FIXED INCOME	U.S. Long Duration Government/Credit	1.60	2.02	9.24	2.50	-0.17	0.01	0.66	0.87	0.64	0.92	0.72	0.55	1.00																					
	U.S. Inv Grade Corporate Bonds	2.50	2.69	6.22	3.40	-0.09	-0.02	0.36	0.46	0.65	0.80	0.63	0.56	0.79	1.00																				
FIXED INCOME	U.S. Long Corporate Bonds	2.10	2.60	10.21	3.00	-0.15	-0.04	0.35	0.55	0.59	0.81	0.59	0.48	0.88	0.96	1.00																			
	U.S. High Yield Bonds	4.80	5.13	8.33	5.20	0.11	-0.11	-0.29	-0.25	0.33	0.18	0.15	0.11	0.13	0.58	0.49	1.00																		
FIXED INCOME	U.S. Leveraged Loans	5.10	5.40	7.91	5.00	0.28	-0.14	-0.52	-0.42	0.11	-0.06	-0.09	-0.13	-0.07	0.37	0.29	0.81	1.00																	
	World Government Bonds hedged	1.40	1.45	3.03	2.10	-0.24	0.11	0.82	0.85	0.52	0.82	0.69	0.61	0.81	0.51	0.56	-0.18	-0.38	1.00																
FIXED INCOME	World Government Bonds	1.80	1.99	6.16	2.50	-0.09	0.10	0.64	0.49	0.59	0.69	0.60	0.67	0.61	0.54	0.53	0.14	-0.15	0.59	1.00															
	World ex-U.S. Government Bonds hedged	1.30	1.35	3.05	1.80	-0.26	0.06	0.65	0.69	0.42	0.73	0.57	0.51	0.74	0.50	0.56	-0.08	-0.27	0.95	0.53	1.00														
FIXED INCOME	World ex-U.S. Government Bonds	1.80	2.09	7.77	2.40	-0.08	0.07	0.50	0.35	0.52	0.60	0.50	0.59	0.51	0.51	0.50	0.23	-0.05	0.47	0.98	0.46	1.00													
	Emerging Markets Sovereign Debt	5.20	5.57	8.82	5.10	0.05	-0.03	0.12	0.14	0.56	0.53	0.47	0.36	0.47	0.75	0.68	0.73	0.47	0.24	0.47	0.28	0.50	1.00												
FIXED INCOME	Emerging Markets Local Currency Debt	5.20	5.90	12.27	5.90	0.04	0.08	0.06	-0.03	0.38	0.35	0.29	0.33	0.28	0.53	0.47	0.61	0.34	0.10	0.56	0.15	0.63	0.78	1.00											
	Emerging Markets Corporate Bonds	4.70	5.04	8.52	4.90	0.13	-0.05	0.01	0.03	0.52	0.44	0.38	0.33	0.37	0.77	0.66	0.75	0.59	0.11	0.33	0.14	0.36	0.89	0.68	1.00										
FIXED INCOME	U.S. Muni 1-15 Yr Blend	1.90	1.95	3.28	2.50	-0.08	0.01	0.40	0.40	0.47	0.62	0.57	0.42	0.54	0.54	0.51	0.26	0.11	0.48	0.40	0.47	0.36	0.49	0.26	0.33	1.00									
	U.S. Muni High Yield	4.60	4.88	7.68	4.00	0.34	-0.06	-0.04	0.10	0.36	0.24	0.22	0.00	0.23	0.39	0.31	0.40	0.51	0.08	0.01	0.09	0.00	0.46	0.16	0.46	0.48	1.00								
FIXED INCOME	U.S. Large Cap	4.10	5.13	14.80	5.60	0.02	-0.07	-0.35	-0.33	0.09	0.00	-0.03	-0.07	0.00	0.33	0.29	0.71	0.60	-0.24	0.12	-0.13	0.21	0.53	0.58	0.55	0.01	0.16								
	U.S. Mid Cap	4.40	5.73	16.93	5.90	0.05	-0.08	-0.37	-0.33	0.12	0.01	-0.02	-0.07	0.00	0.36	0.31	0.76	0.64	-0.25	0.08	-0.14	0.17	0.55	0.57	0.57	0.04	0.19								
FIXED INCOME	U.S. Small Cap	4.60	6.33	19.44	6.50	0.02	-0.09	-0.39	-0.37	0.03	-0.07	-0.09	-0.12	-0.06	0.26	0.22	0.68	0.56	-0.29	0.03	-0.18	0.12	0.45	0.52	0.47	-0.03	0.08								
	Euro Area Large Cap	6.60	8.65	21.42	7.70	0.03	0.00	-0.27	-0.21	0.24	0.03	0.07	0.05	0.06	0.03	0.38	0.33	0.71	0.53	-0.20	0.29	-0.11	0.38	0.63	0.70	0.60	0.08	0.17							
FIXED INCOME	Japanese Equity	6.50	7.50	14.76	7.20	-0.01	-0.10	-0.30	-0.24	0.09	0.04	-0.01	-0.01	0.07	0.37	0.34	0.62	0.49	-0.21	0.15	-0.13	0.23	0.49	0.58	0.51	0.01	0.11								
	Hong Kong Equity	7.60	9.44	20.30	6.30	0.00	0.01	-0.22	-0.22	0.20	0.14	0.10	0.12	0.10	0.46	0.39	0.66	0.52	-0.16	0.22	-0.10	0.29	0.61	0.66	0.63	0.12	0.25								
FIXED INCOME	UK Large Cap	7.50	8.83	17.20	7.60	0.08	-0.03	-0.36	-0.36	0.13	0.01	0.00	-0.02	0.00	0.38	0.33	0.73	0.63	-0.28	0.20	-0.18	0.29	0.61	0.66	0.62	0.04	0.26								
	EAFE Equity	6.50	7.80	16.92	7.20	0.04	-0.03	-0.30	-0.31	0.16	0.07	0.04	0.04	0.06	0.43	0.38	0.75	0.59	-0.22	0.27	-0.12	0.37	0.65	0.73	0.65	0.07	0.20								
FIXED INCOME	Chinese Domestic Equity	7.50	11.43	30.39	10.10	-0.03	0.17	-0.20	-0.19	0.04	0.01	0.01	0.02	-0.01	0.20	0.16	0.35	0.28	-0.12	0.04	-0.06	0.08	0.29	0.31	0.34	-0.05	0.07								
	Emerging Markets Equity	7.20	9.19	21.14	9.20	0.06	0.04	-0.25	-0.25	0.25	0.12	0.08	0.11	0.08	0.45	0.38	0.73	0.57	-0.18	0.29	-0.11	0.38	0.68	0.79	0.68	0.07	0.24								
FIXED INCOME	AC Asia ex-Japan Equity	7.10	9.00	20.62	9.20	0.01	0.03	-0.22	-0.21	0.24	0.14	0.10	0.12	0.11	0.46	0.41	0.71	0.54	-0.15	0.27	-0.09	0.35	0.64	0.73	0.65	0.07	0.23								
	AC World Equity	5.10	6.25	15.76	6.50	0.03	-0.03	-0.33	-0.33	0.15	0.05	0.01	0.01	0.04	0.41	0.36	0.77	0.62	-0.23	0.22	-0.13	0.31	0.63	0.70	0.64	0.04	0.19								
FIXED INCOME	U.S. Equity Value Factor	6.20	7.42	16.36	7.20	0.00	-0.09	-0.37	-0.36	0.06	-0.03	-0.04	-0.09	-0.03	0.31	0.26	0.71	0.59	-0.26	0.08	-0.14	0.18	0.51	0.58	0.53	-0.02	0.12								
	U.S. Equity Momentum Factor	4.10	5.16	15.03	5.40	0.06	-0.07	-0.35	-0.31	0.14	0.02	-0.02	-0.07	0.02	0.35	0.31	0.73	0.64	-0.24	0.10	-0.14	0.19	0.55	0.55	0.56	0.05	0.21								
FIXED INCOME	U.S. Equity Quality Factor	4.30	5.15	13.48	5.60	0.02	-0.07	-0.33	-0.31	0.11	0.02	-0.01	-0.06	0.02	0.34	0.30	0.70	0.57	-0.21	0.13	-0.11	0.22	0.54	0.59	0.55	0.03	0.15								
	U.S. Equity Minimum Volatility Factor	4.80	5.47	11.95	5.80	0.00	-0.07	-0.26	-0.20	0.14	0.10	0.07	-0.03	0.11	0.38	0.36	0.70	0.57	-0.10	0.16	0.01	0.24	0.56	0.60	0.54	0.10	0.19								
FIXED INCOME	U.S. Equity Dividend Yield Factor	5.50	6.53	14.90	6.90	0.01	-0.08	-0.30	-0.26	0.14	0.08	0.05	-0.03	0.08	0.40	0.36	0.74	0.61	-0.16	0.15	-0.05	0.24	0.57	0.62	0.58	0.09	0.19								
	U.S. Equity Diversified Factor	5.60	6.48	13.76	6.30	0.04	-0.08	-0.34	-0.30	0.12	0.02	0.00	-0.07	0.02	0.36	0.31	0.74	0.61	-0.21	0.12	-0.10	0.21	0.56	0.60	0.57	0.05	0.18								
FIXED INCOME	U.S. Convertible Bond hedged	5.00	5.60	11.28	4.60	0.06	-0.09	-0.32	-0.29	0.21	0.10	0.06	0.03	0.07	0.48	0.39	0.82	0.69	-0.20	0.12	-0.10	0.21	0.62	0.57	0.66	0.15	0.29								
	Global Convertible Bond	4.60	5.06	9.91	4.80	0.02	-0.06	-0.34	-0.30	0.19	0.11	0.06	0.05	0.08	0.51	0.42	0.82	0.70	-0.20	0.11	-0.09	0.19	0.65	0.60	0.70	0.14	0.28								
FIXED INCOME	Global Credit Sensitive Convertible hedged	4.20	4.47	7.52	4.40	0.13	-0.04	-0.17	-0.21	0.05	0.03	-0.10	-0.02	0.06	0.26	0.26	0.35	0.40	-0.08	0.09	0.02	0.14	0.25	0.26	0.33	0.01	0.22								
	Private Equity	7.80	9.36	18.67	8.80	0.20	0.07	-0.48	-0.54	0.05	-0.22	-0.16	-0.13	-0.30	0.18	0.05	0.67	0.63	-0.48	-0.05	-0.41	0.05	0.49	0.52	0.56	-0.06	0.33								
FIXED INCOME	U.S. Core Real Estate	5.90	6.46	10.94	5.80	0.33	-0.08	-0.39	-0.32	0.02	-0.20	-0.14	-0.27	-0.20	0.07	0.01	0.50	0.60	-0.35	-0.20	-0.31	-0.15	0.30	0.28	0.39	-0.19	0.45								
	U.S. Value-Added Real Estate	8.10	9.48	17.54	7.70	0.33	-0.08	-0.39	-0.32	0.02	-0.20	-0.14	-0.27	-0.20	0.07	0.01	0.50	0.60	-0.35	-0.20	-0.31	-0.15	0.30	0.28	0.39	-0.19	0.45								
FIXED INCOME	European ex-UK Core Real Estate	6.40	7.19	13.10	6.90	0.29	0.02	-0.52	-0.53	0.04	-0.30	-0.25	-0.19	-0.33	0.10	-0.02	0.59	0.60	-0.54	-0.02	-0.49	0.09	0.38	0.46	0.47	-0.16	0.33								
	Asia Pacific Core Real Estate	6.60	7.40	13.16	6.50	0.30	-0.02	-0.32	-0.26	0.20	-0.01	0.00	-0.12	-0.02	0.32	0.25	0.61	0.62	-0.31	0.10	-0.27	0.17	0.51	0.49	0.54</										

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