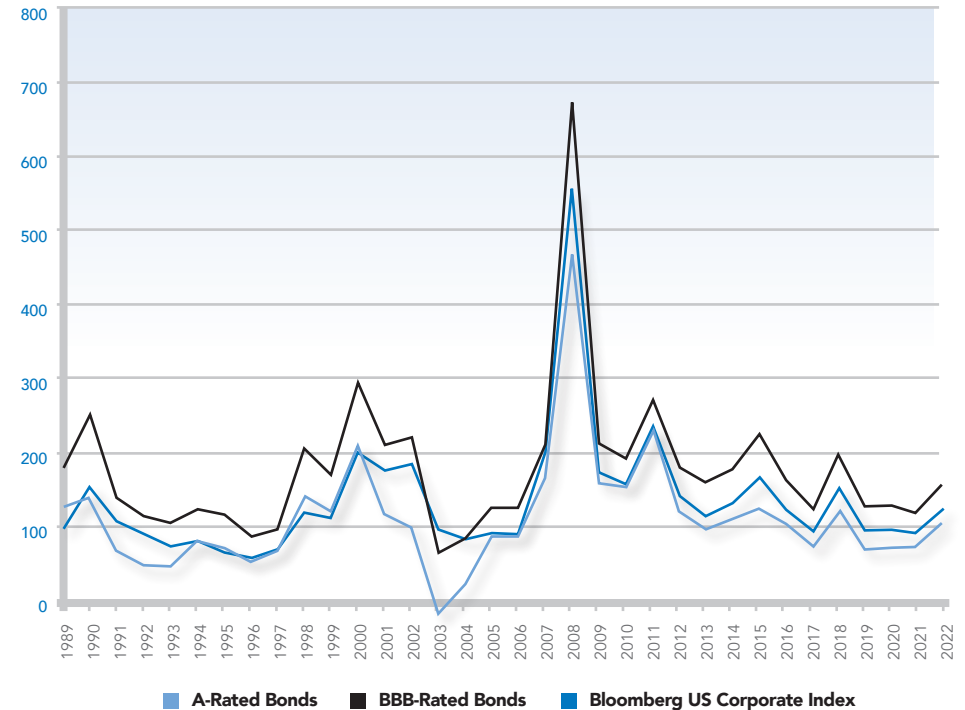


## HISTORICAL INTEREST RATES & CREDIT SPREADS

Month - Year	10 Yr U.S. Treasury Note	A-Rated Bonds		BBB-Rated Bonds		Bbg US Corporate Index	
	Yield to Maturity	Yield*	Spread	Yield*	Spread	Yield*	Spread
31-Dec-89	7.92	9.16	124	9.71	179	8.89	97
31-Dec-90	8.07	9.46	139	10.56	249	9.58	151
31-Dec-91	6.07	6.74	67	7.45	138	7.14	107
31-Dec-92	6.69	7.16	47	7.81	112	7.57	88
31-Dec-93	5.79	6.26	47	6.83	104	6.52	73
31-Dec-94	7.83	8.61	78	9.05	122	8.61	78
31-Dec-95	5.58	6.27	69	6.73	115	6.23	65
31-Dec-96	6.42	6.93	51	7.27	85	6.98	56
31-Dec-97	5.85	6.51	66	6.79	94	6.52	67
31-Dec-98	4.66	6.04	138	6.70	204	5.84	118
31-Dec-99	6.44	7.65	121	8.12	168	7.55	111
31-Dec-00	5.12	7.21	209	8.06	294	7.11	199
31-Dec-01	5.04	6.20	116	7.14	210	6.78	174
31-Dec-02	3.83	4.79	96	6.04	221	5.67	184
31-Dec-03	4.32	4.15	-17	4.95	63	5.27	95
31-Dec-04	4.22	4.43	21	5.05	83	5.03	81
31-Dec-05	4.39	5.25	86	5.63	124	5.29	90
31-Dec-06	4.70	5.56	86	5.94	124	5.58	88
31-Dec-07	4.03	5.69	166	6.13	210	6.01	198
31-Dec-08	2.25	6.92	467	8.98	673	7.80	555
31-Dec-09	3.84	5.40	156	5.96	212	5.56	172
31-Dec-10	3.29	4.80	151	5.20	191	4.85	156
31-Dec-11	1.68	3.97	229	4.39	271	4.02	234
31-Dec-12	1.76	2.95	119	3.56	180	3.17	141
31-Dec-13	3.03	3.98	95	4.61	158	4.17	114
31-Dec-14	2.17	3.26	109	3.95	178	3.48	131
31-Dec-15	2.27	3.49	122	4.51	224	3.92	165
31-Dec-16	2.45	3.46	101	4.05	160	3.68	123
31-Dec-17	2.41	3.14	73	3.65	124	3.34	93
31-Dec-18	2.69	3.87	118	4.66	197	4.22	153
31-Dec-19	1.92	2.62	70	3.12	120	2.85	93
31-Dec-20	0.92	1.65	73	2.13	121	1.88	96
31-Dec-21	1.51	2.25	74	2.64	113	2.43	92
31-Oct-22	4.05	5.42	137	5.95	190	5.63	158
30-Nov-22	3.61	4.73	112	5.24	163	4.94	133
31-Dec-22	3.88	4.97	109	5.47	159	5.18	130
31-Jan-23	3.51	4.48	97	4.95	144	4.68	117
28-Feb-23	3.92	4.96	104	5.43	151	5.16	124
31-Mar-23	3.47	4.65	118	5.15	168	4.85	138
30-Apr-23	3.43	4.59	116	5.09	166	4.79	136
31-May-23	3.65	4.82	117	5.34	169	5.03	138
30-Jun-23	3.84	4.88	104	5.36	152	5.07	123
31-Jul-23	3.96	4.91	95	5.34	138	5.08	112
31-Aug-23	4.11	5.12	101	5.55	144	5.29	118
30-Sep-23	4.57	5.62	105	6.04	147	5.78	121

Source: Barclays Capital 10/02/23. For Financial Professional Use \*Represents an approximation.

## CREDIT SPREADS TO TREASURIES | YEARS ENDED DECEMBER 31



Averages	A-Rated Bonds	BBB-Rated Bonds	Bbg US Corporate Index
<b>Period ended September 30, 2023</b>			
2 years	1.05	1.55	1.26
<b>Period ended December 31, 2022</b>			
5 years	0.89	1.42	1.13
10 years	0.94	1.55	1.19
20 years	1.20	1.84	1.50

## KEY OBSERVATIONS

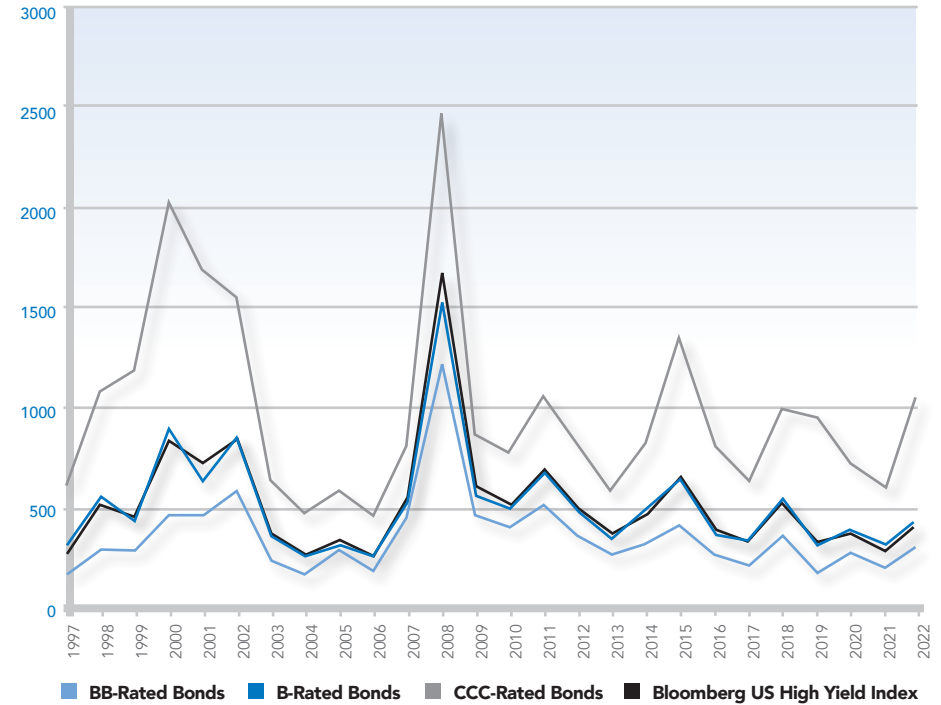
For the month of September 2023, the yield on the 10-year US Treasury Note ended at 4.57%, 46 basis points higher from the previous month. The Bloomberg US Corporate Index widened by 3 basis points to 1.21% over Treasuries. The A Rated Corporate Credit Spread increased by 4 basis points to 1.05%. The BBB Rated Corporate Credit Spread increased by 3 basis points to 1.47%.

## HISTORICAL INTEREST RATES & CREDIT SPREADS

Month - Year	5 Yr U.S. Treasury Note	BB-Rated Bonds		B-Rated Bonds		CCC-Rated Bonds		Bbg US High Yield Index	
	Yield to Maturity	Yield*	Spread	Yield*	Spread	Yield*	Spread	Yield*	Spread
31-Dec-97	5.71	7.39	168	8.97	326	11.88	617	8.59	288
31-Dec-98	4.56	7.50	294	10.15	559	15.38	1082	9.83	527
31-Dec-99	6.36	9.20	284	10.84	448	18.22	1186	11.03	467
31-Dec-00	4.99	9.64	465	13.99	900	25.25	2026	13.47	848
31-Dec-01	4.38	8.87	449	10.80	642	21.30	1692	11.66	728
31-Dec-02	2.78	8.60	582	11.37	859	18.30	1552	11.29	851
31-Dec-03	3.25	5.64	239	6.96	371	9.65	640	7.18	393
31-Dec-04	3.63	5.42	179	6.30	267	8.38	475	6.50	287
31-Dec-05	4.35	7.27	292	7.61	326	10.23	588	7.91	356
31-Dec-06	4.70	6.53	183	7.39	269	9.28	458	7.44	274
31-Dec-07	3.45	7.95	450	8.81	536	11.55	810	9.14	569
31-Dec-08	1.55	13.66	1211	16.75	1520	26.21	2466	18.17	1662
31-Dec-09	2.69	7.22	453	8.36	567	11.37	868	8.85	616
31-Dec-10	2.01	6.00	399	7.07	506	9.76	775	7.27	526
31-Dec-11	0.83	5.95	512	7.65	682	11.39	1056	7.82	699
31-Dec-12	0.72	4.31	359	5.58	486	8.84	812	5.83	511
31-Dec-13	1.75	4.44	269	5.39	364	7.66	591	5.57	382
31-Dec-14	1.65	4.89	324	6.67	502	9.85	820	6.48	483
31-Dec-15	1.76	5.93	417	8.30	654	15.27	1351	8.36	660
31-Dec-16	1.93	4.63	270	5.75	382	10.00	807	6.02	409
31-Dec-17	2.21	4.32	211	5.64	343	8.36	615	5.64	343
31-Dec-18	2.51	6.05	354	7.82	531	12.40	989	7.77	526
31-Dec-19	1.69	3.51	182	4.93	324	10.89	920	5.05	336
31-Dec-20	0.36	3.00	264	4.15	379	7.51	715	3.96	360
31-Dec-21	1.26	3.20	194	4.39	313	7.22	596	4.09	283
31-Oct-22	4.23	7.14	291	9.05	482	16.02	1179	8.87	464
30-Nov-22	3.74	6.63	289	8.39	465	14.80	1106	8.22	448
31-Dec-22	4.01	6.96	295	8.90	489	15.55	1154	8.70	469
31-Jan-23	3.62	6.29	267	7.96	434	14.01	1039	7.82	420
28-Feb-23	4.18	6.85	267	8.39	421	14.18	1000	8.30	412
31-Mar-23	3.58	6.41	283	8.23	465	15.02	1144	8.13	455
30-Apr-23	3.49	6.35	286	8.06	457	14.37	1088	8.01	452
31-May-23	3.76	6.79	303	8.46	470	14.17	1041	8.35	459
30-Jun-23	4.16	6.68	252	8.14	398	13.25	909	8.06	390
31-Jul-23	4.18	6.57	239	7.84	366	12.83	865	7.85	367
31-Aug-23	4.26	6.72	246	7.98	372	12.79	853	7.98	372
30-Sep-23	4.61	7.25	264	8.60	399	13.50	889	8.55	394

Source: Barclays Capital 10/02/23. For Financial Professional Use \*Represents an approximation.

## CREDIT SPREADS TO TREASURIES | YEARS ENDED DECEMBER 31



Averages	BB	B	CCC	Bbg US High Yield Index
<b>Period ended September 30, 2023</b>				
2 years	2.75	4.35	9.27	4.12
<b>Period ended December 31, 2022</b>				
5 years	2.58	4.07	8.75	3.95
10 years	2.78	4.28	8.56	4.25
15 years	3.81	5.36	9.69	5.51

## KEY OBSERVATIONS

For the month of September 2023, the yield on the 5-year US Treasury Note ended at 4.61%, 35 basis points higher from the previous month. The Bloomberg US High Yield Index widened by 22 basis points to 3.94% over Treasuries. The BB Rated Corporate Credit Spread increased by 18 basis points to 2.64%. The B Rated Corporate Credit Spread widened by 27 basis points to 3.99%. The CCC Rated Corporate Credit Spread increased by 36 basis points to 8.89%.