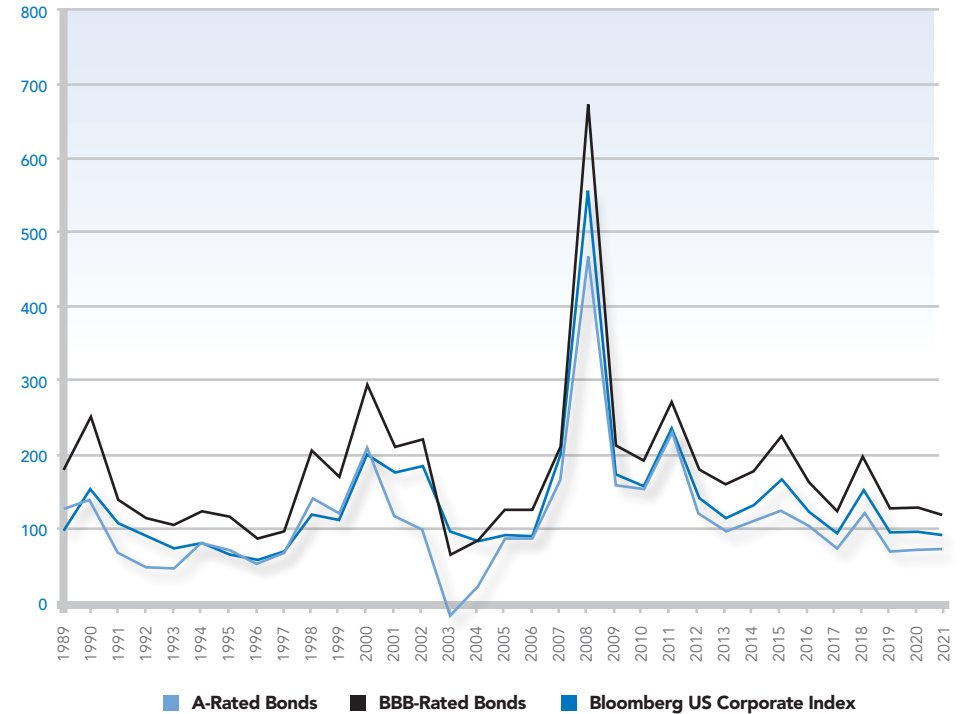


HISTORICAL INTEREST RATES & CREDIT SPREADS

10 Yr U.S. Treasury Note	A-Rated Bonds		BBB-Rated Bonds		Bbg US Corporate Index		
Month - Year	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
30-Nov-21	1.45	2.25	80	2.66	121	2.44	99
31-Dec-21	1.51	2.25	74	2.64	113	2.43	92
31-Jan-22	1.78	2.65	87	3.06	128	2.84	106
28-Feb-22	1.83	2.85	102	3.29	146	3.05	122
31-Mar-22	2.34	3.28	94	3.76	142	3.50	116
30-Apr-22	2.94	4.06	112	4.57	163	4.29	135
31-May-22	2.85	3.90	105	4.46	161	4.15	130
30-Jun-22	3.02	4.28	126	4.94	192	4.57	155
31-Jul-22	2.65	3.81	116	4.44	179	4.09	144
31-Aug-22	3.20	4.34	114	4.94	174	4.60	140
30-Sep-22	3.83	5.18	135	5.75	192	5.42	159
31-Oct-22	4.05	5.42	137	5.95	190	5.63	158

Source: Barclays Capital 11/01/22. 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
Period ended October 31, 2022			
2 years	0.88	1.35	1.10
Period ended December 31, 2021			
5 years	0.82	1.35	1.05
10 years	0.95	1.58	1.20
20 years	1.20	1.87	1.53

KEY OBSERVATIONS

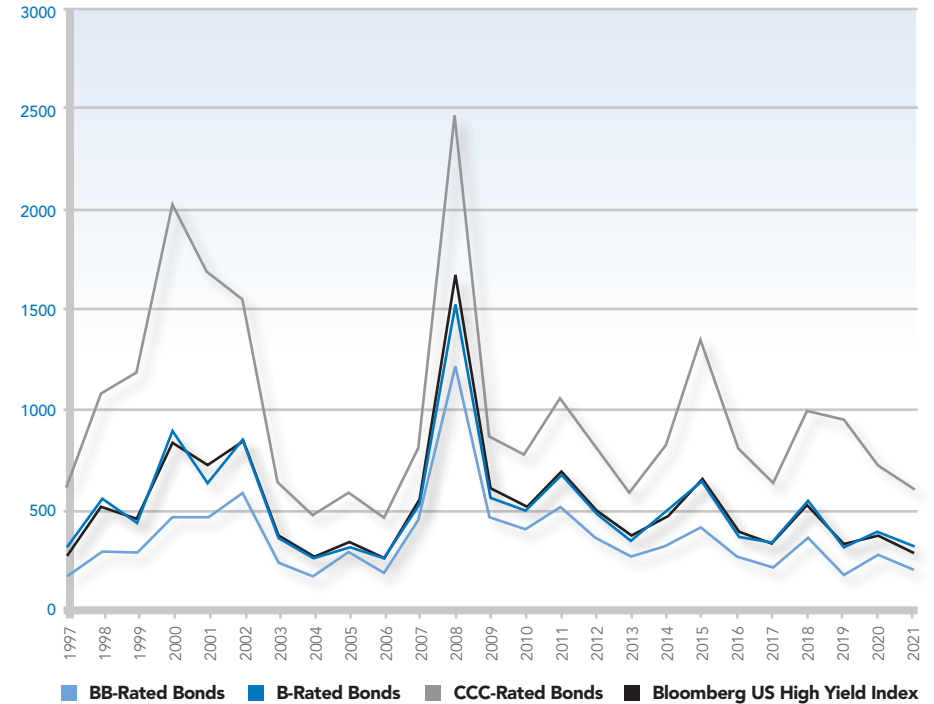
For the month of October 2022, the yield on the 10-year US Treasury Note ended at 4.05%, 22 basis points higher from the previous month. The Bloomberg US Corporate Index tightened by 1 basis point to 1.58% over Treasuries. The A Rated Corporate Credit Spread increased by 2 basis points to 1.37%. The BBB Rated Corporate Credit Spread decreased by 2 basis points to 1.90%.

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
30-Nov-21	1.16	3.57	241	4.90	374	7.70	654	4.53	337
31-Dec-21	1.26	3.20	194	4.39	313	7.22	596	4.09	283
31-Jan-22	1.61	4.11	250	5.33	372	8.17	656	5.03	342
28-Feb-22	1.72	4.39	267	5.55	383	8.61	689	5.31	359
31-Mar-22	2.46	4.78	232	5.88	342	9.24	678	5.71	325
30-Apr-22	2.96	5.69	273	6.96	400	10.74	778	6.75	379
31-May-22	2.82	5.45	263	7.30	448	11.90	908	6.88	406
30-Jun-22	3.04	7.08	404	9.35	631	14.17	1113	8.73	569
31-Jul-22	2.68	5.76	308	7.88	520	12.97	1029	7.37	469
31-Aug-22	3.35	6.66	331	8.42	507	14.20	1085	8.19	484
30-Sep-22	4.09	7.63	354	10.28	619	16.30	1221	9.61	552
31-Oct-22	4.23	7.14	291	9.05	482	16.02	1179	8.87	464

Source: Barclays Capital 11/01/22. For Financial Professional Use *Represents an approximation.

CREDIT SPREADS TO TREASURIES | YEARS ENDED DECEMBER 31



Averages	BB	B	CCC	Bbg US High Yield Index
Period ended October 31, 2022				
2 years	2.57	3.97	7.41	3.65
Period ended December 31, 2021				
5 years	2.41	3.78	7.67	3.70
10 years	2.84	4.28	8.22	4.29
15 years	3.91	5.39	9.46	5.58

KEY OBSERVATIONS

For the month of October 2022, the yield on the 5-year US Treasury Note ended at 4.23%, 14 basis points higher from the previous month. The Bloomberg US High Yield Index tightened by 88 basis points to 4.64% over Treasuries. The BB Rated Corporate Credit Spread decreased by 63 basis points to 2.91%. The B Rated Corporate Credit Spread tightened by 137 basis points to 4.82%. The CCC Rated Corporate Credit Spread decreased by 42 basis points to 11.79%.