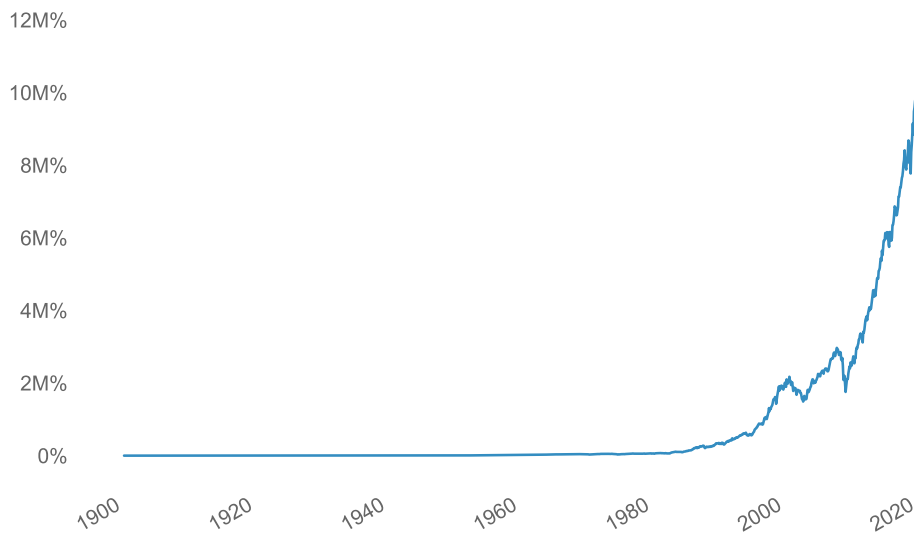


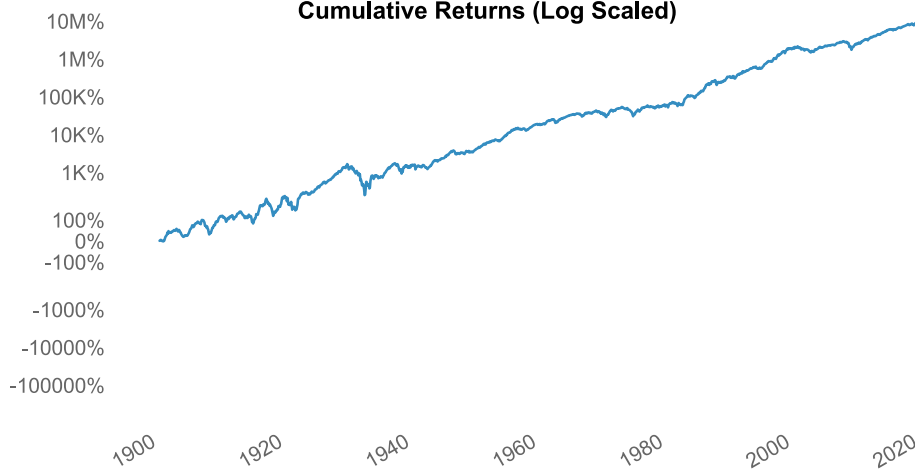
AssetAllocation_NTSX 31 Jan, 1900 - 31 Dec, 2020

Generated by [QuantStats](#) (v. 0.0.26)

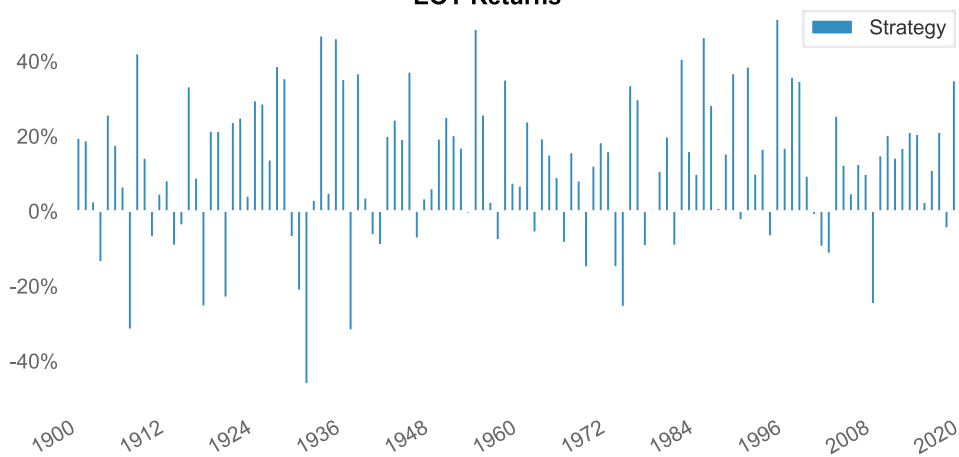
Cumulative Returns

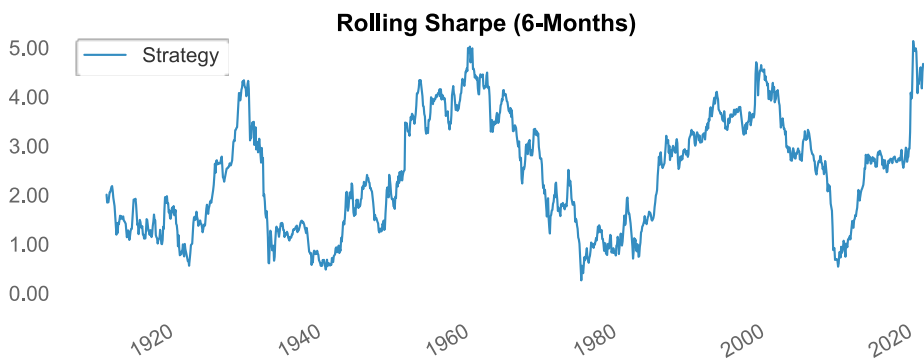
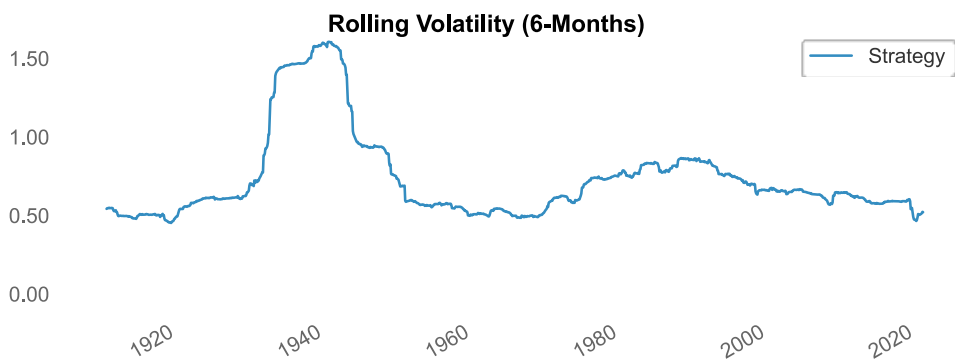
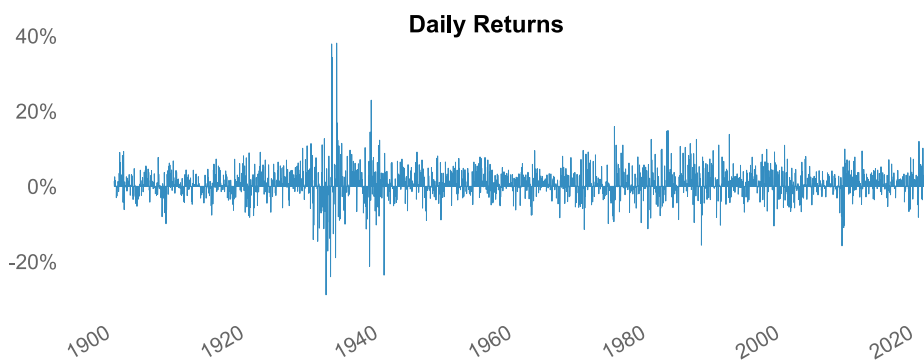
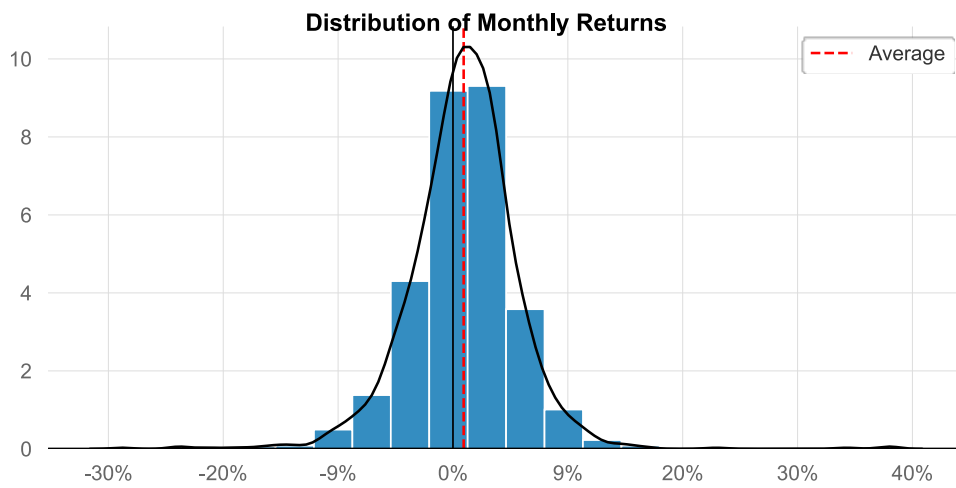


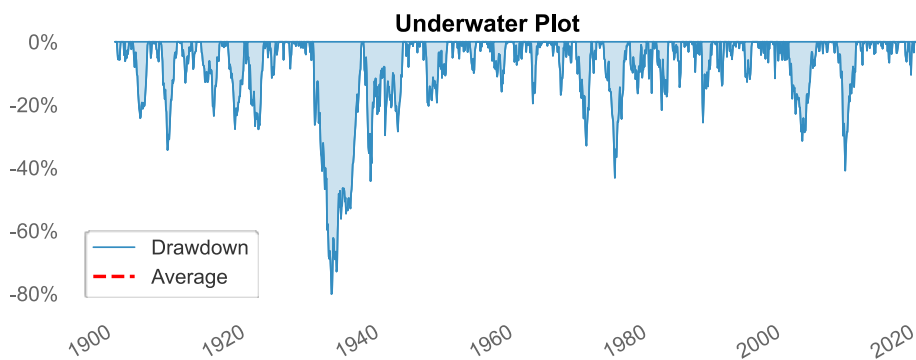
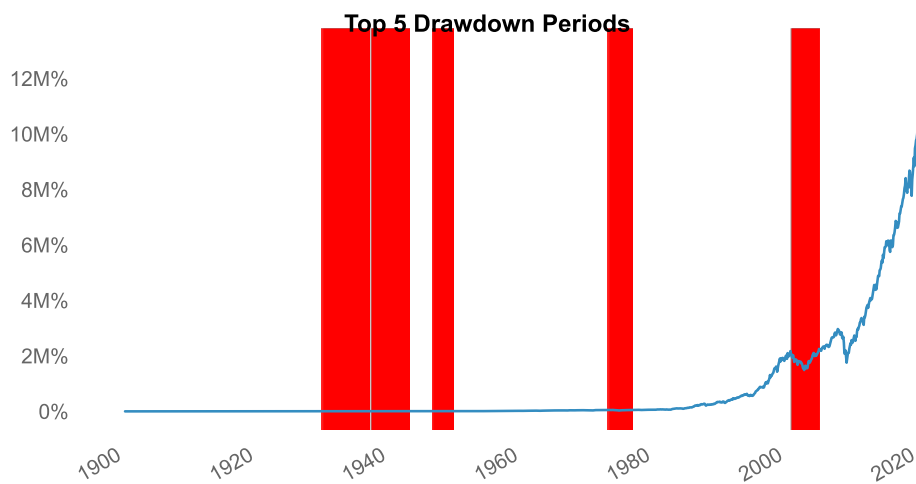
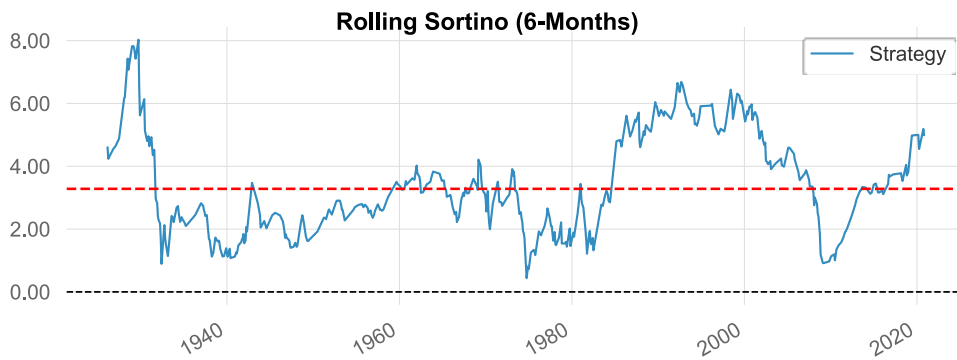
Cumulative Returns (Log Scaled)



EOY Returns







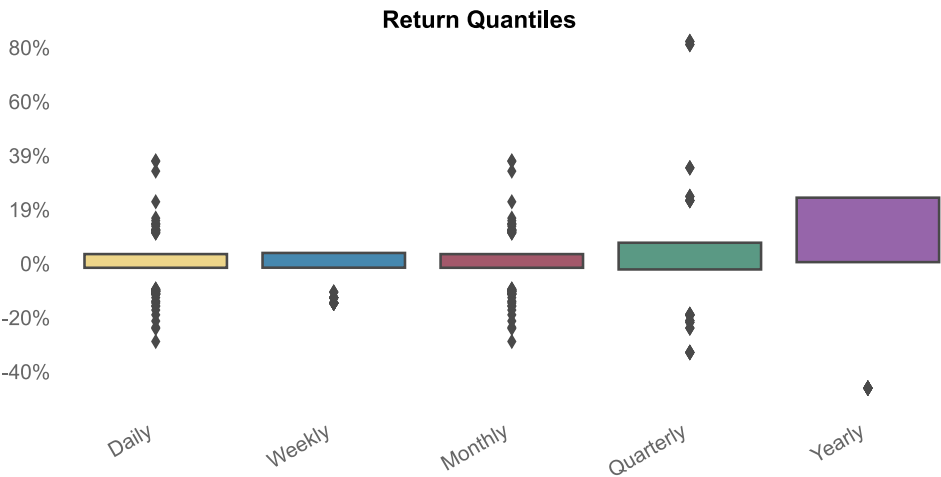
Monthly Returns (%)

1900	1.33	2.54	1.53	0.15	-3.01	-2.57	-0.15	1.32	-1.40	3.47	9.02	6.34
1901	2.97	2.92	3.08	8.18	-4.23	9.29	-6.17	1.19	0.14	-0.20	2.55	-1.26
1902	2.18	1.40	0.23	3.14	0.27	-2.36	0.35	3.12	2.83	-2.35	-3.48	-2.46

1903	4.73	0.38	-2.76	-4.56	-0.58	-5.29	-3.21	-3.42	-1.53	-2.60	0.59	4.30
1904	1.56	-2.38	0.04	2.34	-1.45	0.52	3.79	3.23	4.34	5.44	5.01	1.04
1905	2.12	4.61	3.74	-0.99	-4.19	1.57	2.94	4.19	0.99	1.37	-0.61	0.98
1906	3.35	-0.41	-1.96	-0.37	-2.47	0.96	-2.14	7.69	3.23	-0.52	0.23	-0.75
1907	-3.02	-2.20	-8.06	0.72	-2.83	-3.13	3.69	-7.00	-1.52	-9.93	-6.25	3.21
1908	4.15	-2.11	5.37	6.20	5.67	-0.30	3.45	4.36	-1.07	1.31	6.77	2.32
1909	0.48	-1.82	1.42	4.22	3.75	1.76	1.02	1.97	-0.34	0.59	-0.47	0.96
1910	-2.22	-2.43	2.10	-2.00	-0.84	-3.98	-4.30	3.15	1.15	4.37	0.73	-2.45
1911	2.43	3.08	-0.84	-0.43	1.74	2.24	-0.17	-3.94	-4.76	0.76	4.31	0.54
1912	0.39	0.20	3.05	3.29	0.50	0.24	0.30	2.58	0.81	-0.03	-0.15	-3.11
1913	-0.56	-2.25	-1.59	-0.10	-1.13	-4.43	-0.19	2.99	0.79	-3.13	-0.53	0.77
1914	4.57	2.24	-1.82	-2.48	1.35	-0.45	-5.15	-7.64	0.89	-4.68	4.37	5.92
1915	2.03	-0.29	3.14	7.27	-1.40	1.06	-0.94	5.42	3.08	4.95	4.23	0.92
1916	-1.40	0.29	0.26	-0.90	3.02	0.55	-1.42	1.76	4.11	3.06	2.57	-3.03
1917	-2.21	-3.67	1.61	-1.25	-3.43	1.64	-2.02	-1.68	-3.20	-4.80	-6.36	-3.37
1918	7.22	1.84	-2.90	1.32	1.08	3.01	0.01	2.38	-0.06	6.05	-1.00	1.05
1919	-1.47	3.49	1.59	6.11	8.12	-1.11	5.44	-6.89	2.77	7.59	-5.46	0.65
1920	-3.10	-7.80	8.91	-8.22	-5.61	1.81	-2.34	0.13	2.25	3.13	-7.78	-5.74
1921	5.91	-1.18	-1.44	2.33	-1.54	-5.09	3.30	-1.49	4.15	5.27	9.08	3.05
1922	0.27	3.89	4.43	5.71	5.31	-2.09	1.40	7.02	-1.46	0.94	-4.47	2.20
1923	0.30	5.73	-1.66	-0.58	-2.78	-6.88	2.05	1.78	-2.74	0.91	5.92	2.73
1924	3.64	-1.75	-2.42	1.44	1.72	4.13	6.47	0.33	1.28	1.45	5.45	4.82
1925	2.04	0.82	-5.72	5.08	5.49	1.47	2.59	0.61	2.48	6.99	-0.25	4.52
1926	0.75	-3.60	-5.13	3.81	1.02	4.19	1.67	4.27	1.97	-0.59	3.10	2.01
1927	-1.38	5.00	2.23	2.91	5.39	-1.30	6.23	4.36	3.19	-1.87	6.75	2.13
1928	-0.75	-1.23	10.14	4.00	0.45	-3.48	-0.56	7.10	1.78	3.62	10.77	-0.01
1929	4.30	-1.85	-1.52	4.67	-5.86	11.39	3.98	8.23	-4.42	-14.14	-10.30	1.61
1930	5.11	2.89	7.61	0.48	-0.64	-14.61	3.68	0.70	-11.09	-6.42	-1.57	-7.08
1931	3.66	11.04	-5.46	-6.58	-11.25	12.69	-6.69	1.15	-28.83	4.70	-9.01	-17.19
1932	-2.22	8.05	-9.50	-13.86	-24.02	2.43	37.85	34.25	-1.52	-12.60	-4.76	5.89
1933	1.95	-18.97	5.70	38.08	16.84	12.27	-8.07	10.76	-9.00	-8.67	8.46	1.17
1934	11.44	-2.73	2.58	-1.48	-6.37	2.47	-10.04	4.14	-0.25	-1.59	8.01	0.43
1935	-2.56	-2.19	-1.96	9.63	2.89	6.21	8.51	0.78	3.96	6.67	3.70	3.78
1936	6.15	2.36	4.19	-6.71	4.46	3.50	6.00	1.62	0.90	7.12	1.87	-0.17
1937	3.72	1.72	-1.90	-7.07	-1.03	-4.47	10.29	-5.35	-11.34	-8.66	-8.67	-2.89
1938	2.69	6.68	-21.26	14.44	-3.68	22.91	6.91	-2.05	2.71	7.70	-2.65	3.76
1939	-6.54	3.89	-10.27	0.76	6.35	-5.49	10.86	-7.91	12.28	1.71	-2.75	3.57
1940	-3.11	0.31	3.50	-0.09	-23.59	8.79	3.80	2.78	3.05	4.01	-2.62	0.66
1941	-3.69	-1.28	1.87	-4.66	0.85	6.15	6.35	-0.60	-0.33	-5.17	-3.41	-4.61
1942	2.01	-2.61	-4.27	-3.59	6.70	2.30	3.29	1.28	2.98	6.46	-0.79	5.42
1943	7.26	5.02	5.12	0.69	4.84	2.31	-4.54	1.28	2.62	-0.84	-6.50	5.77
1944	1.89	0.52	2.02	-0.69	4.14	5.01	-1.40	1.45	0.13	0.42	0.83	3.57
1945	2.64	6.38	-3.41	9.12	1.44	0.42	-1.58	5.76	4.36	3.49	3.61	0.50
1946	7.02	-5.78	4.66	2.80	2.31	-2.98	-2.19	-6.57	-9.04	-0.11	-1.12	4.89
1947	2.77	-0.74	-1.05	-3.18	-0.29	4.99	3.80	-1.96	-1.12	1.81	-2.72	1.39
1948	-3.06	-3.61	7.47	2.97	8.08	0.17	-4.53	1.07	-2.03	6.34	-8.93	3.50
1949	1.01	-2.97	3.53	-1.25	-2.74	0.86	6.48	2.07	2.46	3.27	0.69	4.84
1950	1.51	1.34	0.81	4.32	4.03	-5.06	1.39	3.54	5.38	0.62	0.34	4.84
1951	6.44	0.79	-2.01	4.32	-3.62	-1.79	7.42	4.80	-0.40	-0.90	0.04	4.20
1952	1.95	-3.09	4.82	-2.67	2.81	4.42	1.73	-1.36	-1.93	1.26	4.75	3.50
1953	-0.86	-1.61	-2.04	-2.35	-1.09	-1.32	3.92	-4.84	1.13	6.48	1.19	1.25
1954	5.83	0.84	3.82	5.41	2.96	0.49	6.09	-2.98	7.82	-1.61	7.41	4.81

	0.50	0.51	0.52	0.53	0.54	0.55	0.56	0.57	0.58	0.59	0.60	0.61
1955	1.41	0.50	-0.15	3.28	0.22	7.68	5.13	-0.78	1.37	-1.85	7.02	-0.20
1956	-2.92	3.81	5.87	-1.17	-4.93	4.31	4.33	-4.41	-4.04	1.05	-1.55	2.91
1957	-3.43	-1.91	1.71	3.26	2.95	-0.94	0.61	-4.72	-5.17	-2.81	3.31	-0.30
1958	5.00	-1.19	3.64	3.88	1.55	2.48	2.96	-0.54	3.43	2.41	2.70	4.32
1959	0.68	0.66	0.21	3.09	0.95	-0.17	3.14	-1.24	-5.22	2.18	1.47	1.87
1960	-6.28	2.46	0.49	-1.39	2.38	3.31	-0.41	3.29	-5.07	-0.34	3.78	5.06
1961	6.04	3.09	2.86	0.45	2.45	-3.22	3.05	1.42	-1.09	3.24	3.75	-0.08
1962	-3.32	2.36	0.59	-5.27	-7.64	-7.59	5.87	2.19	-3.87	0.89	9.51	1.95
1963	4.64	-2.67	3.47	4.70	1.55	-1.73	-0.00	4.58	-0.98	2.75	-0.25	2.10
1964	2.67	1.01	1.38	0.90	1.50	2.00	1.71	-1.28	3.05	1.13	-0.42	0.57
1965	3.38	-0.04	-0.93	3.30	-0.54	-3.93	1.39	2.03	2.71	2.40	-0.91	0.11
1966	0.70	-3.11	0.04	1.69	-4.65	-2.07	-1.34	-8.35	1.56	4.86	-0.23	2.85
1967	8.01	-0.62	5.08	2.61	-4.55	-0.29	4.75	-1.33	3.06	-4.06	-0.12	2.90
1968	-2.76	-2.60	0.11	7.66	0.78	2.29	-0.03	1.16	3.39	0.29	3.70	-5.48
1969	-0.62	-4.35	3.20	2.76	-1.74	-5.57	-4.78	3.04	-5.33	7.16	-4.55	-4.31
1970	-5.90	9.56	-0.43	-11.44	-5.73	-2.69	8.58	3.87	4.53	-0.91	9.14	5.46
1971	6.21	0.99	6.97	0.83	-4.91	-1.21	-4.12	6.65	1.20	-2.72	-0.17	8.37
1972	1.00	2.61	0.82	0.68	2.25	-1.97	0.75	1.92	-0.70	1.87	5.28	0.55
1973	-1.91	-3.58	-0.30	-3.22	-2.58	-0.38	1.24	-2.17	5.69	1.11	-9.89	0.72
1974	-1.11	-0.07	-3.77	-4.46	-2.00	-1.53	-7.83	-8.83	-9.37	15.91	-3.60	-0.15
1975	10.97	6.26	-0.15	3.36	5.81	4.85	-6.78	-1.52	-3.87	8.87	1.63	1.33
1976	10.98	-0.40	3.78	-0.56	-2.22	4.64	-0.25	0.99	3.05	-0.88	1.83	6.20
1977	-6.91	-1.69	-0.59	0.40	-1.27	5.48	-2.03	-0.72	-0.37	-4.43	3.29	-0.34
1978	-5.79	-2.15	2.29	7.84	0.07	-1.99	5.69	3.63	-0.99	-9.65	2.44	0.46
1979	4.98	-3.84	5.70	-0.47	-0.59	5.11	0.34	4.18	-0.48	-11.28	5.81	2.13
1980	2.19	-6.25	-8.43	12.50	7.03	3.71	3.64	-2.17	1.48	-0.52	8.54	-1.52
1981	-4.77	-1.23	4.92	-5.35	2.62	-1.85	-2.71	-7.79	-5.80	9.68	9.91	-5.25
1982	-1.57	-4.42	-0.87	5.44	-2.25	-3.89	1.64	14.70	5.83	14.86	3.52	3.74
1983	1.78	4.52	2.06	8.76	-2.82	3.08	-5.65	0.69	3.71	-2.00	2.58	-1.01
1984	0.35	-4.41	-0.14	-0.05	-8.83	2.52	2.86	10.63	1.53	3.37	0.10	2.76
1985	8.84	-1.65	1.42	1.19	10.38	1.78	-1.23	0.72	-2.69	5.68	8.21	7.15
1986	0.33	11.37	8.70	-0.85	1.85	5.02	-4.85	8.70	-9.61	5.89	3.24	-2.54
1987	12.49	3.65	1.25	-3.82	-0.31	5.25	3.47	2.01	-4.56	-15.62	-7.66	7.81
1988	6.67	4.86	-4.45	-0.16	-0.50	6.08	-1.52	-3.47	5.75	3.66	-3.01	1.33
1989	7.29	-3.54	2.29	6.07	5.67	1.93	9.52	-0.18	-0.51	-0.17	2.29	1.83
1990	-8.23	0.89	1.84	-3.92	10.99	0.31	0.16	-10.31	-4.03	0.57	7.82	3.52
1991	4.32	6.65	2.22	0.55	3.89	-4.77	4.59	4.16	0.38	1.40	-2.98	13.84
1992	-4.31	1.59	-2.84	2.56	2.09	-0.15	6.05	-1.11	2.57	-1.58	2.56	2.61
1993	2.56	3.33	2.11	-2.07	2.04	2.36	-0.33	5.61	-0.26	1.87	-2.75	1.28
1994	3.93	-4.57	-6.85	-0.11	1.12	-2.85	4.29	3.52	-4.15	1.27	-3.60	1.87
1995	3.71	5.61	2.89	3.45	7.78	2.65	1.85	1.22	4.47	0.50	5.45	2.76
1996	3.04	-1.78	-0.10	-0.18	1.49	1.11	-4.20	1.23	6.46	4.44	8.54	-3.56
1997	5.24	0.68	-5.39	6.55	5.89	4.99	9.86	-6.58	6.20	-1.44	4.15	2.20
1998	2.23	6.09	4.43	0.94	-0.83	4.36	-1.20	-10.53	9.15	6.32	4.98	5.72
1999	3.76	-5.99	3.90	3.00	-3.49	4.21	-3.27	-0.65	-1.94	5.17	1.10	4.03
2000	-5.59	-0.25	10.93	-3.66	-2.07	3.65	-1.41	7.26	-5.08	-0.20	-5.53	2.39
2001	1.59	-6.66	-5.68	4.85	0.31	-2.00	1.17	-4.30	-5.73	3.54	4.49	-0.57
2002	-1.10	-0.49	0.72	-3.53	-0.29	-5.00	-4.88	2.83	-6.75	6.42	3.89	-2.92
2003	-3.12	0.50	0.35	7.24	7.95	0.33	-3.45	2.19	2.09	3.21	0.94	5.32
2004	2.48	2.42	-0.43	-4.93	0.72	2.18	-2.10	2.67	1.07	2.03	2.03	3.89
2005	-1.50	0.76	-2.26	0.07	4.16	0.55	1.50	0.74	-1.00	-2.73	3.93	0.66

2006	1.64	0.17	-0.57	0.09	-2.82	0.00	1.50	3.60	2.92	3.12	2.58	-0.12
2007	0.71	-0.20	0.52	4.12	1.66	-2.18	-1.33	2.79	3.16	2.13	-0.71	-0.96
2008	-3.12	-2.00	0.21	2.71	-0.34	-7.05	-0.60	2.37	-7.96	-15.80	0.24	5.18
2009	-10.97	-10.32	9.93	6.13	3.39	0.02	7.06	4.16	4.09	-2.07	6.79	-1.77
2010	-1.70	3.11	4.29	2.53	-4.69	-2.47	6.65	-1.03	7.81	2.97	-0.91	2.86
2011	1.73	3.64	-0.01	3.70	1.35	-2.86	0.78	-0.59	-4.80	9.41	-0.68	2.38
2012	4.50	3.06	1.53	1.14	-2.80	3.30	2.36	1.73	1.91	-2.01	1.25	-0.09
2013	3.27	2.15	3.61	2.92	-0.62	-3.30	4.23	-3.57	3.86	4.73	1.78	0.66
2014	-0.60	4.33	0.47	1.20	3.46	1.69	-1.41	5.20	-2.18	3.41	3.63	-0.04
2015	0.57	3.11	-0.74	0.29	0.84	-3.04	2.96	-5.37	-1.15	7.08	0.07	-1.67
2016	-2.25	1.24	5.95	0.13	1.64	2.56	3.58	-0.56	-0.03	-3.06	0.18	1.39
2017	1.82	4.24	-0.04	1.70	1.84	0.03	2.00	1.47	0.65	1.87	2.60	1.19
2018	3.29	-4.15	-1.40	-0.86	2.99	0.50	2.75	3.61	-0.58	-6.70	2.76	-6.10
2019	7.61	2.31	3.77	3.05	-3.39	7.23	1.18	1.87	0.57	1.66	2.98	1.89
2020	2.57	-4.89	-8.22	11.96	4.25	1.76	5.82	5.40	-3.19	-3.58	10.16	2.93
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



Key Performance Metrics

Metric	Strategy
Risk-Free Rate	0.0%
Time in Market	100.0%
Cumulative Return	13,160,750.33%
CAGR%	10.23%
Sharpe	3.06

Metric	Strategy
Sortino	4.94
Max Drawdown	-80.12%
Longest DD Days	2680
Volatility (ann.)	76.68%
Calmar	0.13
Skew	0.3
Kurtosis	8.62
Expected Daily %	0.82%
Expected Monthly %	0.82%
Expected Yearly %	10.23%
Kelly Criterion	25.45%
Risk of Ruin	0.0%
Daily Value-at-Risk	-7.01%
Expected Shortfall (cVaR)	-7.01%
Payoff Ratio	1.1
Profit Factor	1.72
Common Sense Ratio	2.04
CPC Index	1.15
Tail Ratio	1.19
Outlier Win Ratio	3.31
Outlier Loss Ratio	3.38
MTD	2.93%
3M	5.84%
6M	18.06%
YTD	25.54%
1Y	25.54%
3Y (ann.)	17.81%
5Y (ann.)	16.37%
10Y (ann.)	16.11%
All-time (ann.)	10.23%
Best Day	38.08%
Worst Day	-28.83%
Best Month	38.08%
Worst Month	-28.83%
Best Year	51.29%
Worst Year	-46.11%
Avg. Drawdown	-6.96%
Avg. Drawdown Days	202
Recovery Factor	164261.1
Ulcer Index	1.0
Avg. Up Month	3.66%
Avg. Down Month	-3.34%
Win Days %	61.02%
Win Month %	61.02%
Win Quarter %	67.56%
Win Year %	75.21%

EOY Returns

Year	Return	Cumulative
1900	18.57%%	19.47%
1901	18.48%%	18.87%
1902	2.87%%	2.58%
1903	-13.94%%	-13.57%
1904	23.48%%	25.75%
1905	16.72%%	17.66%
1906	6.84%%	6.58%
1907	-36.31%%	-31.57%
1908	36.12%%	42.09%
1909	13.52%%	14.21%
1910	-6.71%%	-6.92%
1911	4.96%%	4.65%
1912	8.08%%	8.21%
1913	-9.35%%	-9.15%
1914	-2.87%%	-3.81%
1915	29.47%%	33.28%
1916	8.85%%	8.94%
1917	-28.73%%	-25.47%
1918	20.0%%	21.43%
1919	20.82%%	21.38%
1920	-24.36%%	-23.08%
1921	22.35%%	23.71%
1922	23.15%%	24.95%
1923	4.78%%	4.12%
1924	26.55%%	29.51%
1925	26.11%%	28.71%
1926	13.47%%	13.78%
1927	33.63%%	38.68%
1928	31.84%%	35.45%
1929	-3.91%%	-6.86%
1930	-20.95%%	-21.18%
1931	-51.75%%	-46.11%
1932	19.99%%	2.97%
1933	50.51%%	46.85%
1934	6.61%%	4.85%
1935	39.42%%	46.09%
1936	31.29%%	35.19%
1937	-35.65%%	-31.82%
1938	38.14%%	36.72%
1939	6.46%%	3.61%
1940	-2.51%%	-6.36%
1941	-8.55%%	-9.02%
1942	19.2%%	20.07%
1943	23.02%%	24.42%
1944	17.89%%	19.2%
1945	32.73%%	37.24%
1946	-6.11%%	-7.26%
1947	3.69%%	3.37%
1948	7.45%%	6.08%

Year	Return	Cumulative
1949	18.25%%	19.33%
1950	23.06%%	25.11%
1951	19.3%%	20.24%
1952	16.19%%	16.9%
1953	-0.14%%	-0.64%
1954	40.91%%	48.56%
1955	23.63%%	25.73%
1956	3.27%%	2.46%
1957	-7.44%%	-7.67%
1958	30.63%%	35.08%
1959	7.62%%	7.59%
1960	7.28%%	6.79%
1961	21.95%%	23.89%
1962	-4.32%%	-5.71%
1963	18.21%%	19.37%
1964	14.2%%	15.07%
1965	8.97%%	9.06%
1966	-8.04%%	-8.41%
1967	15.44%%	15.69%
1968	8.5%%	8.15%
1969	-15.09%%	-14.96%
1970	14.04%%	12.13%
1971	18.09%%	18.36%
1972	15.07%%	15.96%
1973	-15.27%%	-14.92%
1974	-26.83%%	-25.52%
1975	30.75%%	33.57%
1976	27.14%%	29.85%
1977	-9.17%%	-9.31%
1978	1.85%%	0.56%
1979	11.59%%	10.68%
1980	20.2%%	19.86%
1981	-7.62%%	-9.19%
1982	36.73%%	40.59%
1983	15.71%%	15.98%
1984	10.68%%	9.92%
1985	39.8%%	46.39%
1986	27.25%%	28.3%
1987	3.97%%	0.82%
1988	15.26%%	15.37%
1989	32.48%%	36.78%
1990	-0.4%%	-2.4%
1991	34.24%%	38.55%
1992	10.03%%	10.0%
1993	15.75%%	16.6%
1994	-6.12%%	-6.69%
1995	42.35%%	51.29%
1996	16.49%%	16.89%
1997	32.34%%	35.76%
1998	31.64%%	34.69%
1999	9.83%%	9.44%

Year	Return	Cumulative
2000	0.45%%	-1.01%
2001	-8.98%%	-9.48%
2002	-11.1%%	-11.33%
2003	23.56%%	25.43%
2004	12.05%%	12.36%
2005	4.89%%	4.74%
2006	12.1%%	12.58%
2007	9.72%%	9.93%
2008	-26.16%%	-24.74%
2009	16.44%%	14.87%
2010	19.41%%	20.31%
2011	14.05%%	14.21%
2012	15.88%%	16.81%
2013	19.71%%	21.07%
2014	19.18%%	20.58%
2015	2.94%%	2.42%
2016	10.78%%	10.97%
2017	19.39%%	21.12%
2018	-3.88%%	-4.55%
2019	30.76%%	34.89%
2020	24.98%%	25.54%

Worst 10 Drawdowns

Started	Recovered	Drawdown	Days
1929-09-30	1937-01-31	-80.12%	2680
1937-03-31	1943-01-31	-44.25%	2132
1973-01-31	1976-09-30	-43.20%	1338
2007-11-30	2010-10-31	-40.91%	1066
1906-10-31	1909-04-30	-34.39%	912
1968-12-31	1971-03-31	-32.97%	820
2000-09-30	2004-12-31	-31.48%	1553
1919-11-30	1922-04-30	-27.80%	882
1916-12-31	1919-05-31	-27.73%	881
1987-09-30	1989-04-30	-25.64%	578