

Practical Aspects of Data Science

Project 4

Team Members:

1. Poonam Gillurkar - PXG180009
2. Pawan Patil - PXP180029
3. Dawson Nazareth - DVN170002

Topic:

Financial Strategy Evaluation

Table indicating how much money would be accumulated at the end of each year according to both strategies.

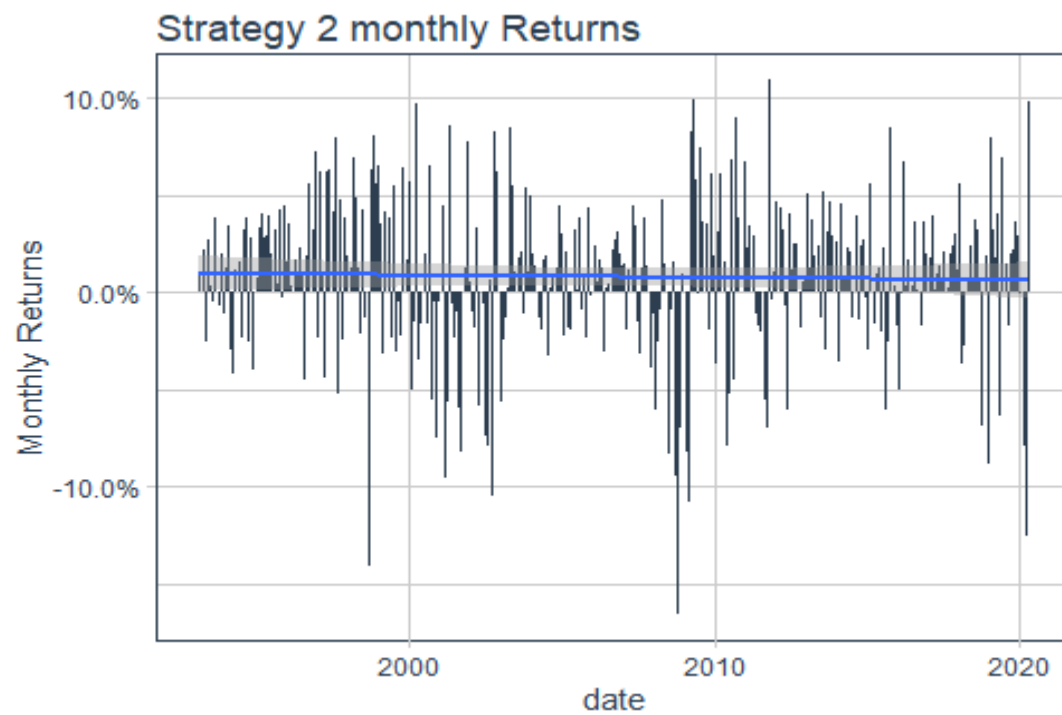
Date	strategy1_invstmt_growth	strategy2_invstmt_growth
12-31-1993	13045.09	12226.04
12-30-1994	25144.6	25113.73
12-29-1995	51277.73	48783.61
12-31-1996	77513.6	73294.73
12-31-1997	119478.5	111675
12-31-1998	169202.9	172183.8
12-31-1999	218148.9	225815.9
12-29-2000	207729	247876.2
12-31-2001	193892	259876.2
12-31-2002	161450.9	280622.4
12-31-2003	222332.2	387336.9
12-31-2004	259400.9	450722.5
12-30-2005	284504.9	494127.6
12-29-2006	343486.8	585614.4
12-31-2007	373781	634956
12-31-2008	243832.9	646956
12-31-2009	323249.3	805509.5
12-31-2010	385725	1126754
12-30-2011	405261.8	1181545
12-31-2012	483983.4	1383125
12-31-2013	656224.6	1843923
12-31-2014	758192.9	2105169
12-31-2015	779699.4	2382939
12-30-2016	886686.6	2824102
12-29-2017	1093750	3450476
12-31-2018	1055228	3891660
12-31-2019	1400458	5064238
4-24-2020	1249095	5066193

Plot

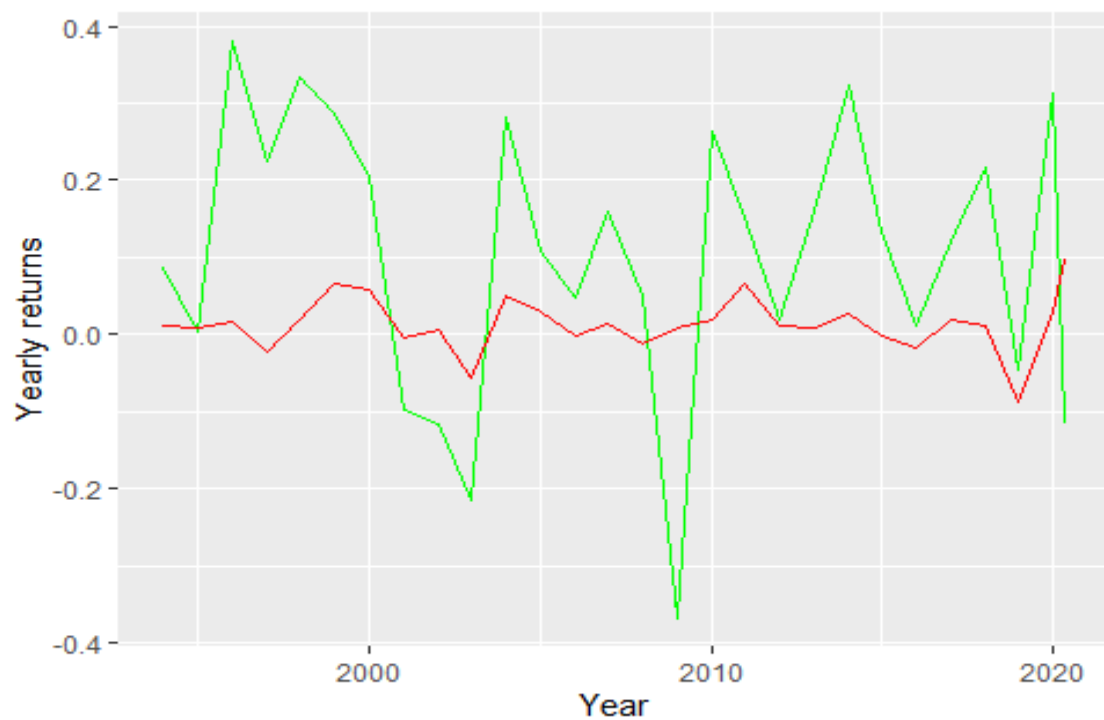
- indicating yearly returns of strategy 1 over 30 years



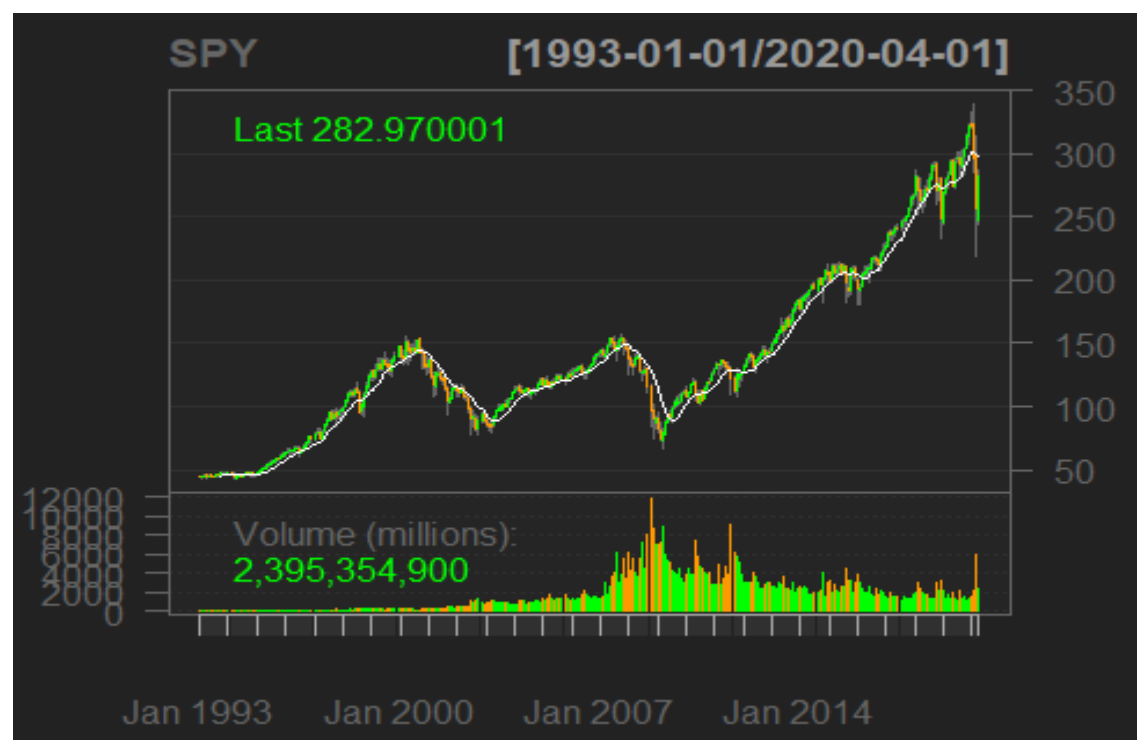
- indicating monthly returns of strategy 2 over 30 years



- indicating yearly returns of both strategies over 30 years with strategy 1 in green and strategy 2 in red



- indicating SMA of SPY over 30 years



Total money accumulated at the of 30 years using

- strategy 1 = \$1249094.71
- strategy 2 = \$5066192.90

Conclusion

Clearly, after looking at the investment growth over 30 years, we can see that strategy 2 proved to be much more profitable than strategy 1. As we looked at the TTR (SMA), we were expecting strategy 2 to be better as the return every month looked to be good and we expected this to give us a good profit. However, the margin by which the total amount accumulated in each strategy differed did surprise us. In conclusion, we can say that in this case, it was better to buy or sell the stock based on the technical indicator on a month to month basis rather than always investing the same amount regardless of indicators.