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# How To Beat The Market By 45% With Lower Risk

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| includes: [SPY](#), [TLT](#)

**Disclosure:** I am short [SPY](#). ([More...](#))

This article shows how to beat the S&P 500 results by 3.17% annually on average, with lower risk and just two trades per year. This represents a 45% higher return than the S&P 500 buy-and-hold strategy.

Previously, I wrote an article about how to increase long-term investment returns and decrease risk using [natural hedging](#). Today, I would like to continue in that series and show you another simple way to improve average returns. It involves making just 2 trades per year, which makes this strategy as close to buy-and-forget as possible. Also, it involves just two very broad-based and well-known US tickers. The strategy involves the S&P 500 ETF ([SPY](#)) and the US 20+ year Treasury ETF ([TLT](#)), both highly liquid and well-known securities.

This article expands on the simple advice in my previous article which I wrote a few days ago, on how to take advantage of the [Sell in May](#) effect. If you are interested in the numbers behind the effect and simple long-term investor tips how to take advantage, you are welcome to read it.

To sum up the Sell in May effect very briefly, statistics show that the average return from holding SPY from November 1 until April 30 is 6.46% higher than the average return from holding it from May 1 until October 31. This winter-summer difference is even higher for the world equity index, around 10%. Even better, for the Russian index, the difference has been 25% on average for the past 10 years.

This sounds great, right? Yes. Until you realize that what the numbers which the study reveals describe, is just the difference between winter and summer gains. You cannot just multiply this number by two to get the annual positive difference in returns. Why? Because you cannot have two winters per year. You cannot just take the great winter results for the period of November until April and multiply by two. You are only staying in the market for 6 months and staying in cash or Treasuries the other weak half. What are you going to do during this weak period? You cannot achieve the same spectacular results as in the winter unless you want to take leverage or other excessive risks, which would make the investments incomparable. You can of course leverage your investments during the strong winter months, however, again, this is adding more risk to your strategy, and is not comparable with an unleveraged approach, although it yields even better results.

What is even more intriguing about the Sell in may effect is that it applies to many different asset classes, including Treasuries. However, in Treasuries, the effect is exactly the opposite as in equities. In the period, when equities underperform, Treasuries outperform. To be more specific, there is a term premium in the May-Oct season, when the long-term 20+ year Treasuries outperform the short-term 1-month bills. The difference is 3.08% between the summer and winter 6-month period.

I recommend playing it safe and staying with the US S&P index, although the brave can implement it with the world equity index, or the Russian equity index for much higher returns. However, there is more risk involved.

How does this strategy work for the US S&P 500 index?

A normal long position is held in the S&P 500 ETF SPY. Every year at the end of April, this position is sold and replaced by the position in the 20+ year US Treasuries ETF TLT, which is then held until the end of October. Then sold back to the SPY. Rinse and repeat every year. This SPY-TLT strategy was fully described and analyzed in the very recent academic [paper](#) from 2012.

I decided to do my own real-world realistic calculations based on this strategy. The calculation is based on my own computations using real market data. I included dividends, dividend reinvestment, plus trading and spread fees. My calculations reveal that this simple SPY-TLT strategy outperformed the buy-and-hold SPY strategy by 3.17% annually on

average over the past ten years. That represents a 45% increase in the average annual return over the SPY benchmark. The SPY returned on average 7.02% p.a. including dividends. The TLT yielded 2.97% and the SPY-TLT strategy 10.19% p.a.

	Total % gain incl. dividend	10-year CAGR incl. dividends
SPY	97.37%	7.02
TLT	37.94%	2.97
buy and hold	97.37%	7.02
SPY-TLT	164.97%	10.19
% difference		45.16%
Absolute % difference		3.17

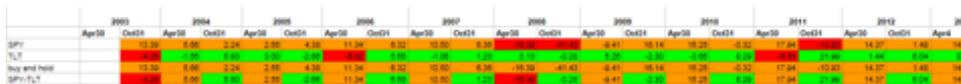
For detailed calculations, if you are interested, please see below:



(click to enlarge)

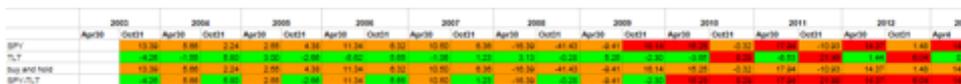
Please note that unlike the academic study from 2012, my calculations compare the actual compound annual growth rates, not the average returns for the specific periods. Therefore, my calculations are lower than if I had used the average returns comparison. In other words, my calculation is more precise, more conservative and reflects the values that are relevant for real world investing.

The most crucial point to take away from the above chart and results is the fact that this strategy has managed to dodge the most biting bullets of the last ten years. The strategy also managed to rake rewards for most of the best performing periods in the last ten years. Let's have a look at the worst performing periods first:



(click to enlarge)

As you can see above, we managed to be on the other side of the trade on two occasions out of three worst falls in the SPY, and also on two occasions out of the three worst performing TLT periods in the last ten years. We also managed to skip the single highest drop in the SPY, the 41.43% nosedive between April 30 and October 31, 2008. Let's have a look at the best performers:



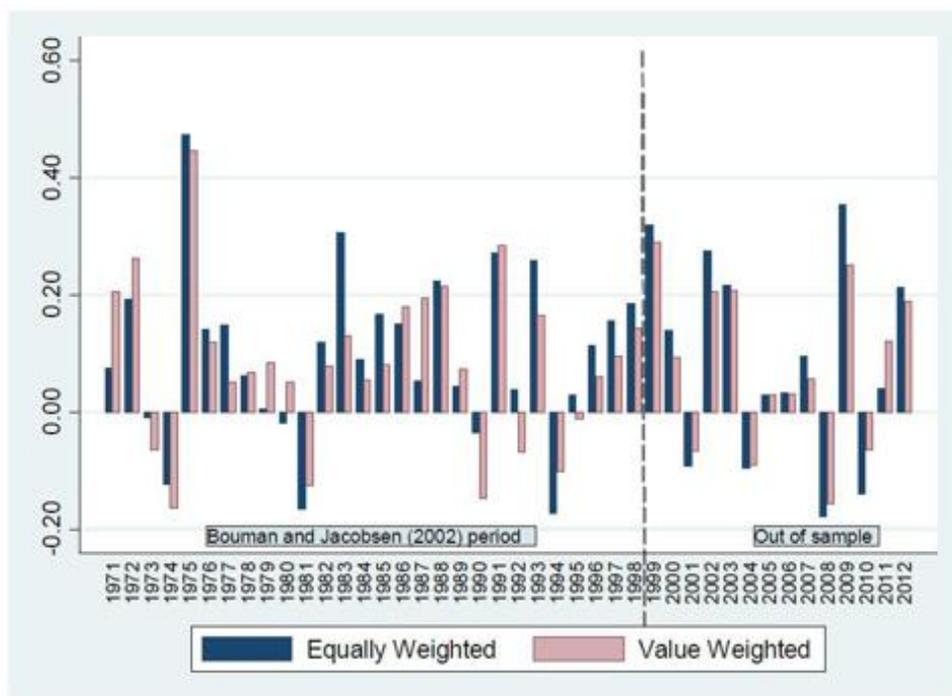
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Similarly, with even more impressive success rate, we managed to be on the right side of the trade in case of the best performing periods. We were correctly positioned in four out of the five best performing SPY rallies, and all three out of the three occasions where the TLT performed the best. Needless to say, we took part in the strongest rally of the past ten years, between October 31, 2010 and April 30, 2011.

**This was the past. But will it work in the future?**

This is the million-dollar question of course. I strongly believe there are fundamental reasons behind the Sell in may effect such as the higher risk-aversion across asset classes in the summer period. I am almost sure the effect will keep working in the future. Perhaps the absolute number by which it outperforms the SPY might decrease due to lower future expectations for the SPY return or its dividend return. However, the percentage outperformance over the SPY is likely to

stay the same. The following chart shows how the phenomenon has worked over the past 42 years:



(click to enlarge)

From this chart, you see that there has been no significant change in the frequency or magnitude of the phenomenon. For example, it has occurred in ten years out of last fourteen years and two times in the last three years with strong magnitude.

### Recommendation

My recommendation is to devote 50% of the budget which you have allocated to equities asset class to this active SPY-TLT strategy. Alternatively, if you already devote part of your equity exposure to index funds, I suggest you start performing the SPY-TLT strategy on these funds, in order to improve your returns substantially.

If you wish to amplify the advantage offered by this Sell in May seasonal effect without investing in the world index or Russian index, you can apply dynamic asset allocation based on seasonality. If you hold a higher percentage of your portfolio in equities over the strong winter months of November to April, and keep the share of equities lower in the remaining weak months of May to October, you can significantly increase this effect of seasonality, in exchange for higher risk during the period when you are more exposed to equities. You can experiment with your own portfolio allocation to achieve an optimal balance between higher return versus acceptable equities risk exposure.

### Conclusion

This simple market-timing strategy based on the Sell in May phenomenon requires you to be invested in the SPY from October 31 until April 30 and then invested in the TLT from May 1 until October 30 every year. The ability of the SPY-TLT strategy to identify and exploit a suitable timeframe which happens to dodge the worst drops and follow the best rallies, is what makes this strategy perform so strongly, well above the SPY average buy-and-hold passive strategy. The 3.17% average annual outperformance of the SPY in the last ten years is remarkable. It represents a 45% increase of the average return over the SPY. Without increased risk, leverage, or any other inconvenience. Apart from the need to make two simple trades per year on highly liquid ETFs.