The One Percent a Week Stock Trading Program - Part V

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Part V of this series tries to answer why and how this **One Percent Per Week** strategy works and why it is expected to continue doing so. This program is technically playing a 3x-leveraged QQQ, thereby increasing its potential return and volatility by a factor of three. The strategy is leveraging the top 100 companies on NASDAQ, and they are not going bankrupt any time soon.

The **One Percent Per Week** program says it all. Its math expectancy and objective are simple. That 1% per week is a 67.7% CAGR: $(1 + 0.01)^{52} = 1.6777$. Over the long term, it would be almost impossible to achieve by following conventional 60/40 investment portfolios.

IF, based on whatever your short-term trading activities, you could get close to those results, you should be more than satisfied with your achievement. Currently, only a few might get close to that level. But things are changing. Skills and trading methods are improving all the time. Simple and brilliant methods are out there to help you achieve your goals.

The **One Percent Per Week** program is a simple trading strategy. You could execute it by hand in a few minutes a week. You could achieve a 50% CAGR for mostly sitting it out. One decision on Mondays, and possibly another on Fridays. In between, you let your limit order wait for its profit target exit. The trading script is simple enough that you could program it in most computer languages.

The stock market can offer its long-term average return ≈10% over 20 to 50 years. However, we do have examples of investors doing better. For instance, Mr. Buffett has had a 20% CAGR for over 50+ years. Therefore, a 20% long-term CAGR is doable. And if you look at the Medallion Fund, it has reached an overall 63% CAGR, with a net of expenses return of 39% over 30+ years. Medallion has a 4/44 fee structure. These are commendable results. Where do you sign in? Unfortunately, the Medallion Fund is a closed-end fund, a kind of private club for RenTech senior executives, so you might not get an invitation.

The question becomes: How about you? What are you going to do? So, it's back to you, your aspirations, and what you are ready to do to make your goals your new reality.

Your Choices

It is all a matter of choice. At what level do you aspire your long-term return to be? More importantly, what level can you achieve and maintain?

No matter your perception of the world in the coming years, you should ask the question: What if none of the doomsday speculations happen? No real climate change, no nuclear wars, no man-made pandemics, and no world-wide famines. You would still have destructive natural disasters: forest fires, volcanoes, seasonal storms, tornadoes, hurricanes, and tsunamis. All natural phenomena that you are absolutely powerless to stop or control. It leads to the other question:

> What if you did not prepare adequately for your retirement? You had years to think about it, and you also knew you should have known that you needed to prepare not only for yourself but also for your family.

The only excuse you could have is that you never had enough money to put some of it aside, like living paycheck to paycheck, barely getting by. Regardless, you will have to change your perspective, and you better do it early because that retirement date is coming, and it is coming faster than you think. The benefits of compounding require time.

So, back to you and what you could do, we could make all kinds of generalizations, but let's address the primary concerns. You could add your refinements later.

- How many years do you have before retirement?
- How much capital can you put toward your investment/retirement plan?
- How much of your time can you put on that project?
- How much should you know before you even start?
- Should you delegate that job to someone else?
- Could you do it all yourself?

These are worthwhile questions where you need to find a balance between available time, long-term objectives, and capital constraints. But overall, it is a job you can do yourself, even with little effort or knowledge.

The following table offers choices. The equation for it is $F(t) = F_0 \cdot (1 + \bar{g})^t$, where $\bar{g}$ is the growth rate you can achieve or aspire to over your investment period (from 5 to 50 years). For good measure, the impact of inflation is also included, not at high levels, but at levels we have seen in recent years. The table shows the value of $\$1.00$ invested at the CAGR rate for the number of years shown. Ex.: 10% per year for 20 years will give 6.72 times the original stake.

What the table gives is the long-term impact of compounding rates of return. It says that if inflation averages 5% over the next 50 years, your original $\$1.00$ would be worth $\$0.07$.

CAGR	5	10	15	20	25	30	35	40	45	50	Examples
-5%	0.77	0.60	0.46	0.36	0.28	0.21	0.17	0.13	0.10	0.07	Inflation -5%
-3%	0.86	0.74	0.63	0.54	0.47	0.40	0.34	0.29	0.25	0.22	Inflation -3%
5%	1.27	1.63	2.08	2.65	3.39	4.32	5.51	7.04	8.98	11.46	Savings Account
10%	**1.61**	**2.59**	**4.17**	**6.72**	**10.83**	**17.45**	**28.10**	**45.26**	**72.89**	**117.39**	SPY, DIA, Index Funds
15%	2.01	4.04	8.14	16.36	32.92	66.21	133.17	267.86	538.77	1,083.66	QQQ, Hedge Funds
20%	2.49	6.19	15.41	38.34	95.39	237.37	590.67	1,469.77	3,657.26	9,100.44	Berkshire Hathaway
25%	3.05	9.31	28.42	86.73	264.69	807.79	2,465.19	7,523.16	22,958.87	70,064.92	Some Hedge Funds
30%	3.71	13.78	51.18	190.05	705.64	2,619.99	9,727.86	36,118.86	134,106.81	497,929.22	
35%	4.48	20.10	90.16	404.27	1,812.77	8,128.55	36,448.68	163,437.13	732,857.57	3,286,157.88	
40%	5.38	28.92	155.57	836.68	4,499.88	24,201.43	130,161.11	700,037.69	3,764,970.74	20,248,916.24	Medallion Fund
45%	6.41	41.08	263.34	1,687.95	10,819.32	69,348.97	444,508.51	2,849,181.33	18,262,494.60	117,057,733.71	
50%	7.59	57.66	437.89	3,325.25	25,251.17	191,751.06	1,456,109.60	11,057,332.32	83,966,617.31	637,621,500.21	1% Per Week (TQQQ)

That line should reinforce that you cannot keep your cash hoard under your mattress. With inflation at 8%, you would be left with $\$0.015$, a penny and a half. Inflation is like letting your money slowly rot away. You might not have to worry about taxation since not much will be left; inflation would have already taken care of that.

For the inflation thing, you do not have a choice. It is not of your doing. Look closer at who prints the currency for your answer.

As I often mentioned, you have a choice to make. Which CAGR level are you aspiring to? The lower the expected CAGR, the easier it is to get. You could go the savings account route at the 5% level or lower. But that will be eaten away too. Verification check: $(1+0.05)^{50} \cdot (1-0.05)^{50} = 0.88$.

So, you still lose due to long-term return degradation, a 5% rise followed by a 5% decline, or vice versa, does not get you back to even: $(1+0.05) \cdot (1-0.05) = 0.997$. It worsens if you increase the rates of return: $(1+0.20) \cdot (1-0.20) = 0.96$. You might say it is not so bad; you only lost 4%. But in trading, you could do that many times; for example, over 100 such transactions; you would get: $[(1+0.20) \cdot (1-0.20)]^{50} = 0.13$. You would be left with 13 cents of your initial dollar simply because you opted to trade your way to retirement.

Could you have such a thing happen? The answer is yes. In an all-in scenario such as the **One Percent Per Week** program, the order in which we execute trades is irrelevant. The 13-cent result above could spread over hundreds of trades. It would keep the outcome the same as long as you could find 50 of ± 0.20 moves in the series.

You would lose less if your CAGR averaged 5% over the period, while inflation was only at 3%, on average. The same calculation would give: $(1+0.05)^{50} \cdot (1-0.03)^{50} = 2.50$. It would take 50 years to get: $F(t) = 2.50 \cdot F_0$. You would regain your initial capital F_0 plus $1.5 \cdot F_0$ as profits. In CAGR terms, it would be a 1.85% average annual return on your investment.

Is it a reasonable course of action? For sure, your time would have been freed to do whatever you wanted. You would have preserved your capital and even make a profit. But the question should be: how far will the 2.5 times your initial investment carry you? Make the same calculations and adjust them to your time before retiring.

The above table can give you a better picture of your circumstances.

We should realize that lower growth rates are not enough to sustain ourselves in retirement unless our starting capital is much higher. But even there, inflation will chip away at our portfolio value: $\$1,000,000 \cdot (1+0.05)^{50} \cdot (1-0.03)^{50} = \$2,500,000$. It might sound like a lot today, but wait 50 years and see what it could buy. All you will buy will have been subject to inflation too. A $300,000 home today with an average 7% increase in value over the next 50 years would be worth $8,837,107. And that house would still be out of reach.

You have a day job and might have little free time. So you could find a professional money manager to handle your investments. This way, you can expect the long-term market average ($\approx 10\%$). After 50 years of this, you would get: $F_0 \cdot (1+0.10)^{50} \cdot (1-0.03)^{50} = 25.599 \cdot F_0$ minus fees and taxes. That sounds better. We must think of what it will be in 50 years, it might not that much. You will have paid in advance for the life you will have once retired. You will have earned your retirement, every cent of it.

You need to push for higher rates and can easily get the 15% CAGR. Twenty-four-year simulating weekly rebalancing of the 100 stocks part of QQQ reached that level and a little more (see the QQQ articles on my website). It might sound like a lot of work, but it is not. You could do a bit better, by a fraction, holding QQQ for the duration: a one-decision process. No outside help is needed or required. You just sit on it. The ETF provider takes care of the entire portfolio's internal maintenance.

You get your average 15% return simply because you made YOUR bet on America, or more specifically, on NASDAQ's 100 most valuable companies. And you are assured that they won't all go bankrupt on you within a week or two. That is your basic security, knowing that QQQ will sustain adversity and will bounce back, again and again, from whatever is thrown at it.

Stocks dropping off QQQ are replaced by newcomers with even more potential than those being removed. QQQ will bypass the notion of survivorship biases simply due to its composition. Every stock that makes the top 100 list and stays on it will be what you invested in. Only the top survivors will be on the list as it changes. It's not because you selected the survivors, but because you selected the list, you selected QQQ, which is constantly updated.

If you want to improve QQQ's return slightly, reduce the list to the top 50 most valuable stocks in the NDX. You might need a program for this, and you could start with the free QQQ rebalancing program (follow my references in the QQQ articles).

You determined that even QQQ's long-term return is not enough for you. You want more. Where can you get it?

We all know that Mr. Buffett and some hedge funds managed 20% to 25% over the years. Berkshire Hathaway will not have management fees. As for the hedge funds, the usual is 2/20, 2% annual fees plus 20% of profits. You will find that formula expensive over the long term. Berkshire has no fees and is large enough to be considered at the same level as a specialized market index.

So, What Is It You Need?

You only need to copy the behavior of the best performers or use a relatively well-designed trading program. But ultimately, it might be as simple as a question of trust. And there, the person you should trust is yourself. You will be the one making the trading and investment decisions, and therefore, you should be able to demonstrate to yourself that what you intend to do will work.

You cannot afford to miss your mark or waste your time trying. You have to succeed; therefore, you should determine the steps needed to reach your goals. Not with an IF I do that, but with an: I will do this.

That is why you can redo all the presented simulations in this article series. It also explains why I use equations to describe the outcome of trading strategies. It is hard to contradict an equal sign; it needs proof, mathematical proof.

An opinion against an equal sign is outright insufficient; you must prove the equal sign does not stand true.

From **Part III**, here are the equalities governing your portfolio.

$$F(t) = F_0 \cdot \left[\left(1 + \frac{f_w}{1 - (f_w + c_w)} \right)^{W + \Delta z_w} \cdot \left(1 - \frac{f_l}{1 + (f_l + c_l)} \right)^{L + \Delta z_l} \right] \tag{1}$$

$$F(t) = F_0 \cdot (1 + \bar{g})^t = F_0 \cdot \prod^{N} (1 + r_i) = F_0 \cdot \sum^{N} (b_i \cdot r_i) = F_0 + N \cdot \bar{x} \tag{2}$$

In trading for the long term, the problem is relatively basic. You have $q \cdot \Delta p = x$, where Δp is the price difference, and x is the profit or loss on the trade. If you take a trade, for whatever reason, lasting at most one week, what will you do after that trade? It becomes your next question.

Trading implies making a lot of trades: $q_i \cdot \Delta_i p_i = x_i$ for $i = 1$ to N, the total number of trades. If you want to know the outcome, you sum it all up: $\sum_{i=1}^{N} (q_i \cdot \Delta_i p_i) = \sum_{i=1}^{N} x_i = X$, and get the sum of all profits and losses. None of those equations said what the quantity was or the difference in price, simply because it did not matter. You could have picked any stock and traded up to all available outstanding shares.

However, you will be the one introducing limits:

- Limits from ongoing available capital
- Limits in the stock selection process
- Limits in trade selection and trade durations

You know that both the profits and losses come easy. You place a bet on a stock and wait for the result. Prices are constantly moving around, sometimes in your favor and sometimes not.

Your real handicap is not knowing which way prices are going. You know where they went; you have historical records for all that. But you have very few clues as to where prices are going, and it is on that that you have to make your bet. Uncertainty and randomness are a big part of the short-term stock market game.

You need to alleviate that uncertainty and randomness to a point where it does not matter how much randomness there is. You must devise a stock selection process to present you with a stream of possible trade candidates. For this, you have the whole stock market to pick from. So, we cannot say you lack or will lack candidates in the future. Your problem is to select some within your capital constraints.

Another point is that if you make the money, it will not matter much from which stock you got your profit as long as the cash gets to your trading account.

Above all, you want to win the game, and you want to make sure of it.

Your objectives remain simple. However, your methods are not limited to simple, complicated, or whatever. You are limited by your available time, know-how, cash, and trade availability.

It becomes a no-game scenario if you have no time to put on the problem. The same goes if you do not have the resources, knowledge, or desire to play the game. However, those hurdles can be overcome. At a minimum, you could buy SPY or QQQ and hold for the duration, a one-decision process where long term, you know you will win. Furthermore, you could continuously buy more SPY or QQQ shares anytime you want to invest more in your retirement fund. Those new funds would grow at the expected long-term average growth rates of 10% and 15%, respectively.

Your objective remains $\bar{g}$ as in $F(t) = F_0 \cdot (1+\bar{g})^t$. Whatever you do, your portfolio will follow that equation; F(t) is the endgame. You cannot escape time (t), nor the need for F_0, your initial capital. You are left to push on $\bar{g}$. So, it puts you back looking at which CAGR level you can reach in the above table.

I only went up to the 50% CAGR level since it is already relatively high. Nonetheless, one can reach for even higher returns. All will be in the methods used. You are the one to set the rules of engagement for both when you get into a trade and when you get out. The market might have another view of your trade, but you still need a better reason than the flip of a fair coin. As given in the above equations, you are also governed by $F(t) = F_0 \cdot \prod_{i=1}^{N}(1 + r_i)$ where all trades count.

Whatever you do, your stock portfolio will follow every equality in equations (1) and (2). They will all adapt to the outcome of every trade you make, whether a win or a loss. Period.

Looking back at the TQQQ strategy, we had 744 trades with 381 winners (51.2%) and 363 losers (48.8%). That outcome is close to tossing a fair coin (50%). The standard deviation of tossing a fair coin 744 times is $\sigma = 13.6$. The strategy's outcome is within 2σ of the 50% expected mean.

The TQQQ trade outcome is relatively close to a random-like distribution. By design, it should get close to the market's long-term averages. There are slightly more up weeks than down weeks (closer to 52%), and the TQQQ program is taking advantage of this. As for variance, most of the trades will fall within TQQQ's short-term variance (see the previous article).

In a way, the TQQQ strategy is almost a study on optimal stopping times in a random-like process (price series). Your entry is easily defined; it is p_{0_i} on Monday's opening price. Your exit will be a stopping or hitting time, limited by time (Friday's close). But could occur earlier during the week by crossing your percent profit target. You do not know when it might occur, but you do know at what price it will happen; that is when your profit target is reached.

With your trading rules or procedures, you set up a black box with one possible entry and two possible exits within five trading days. Both exit methods are not optimal hitting times. They are just barriers you set up which, once hit, will have the trade exit executed at whatever the price was. The strategy will honor only the first stopping time it encounters, either the reached profit target or Friday's close. A trade has no other designed exit.

The trading rules do not care at all about the price movement. They are just barriers you put out there, and if hit, they will execute the trading rules you preset. The 7% profit target is just that: a barrier, a stopping time to a random-like price series. In a totally random time series, the optimal stopping time should be in step with the square root of time. The probability of any flip of a fair coin will remain at 50%. Randomness does not change because you put out an equation for it.

The market does not care about your entry or exit points either. It just does what it does and will crush anything in its way. The US stock market is valued in excess of

$50 trillion dollars, a beast you cannot push around easily.

> But it should not stop you from designing your own game, within the game, with your trading rules.

You are the one to put out barriers and markers for what the random-like price series could hit, thereby triggering an entry or exit. It is all up to you to decide which methods you want to use. The market, as such, will simply comply with your trading rules, whatever they are. And if your trading rules are outside the market's gyrations, they will be ignored as they should.

Another decent question would be: Could you have chosen TQQQ in 2010 for your trading strategy? Yes, and easily. In 2010, you had 17, 11, and 5 years of historical data on SPY, QQQ, and DIA, respectively. Within two hundred trading days (less than four years), the long-term variance of these price series will have settled near their long-term averages.

So, you would have known QQQ's variance, and you would have known that TQQQ was a 3x-leveraged ETF mimicking QQQ's every move. You were expected to determine that TQQQ's variance would be three times that of QQQ.

QQQ was a good choice when it got out in 1999 since it would, by design, generate better returns than SPY. The top 100 of the top 500 has to outperform the top 500, almost by definition.

It was an easy way to buy some alpha. But, with TQQQ, you leveraged 3 times QQQ without paying any leveraging fees. TQQQ is leveraging the 100 top companies on NASDAQ. Here are the top 10: MSFT, AAPL, NVDA, AMZN, META, AVGO, GOOGL, GOOG, COST, TSLA. It is up to you to take advantage of it. As demonstrated with the **One Percent Per Week** program, it does not have to be complicated.

The Return Quest

PART I, II, III, and **IV** dealt with the **One Percent Per Week** trading program, as often mentioned is available free on **Wealth-Lab**. With only minor modifications, it reached a 56.66% CAGR (compounded annual growth rate) over the last 14 years. Even with its high CAGR results, the strategy has a couple of flaws that can be corrected and generate a higher CAGR. Nonetheless, it had a remarkable outcome for a strategy that took on trades because it was a Monday.

We even learned in **Part IV** that the old Wall Street adage: "*Cut your losses and let your profits run*" did not apply so well using TQQQ with positions lasting at most five trading days, often less.

Here is a breakdown of the simulations in **Part IV** with an initial capital of $100k over

the last 14 years using SPY, QQQ, and TQQQ starting when TQQQ went public and became tradable.

Ticker	Target	Stop-Loss	Ending Value ($$)	CAGR (%)	# Trades	# Winning	Winning (%)	# Losing	Losing (%)
SPY	7%	No	86,462	4.47	744	347	46.64	397	53.36
SPY	7%	5%	86,462	4.47	744	347	46.64	397	53.36
SPY	No	No	85,699	4.44	744	347	46.64	397	53.36
SPY	No	5%	85,699	4.44	744	347	46.64	397	53.36
QQQ	7%	No	661,271	15.3	744	358	48.12	386	51.88
QQQ	7%	5%	534,429	13.83	744	357	47.88	387	52.02
QQQ	No	No	683,857	15.53	744	358	48.12	386	51.88
QQQ	No	5%	531,270	13.79	744	357	47.88	387	52.02
TQQQ	7%	No	61,002,263	56.8	744	381	51.21	363	48.79
TQQQ	7%	5%	10,385,020	38.57	744	370	49.73	374	50.27
TQQQ	No	No	12,686,975	40.52	744	358	48.12	386	51.88
TQQQ	No	5%	2,011,338	23.84	744	347	46.64	397	53.36
SPY *	No	No	377,616	11.62	1	1	100.00	0	0

* *SPY used as a Buy & Hold benchmark for the period*.

The 7% profit target with the no-stop-loss setting using TQQQ over the last 14 years was more adapted to TQQQ's average volatility. For one, it could reach its profit target more often, even though it should have limited its potential profits. If you remove the profit target or implement a 5% stop-loss policy, the total return decreases considerably, validating the trading rules.

In these simulations, all combinations used the same program with changes only in the securities tested (SPY, QQQ, or TQQQ) and the on/off switches for the 7% profit target and the 5% stop-loss. For the TQQQ 56.8% CAGR scenario, 50 positive trades generated all the profits. That is, 6.7% of all the trades taken were responsible for all the profits, making 694 trades out of 744 practically useless, thereby showing room for improvement.

You could have chosen any of these scenarios. First, by selecting which security you wanted to trade, then setting your profit target and stop-loss policy. They were all decisions you would have taken before reaching day one of your new endeavor.

Yet, based on those decisions, you could have quite diverging outcomes. It would not be the question of how the market went over those 14 years, but which trading ETF did you choose, and which of the two exit rules did you implement? All the trades in all the scenarios had the same entry prices. The total return differences came from the trade exits.

Over the short term, in trades lasting at most five trading days, the profit target acted more like a bag-that-profit-now before it evaporates or before the price reverts to its mean. Applying the **One Percent Per Week** strategy to SPY (see table above) would have performed worse (77% less) than a Buy & Hold on SPY (last line).

This strategy (with a 7% profit target) cannot be classified as a great performer on

SPY. You had to choose QQQ to obtain better results (75% higher than holding SPY).

The reason for the underperformance of SPY is simple too. The 7% profit target, like the -5% stop-loss, were mostly out of reach of SPY's average weekly volatility. It was also higher than QQQ's average volatility, where only a few trades reached the 7% profit target. It also meant, for SPY and QQQ, that most of the trades opened on Monday should have been closed on Friday, making the strategy all-in all the time, but that is not what can be observed from the data. Some trades were still closed during the week and not at the 7% profit target. I need to investigate this and find the reason why.

What Was At Risk?

By selecting QQQ as the backdrop for this trading strategy and having a limited holding period of 5 trading days, we have set the stage for a variation on a Buy & Hold scenario.

Instead of holding out for the entire trade interval, we were slicing the trade interval into, at most, 5 trading day chunks. This limits volatility to only what can happen during the week.

What is the probability for QQQ to drop by 50%? Relatively low. Holding QQQ over those 14 years would have had a max drawdown of -35.62%, which occurred on 12/28/2022. Whereas, for TQQQ at its worst, it was -54.47%, which happened during the flash crash of May 2010, an outlier. You had this one-day event in 2010 that lasted 36 minutes on which we should base our future drawdown expectations. And no matter which strategy I would use over the period, the flash crash would show its impact even if the threat was temporary (one day in 3,591 trading days).

The risk is playing QQQ with all its ups and downs, none of which we can escape. All you could do was step aside at critical moments, which you still would have to define beforehand. If you do not have a means of predicting a black swan is coming your way, it will hit you in the face no matter how brilliant you might be.

The market shows no pity and provides no explanation or comforting words for what it does.

You can have a lot of people interpreting what is going on, but if you look around, all you will find is an open outcry auction system where millions of people can participate for whatever reason they might have (good or bad).

You cannot provide a real-time answer as to the average decision process from millions of people every minute of every day of any year.

An expert should be right most of the time, not just occasionally. Should you flip a

fair coin and do better than the expert, then there is not much value in listening to "that expert". It would be better to trust your coin.

My main takeaway is that you can do it all yourself.

Study the program, understand what it is dealing with, and make up your mind as to its forward validity. As discussed in prior articles, a higher CAGR will help compensate for a delayed start.

Related Papers and Articles:

The One Percent a Week Stock Trading Program - Part IV

The One Percent a Week Stock Trading Program - Part III

The One Percent a Week Stock Trading Program - Part II

The One Percent a Week Stock Trading Program - Part I

The Long-Term Stock Trading Problem: **Part I**, and **Part II**

The MoonPhaser Stock Trading Program

Anticipating A Stock Portfolio's Long-Term Outcome

The Big Open Project

Sitting On Your Bunnies Might Be Your Best Investment Yet

Self-Managed Retirement Funds

Make Yourself A Glorious Retirement Fund

The Age Of The Individual Investor

Use QQQ - Make the Money and Keep IT

Take the Money and Keep it – II