



The Best Way to Make Money Is to Not Lose It

The Importance of Avoiding Large Losses



One of the key tenets of behavioral finance is loss aversion theory - the idea that investors feel the pain of losses much more acutely than they feel the pleasure derived from gains. This is one of the few areas where the psychological, irrational tendencies of behavioral finance actually square up well with sober, rational mathematics. As we will illustrate in this blog post, minimizing losses is more important to the ultimate success of an investment plan than maximizing gains.

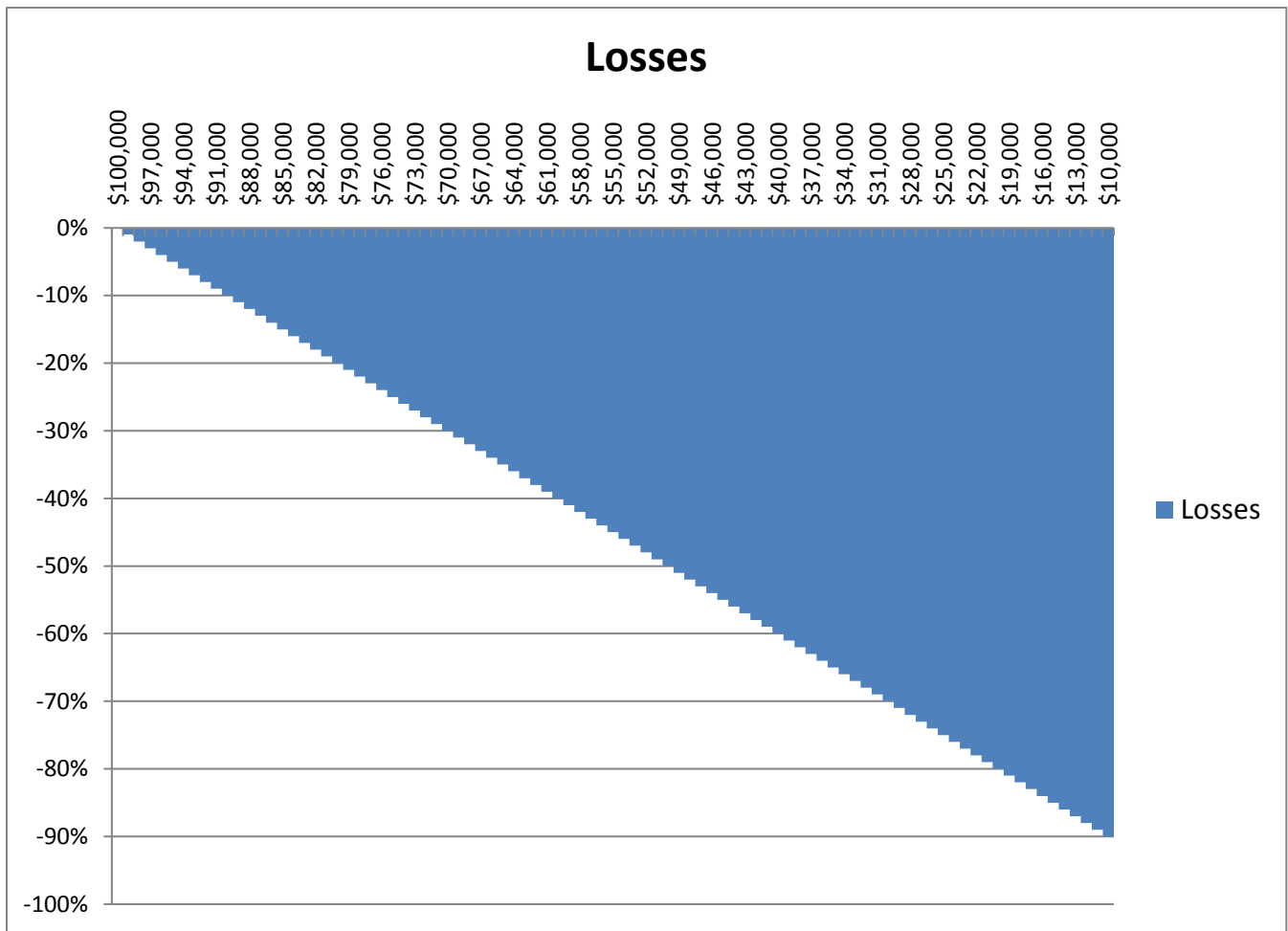
A Miracle in Reverse

In a previous blog post, [Growth Creates Growth](#), we explored the power of compounding returns. If an investment is allowed to grow at a constant rate, the appreciation of wealth accelerates.

However, the “miracle” in the miracle of compounding returns depends upon a constant rate of growth. Losses, or negative returns, can throw an investment plan off course and severely impact the ending value of the investment. And just like compounding growth impacts wealth in an exponential, non-linear fashion, so do losses.

As before, the best way to demonstrate this point is via a simple, theoretical example. The following graph illustrates the impact of losses on a theoretical investment of \$100,000, in both dollar terms and stated as percentage returns.

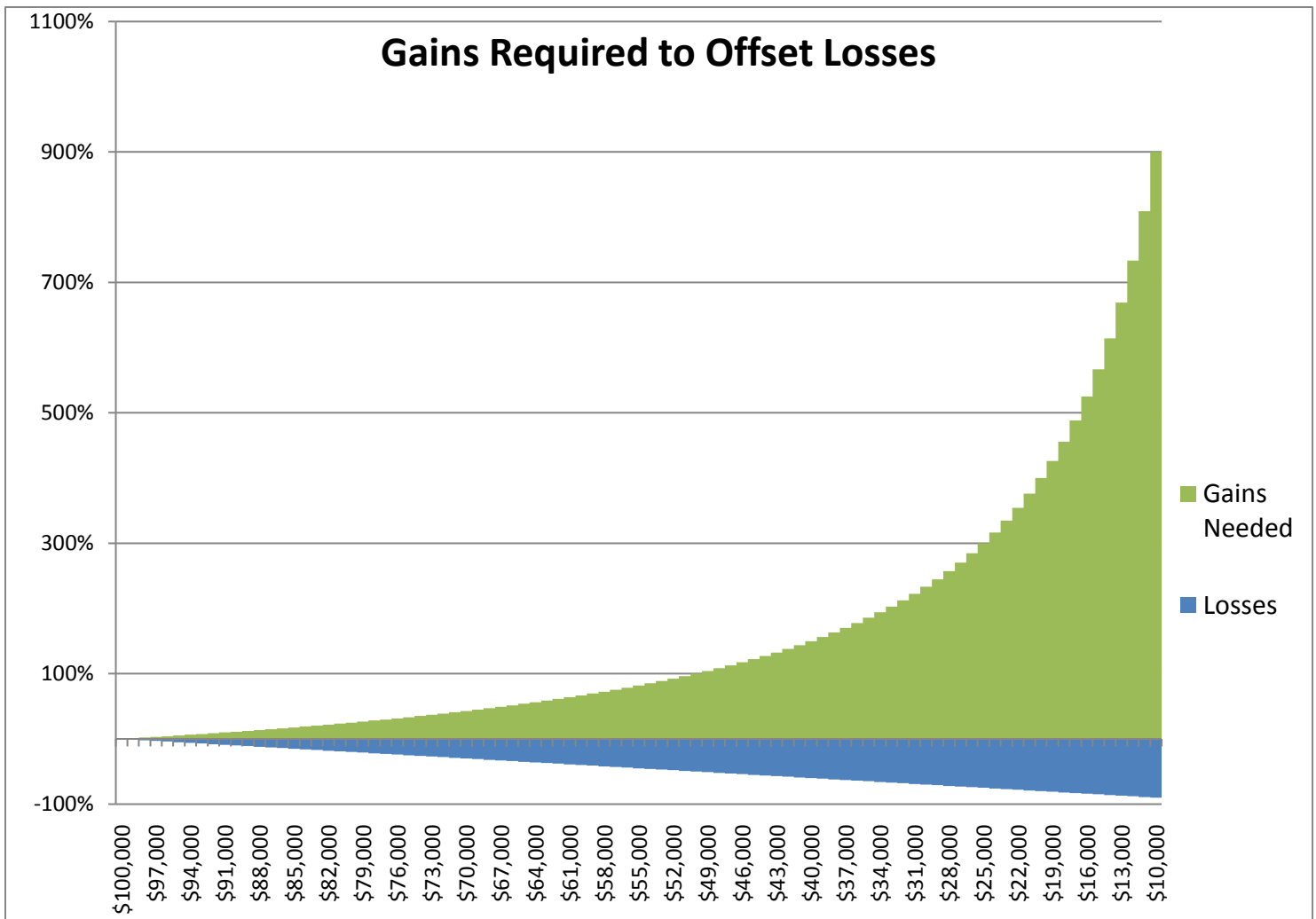
When we start off, the relationship between losses and percentages is simple and straightforward: a loss of 10% is \$10,000, a loss of 20% equates to \$20,000, and a loss of 50% represents \$50,000. Nothing surprising there.



Source: Swan Global Investments

However, once we start talking about the returns necessary to get our depleted account back to our starting value of \$100,000, the dollars and the returns start to diverge. Simply put, the larger the losses, the larger the gains have to be to recover the losses. An investment worth \$90,000 needs to return 11.1% to get back to \$100,000, not 10%. An investment worth \$80,000 needs a 25% return to break even, not 20%. And an investment worth \$50,000 needs to return 100% to get to \$100,000.

The graph below illustrates the returns needed (in green) to compensate for the losses discussed previously (in blue). While losses increased in a straight, linear fashion, the gains needed to recover from those losses do not; they grow at an exponential rate. In plain English, the deeper the hole, the more difficult it is to work your way out of it.



Source: Swan Global Investments

<u>Losses</u>	<u>Bottom Value</u>	<u>Return Required</u>
0%	\$ 100,000	0%
-10%	\$ 90,000	11%
-20%	\$ 80,000	25%
-30%	\$ 70,000	43%
-40%	\$ 60,000	67%
-50%	\$ 50,000	100%
-60%	\$ 40,000	150%
-70%	\$ 30,000	233%
-80%	\$ 20,000	400%
-90%	\$ 10,000	900%

Source: Swan Global Investments

Granted, this is a simple, theoretical example used to prove a point: that losses are more important than gains, everything else being equal.

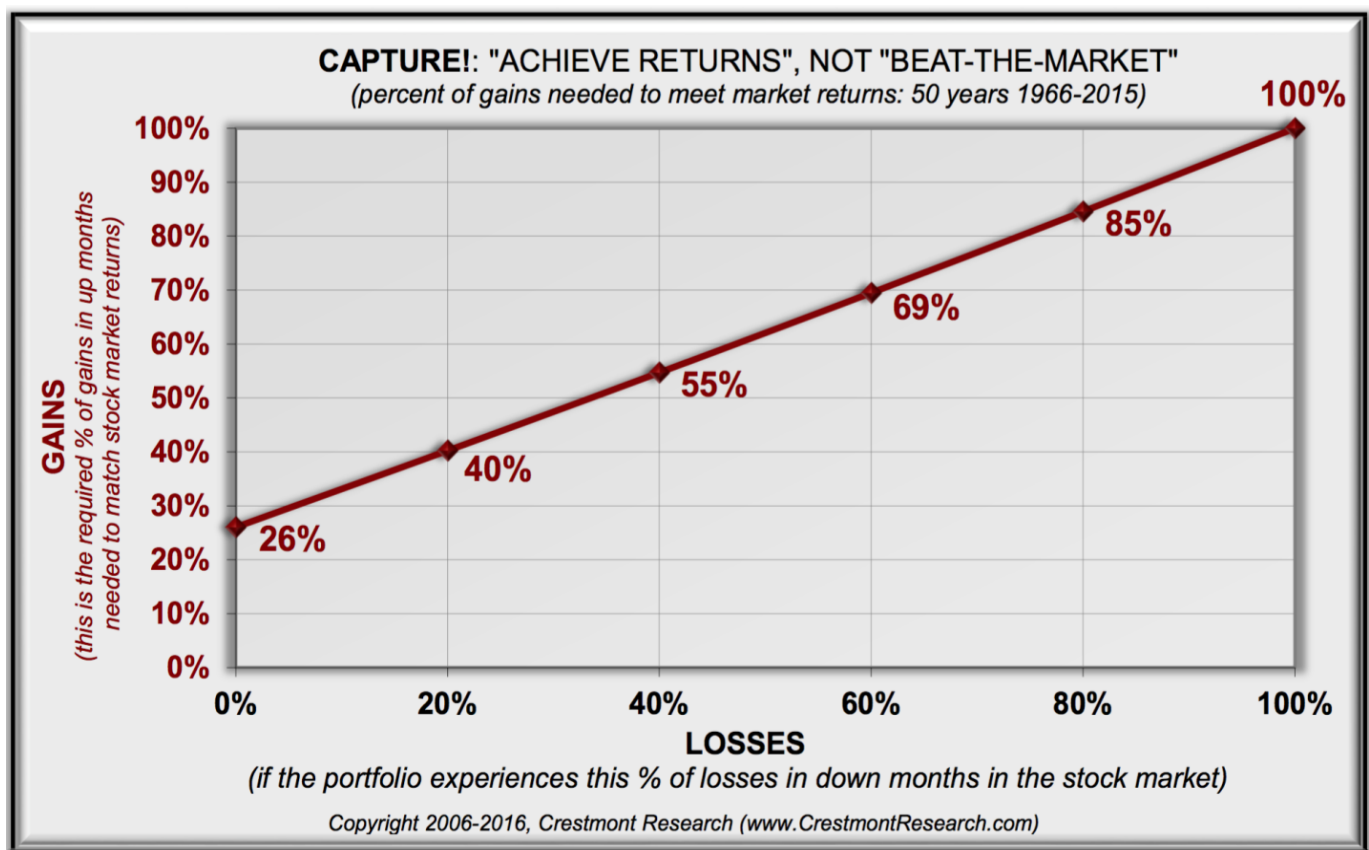
What implications does this have for real-world investing?

Many investors are obsessed with the idea of “beating the market.”

Outperforming the S&P 500 is too often the only measure many investors look at when determining the success or failure of an investment strategy. The clamor for beating the market becomes especially pronounced during a long bull market, after memories of the last bear market start to fade. In such environments investors myopically focus on the last one, three, and/or five years of market returns and are disappointed when anything - diversified portfolios, different asset classes, contrarian strategies, etc- fail to outperform “the market.”

However, the job of **outperforming the market becomes much easier if losses are minimized in the first place.**

The graph below is from Crestmont Research and illustrates this phenomenon.



Source: Crestmont Research

The rightmost portion of the diagonal line states that if an investor experiences all of the market’s losses, then the investor will also need to capture all of the market’s gains in order to match the market.

That much should be obvious. However, the left-most portion of the diagonal line shows that if the investor avoided all of the market's losses, then they would only need to capture 26% of its gains in order to match the market returns over the long-term.

Of course, it is unlikely that anyone invested in the market would experience 0% of its losses. Realistically, the focus should be on the middle of the graph. In the middle of this range, an investment with a 40% down capture needs a 55% up capture to match the market. Moreover, an up capture in excess of 55% would see the investment outperform the market over the full time frame.

Win by *Not* Losing

This fundamental relationship is at the core of Swan's Defined Risk Strategy (DRS). The DRS was designed to minimize the impact of large losses. The DRS will lag in extended bull markets, but that is by design. As this post illustrates, minimizing losses is ultimately more important than maximizing gains. In other words, **the best way to make money is *not* to lose it in the first place.**

Avoiding, or at least minimizing, losses is the second of four key take-aways from Swan's white paper "[Math Matters: Rethinking the Math Behind Investment Returns](#)." As a recap, the four are:

1. The importance and power of compounding
2. The value of avoiding large losses to returns
3. The importance of variance drain
4. The value of a non-normal distribution of returns

The next blog post in this series will explore variance drain.

Click to learn more about Swan's [Defined Risk investment approach](#) and for more details regarding [historical performance](#).

For more information please contact Swan at 970-382-8901.

About the Author:



Marc Odo, CFA®, CAIA®, CIPM®, CFP®, Director of Investment Solutions, is responsible for helping clients and prospects gain a detailed understanding of Swan's Defined Risk Strategy, including how it fits into an overall investment strategy. Formerly Marc was the Director of Research for 11 years at Zephyr Associates.

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