

## Thoughts on Compounding: Compounding Without Catastrophe

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Sounds ideal, right? Just like rolling that small snowball that started in your 5-year old hand down the slope in the backyard of perfect packing snow and watching it grow into a mammoth sized boulder so big that you cannot move it from its final less-than-ideal location in the back corner of the yard. But who cares? It's so big you can't even lift the snowman's mid-section on top of it. Mom smiled proudly from the window. If only compounding wealth were so easy.

The following discussion is an exploration of how we think about risk management within the context of managing an equity portfolio for the long-term objective of increasing wealth.

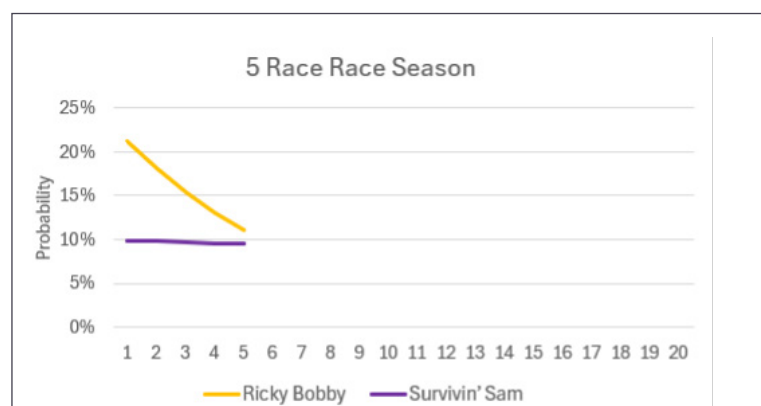
The key word in the previous sentence: long-term. Why? The first and most important decision any risk-taker makes in investing, sports or even life, is deciding over what period is the goal to be measured. The period has a tremendous impact on the 'how' the objective is achieved. The reason is straightforward, **the longer you are engaged in an activity that involves risk, the more important survival becomes, particularly for activities that have potential 'game-overs'**. In fact, "performance is subordinate to survival".<sup>1</sup> Given enough time even unlikely or remote risks become likely to happen to the individual who repeatedly takes the risk. The sequence matters here to the individual and not the average outcome of a large group undertaking the risk once.<sup>2</sup>

To illustrate this concept, consider the following NASCAR style race scenario. There are many other drivers in the line-up but these are the two most interesting.

Driver	Motto	Background	Probability of Winning	Probability of Season Ending Crash
Ricky Bobby	"If you ain't first, you're last." <sup>3</sup>	Ricky's identity is entirely tied to being a winner. While a highly skilled driver, Ricky drives at the limit and frequently crashes.	25%	15%
Survivin' Sam	"Survive to Thrive"	Never a hit with the fans, Sam drives conservatively and has a high probably of finishing.	10%	1%

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Let's consider a 5-race season. As the chart below indicates, Ricky Bobby has a higher probability than Survivin' Sam of winning the first race (21% vs 10%). For winning Race 5, Ricky Bobby still has a higher percent probability at 11% vs Survivin' Sam at 9.5%. The percent probability is lower for Race 5 because the sequence matters - you must complete all four races to compete in the 5th race.

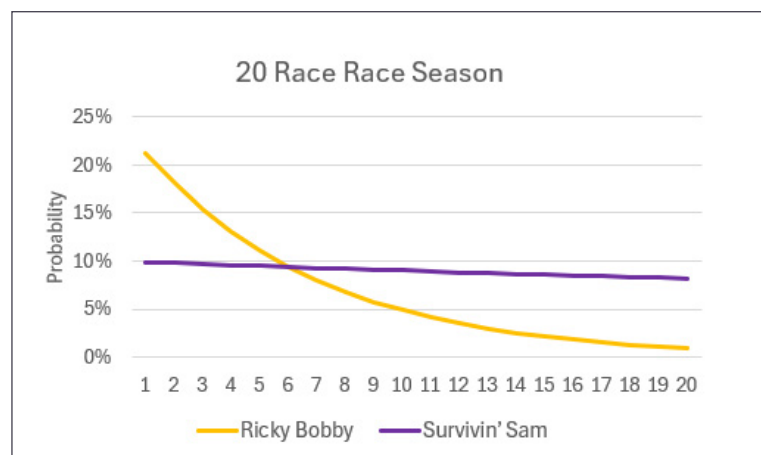


Based on the probabilities noted above, Ricky Bobby is estimated to win 0.8 races in a 5 race season, while Survivin' Sam is estimated to win a lower 0.5 races. After a 20 race season we see dramatically different results:

What becomes clear is that Ricky Bobby's 2.5x difference in probability to win (25% vs 10%) is completely overwhelmed by his high-risk-must-win racing style. His

probability of winning Race 20 falls to 1%. The increased number of times on the track (sequence of events) results in a low probability that Ricky Bobby will even be in Race 20, let alone win it. Estimated number of races won shifts in favour of Survivin' Sam at 1.8, while Ricky Bobby's 1.4 is much lower.<sup>4</sup>

This simple illustration highlights that having more skill does not lead to more races being won. Using the scenarios above, if the objective is to win the most races in the season, then the race plan must first accomplish the goal of completing the race. Performance comes second.



The application of survive first and allow performance to follow can be equally applied to the practice of investing. Putting capital to work every day in the equity market entails risk-taking. We at Cidel have the goal of compounding wealth over a long period (>10 years). Therefore, our first objective is to 'complete the race'. In investing terms, this means managing risk. We define risk in two ways:

1. Permanent reduction of capital.
2. Price volatility. Volatility can represent risk as investors have unfortunately consistently shown that they are more likely to liquidate investments during periods of volatility and price drawdowns. Effectively ending their racing season.

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Risk management at Cidel is first and foremost focused on avoiding game-overs. We have designed the research process to avoid the permanent loss of capital by investing in high quality companies<sup>5</sup>. We aim to manage stock price volatility by investing in businesses whose cash flow generation is not volatile. Portfolios are constructed to ensure these high-quality businesses are diversified by considering how each portfolio holding interacts with the others. This is in recognition that market prices for individual securities can be volatile, but a portfolio of well diversified high-quality business should, in theory, be less volatile. However, in times of market stress we have noted high quality businesses do suffer price drawdowns. Historically, these have proven to be short-term setbacks. In fact, we will take advantage of volatility as an opportunity to acquire high-quality businesses where their cash flows have remained robust. This supports our goal of avoiding a permanent reduction of capital.

### What about returns?

This is the interesting part about active equity investing. By keeping the race car on the track, race after race, we create the conditions for long-term success without resorting to a high-risk driving style. In investing terms, by having a portfolio that suffers no permanent reduction in capital and minimizes price drawdowns, we create the opportunity for capital to compound. The turbocharger for compounding is time. The longer the better. In fact, we do not even have to be the most skilled (or lucky) investment manager in any given year to deliver exceptional long-term investment performance. Our deliberate choice is the long-time horizon. This allows us to drive around the track in Survivin' Sam's style - with much lower risk and an extremely high likelihood of completing the race. We would rather deliver good investment returns year after year, which as the math above suggests, will produce exceptional returns over the long-term. One final thought, in case you were wondering if we are incentivized to drive Ricky Bobby style with a high reward for a race win (1-year investment performance), we are not. In fact, we are part owners of the car (we have our personal capital invested alongside our clients in the same strategies). Therefore, there will be no reckless ego driving. As Survivin' Sam says, "Survive to Thrive".

### Notes

1. Ergodicity: Definition, Examples, And Implications, As Simple As Possible (3rd edition) by Luca Dellanna. Page 5
2. We are concerned here about non-ergodic systems and therefore not interested in averages because of the existence of game-overs. Ergodicity: Definition, Examples, And Implications, As Simple As Possible (3rd edition) by Luca Dellanna. Page 18
3. As spoken by Ricky Bobby (Will Ferrel) in Talladega Nights, 2006
4.  $\int (\text{Wining \%} * \text{Race Finish \%}^{\text{number of races}})$
5. See How we Invest at Cidel. [https://cidel.com/downloads/Newsletter/Q3\\_2022/How-We-Invest-At-Cidel-MB%2811-2022%29.pdf](https://cidel.com/downloads/Newsletter/Q3_2022/How-We-Invest-At-Cidel-MB%2811-2022%29.pdf)