

Title, Author: The Black Swan – The impact of the highly improbable, Nassim Nicholas Taleb

Published: 2010, Penguin

The term *black swan*, as the book begins by explaining, refers to highly improbable events that catch even the shrewdest minds by surprise and have the potential to wreak havoc on the status quo. The name stems from the long held belief that all swans were white. However, in 1697 Dutch explorers sighted black swans for the first time in Western Australia, completely nullifying this understanding.

From here, the term morphed into describing the occurrence of the unforeseen. It is also worth noting that the inverse, a highly expected event not happening, falls into the same category. The sighting of the black swans illustrated a severe limitation learning from observations or experiences, and the fragility of our knowledge.

For an event to be characterised as a black swan, it needs to have three characteristics:

- 1. It should be an outlier
- 2. It should have a massive impact
- 3. Humans should be able to rationalise the occurrence of the event after it has happened, in spite of its status as an outlier (by which I mean that, ex-post, it will become explainable and predictable)

Black swans are unpredictable not because they are random, but primarily because our outlook, knowledge or field of experience is too narrow to grasp the possibility that the improbable can also happen. As such, they cannot be measured. This immeasurability and the human tendency of discounting their very possibility contributes to their ability to have a large impact.

The book extends the concept of black swan to the financial world with the field of finance regularly attempting to capture outlier events, and failing with equal regularity. Financial professionals use models to capture uncertainty, but, as is evident from history, most portfolio and risk management models fail to capture black swans. The bell curve is a popular method to understand the probability of risk but they only serve to measure the normal or average occurrence and tend to ignore the large deviations; they are largely ineffective in capturing unexpected and potentially disastrous events.

This is not just true for finance professionals, we see it as well in organised sports where following rules is imperative. Since athletes are trained to make certain moves they become weaker when faced with unexpected events. For example, boxers adhere to certain rules which makes them more vulnerable in a street fight because they are not trained to expect illegal moves. In real life, you don't know the odds, you need to discover them.

The book moves on to focus on the premise that "*The past is never a reliable predictor of the future*". One of the biggest errors that humans make while trying to predict the future is a proclivity to use historic data to explain what might occur in the future. We look backwards to weave a narrative for the future that makes sense to us. We expect the future to unfold accordingly

and are caught off guard when it does not. In other words, we try to make sense where there is none. The best way to avoid the traps of narrative fallacy is to eschew storytelling in favour of experimentation, history in favour of experience and theory in favour of knowledge.

When faced with the task of assessing real world risk, we treat it as a game, assuming certain ground rules and probabilities that we can determine at the onset. This gives us the false sense that we know what is going to happen next and that the decision we are making is the right one. While it is hard for us to assess risk accurately in the real world, oversimplifying it can only make it worse.

For example, if you observe a coin flip where the dealer tells you the coin is fair (i.e. lands on heads or tails 50:50), but it comes up heads 99 times in a row, would you really believe the odds are still 50:50 on the next toss? Statistically speaking, the odds haven't changed, but any reasonable person would assume that the coin is rigged and bet heads. So what should we do? How do we deal with black swans if we can never accurately predict them? The key is to focus on "anti-knowledge", or simply on the things that we do not know. Instead of naively trying to predict black swans, we should try to adjust to their existence. And when we adjust to them, we can position ourselves not only to limit the downsides, but also to take advantage of positive black swans, or "serendipitous black swans". In general, positive black swans take longer to show their effect, unlike their negative counterparts where this happens very quickly – indeed, it is much easier and faster to destroy than it is to build.

Taleb concludes that the best way to manage black swans is to snub them. They are inevitable and uncontrollable but we can control how we react to them. For example, missing a train is only painful if you run after it, if you allow yourself to care. If you simply shrugged it off and told yourself that you can just board the next one, the impact will be minimal.

In Taleb's words, "Quitting a high-paying position, if it is your decision, will seem a better payoff than the utility of the money involved (this may seem crazy, but I've tried it and it works). This is the first step toward the stoic's throwing a four-letter word at fate. You have far more control over your life if you decide on your criterion by yourself."

The Black Swan tells us that extreme events will occur and will continue to impact us in myriad ways, but since these events cannot be predicted, it is important to adjust to them. As an investor, you can ensure that your portfolio can withstand a black swan event by following the principles of portfolio diversification and asset allocation. By spreading your investments across multiple asset classes and uncorrelated investment products, you are ensuring that the impact of an extreme event is limited.

Dhaval Somaiya January 2021

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