



Viewpoint: Javier Estrada

Investing in a Volatile Environment: A Black Swan Perspective

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INTRODUCTION

Javier Estrada, who is Professor of Financial Management at Barcelona-based IESE Business School, was a tennis coach in his native Argentina before moving to live and work in Spain in 1993. He set the cat among the pigeons in global investment circles with his ground-breaking research, "Black swans and market timing: How not to generate alpha," which conclusively revealed that investors who seek to time the market are unlikely to reap rewards. His research focuses on risk, portfolio management, investment strategies, emerging markets, and insider trading. The founding editor of *Emerging Markets Review*, he holds visiting professorships in Scandinavia and Latin America. As wealth management advisor at Sports Global Consulting, Estrada advises professional sports-players on their investments. His favorite football team is Club Atletico River Plate. A fan of hard-rock bands, including Queen, Kansas, and Led Zeppelin, he plays electric guitar in his spare time. His first degree, a BA in economics, was from the National University of La Plata in Buenos Aires, and he also holds MSc and PhD degrees from the University of Illinois at Urbana-Champaign.



We all know that eating properly is essential for our health. Most of us are aware that certain types of food are good for us while others are best avoided. We are also aware of the trade-off between the desirable long-term goal of being fit and healthy and the pain associated with denying ourselves foods that we really like. We also know that patience and discipline are required.

What does healthy eating have to do with investing, you may well ask? Arguably, there are plenty of similarities. Anyone who has gone into a bookstore in search of a book on healthy eating will have been confronted by rows and rows of books, each outlining a different miracle diet.

Anyone looking for book on investing has a similar experience. Shelf after shelf bulges with with books outlining "high-return, low-risk" strategies. Each gives the impression that all we need do is to follow the indicated path to instant riches. If only life were so easy! If it was, I would not be writing these lines and you would not be reading them—we would probably both be enjoying the Caribbean sun.

A BALANCED DIET

Most of us recognize that eating healthily is going to require a long-term commitment and the making of certain sacrifices (we must kiss goodbye to all those tasty 600-calorie blueberry muffins), and that there is no such thing as a painless shortcut. The same applies to investing.

In reality, the only way to generate high long-term investment returns is to endure some risks in the short term, with the associated pain that comes from sleepless

nights as our portfolio value bounces about. There is no such thing as a "high-return, low-risk" strategy. Sadly, the same "no pain, no gain" rule applies both to eating and to investing.

And yet, when it comes to investing, many investors are seduced by "get rich quick" schemes. They often get blinded by the lights of easy money and delude themselves into thinking that gain can be achieved without pain.

For the purpose of this article, I would like to group the investment strategies people are offered into two types: in one group are the "exciting" active investment strategies, which usually promise high returns but claim to achieve them with little or no risk; in the second group are the more boring and conservative passive strategies, which usually promise no gain without pain.

The two approaches can be evaluated from several standpoints, not all of which lead us to the same conclusions. I will evaluate them here through the prism of my own recent research into the so-called "black swans" in financial markets.

BLACK SWANS

A black swan is an event that has three main attributes: First, it is an outlier, lying outside the realm of regular expectations because nothing in the past can convincingly point to its occurrence; second, it carries an extreme impact; and third, despite being an outlier, plausible explanations for its occurrence can be found after the fact, thus giving it the appearance of being both explainable and predictable. In sum-

mary, a black swan has three characteristics: rarity, extreme impact, and retrospective predictability.

The black swan perspective of investing is based on three main ideas. The first is that an extremely small number of trading days have a disproportionate impact on long-term investment performance—this is an empirical fact. The second is that, although being invested on the good days and not invested on the bad days would yield extraordinary returns, investors are extremely unlikely to get the timing right. And third, because attempts to time the market are doomed to fail in the long term (in fact, their main consequence is likely to be higher transaction costs), investors are better off holding a properly diversified investment portfolio for the long term.

A PATH TO POVERTY?

Curiously, this is exactly the same recommendation that is put forward by advocates of the efficient market theory of investment. However, the black swan perspective assumes neither market efficiency nor normally distributed returns. Instead, it argues that return distributions have very fat tails and are therefore far from being normal. It also argues that mistakenly assuming that returns are normally distributed can lead to a massive destruction of wealth, as it leads investors to substantially underestimate risk.

Let's first examine the facts. My own research (Estrada, 2008) reveals that a tiny

"Forecasting returns is a mix of art and science, with a fair share of sorcery. In fact, the smaller the number of assets in the portfolio, and the shorter the period for which forecasts are made, the bigger the role played by this last factor." Javier Estrada

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number of days can have an exceptional impact on long-term portfolio performance.

Across 15 developed markets, being out of the market on the ten days when the biggest stock market rallies occurred would have resulted in portfolios being 51% less valuable than if the money had been passively invested. Not being invested in these markets during their ten worst days would have resulted in portfolios being 150% more valuable than a passive investment would have been.

Given that these ten days represent less than 0.1% of the days in the average developed market I considered, the conclusion is obvious: A negligible proportion of days determines a massive creation or destruction of wealth, and the odds of successfully and consistently predicting the right days to be in and out of the market are nil.

In emerging markets, a tiny number of days have an even bigger impact on portfolio performance. My own research ("Black swans in emerging markets," to be published in 2009) reveals that across 16 emerging markets, missing the ten best days would have resulted in portfolios being 69% less valuable than if the money had been passively invested. Not being invested on the ten worst ten days would have resulted in portfolios being 337% more valuable than a passive investment would have been. Given that ten days represent 0.15% of the days in the average emerging market I considered, the conclusion is again stark: The probability of successfully and consistently getting the timing right is negligible.

At times of high stock market volatility, like those we experienced during 2008, investors are often tempted to try and take advantage of large daily swings. In such turbulent times many investors attempt to capture outsized returns by frequently jumping in and out of the market, or from one market to another. But investors who engage in this sort of active trading, particularly in a volatile environment, are largely relying on luck rather than on a sound financial strategy.

Investors should bear in mind that the odds are heavily stacked against them; they should also remember that, while the additional transaction costs of their active trading strategy are certain, outsized returns are, at best, a hope.

I run a program on portfolio management for individuals (as opposed to institutions) that aims to give unsophisticated investors some basic tools with which to manage their savings. In this program I tell participants about the two "sad truths" of financial markets. I call them sad truths because these are two statements that most investors would prefer were false. Unfortunately, however, both are true.

Patience is a Virtue

The first statement is that the higher the required return, the greater must be the exposure to risk. The second is that the higher the exposure to risk, the longer must be the investment horizon. Deep inside, participants know that these statements are true, but a part of each of them would prefer to go on believing in painless shortcuts.

In the program, I also tell participants that they should stop focusing on forecasting. I give them many reasons why they should forget about trying to second-guess the market, which stock to buy or sell, or which currency is going to appreciate. I give them plenty of reasons why they should start focusing on asset allocation instead. As with the "sad truths," they instinctively know this advice to be right, but more often than not their next question is whether I

think the dollar is going to appreciate or the market is going to fall. Oh, well. . .

Some investors may well question the wisdom of being passively invested in the current environment, since markets are displaying exceptional levels of volatility and apparently going nowhere but down. But hindsight is 20:20. It is very easy to say now that we should have cashed out at the beginning of 2008, but it did not look that obvious at the time. Trends, in fact, are not obvious until they are well in place. Black swans are unpredictable, and we only know when one has hit us after the event.

As mentioned at the beginning, eating healthily and investing have much in common; in both, the long-term goal is desirable, but the "getting there" is the problem. Most investors know what they have to do along the way; most know that pain is a part of the process; most know that patience and discipline are essential; and yet most are tempted into shortcuts ("miracle diets" or "high-return, low-risk" strategies), even though they probably recognize that these may ultimately be dead ends. When it comes down to healthy eating or investing, there is simply no gain without pain.

Black swans do exist, both in the natural world and in the financial markets. Those in nature are just a curiosity, but those in financial markets have critical implications for investor behavior. Volatile markets invite investors to engage in a losing game. And yet, at the end of the day, black swans render market timing a goose chase.

► More Info

Books:

Estrada, Javier. *Finance in a Nutshell: A No-nonsense Companion to the Tools and Techniques of Finance*. Harlow: FT Prentice Hall, 2005.

Mandelbrot, Benoit B., and Richard L. Hudson. *The (Mis)Behavior of Markets. A Fractal View of Risk, Ruin and Reward*. London: Profile Books, 2005.

Taleb, Nassim Nicholas. *The Black Swan. The Impact of the Highly Improbable*. New York: Random House, 2007.

Articles:

Estrada, Javier. "Black swans and market timing: How not to generate alpha." *Journal of Investing* (Fall 2008): 20–34.

Estrada, Javier. "Black swans in emerging markets." *Journal of Investing* (forthcoming).

"Investors think of risk differently from the way it is defined in modern portfolio theory. Both the standard deviation and beta give equal weight to upside and downside fluctuations. Investors, however, do not. It is perhaps for this reason that the downside risk framework has been rapidly gaining acceptance among academics and practitioners." Javier Estrada