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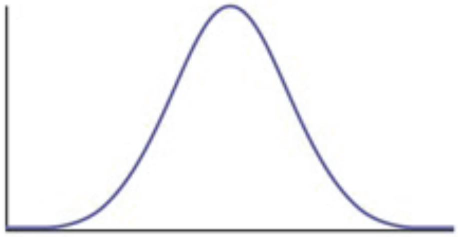
Tail Risk Hedging

Tuttle Capital Management

Does My Tail Look Fat?

Bull markets are great. When the market is going up, people are making money, and emotions generally run positive. Unfortunately, markets can't go up forever. If they did, the Forbes 400 would be the Forbes 400,000. Sometimes markets get a bit ahead of themselves and need to pause before they can begin to move up again. Other times they plummet, usually in response to something drastic like the real estate bubble bursting in 2008 or COVID-19 in 2020.

Those who have taken statistics will no doubt be familiar with the bell curve. If one is looking at stock market returns, they are supposed to look like the example below, where most of the returns are grouped around the median with narrow tails on each side. In real life, the tails are much fatter, especially on the left-hand side (negative returns) as the magnitude of losses and number of occurrences tends to be much larger than statistics would estimate.



These fat tail events (which encompass financial risk of an asset or portfolio of assets moving more than three standard deviations from its current price) can be devastating to portfolios. For example, in 2008 the S&P 500 had a drawdown of around 60%. During the Covid crash of 2020, the S&P 500 had a drawdown of about 33%. Having something in one's portfolio that can reduce the magnitude of these losses is imperative.

Prior to 2008, the gold standard for hedging was the 60/40 portfolio, where 60% of one's portfolio would be in stocks, while 40% would be in bonds. During a bear market, bonds would go up, or at least wouldn't go down, and one would be adequately hedged. What this theory failed to take into account is that stocks are much more volatile than bonds and, during a decline, would go down at such a magnitude that any protection offered by bonds would be a drop in the bucket.

The idea of tail risk hedging became popular after the 2008 bear market and after it was clear that the 60/40 portfolio wasn't the answer. Two different schools of thought emerged. The first was the idea of having a constant hedge in your portfolio. In this case, the hedge would have a cost to it, not unlike insurance, with the thought that it would result in a substantial payoff when the next 2008 hit. The second school of thought was the idea of a tactical hedge, which would only come into play when the market was going down.

Constant Hedge

The problem with the constant hedging idea was that after 2008, nothing happened that matched the severity of 2008, and when there was a market downturn, it reversed quickly. A portfolio manager would have to try to explain to investors why the portfolio was lagging every year because of the cost of a hedge that they hadn't needed. Just like nobody likes paying for insurance that they may never need, nobody likes paying for tail risk insurance that they also may never need.

Tactical Hedge

On the surface, the tactical hedge seems like a better idea, in that you only hedge when you need it and don't hedge while the market is going up. However, this makes one big assumption: that you can get it right every single time. To do that you would have to be the only person in history to ever be able to successfully time the market. Good luck with that.

The Answer

Where do we turn, if neither a constant nor tactical hedge is optimum for the current market? One solution is to combine the two ideas. The advantage of a static hedge is that it will always be there. You know if you wake up in the morning and something awful is happening to the markets, you will have protection (keep in mind the disadvantage is the constant bleed when markets are going up). The advantage of the tactical strategy is there is no constant bleed (i.e., the hedge is shut off when the market goes up). The disadvantage, however, is that it is not guaranteed to be there when you need it.

Combining the two means you have constant tail risk protection, but you shift it from more protection to less protection based on the risk in the market. That way you are always guaranteed to have some sort of protection, but you can also reduce, or eliminate, the bleed during bull markets.

What to Use

What types of investments can people effectively use to hedge? Common ideas are cash alternatives, precious metals such as gold, bonds, volatility, or puts. When deciding, the first thing to consider is the magnitude of returns. In general, it's advised to select something that can go up substantially when the market goes down but doesn't go down as much when the market goes up. Using this criterion, that knocks out cash and any type of bond except Treasuries, the reason being there is just not going to be enough upside to make a dent in the downside from stocks. Gold is out also, since one can never be quite sure what gold is going to do in a market downturn; if you can't count on it, you can't use it. That leaves Treasuries, volatility, and puts.

Treasuries are interesting because they tend to go up a lot when markets are going down due to a flight to safety. They can, and often do, go up when markets are going up, so all-in-all, one has tail risk protection with positive carry (can make money all the time). The potential downside is that interest rates are really low and bond prices move the opposite of interest rates. If we enter a rising rate environment, then Treasuries may no longer offer positive carry.

Volatility, accessed through volatility exchange traded products, and puts can both be effective, but they will generally have negative carry and must be offset with something else to reduce or eliminate the bleed. Both of these instruments have the right distribution of returns—the magnitude of the upside returns is much higher than the magnitude of the downside.

Bear markets and corrections are a natural part of functioning financial markets, and they happen more often than you think they will. Having some way to hedge one's portfolio that doesn't eat into one's returns is imperative.
