THE CAT VS. THE WASHING MACHINE

In this quarter's letter, we'll begin with a brief look back at the past year, and our thoughts on what lies ahead. But our primary topic is how we're utilizing Variance Risk Premium strategies in client portfolios to profit from market volatility—and be more like cunning, resilient cats.

2016 began with a bang, starting the year with the first greater-than-ten-percent correction since 2011. Then came Brexit in early summer, a tumultuous election, an effervescent U.S. stock market, and rising rates seemingly signaling the end of the 35-year bull market in bonds. Like most years, the variegated outcomes of markets both resulted from, and create, uncertainty. For some, the geopolitical winds of the day foretell doom, for others, opportunity. For us, the only near certainty is increased volatility as the market digests a new phase of globalism.

In the past several decades, the process of globalization has harnessed the fortunes of international partners and increased the correlation/connectedness among international economies and markets. With the recent global swing towards nationalism, there is greater chance of dislocation—and a reworking of some of the symbiotic (and symbolic) relationships that have governed global trade.

In 2017 we will have major elections in France, Germany, Iran, South Korea, Hong Kong, and China. The U.S. will be reevaluating its trade agreements; the "pivot" towards Asia may turn out to be a head fake. Europe has a good deal of introspection ahead related to its own agreements with current (and former) members. ISIS will continue to unite former adversaries to fight against it (namely the U.S., Russia, and Iran). And doubtless the Middle East will continue to struggle without a clear centralized power.

Russia seems renewed with energy, both figuratively and literally now that oil prices appear to have stabilized at a price worthy of production. The same can be said about Latin America, save the "global domination" strivings of Mr. Putin. What we have now is a geopolitical landscape akin to a marble on a glass table: Mere whispers – or tweets - of change can start the marble rolling, or change its direction.

All these issues and more need to be accounted for in a portfolio strategy that is willing to accept and profit from these risks. There are going to be some great opportunities out there. But this requires well-thought-out positioning of portfolios—and incorporating more than a crossed-fingered hope that The Dow (and its 30 stocks) continues to reach new highs.

THE EFFICIENT FRONTIER: THE RELATIONSHIP BETWEEN RISK AND REWARD

One of the most basic truths of investing is that investors must be willing to accept a greater level of risk in order to earn a higher return. This is well documented and accepted in both the world of finance and in the real world. Stocks have historically earned more than bonds, and bonds have historically earned more than cash. Those who wish to earn more in their investment portfolio have traditionally held a greater proportion in stocks, and thus have accepted a greater level of stock market risk (what we call equity risk).

This inseparability of risk and return is well understood, but the tradeoff between risk and reward is not linear. Like most all things, the law of diminishing returns holds sway. In finance parlance we use the adventurous-sounding term, "the efficient frontier," which denotes the boundary of how much return potential exists for each given level of risk. Or vice versa: How much risk one should be willing to accept for a specific targeted return.

In other words, if you're unwilling to accept valuation fluctuations (a form of risk), don't expect a 6% return from your portfolio of CDs. Similarly, holding too much of a single stock isn't, on average, going to earn you much more than holding the entire market. In the former case, we would argue that you're accepting too much risk for a much smaller incremental potential gain. We would call that strategy *"fragile"*—the more volatile the market gets, the more likely an investor is to sell at the worst time.

Risk, in the way we're using the term here, is volatility: The magnitude of how much the price of an asset (or portfolio of assets) moves around. Keep in mind that the *true risk* to an investor is not the variation in price itself, but the risk that he or she will need to sell the investment at the very same time that the price of the asset is depressed. Without ever being able to know when price or liquidation events will occur, volatility is the best approximation—the more something moves around, the more often that true risk is likely.

One way to limit volatility risk is to diversify such that the preponderance of your assets do not move in conjunction with each other. In that effort, it behooves you to use investments that generate their returns from differentiated sources. By spreading your sources of return across a variety of risks you are less impacted by any one of them. As mentioned in our previous letter, "A Bed of Nails," you're more likely to survive lying on a bed of nails than expecting any one nail to support your weight.

Find assets that don't all go down at the same time—got it. But what about all that movement in between? The route your portfolio takes to get from time A to time B matters. It even has a name: *path dependency.* We'll discuss in future letters the impact that path dependency has on outcomes when investors are either adding to portfolios, or living off portfolios—with very different results. But ignoring cash flows this go-around, volatility will reduce the ability of your portfolio to compound upon itself and reduces the growth of your money.

EARNING A PREMIUM FROM VOLATILITY

But what if you could profit from volatility?

Over the last four years, we have been doing just that. We dedicate between 10-15% of our clients' portfolios to funds that focus on option *selling*. Such efforts produce income and have the ability to generate a positive return in not only flat markets, but better yet, in choppy ones—just the kind of markets one may expect given the sensitivity of our aforementioned marble.

Options can be either *calls* or *puts*. Both can be considered as forms of insurance. Someone buys a *put* option to protect against the risk of the price of an asset going down. Or buys a *call* option to protect against the risk of the price of an asset going up. Puts and calls can be used in a variety of ways, but basically, when investors buy an option, they know at what price they can buy (or sell) the underlying investment: They have certainty.

And so it follows that, here at HH, when we *sell* an option to someone, we should be compensated for providing him or her with that certainty. This compensation is referred to as the "premium."

Does the term "premium" sound familiar? It should. As a homeowner, you've been paying home insurance premiums since the day you took possession of your property. Further, you've paid insurance premiums to help protect your car from an accident or theft. As an option seller, we are just turning this "premium" flow into an asset for your portfolio—you are acting as an insurance provider to the markets.

Homes do get destroyed, however, and insurance companies do pay out. Options will sometimes work against you and when this occurs, you will need to deliver the investment at the agreed-upon price. But here's where it gets interesting: Insurance is systemically overpriced. Insurance companies have learned to take advantage of this. So as long as they continue to sell policies, they will continue to make money.

Why is insurance systemically overpriced? Behavioral finance has a name for it: *myopic loss aversion*. Myopic loss aversion suggests that people dislike losses approximately two-and-a-half times more than they like gains. In the global markets there are millions of participants looking to protect themselves from losses. For instance: oil prices going higher (airlines), oil prices going lower (oil companies), corn or grain prices skyrocketing (livestock farmers), or corn or grain prices plummeting (agricultural farmers). In essence, all of these players are looking to turn uncertainty into certainty, and we can get paid to offer them such an opportunity.

THE VARIANCE RISK PREMIUM: BENEFITING FROM MYOPIC LOSS AVERSION AND INVESTORS' FEAR OF THE UNKNOWN

Fischer Black and Myron Scholes created the eponymous "Black-Scholes" model, which helped investors properly price put and call options. Embedded in that model is an estimation of something called *implied volatility*. Implied volatility is an approximation for the assumed volatility level of an investment between now and the end of its contract. The higher the price of the option, the higher the implied volatility. This makes sense given that an investment with higher volatility has a greater potential of moving to meet a price more distant from the current one (which direction, up or down, is up to the Soothsayer).

The good news for us as the option seller (the insurance provider) is that implied volatility is often overestimated and *realized volatility* is often much lower than predicted. In other words, our fear of the unknown, combined with our myopic loss aversion, has investors systemically overpaying for protection. The strategy we use to harvest the spread between implied volatility and realized volatility is called the Variance Risk Premium (VRP). That premium varies over time, and intuitively becomes greater when there is an increase in volatility in the markets.

Just like homeowners' premiums go up when there is a wildfire or an earthquake, sellers of options demand more compensation when markets get rocky. As a seller of risk protection, we use the Variance Risk Premium as an alternative source of return and a way to profit from increased volatility.

It's worth noting that while about two-thirds of the Variance Risk strategies we employ generate premiums from options on stocks (and therefore have some embedded stock market risk), about one-third is being generated on a variety of other asset classes. These include foreign currency exchanges, livestock, metals, energy, agriculture, and interestingly, volatility itself. What that means to our clients is that those pieces have virtually no correlation with the equity markets.

A VRP strategy is robust. It typically does well when other strategies do not—and it has the ability to do particularly well in a market environment, for example, that seems to be rolling around like a marble on a glass table. To paraphrase an analogy from Nassim Nicholas Taleb's book *Antifragile:* Cats and washing machines are both complex, but they respond quite differently to stress. Stress a cat and it will become a stronger, more cunning cat. Stress a washing machine, and it will break. Strategies like the Variance Risk Premium make your portfolio more like a cat and less like a washing machine.