

August 2007

August 2007: Déjà vu All Over Again

Overview: Recently, the stock market has experienced significant volatility. The following article includes several important concepts to help you remain disciplined and stay the course with your investment strategy.

Introduction

Sun Tzu was an honorific title bestowed upon Sun Wu, who authored *The Art of War*, the influential ancient Chinese book on military strategy. The book is composed of 13 chapters, each devoted to one aspect of military warfare. It has long been considered one of the definitive works on military strategies and has also had a huge influence on business tactics. Investors can also benefit from its wisdom. In particular, they may benefit from the insight provided by one of the book's most popular messages that every battle is won before it is ever fought.

Market Volatility Attracts Media Attention

On July 19, 2007, the S&P 500 Index closed at 1,553. By August 15, it had fallen to 1,407, a drop of almost 10 percent in less than a month. The drop was fueled by a flight-to-quality, or what might be called a flight-to-liquidity. Headlines from the financial media reported huge losses in hedge funds as investors fled all risky assets, the kind of assets hedge funds often buy.

The media (and not just the financial media) also commented about how this was an unprecedented event. The following statement is a good example. It was made by Matthew Rothman, global head of quantitative equity strategies for Lehman Brothers Holdings Inc. and a University of Chicago PhD. After three days of huge losses for equities all around the globe, Rothman stated: "Wednesday is the type of day people will remember in quant-land for a very long time. Events that models only predicted would happen once in 10,000 years happened every day for three days."¹

Lehman's models (as well as the models of many hedge funds) may have made such a forecast, but all that proved was that the models were wrong. These events have occurred in the past, and they have done so with a fair amount of frequency. In fact, we had a very similar crisis in the summer of 1998, just nine years earlier.

The hedge fund Long-Term Capital Management (LTCM) was founded in 1994 by John Meriwether (former vice-chairman and head of bond trading at Salomon Brothers). Myron Scholes and Robert Merton, who shared the Nobel Memorial Prize in Economic Sciences in 1997, sat on the LTCM board of directors. LTCM had early successes with annualized returns of more than 40 percent in its first years. Then, in 1998, it lost \$5 billion and became the most popular example of the risk potential that exists within the hedge fund industry. In 2000, the fund closed. LTCM failed because its models told them the same thing that Rothman's model had told him. As Spanish philosopher George Santayana warned: "Those who cannot remember the past are condemned to repeat it."

The Historical Evidence

Professor Eugene Fama (the thesis advisor to LTCM's Myron Scholes at the University of Chicago) studied the historical distribution of stock returns. Here is what Fama found: "If the population of price changes is strictly normal, on the average for any stock ... an observation that is more than five standard deviations from the mean should be observed about once every 7,000 years. In fact such observations seem to occur about once every three to four years."² That is a long way from once every 10,000 years Rothman's models had expected.

Also consider the following:

- ▲ From 1926–2006, 23 out of the 81 years produced negative returns. In 10 of those years, the losses were greater than 10 percent. In five of the years, the losses exceeded 20 percent. In two of the years, the losses exceeded 30 percent. In one year, the loss exceeded 40 percent.
- ▲ During the same period, out of 324 quarters, there were 27 in which losses exceeded 10 percent. There were also seven quarters when losses exceeded 20 percent. And there were two quarters when losses exceeded 30 percent.

What the data is telling us is that stocks are risky assets. And the risks show up fairly frequently. The data also tells us that severe losses are fairly common. In fact, the risk of severe losses is why stocks have provided higher returns historically than have bonds. On average, investors are risk averse. To entice them to take the risks of equity investing, stocks must be priced to provide high expected returns. And it is not a question of *if* the risks will show up. The only questions (to which no one has the answers) are *when* the risks will show up, how sharp the declines will be and when they will end.

The Anatomy of a "Crisis"

Some bear markets are caused by specific events such as what occurred on September 11, 2001 or the oil crisis of 1973. These are random events that cannot be forecasted. But others follow a fairly consistent pattern that goes as follows.

When economic times are good, investors become more willing to take risks. Prices begin to rise. The longer the times remain good, the more confident investors become, and the more risk they become willing to take. Eventually stocks may even become "priced for perfection." Eventually the risks do show up. Losses appear, credit tightens, margin calls have to be met and a flight-to-quality ensues. We might say that "the tipping point" was reached. Prices don't just fall, they often collapse and a vicious cycle develops as selling begets more selling. Some investors are forced to sell to meet margin calls and others simply panic.

When Risks Show Up

It is important to note that during bear markets all risky assets have a strong tendency to become highly correlated. Thus, while global diversification across equity asset classes with low correlation is the prudent strategy because it reduces risk over the long term, during crises this benefit "takes a holiday." The only safe havens during such periods are fixed income investments of the highest quality (for example, Treasuries, government agency securities). Riskier fixed income assets such as junk bonds and emerging market bonds also suffer from flights-to-quality and flights-to-liquidity. This is why the prudent strategy is to limit fixed income holdings to securities of the highest credit quality.

It is also important to note that the risks of hedge funds, which supposedly offer the benefit of low correlation, tend to rise during crises. The reason is that many hedge funds attempt to achieve high returns by investing in risky and illiquid assets. Thus, just when you need them to provide their so-called hedge, instead what happens is the risk appears. This is exactly what happened in the summer of 1998, with an encore performance in the summer of 2007. This is just one of the many reasons why investors should avoid hedge funds. (There are many others, including their failure to deliver on their "promise" of greater risk-adjusted returns.)

These crises also show why investors should avoid strategies that employ leverage. Leverage works well until risk shows up. Then the use of leverage often leads to the inability to wait out a bear market because margin calls must be met. Leverage has been the factor leading to the demise of many investment strategies. The perfect example is LTCM. It went belly up despite the fact that many of its trades proved to be correct if only it could have held on to its positions. Unfortunately, margin calls had to be met, and LTCM was forced to liquidate.

Let's now turn to the issue of whether investors can successfully avoid the inevitable periods of sharp losses by timing the market.

Timing the Market

The evidence on efforts to successfully time the market is compelling. For example, one study of 100 large pension funds and their experience with market timing found that, "While all the funds had engaged in at least some market timing, not one of the funds had improved its rate of return as a result."³

Let's look at some evidence on why market timers get such poor results. Keep in mind that when you try to time the market you have to be right not just once, but twice. You have to sell at the right time and you also have to get back in at the right time. We saw earlier that of the out of 324 quarters from 1926 through 2006 there were 27 in which losses exceeded 10 percent. Out of those 27 quarters, 16 were followed by quarters when the S&P 500 Index rose at least 5 percent. There were also seven quarters when it rose at least 10 percent, four when it rose at least 20 percent, three when it rose at least 30 percent and two when it rose at least 80 percent. Yes, 80 percent. Thus, following quarters when the market fell at least 10 percent, the next quarter it rose at least 5 percent almost 60 percent of the time. There were also three other quarters when the market rose, though less than 5 percent. Thus, over 70 percent of the time after experiencing a quarter of a sharp decline, the market actually rose.

Evidence such as this is why legendary investor Peter Lynch stated: "Far more money has been lost by investors preparing for corrections or trying to anticipate corrections, than has been lost in corrections themselves."⁴ And, when discussing the value of a long-term outlook, Warren Buffett has been reported to have commented, his favorite time frame for holding a stock is forever. If bear markets cannot be anticipated, what is the prudent strategy?

The Winner's Game

Successful investors know both that bear markets will happen and that they cannot be predicted with a high degree of accuracy. Thus, they build bear markets into their plans. They begin by determining their ability, willingness and need to take risk. They make sure that their asset allocation does not cause them to take so much risk that when a bear market inevitably shows up they might sell in a panic. They also make sure that they don't take so much risk that they lose sleep when emotions caused by bear markets run high.

Summary

Life is just too short for individuals to spend time worrying about their portfolio. If investors make sure that they don't take too much risk, they will be able to rebalance (buy more of the very investments that have performed the worst) in the face of large losses. Some investors let emotions drive their decisions and end up buying high and selling low. On the other hand, prudent investors who stay disciplined, and rebalance, buy low and sell high — clearly adhering to a superior strategy.

Stocks are risky investments, no matter the time horizon. Smart investors recognize that concept. They also know that they cannot predict when the bear [market] will emerge from its hibernation or how large the losses will be. They know that just as battles are won in the planning stage, the

winning investment strategy is to have a well-developed investment plan in the form of an investment policy statement. However, they also know that having such a plan is only a *necessary* condition for investment success. The *sufficient* condition is that they must have the discipline to stick to the plan.

Successful investors know that they must be like a postage stamp. The postage stamp does only one thing, but it does it exceedingly well. It adheres to its package until it reaches its destination. To be successful, investors must have the discipline to avoid having their well-developed plan end up in the trash heap of emotions.

In closing, the next time the emotions caused by a bear market tempt an investor to sell, that investor should consider the following statement from Stephen Jay Gould. Gould, who died in May 2002, was professor of zoology and geology at Harvard University.

He said, “Probably more intellectual energy has been invested in discovering (and exploiting) trends in the stock market than in any other subject — for the obvious reason that stakes are so high, as measured in the currency of our culture. The fact that no one has ever come close to finding a consistent way to beat the system — despite intense efforts by some of the smartest people in the world — probably indicates that such causal trends do not exist, and that sequences are effectively random.”⁵

For those interested in learning more about financial history, a good read would be Charles Kindleberger’s *Manias, Panics, and Crashes: A History of Financial Crises* (2005). Those interested in learning more about why and how emotions impact an individual’s ability to make rational decisions should read Jason Zweig’s *Your Money and Your Brain: How the New Science of Neuroeconomics Can Help Make You Rich* (2007).

¹ Kaja Whitehouse, **One ‘Quant’ Sees Shakeout for the Ages — ‘10,000 Years’**. *Wall Street Journal*, August 11, 2007.

² Roger Lowenstein, *When Genius Failed*. Random House, September 2000 (1st edition).

³ Charles Ellis, *Investment Policy*, Irwin, 1993.

⁴ Peter Lynch, **Fear of Crashing**. *Worth*, September 1995.

⁵ Stephen Jay Gould, *Full House*. Three Rivers Press, September 1997.

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