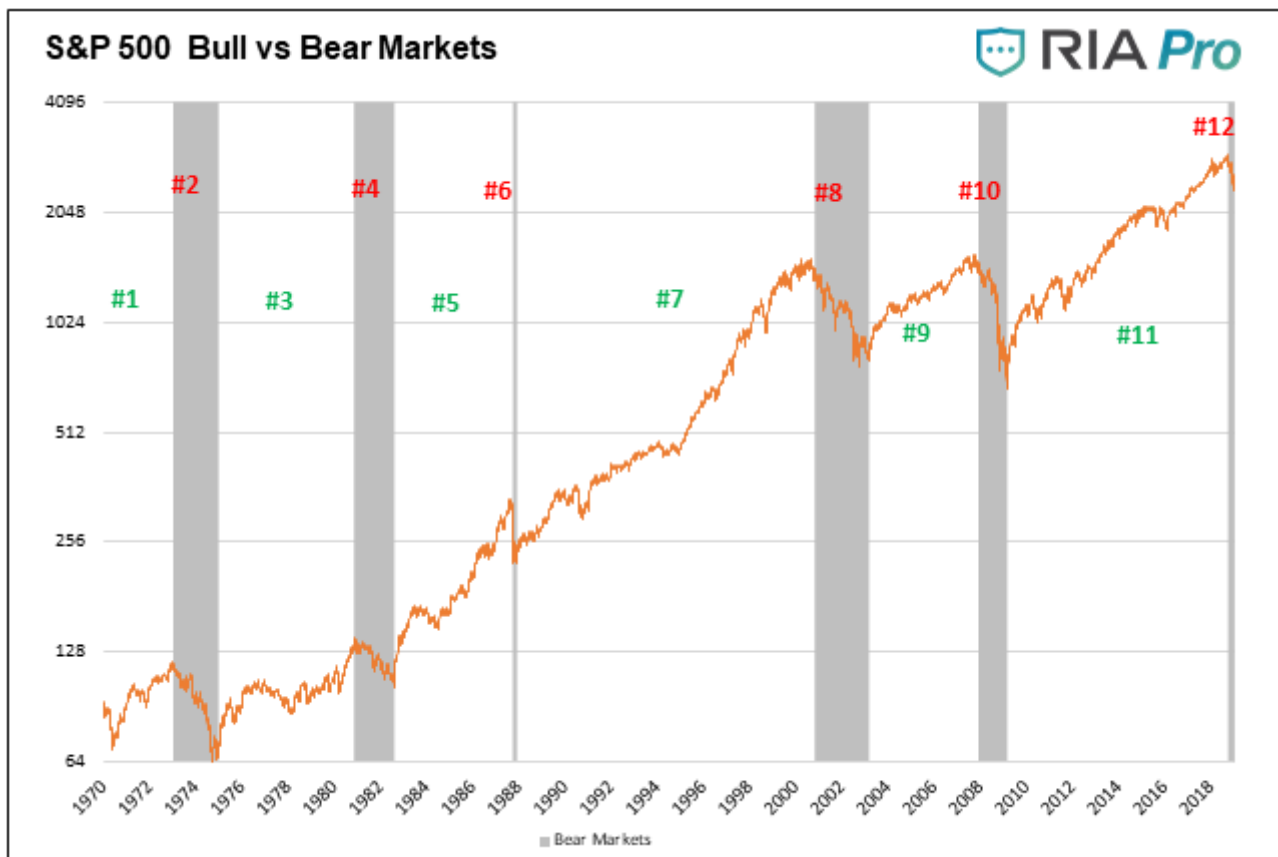


*So now we are in a bear market, which isn't defined by me as stocks being down 20%. A bear market is determined by the way stocks are acting.* :Jeff Gundlach- DoubleLine Capital This article's title is singularly the most important investment question of the day. If we are still in the bull market that began in March of 2009, we can buy and hold stocks and sleep well at night with an understanding that any losses are likely short-term in nature. If, on the other hand, we are entering a bear market, then we need to consider big changes to our longer-term portfolio allocations and alter our approach to short-term trading strategies. Unfortunately, no one can answer the question definitively until we are in the grips of a bear market. Even then, when the market has dropped 20% or more, and long-term technical indicators turn convincingly bearish, there will be many investors who fail to realize that a new investment paradigm has begun. Currently, valuation indicators are flashing red as they have been for a few years. Until recently this served as a stern warning but was not confirmed by technical measures of momentum. Over the last few months, this has changed, as our technical tools are, one by one, offering the same conclusion as our fundamental indicators. We would characterize the technical momentum indicators as flashing yellow and, as such, have yet to formally declare a bear market. That said we are quite suspicious and have taken appropriate risk-reducing actions. To some, it may seem trivial to characterize the market as being bullish or bearish. There is an old saying that reminds us why it does matter: *markets take the steps up and the elevator shaft down.* Trading the stairs is quite different than trading the elevator shaft. The shaft leaves little room for error, and the volatility is punishing even if one has the right call, while the stairs are quite forgiving.

## Volatility Indicator

In addition to momentum turning over and valuations that portend the potential for a large decline and years until we reclaim current levels, we are equally concerned that the tone of the market seems to be changing. Bull markets tend to trend gently higher with lessened volatility while bear markets impose sharp rallies and drops. It is this roller coaster-like behavior that has heightened our apprehension. Sensing the change in a market's tone is partly the benefit of years of watching markets and observing little signals that many investors do not notice. Fortunately for those with less experience or jobs in other fields, there is some science behind it too. The first graph below shows the S&P 500 in orange with bear markets highlighted in gray. You will notice we inserted green and red numbers that correspond to related bull or bear market eras. The table below the graph uses two methods to compare volatility between bullish and bearish markets. First, is the average 20-day difference which measures the *percentage* distance between the maximum and minimum intraday prices that occurred over rolling 20-day periods. The column next to it measures annualized volatility based on closing prices. The calculations are segmented for each bull and bear market.

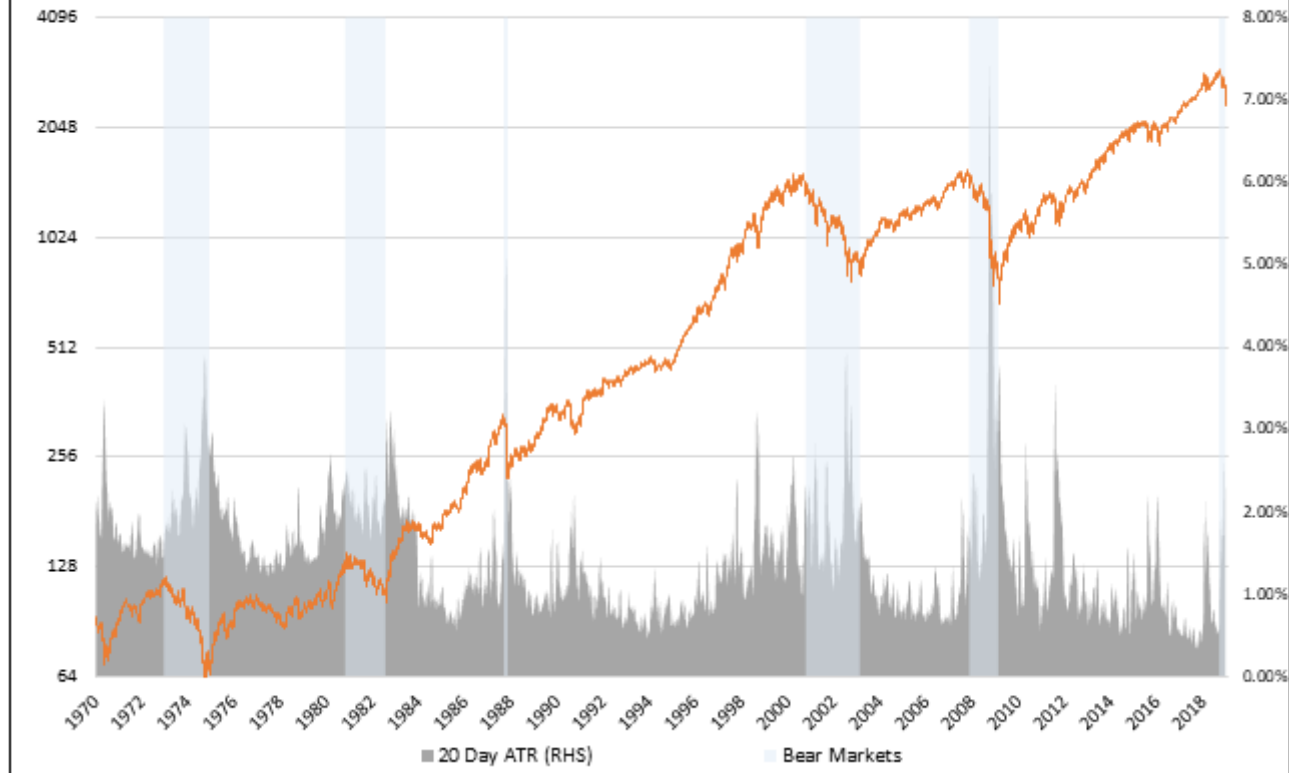


Bull Markets			Bear Markets		
Period / Date Range	Avg. 20 Day Diff (min vs max)	Avg. Annual Volatility		Avg. 20 Day Diff (min vs max)	Avg. Annual Volatility
#1 1/1970 - 12/1972	7.07%	10.32%	#2 1/1973 - 12/1974	10.49%	17.83%
#3 1/1975 - 11/1980	7.09%	12.13%	#4 12/1980 - 8/1982	8.06%	13.86%
#5 9/1982 - 9/1987	6.95%	13.67%	#6 10/1987 - 12/1987	27.36%	57.78%
#7 1/1988 - 10/2000	6.26%	13.85%	#8 11/2000 - 3/2003	10.40%	22.63%
#9 4/2003 - 11/2007	4.98%	12.01%	#10 12/2007 - 3/2009	14.14%	34.11%
#11 4/2009 - 9/2018	6.09%	14.01%	#12 10/2018 - ?	10.35%	21.72%
<b>Average</b>	<b>6.34%</b>	<b>13.15%</b>	<b>Average</b>	<b>10.88%</b>	<b>22.05%</b>

It is worth stressing the following:

- Bull markets last much longer than bear markets and account for a large majority of the time. The average duration of bull markets since 1970 is seven years while the average for bear markets is only one and a half years.
- The two measures of volatility, 20 -day difference and annualized volatility during bear markets are nearly double that of bull markets. **What bear markets lack in duration they make up for in volatility.**

Both indicators are simply saying that prices move a lot more, up and down, in bear markets than in bull markets. That characteristic has been a very reliable indicator of a pending bear market. The following graph is another way of adding to that point. The chart, like the first one, shows the S&P 500 and associated bull and bear markets. However, in darker gray, we added the 20 day average of the daily price changes, also called the average true range (ATR). This differs from the first graph as it measures daily closing price changes as opposed to the minimum and maximum *intraday* prices over 20 -day periods.



Notice

again, daily price changes increase during bear markets and also during drawdowns that are not classified as bear markets. The average ATR during bull markets is 1.29% and the ATR during bear markets is significantly higher at 2.23%.

## Current

As shown in the bull/bear comparison table under the first graph, volatility in the current period which started in early October looks very similar to prior bear markets. Additionally, the 20 -day average ATR has been running slightly above the bear market average over the last few weeks. Have we entered the bear's den? •We are not 100% sold, but the characteristics of the current environment offer compelling evidence. Each day that passes brings us closer to that determination. From a long -term investment perspective, investors should both reduce equity holdings and favor ?safer? equity holdings. Short -term traders should understand the potential for wild profit swings. Daily and hourly price volatility will be much larger than those to which we have been accustomed. Use stop losses diligently and other risk safeguards to limit losses. At the same time, allow flexibility with those limits to allow positions in your favor to run. Take what the market gives you and make sure the market pays you for taking risk in times of extreme volatility. Since October 3, 2018, the S&P 500 dropped 19% and regained half of it over the last two weeks. As we have shown, these wild swings do not bear the fingerprint of a bull market. Stay tuned to our daily charts, articles and portfolio actions for further confirmation that we have a loose bear on our hands. Lastly, the table below from @oddstats highlights the extreme volatility that accompanied the last two major drawdowns.

## **DROPS AND POPS DURING THE 2000 and 2007 BEAR MARKETS**

EVERY SINGLE TRADING DAY IS ACCOUNTED FOR BELOW  
Close-to-Close (not intraday), "days" are trading days

### **2007 - 2009 Crash**

Dropped -18.5% in 101 days  
Then Popped +12.0% in 49 days  
Then Dropped -40.5% in 112 days  
Then Popped +18.5% in 6 days  
Then Dropped -25.2% in 12 days  
Then Popped +24.2% in 30 days  
Then Dropped -27.0% in 40 days

### **2000 - 2002 Crash**

Dropped -11.2% in 15 days  
Then Popped +12.1% in 97 days  
Then Dropped -27.5% in 147 days  
Then Popped +19.0% in 32 days  
Then Dropped -26.5% in 82 days  
Then Popped +21.5% in 72 days  
Then Dropped -32.0% in 137 days  
Then Popped +20.7% in 22 days  
Then Dropped -19.3% in 33 days

@OddStats January 11, 2019