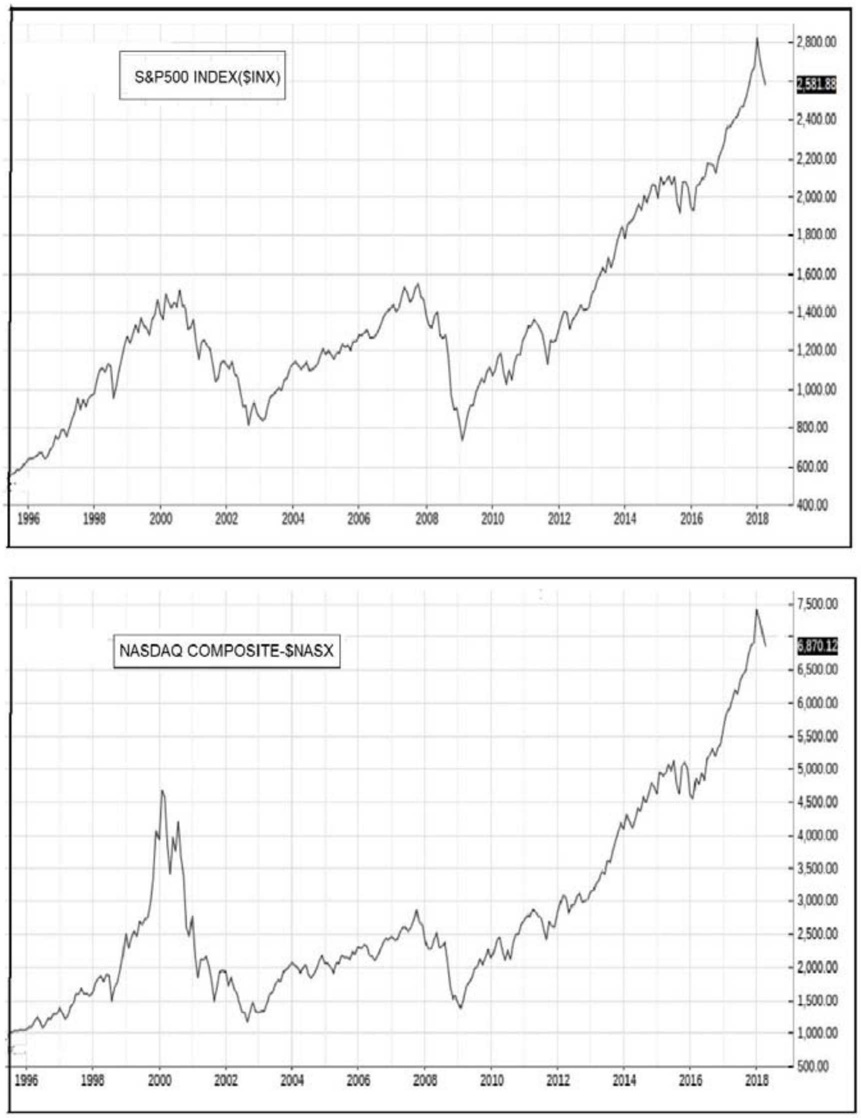
CORRELATION BETWEEN US STOCK AVERAGES

Back in July of 2011 I wrote (on this Web Page) about the observed correlation between world stock averages and the US S&P500 stock index. The correlation between the various averages was shown to be excellent and, although we were unable to come up with a definitive reason of why this is so, the correlation has continued to hold through the present day. We wish in the present article to further examine market average correlations, this time confining ourselves exclusively to US averages. In particular we will concentrate on the correlation between the S&P500 index($INX) and the Nasdaq Composite index($NASX) . The Standard and Poors 500 index is perhaps the best measure available for determining bull or bear markets for US stocks while the Nasdaq index represents the stocks of newer and more innovative companies. In general one notes that the Nasdaq stock index tend to rise more during bull markets and fall further during bear markets compared to the more staid stocks present in the Dow Jones Industrial Average or the S&P500 index.

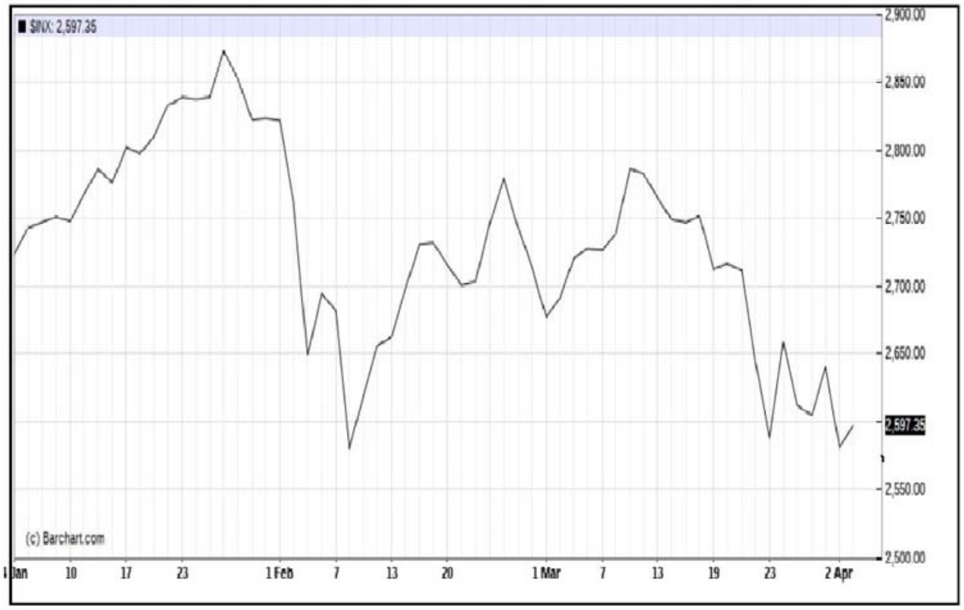
We begin our correlation study by looking at the $INX and $NASX stock averages for both the long term (20 years) and short term(3 months). Here are the results, using data obtained from barcharts.com,-

LONG TERM CORRELATION OF THE S&P500 AND THE NASDAQ COMPOSITE STOCK INDEXES



and-

SHORT TERM CORRELATION BETWEEN THE S&P500 AND THE NASDAQ COMPOSITE



We see that the price- behavior is almost identical with market tops and bottoms clearly occurring simultaneously for both the S&P500 index and the Nasdaq composite index.. However, one notes that the ratio between the percent rise or fall of NASDAQ COMPOSITE stocks divided by the percent rise or fall of S&P500 stocks is typically larger than one. Specifically these ratios of price changes during the five distinct trends shown in the 20 year graphs have the following values-

$$R = \frac{\%NASDAQ}{\%S\ \&\ P500} = \frac{3500/1000}{900/580} = 2.25$$ for the 1996-2001 dot com bubble build up

$$R = \frac{3400/4700}{700/1500} = 1.55$$ for the 2001-2003 dot.com bubble collapse

$$R = \frac{1500/1300}{730/820} = 1.30$$ for the housing boom of 2003 to 2007

$$R = \frac{1400/2800}{780/1530} = 0.98$$ during the great recession of 2007-2009

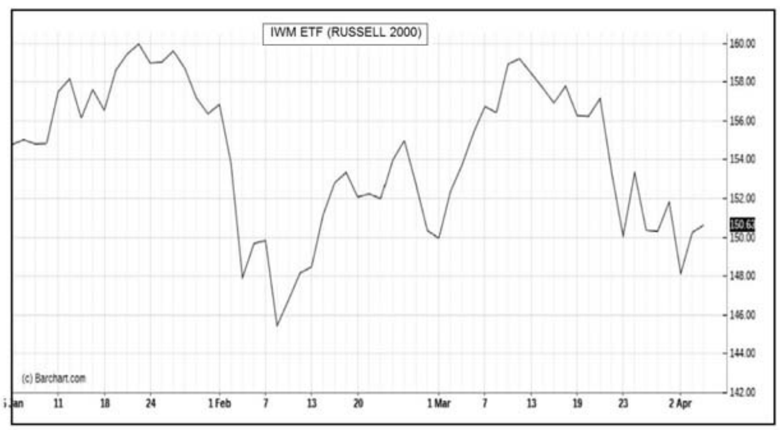
$$R = \frac{5900/1500}{2050/750} = 1.44$$ during the Bernanke fiat money bubble

With the exception of the great recession bear market, the above ratios clearly show that the Nasdaq Composite has sharper rises during bull markets and larger declines during bear markets as already suggested earlier. It is difficult to say where one expects the new bear market, which started a few weeks ago (late January 2018), to go. All that one can say is that we expect a larger percentage drop for Nasdaq stocks than those present in the S&P500 index during the present downturn. My educated guess would be that we will see a bottom at about 2000 on the S&P500 with a present possible profitable investment being to short the QQQ ETF via the ETFS PSQ or QID. One should of course be ready to cover these shorts should the market return to a bull market phase.

Although there is seen to be an excellent correlation for bull and bear market timing using the twenty year graphs, the timing signals are a bit slow because these longer term graphs measure stock price changes only on a monthly basis while major market moves can occur in a day. To get around this difficulty, we use the shorter three month graphs above to help with the timing at critical transition points. They gave a sell signal on January 28th of this year. I reacted to this signal and sold all my long SPY ETFs on Feb 1, 2018 at $282/sh. This ETF represents essentially1/10th of the S&P500 index value. Since that time the price of this high volume ETF has fallen as low as $259/sh and may possibly go still lower. If the S&P500 drops to 2000, the SPY ETF will drop to $200/sh at which time it may be a good buy.

In addition to the Nasdaq Composite and S&P 500 Indexes, there are many other indexes of interest. These include in particular the Dow Jones Industrial Average because of its historical significance and the Russel 2000 Stock Index because of its broad basis. To compare these indexes for their correlation we can use the ETFs DIA and IWM, respectively. The following gives a comparison of these two ETFs over the last three month-

THREE MONTH COMPARISON OF THE ETFS DIA AND IWM



Note again the excellent correlation between the indexes. They both gave a sell signal about January 28th of this year. However the Russel 2000 index seems to be declining less rapidly than the Dow Jones Industrial Average since that time. In the meanwhile both IWM and DIA are in a definite downtrend which will stop only after a superimposed lag curve indicates a new bull market signal. When this will come is unknown until after it has actually happened. In the meanwhile, day traders are having a field day riding plus or minus 300 point daily Dow swings. It is not however a good time to be a long term bull or a long term bear during such highly volatile markets.

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