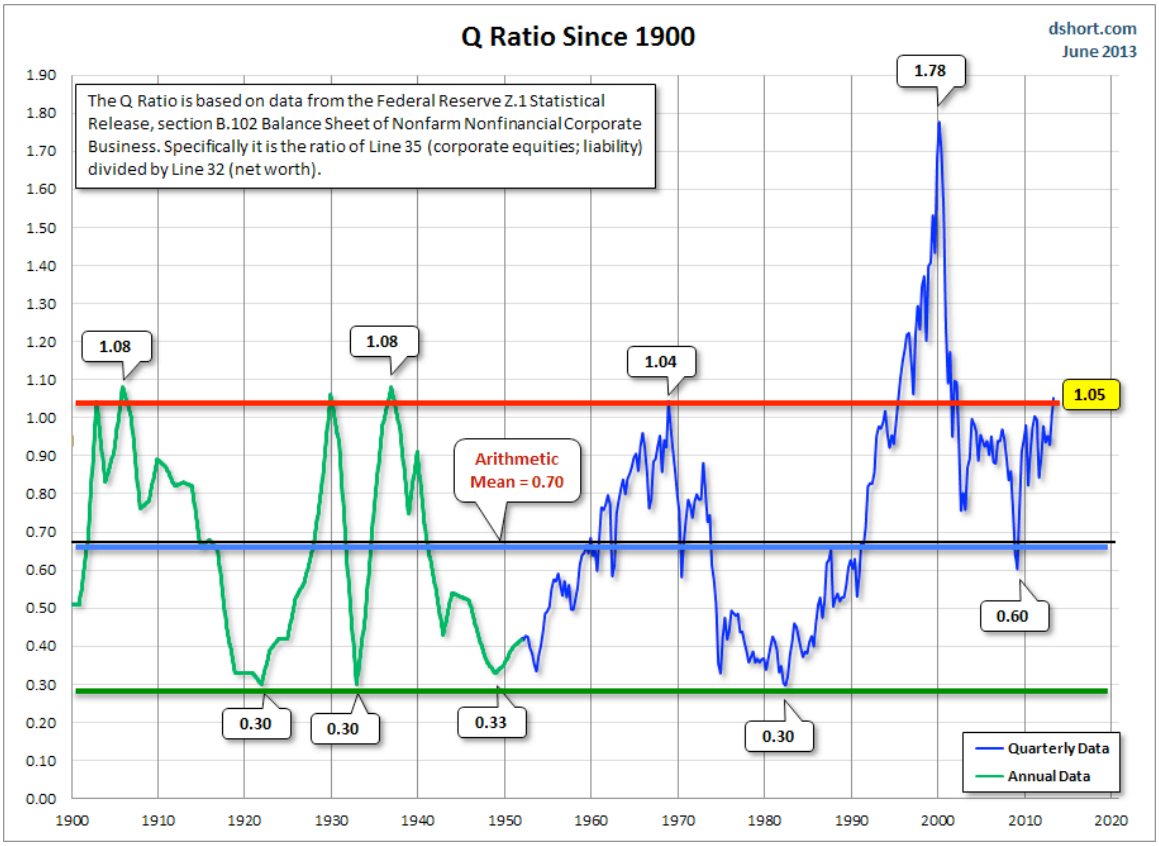
The Starboard Side Report

The week ending June 07, 2013

The Federal Reserve released their quarterly Flow of Funds report this week and that means it is time to check in on the Q Ratio. The Q Ratio is the total price of the US stock market divided by the replacement cost of all its companies. The total price of the market (the numerator) is the easy part to calculate, it is simply the market value of the US stock market as measured by the Vanguard Total Market ETF. The replacement cost of all the companies in the market (the denominator) is the more challenging part to determine. Luckily, the Federal Reserve does all the work of accumulating this data every quarter. Whereas many valuation studies of market value are *income statement* based (i.e. earnings), this ratio of stock market value divided by corporate assets is a *balance sheet* analysis. Historically, it has done a good job of showing investors how cheap or expensive the market is based on the underlying corporate assets. Without further ado, here is the latest Q Ratio chart from Doug Short of Advisor Perspectives.

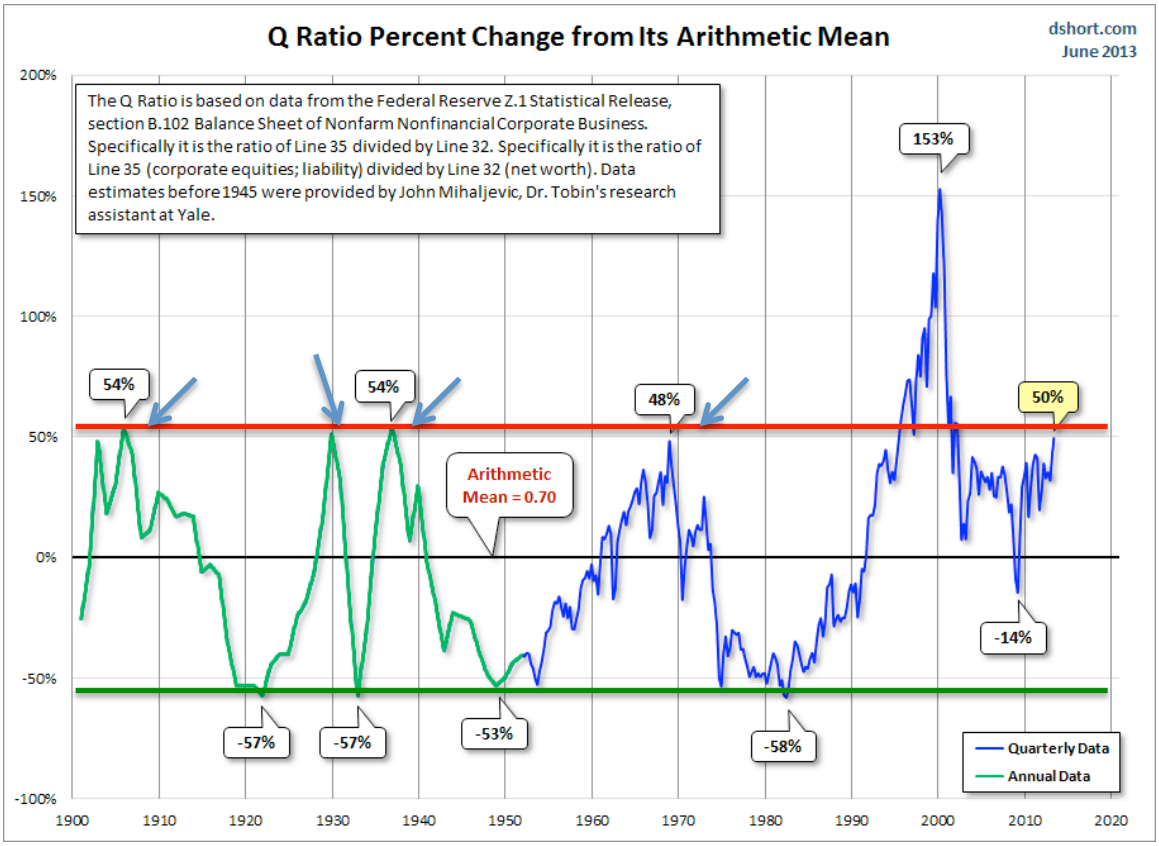


The red horizontal line= the top of the historic band (i.e. market dangerously overvalued)

The blue horizontal line= the mean since 1900 (longer-term historic average)

The green horizontal line= the bottom of the historic band (i.e. market extremely undervalued)

The most recent reading of 1.05 has just reached the threshold that can be considered extremely dangerous and overvalued for equity investors. How do we characterize dangerous and overvalued? Well, the historic average is 0.70 as highlighted by the blue horizontal line in the middle of the chart. That means the current Q ratio of 1.05 is exactly 50% above the long-term historic average. This is only the sixth time in history that the US stock market has been valued as richly as it is at present from a balance sheet perspective. Below we can see the historic percent change from the mean.



Source: dshort.com

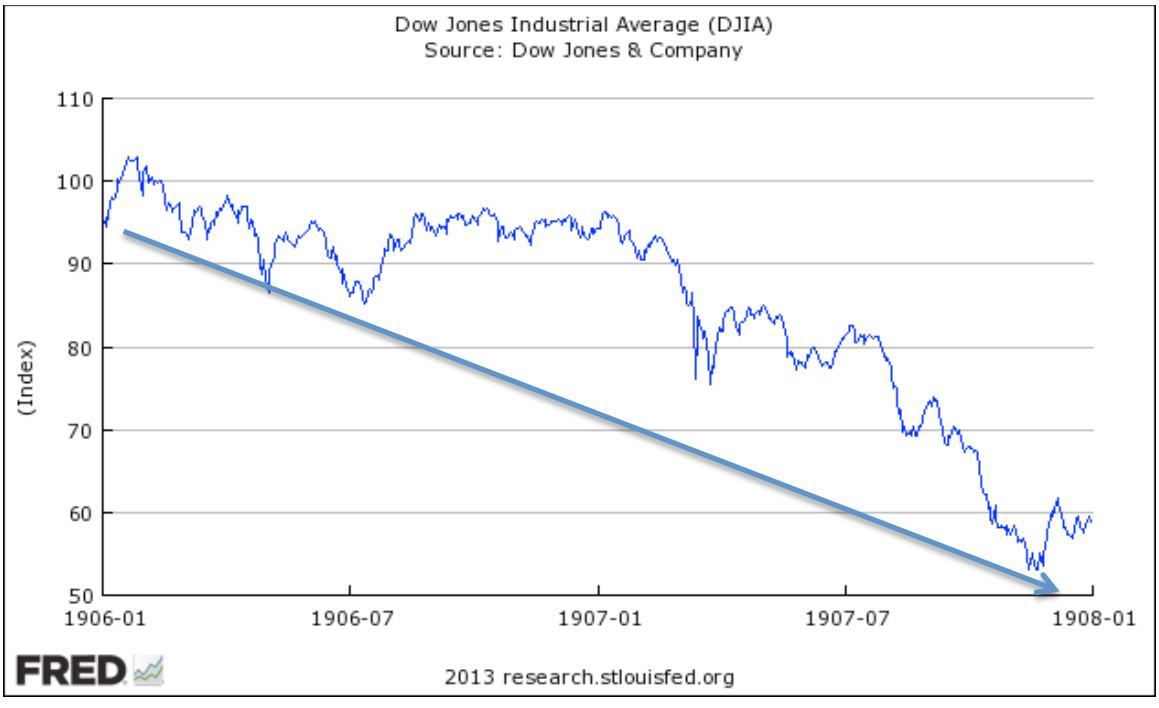
When the stock bubble peaked in 2000, the Q Ratio was an extraordinary 153% above its long-term average! According to the principle of mean reversion, this was clearly an outlier that will most likely never be repeated in our lifetimes. At least not twelve years after it just occurred. Instead, mean reversion would suggest that the Q Ratio is infinitely more likely to revisit the green line lower boundary of over 50% *below* the mean (versus 50% *above* today). This is a huge drop from the red line danger zone where we reside today to the green line long-term buy zone. Unfortunately, all major long-term bull markets in history have only begun after the Q Ratio reverted to over 50% below its mean.

If we study US equity price following the other four times that the Q Ratio has been at least 48% *above* its historical Q Ratio mean, they show that we are clearly at risk of a major decline. We have stripped out the 2000 bubble peak due to its aforementioned role as a statistical outlier. The arrows along the red line on the chart above mark these overvalued points in 1906, 1929, 1937 and 1969.

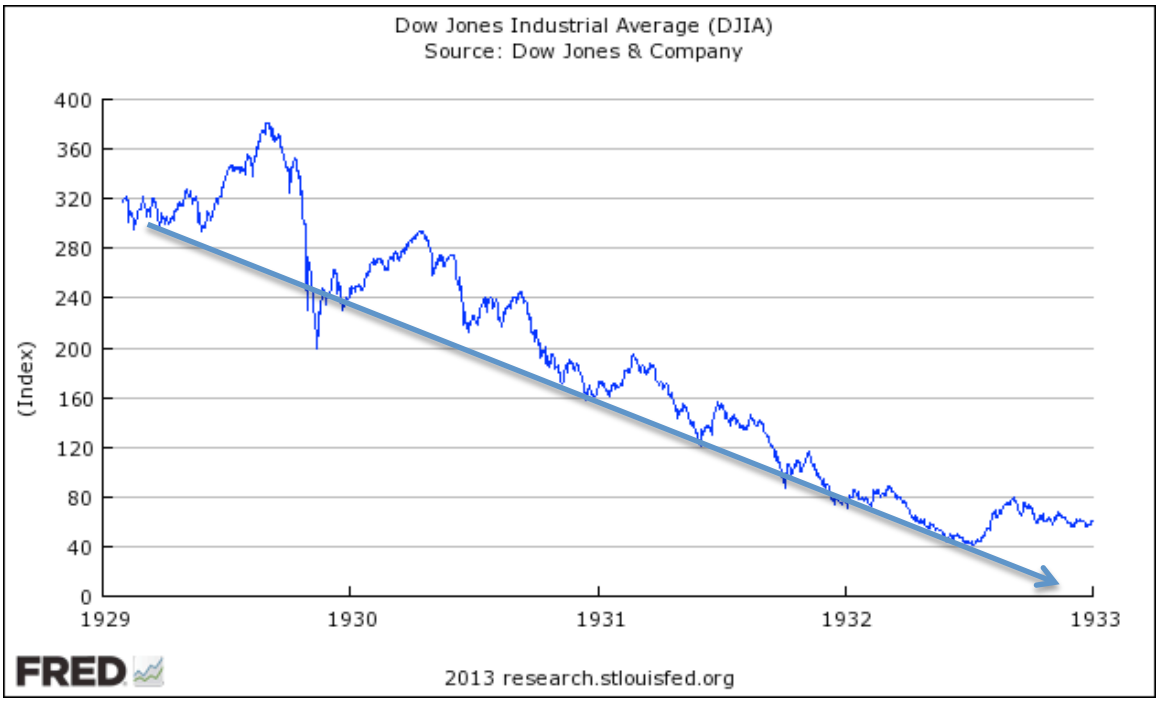
Correction Timeframe	Q Ratio % above Mean	Dow % Decline
1906-1907	54%	-48.5%
1929-1932	51%	-88.7%
1937-1938	54%	-47.4%
1969-1970	48%	-35.9%
Avg.	52%	-55.1%

From its current level of 50% above the mean, the US stock market would have to fall 33% to get the Q Ratio back to its mean and 70% to get it back to the extremely undervalued territory at the bottom of the historic band. This leads us to the conclusion that market participants are taking epic amounts of risk up at these price levels. The four charts below are the price behavior of the Dow Jones Industrial Average in the four episodes prior to 2000 when the Q Ratio was more than 48% above its historic average of 0.70. As you can clearly observe, it was not a good time to buy stocks. We want to stress that this is not a short-term timing mechanism that says the Dow has to roll over and crash tomorrow. It is just a warning that once the cyclical bull market that began in 2009 ends, there is great historical precedence for another 50% type decline waiting around the bend.

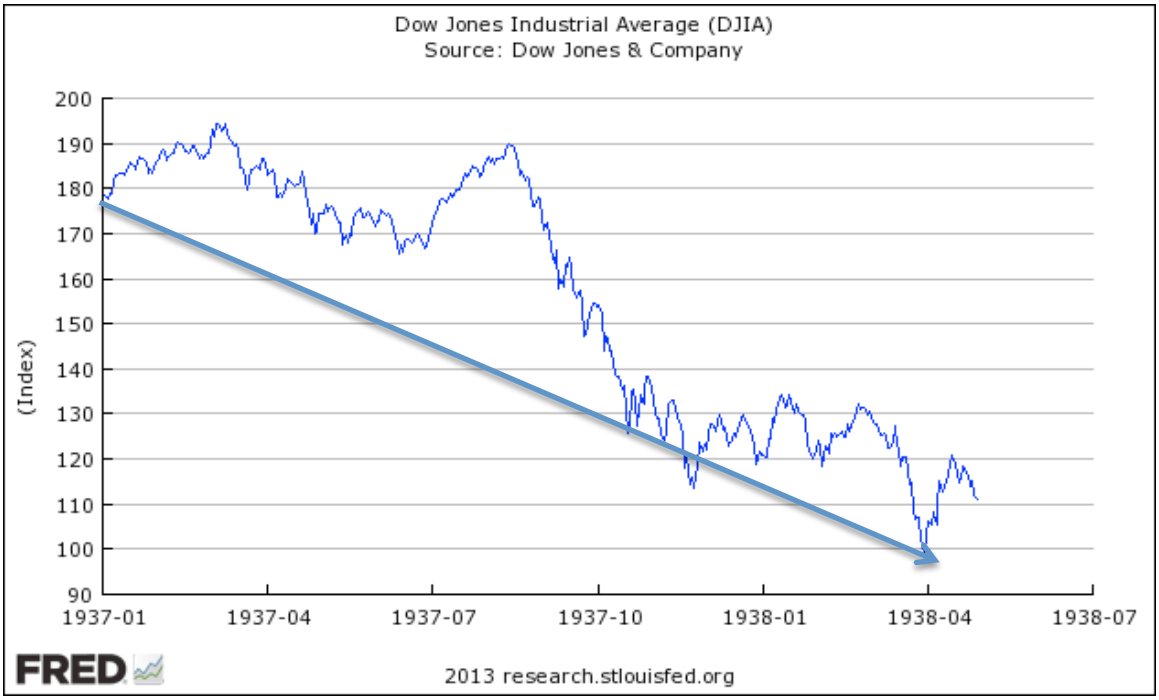
Dow Jones Industrial Average 1906 – 1907



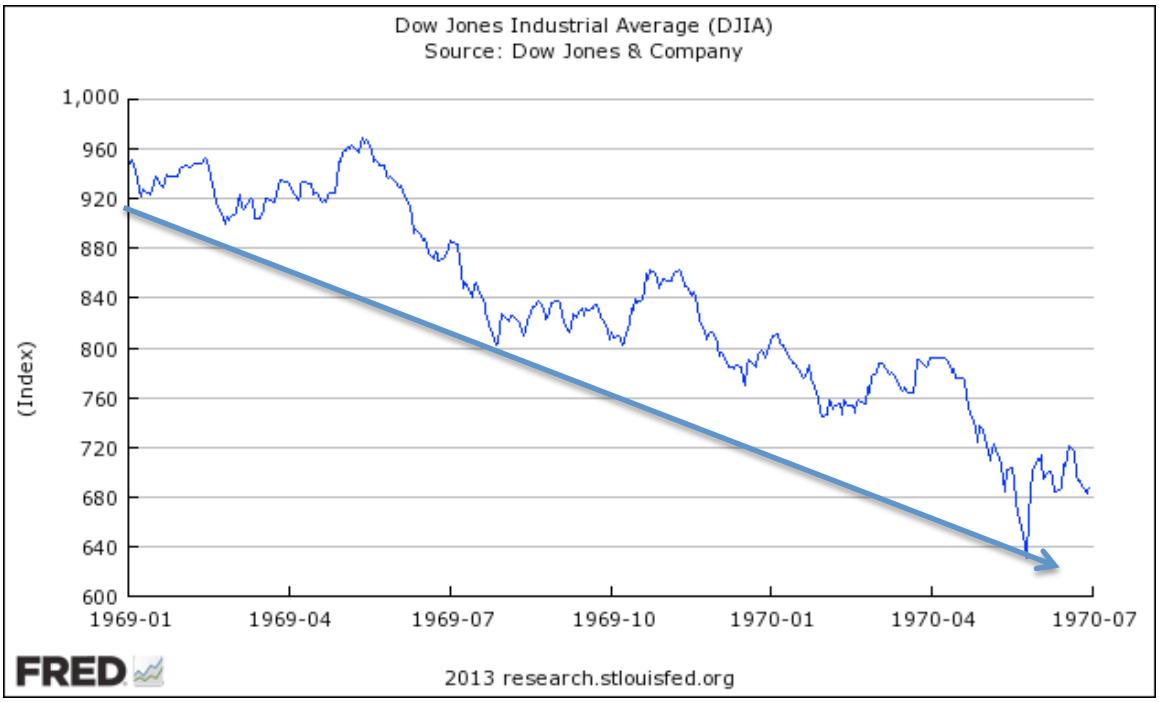
Dow Jones Industrial Average 1906 – 1907 Corrective Episode



Dow Jones Industrial Average 1937 – 1938 Corrective Episode



Dow Jones Industrial Average 1969 – 1970 Corrective Episode



In conclusion, the Q Ratio is not a short-term timing device to tell us when the market will top out. Rather it is an important risk barometer that tells us how the market should behave once it does top out. This is an important distinction. Smithers & Co is a successful long-term value investor that incorporates the Q Ratio into their investment analysis. They believe that the Q Ratio is vital for investors to understand because it does the following three things:

(i) It provides a sound way of assessing the probable returns over the medium-term.
(ii) It provides information about the current risks of stock market investment.
(iii) It enables investors to avoid nonsense claims about value.

Right now the Q Ratio is waving a giant red flag for those investors disciplined enough to listen.