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Fair Value for Stocks

By Richard Morey

For the stock market, the concept of "fair value" is the one thing a person needs to know to avoid life-changing crashes. There are many ways to attempt to determine how much stocks are worth relative to how much they are selling for today. These are called "stock valuation methods."

Using the concept of fair value only works over long time periods, and especially near the end of a business cycle when the losses all appear. These days, however, it is hard to determine what one would mean by "long term." This is now the second-longest economic expansion in American history, and will be the longest, since 1854, by August of this year. That's long-term! It's unlikely to continue much longer. At least, it never has before, and in the judgement of our astute analysts at Secure Retirement, this particular time period in history hardly seems immune to risk. Massive economic and market risks have grown, and grown, and grown – right along with stock and junk bond prices.

Oddly enough, most people know this is true, and these days I hear investors talking about it all the time. They just can't imagine all the risks they see and hear about will ever topple the markets. They believe "this time is different." It isn't.

We believe the historic length of this economic cycle, combined with what we view as massively inflated markets, has created a cocktail which must lead to a grand explosion at the end. The purpose of determining fair value for the stock market is to anticipate how much it is likely to fall by the bottom of the next recession. In this article, we are going to examine what the three best stock market valuation methods are telling us today.

The most common valuation method you hear about is the price-to-earnings, or p/e, ratio. Unfortunately, the p/e ratios discussed on television use one of the worst methods, with a long, poor track record. It is based on the current price relative to next year's estimated profits. This is absurd on the surface, as the fact companies and analysts regularly overstate expectations can be documented by anyone. This overstatement of earnings dramatically lowers the p/e ratio, making stocks appear far less expensive than they are based on actual earnings. In fact, the forward earnings estimate method of valuing stocks, which usually results in a price-to-earnings ratio between 15-17 year after year - even though corporate earnings are often extremely volatile - has a very low correlation with the future outcome for stocks.

Keep in mind all stock valuation methods are judged by exactly one number. This number is their correlation to the long-term future of stock prices. Over time, all the unusual and extraneous factors are washed out of stock valuations, leaving fair value. Fair value is where stock prices would be if they returned today to their historic average based on the profits they will be able to return to their stockholders over time.

As mentioned above, extraneous factors, and idiosyncrasies related to a particular business cycle, are essentially "washed out" over time, at which time stock prices have a remarkably high probability of returning to their mean – if investors are lucky. The fact stocks prices (along with profit margins) are one of most mean-reverting numbers in the financial world should, one would think, greatly concern stock investors today.

Statistically, the "noise" of extraneous factors is canceled out over 12 years, at which time you can pretty much guarantee a reversion to the mean for nearly all the large economic variables and market prices.

This 12-year period also equates to the longest business cycle conceivable. For "normal," much shorter business cycles, markets revert to their mean much faster, which is precisely what they do by the end of a business cycle or bottom of a recession.

There are three stock valuation methods which have an unusually high correlation with long-term future outcomes. They are the **Shiller Cyclically-Adjusted P/E ratio**, the **Buffett Indictor**, and the **Hussman Margin-Adjusted P/E**. Dr. Hussman's Margin-adjusted P/E is the best indicator of the long-term prices of stocks that has been created, with a correlation of .89 with future 12-year outcomes. To put this in perspective, the "Fed Theory," which is the method the Federal Reserve supposedly uses, has a correlation below 50%! Stocks are more likely to go the *opposite* direction than what their method predicts. I would find this humorous if the investing public did not base so many of their decisions on the Fed.

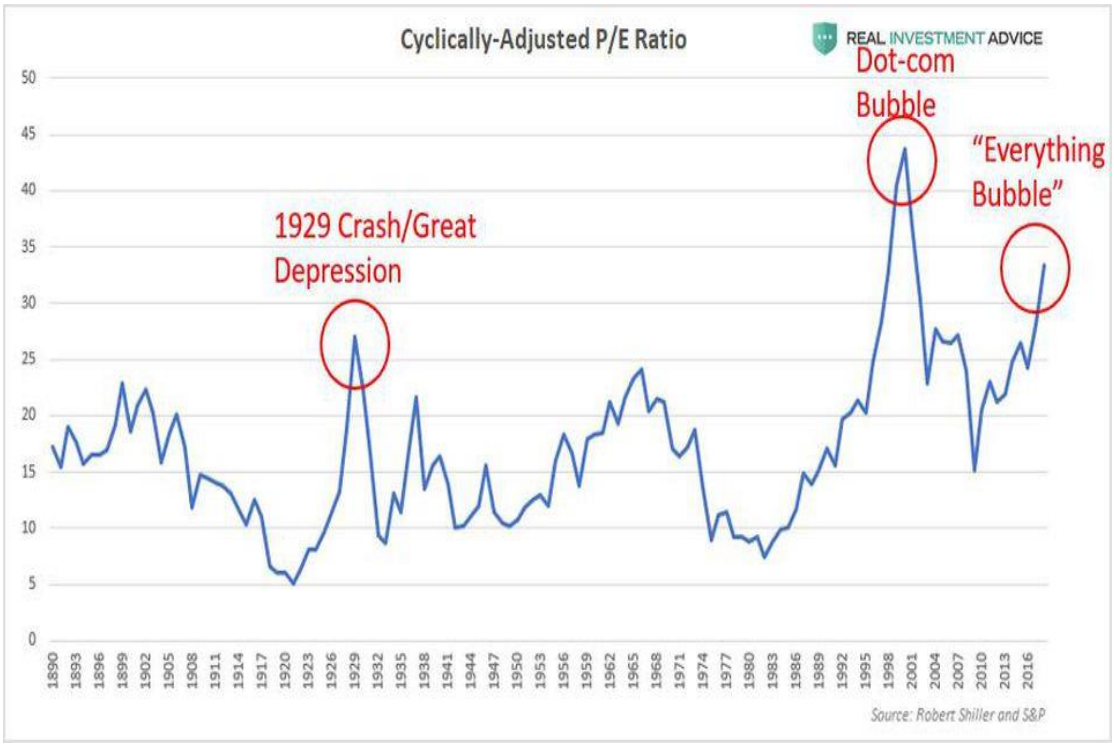
Perhaps more importantly, when all three of the methods of valuing stocks which have been proven right more often than any other methods are at historic extreme levels, we begin to take very serious notice. Perhaps one of these three different methods could be wrong, but when all three are near or above the all-time most extreme position for stocks prices, we become beyond confident stocks will come crashing down

As you can see in the charts below, fair value is far below today's level of prices according to all three of the most reliable measures.

The Shiller Cyclically-Adjusted P/E ratio

Using Dr. Robert Shiller's method, we calculate how high or low stocks are presently based on their 10-year average of earnings. This is the most widely-quoted alternative to the unreliable p/e ratios based on estimated future earnings.

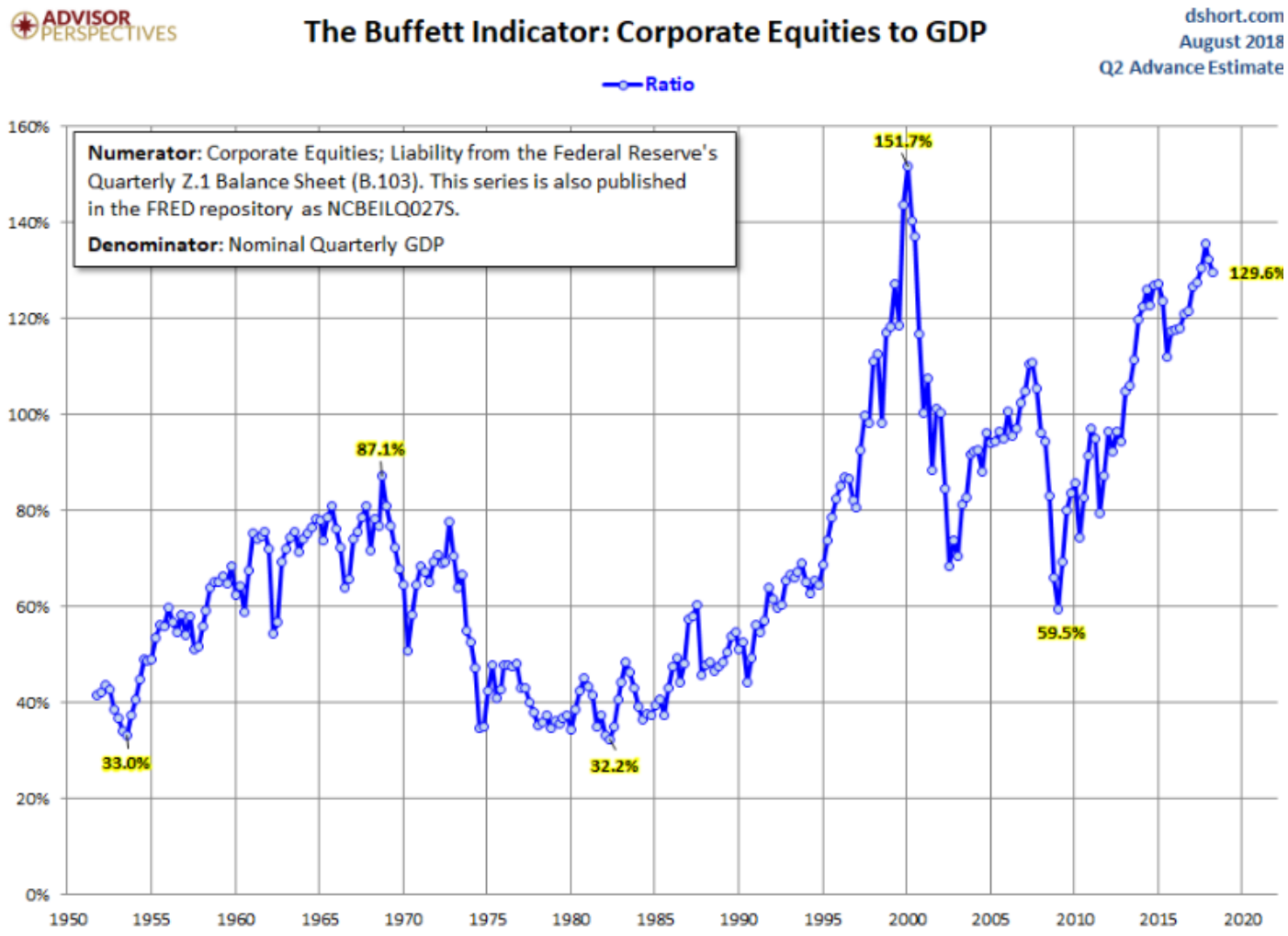
According to the Shiller Cyclically-Adjusted P/E ratio, today the stock market is presently the second most over-priced since 1890, surpassed only by the top of the ".com bubble" in 2000. The third highest valuation, according to this method, was in 1929. Good company! According to the Shiller P/E Ratio, the stock market needs to fall 45% to return to the mean or average valuation.



The Buffett Indictor

Next let's look at the Buffett Indicator. The Buffett indicator has been used by Warren Buffett for decades. It is a simple, broad calculation showing how much the entire stock market is valued at today relative to history. Mr. Buffett chose to compare stock values relative to the entire Gross Domestic Product or GDP. This indicator shows how much every stock in the country is selling for combined, relative to how much is produced in the entire economy in one year.

While not the very best indicator, the Buffett Indicator has worked, flawlessly, in spotting severely over-priced stock markets for the last six decades.



As you can see, the Buffett Indicator is at the second highest level, in this case since 1952, and again topped only by the peak of the doc.com, tech market-led bubble.

The Buffett Indicator is presently at approximately 130. Its historic average is just under 74. This means the Buffett Indictor shows stocks need to fall 43% to reach their average price relative to the size of our entire economy.

So, our first two reliable indicators show stocks falling 45% and 43% to reach fair value.

The Hussman Margin-Adjusted P/E

The single best method of valuing stocks involves smoothing for profit margins over time. I've never heard a complete explanation as to why this is the case, but if you base your valuation on average corporate profit margins over time, stocks will rise or fall over time accordingly. One explanation for the fact smoothed profit margins can predict future stock prices so well may be related to the fact that profit margins are the one variable in economics which is the most mean-reverting. Profit margins basically *always* return to their average levels. They take stock prices with them.

The Hussman Margin-Adjusted P/E is quite similar to the the Shiller P/E, except Dr. Hussman uses profit margins, averaged over 10 years, while Dr. Shiller uses earnings, smoothed over 10 years.

While the Shiller P/E has the second highest correlation with the actual outcome in terms of the general level of the stock market, Dr. Hussman's methods are indisputably the most accurate and reliable over time. From a statistical standpoint, they are near-perfect expressions of *the* key variables which determine long-term stock prices. The math is indisputable, and the math and history line up pretty much perfectly with Secure Retirement's rather extensive macroeconomic analysis covering the history of our economy.

In other words, you can basically go ahead and assume long-term prices will be reflected in the Hussman Profit-Margin Adjusted P/E. Until this most recent stock market bubble, the largest divergence between Dr. Hussman's P/E and what ended up occurring in long-term stock market prices was at the peak of the doc.com bubble, when the largest tech companies had valuations basically beyond anything ever seen.

So, Dr. Hussman was most "wrong" at the peak of the largest bubble ever. At the time, in early 2000, he wrote his valuation figures indicated the tech-heavy NASDAQ would need to fall 82% to reach fair value. Oddly enough, it began to fall a few weeks later and fell almost exactly 82%. The entire S&P 500 lost 55% from top to bottom, which was also right in line with what was expected given the level of its over-valuation according to Dr. Hussman's method.

Please also note Dr. Hussman's P/E much more accurately portrayed the level of the expected stock market crash in 1929 than the Shiller or Buffett methods. Notice also that today's bubble is far, far larger – using all three methods – than the amount stocks were overvalued in 2008.

According to Dr. Hussman's valuation method, the stock market today is essentially the same as it was the day before Black Tuesday which kicked off the Great Depression. These are the periods with the two highest valuations for stocks since 1890, with the third being the year 2000. This is very seriously not good company!

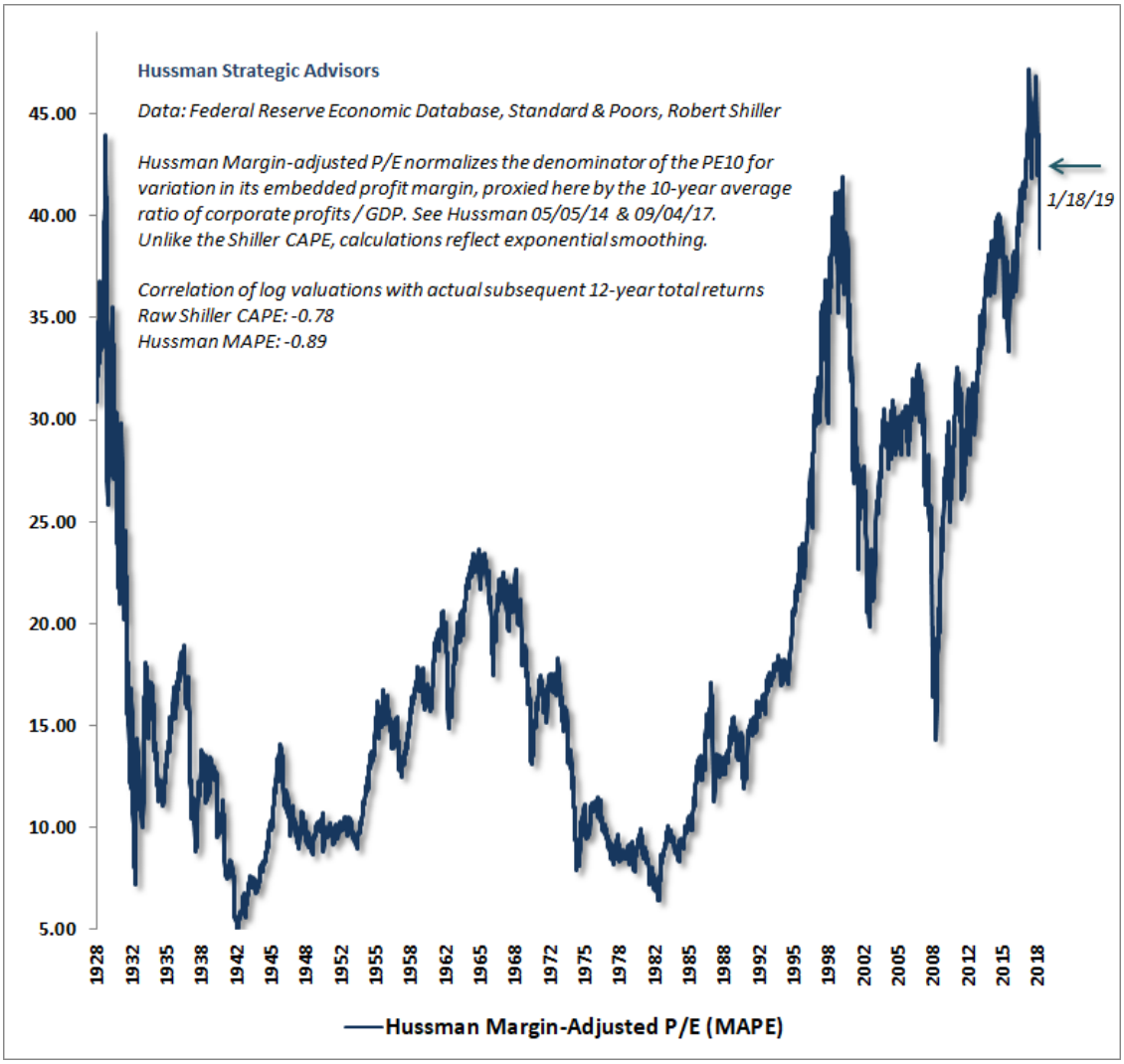
Disturbingly, two of the previous three largest stock market bubbles coincided with the two worst economic downturns since 1890, which were the 1929 crash and Great Depression and our mortgage crisis from 2008-2009. The bubble of 2000 did not bring down the broad economy because the stock bubble was so centered on technology companies. The economy as a whole actually slowed little, though our local economy in Silicon Valley was hit hard. But the economic problems did not impact every company in the country in a potentially severe way.

Dr. Hussman's P/E shows the stock market would fall approximately 63% to reach its fair value. In fact, using the best method statistically to analyze all the data, the stock market has a very high probability of dropping 60-66%. In 2008-2009 stocks went down just over 50% from top to bottom, while during the Great Depression they fell 73%. If the economy mirrors Dr. Hussman's expectation for stock market losses, it would equate to an economic downturn substantially worse than 2008 but not quite as bad as the Great Depression. One can easily make the case this is the likely outcome for this economic cycle.

Given the fact we do have the largest worldwide debt bubble in the history of the world, expecting the worst is hardly irrational. To the contrary, one really should expect the worst when you consider the largest financial crises and losses throughout history have been based on debt bubbles. We have the largest one in history. Do the math.

Personally, at Secure Retirement we are deeply concerned by the presence of debt bubbles – some of them identical in nature – throughout the world. One concern is that other countries' financial crises could easily bring our economy, which would already be dropping substantially, down even further. A drop of up to 75% for our entire stock market could occur, and would be expected, should we descend into a global deflationary depression.

In other words, Dr. Hussman's work shows how much stocks will need to fall to reach their average price level. My concern involves where stocks will land if they end up substantially below average. I can only pray we "only" fall significantly harder than in 2008, but not as far as in the Great Depression. That is what Dr. Hussman's analysis essentially says at this time, "translated" into macroeconomics. I hope he's correct, and I hope I am completely wrong with my fears the rest of the world will pull us down, when the time comes, even more than we're falling on our own, leading to nearly uncharted economic – and market – difficulties.

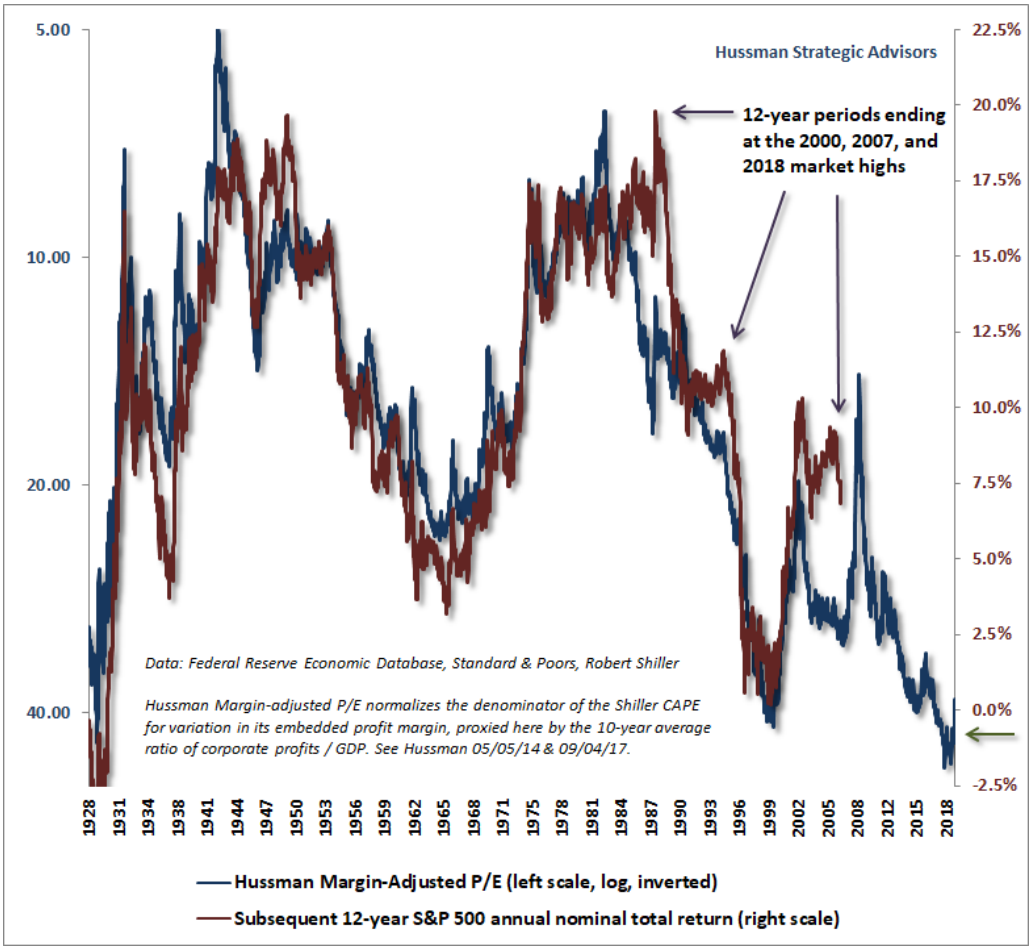


Finally, the next chart shows Dr. Hussman's Margin-Adjust P/E versus actual stock market levels 12 years later, since 1928. Essentially, stocks end up where the Hussman Margin-Adjusted P/E says they will, in 12 years, approximately 90% of the time. The times when Hussman is "wrong" and prices end up much higher

than Hussman's P/E predicted all occur near the tops of historic bubbles and subsequent stock market crashes. Looking at the next chart, you can see the largest previous discrepancies between the Hussman P/E and actual outcome for stocks occurred at the peaks in 2000 and 2007, and now today. Those historic extremes in valuations have now been exceeded by today's stock market bubble. Prices are above the mean more today than at any time since shortly before the crash in 1929. That crash would have exceeded the amount stocks would be expected to go down by the end of this business cycle, when they revert to the mean, by approximately 10%.

The difference between the 73% loss during the Great Depression and Dr. Hussman's current projected loss of "only" 63% is surely due to the fact the entire economy dropped so low, for so long, during the Great Depression. Again, I expect the fact the rest of the world will likely be plunging further than ours may drag our stock market down more than Dr. Hussman's P/E currently suggests.

The future looks more than a little bleak for the stock market, and the world economy will likely fall a comparable amount. Let's all hope for a 63% stock market decline. Then we can breathe a sigh of relief if, for example, the stock market should only fall the 43 to 45% indicated by the Buffett Indicator and Shiller P/Es respectively. Unfortunately for stock investors, the Hussman P/E is the most accurate and reliable measure, and it corresponds to the large economic risks we see perhaps just now beginning to metastasize around the entire world.



While we believe the research presented above is compelling, we cannot predict the exact timing of the coming stock market crash. But we will soon have the longest time in history between recessions, which tells us the end must be getting close. Stay tuned.