

March 2017

Are You Ready For A Market P/E Crash?

A BFF Financial White Paper



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Forward

Some of what I will discuss herein may take some time to play out, while other parts seem to be already happening. But this information is about risk management and investment positioning. And my view at this point is that fears of missing out on new market highs should take a backseat to preparing for the chance of a precipitous market decline – especially for those who are retired or are nearing retirement.



I believe that investors should seek out all the information available to help them make good financial decisions, but they should also be aware of the incentives of those who provide the information. To that end you should know my incentives.

I am a Financial Advisor with Centaurus Financial who gets paid to help clients think through their specific circumstances and then to help them solidify their own personalized goals and objectives. From there, I help them explore the pros and cons of the various paths or options that they can use to help them pursue their financial and estate goals. Once the client decides what path they would like to take, I then help them by coordinating the implementation of their planning with their chosen attorney and/or accountant. Additionally, I have access to the vast majority of investment management and/or insurance products available. True financial success is not only in the planning stage, but it also includes the implementation phase (through the proper use of a variety of financial products.) The best laid plans can go off the tracks with poor implementation and the best of plans can also fail if the necessary adjustments aren't made when appropriate.



My belief is that a financial advisor should never have any bias for or against any specific financial product or investment management technique. Why? All investment management techniques and financial products have their niche where they can be appropriate for use by our clients. In certain circumstances, some will work better than others... but if the financial advisor doesn't have access to or refuses to consider certain products – the client is the one who truly suffers as it was their options that were limited.

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Are You Ready For A Market P/E Crash?

The following material is the general narrative from my recent public presentation (including images) of the same name. Why was this presentation prepared? Too many investors may be forever financially devastated when our current market cycle concludes. As history has shown, market P/E crashes are a mathematical certainty.



The real question is who will have prepared their portfolio in advance and therefore will be able to potentially side-step the majority of any financial fallout that might be the result of a P/E correction.

Interestingly, some people in the financial services industry appear to be blind to the Wall Street manipulations of the public narrative. Consequently too many investors are not doing anything to prepare.



Many advisors and their clients will possibly be caught off guard when our markets enter the inevitable bear market.¹ Do we know when our current financial markets will correct? No. But we all instinctively know that trees don't grow to the moon and markets can't go up forever!

Why do I believe many financial advisors are mostly unaware of what is coming? A lot of financial advisors concentrate their value proposition around investment management services. Despite the claims by many to offer comprehensive wealth management, very few actually do.² Therefore, the majority of these same financial advisors' income is primarily dependent upon revenues received from selling Wall Street financial products. In other words, because their income is mostly dependent upon Wall Street, they may be

¹ A correction is defined as a pullback of 10% or more. A bear market is defined as a drop of 20% or more.

² In my opinion (and based on my training and 23+ years of experience), most financial advisors claim to offer services that they do not in fact offer. There is a real difference between having one financial advisor who understands estate planning, tax planning, insurance and investments versus a group of specialists teamed together under one roof. The former is more like a "financial architect" where the latter is a group of financial "sub-contractors" who have teamed up in an attempt to compete with a financial architect.

more vulnerable to the “spin” of the public narrative that is consistently being pushed onto the American investing public by the Wall Street propaganda machine.

Now I’m certainly not suggesting that the entire financial services industry is purposefully misleading investors. It certainly is not. Most, if not all, of the investment industry (including those working on Wall Street) is comprised of intelligent, well-intentioned professionals that are doing their best to deliver “value” for their clients. So what’s the problem? It’s the alignment of interests and a lack of education. What do I mean?

Financial Industry Alignment of Interests

When you step back and look at the motivation of Wall Street money managers you will no doubt conclude that their goal is to promote their particular investment strategy and thereby bring in new assets under management (or AUM.) The Wall Street money managers are not paid to understand and help manage the specific financial situation of any one individual client.

In their efforts to bring in new AUM, money managers and their employees will advocate using their firm’s specific investment strategies. They cannot and will not advocate using a different firm’s strategy (i.e. another money manager) as that would be “selling away” from their own firm. It naturally follows that they will also advocate their own specific investment strategies without regard to current market conditions or the specific individual client’s financial situation. Which means that it’s not only possible, but highly probable, that a money manager would advocate for their firm’s investment strategy even when it might be in the prospective client’s best interest not to invest with them.

In contrast, a financial advisor is charged with evaluating all investment strategies and products available to him/her and to introduce the different investment strategies and products that meet the current needs and goals of their clients. If financial advisors are focused on the clients and Wall Street money managers are focused on the money... what’s the problem? Isn’t this an effective division of labor? Yes, but your financial advisor not only needs to understand your specific situation but also how the constantly changing market and economic conditions may affect the different investment strategies being offered by the various money managers that are available to him/her.

Advisors’ Lack of Education

The main problem is that not everyone in financial services has studied economics, and without the proper economic educational foundation it’s difficult to analyze and then question the veracity of what’s being pushed out onto us by Wall Street money managers, the world’s central bankers and/or our government leaders. Increasingly, the financial advisor’s role is to do more than just help their clients pick good investments. Since both good and bad information is readily available on the internet, our emerging role is provide perspective and insight.

In its most broad sense economics is the study of human behavior (i.e. spending habits) based on the economy, markets, politics, incentives (income, tax credits, etc.), disincentives (taxes, regulations, etc.) as well as other monetary and non-monetary variables. It can get very complicated, very quickly. When serving my clients, having an economics degree (from UCLA) gives me incredible insight that most investors could benefit from and many financial advisors can’t compete with.

Additionally, when I began my career as a financial advisor in 1993, most all financial services firms had a brief training period. This really hasn't changed much today. However, there was one firm that offered an extensive 3-year training period. I joined Cigna Financial Advisors and over the first three years of my career I received approximately 2,100 hours of classroom training in estate planning, tax planning, insurance and investments. I was taught not only the details of these four primary disciplines, but also how to efficiently and effectively combine these often conflicting tracks into one comprehensive, well-coordinated wealth management plan.

On top of this, my father was an investment advisor. But that's not what's important. He was forced to retire at age 51 because of Parkinson's disease. Despite having a great investment portfolio, my mother lost everything caring for my father mainly because of small mistakes in their estate and tax planning. They also didn't have any life or disability insurance as my parent's never found anyone who could show my father how these could be efficiently and effectively included in their overall planning.³ However, these insurance mistakes could have been overcome had there not been any oversights, omissions or mistakes in their estate and/or tax planning.

In a nutshell, not many financial advisors have both a degree in economics and the formal training that I've received. And because of what happened to my mother... I entered financial services with an understanding and appreciation of what's really at stake for those I serve and how important it is to make well-informed financial decisions. So what am I sharing with my clients and prospective clients right now?

Should You Be Focused On Not Losing Money?

First, let's explore the financial services industry's misplaced focus on trying to maximize annual returns. You heard that right. It can be easily shown that by re-focusing a client's investments into strategies that are geared to "not losing money"... overtime, the client will end up with a lot more money in their accounts. Correct me if I'm wrong, but isn't that the goal of investment planning?

Can all portfolios be repositioned? No, but some can and should be – especially right now. We will come back to why investors need to reposition their current portfolios away from risk immediately, but first let's look at the math of not losing money.

The chart on the next page from WBI Investments makes some observations on the quarterly returns on the Dow Jones from 1950 to 2014. One can easily conclude that it is far better to miss the 10 "worst quarters" (if you could do it) as you would have grown your initial \$100,000 invested in 1950 to over \$63,400,000 by the end of 2014.

In contrast, a buy-and-hold strategy would have yielded only \$8,905,746 during this same timeframe. Missing out on the best 10 quarters would have been disastrous as you would only have \$1,747,070 by the end of 2014.

³ Long term care insurance didn't yet exist when my father first fell ill.



Figure 1: Passive vs. Active Risk Management

Interestingly, this chart shows that if you gave up the 10 best quarters in order to avoid the 10 worst quarters... this approach (if you could do it) would have yielded a nearly 40% increase in your ending account value when compared to the buy-and-hold approach. This simple chart clearly shows that it is far more impactful on your ending account values to avoid market losses as opposed to capturing all of the market gains.

Anecdotaly, the numbers in the WBI Investments chart above supports the recent research from Crestmont Research (using 50 years of market data from 1966 to 2015) which shows that if you could eliminate all market losses on your investments then you would only need 26% of the up-side (or gains) to equal the market performance.

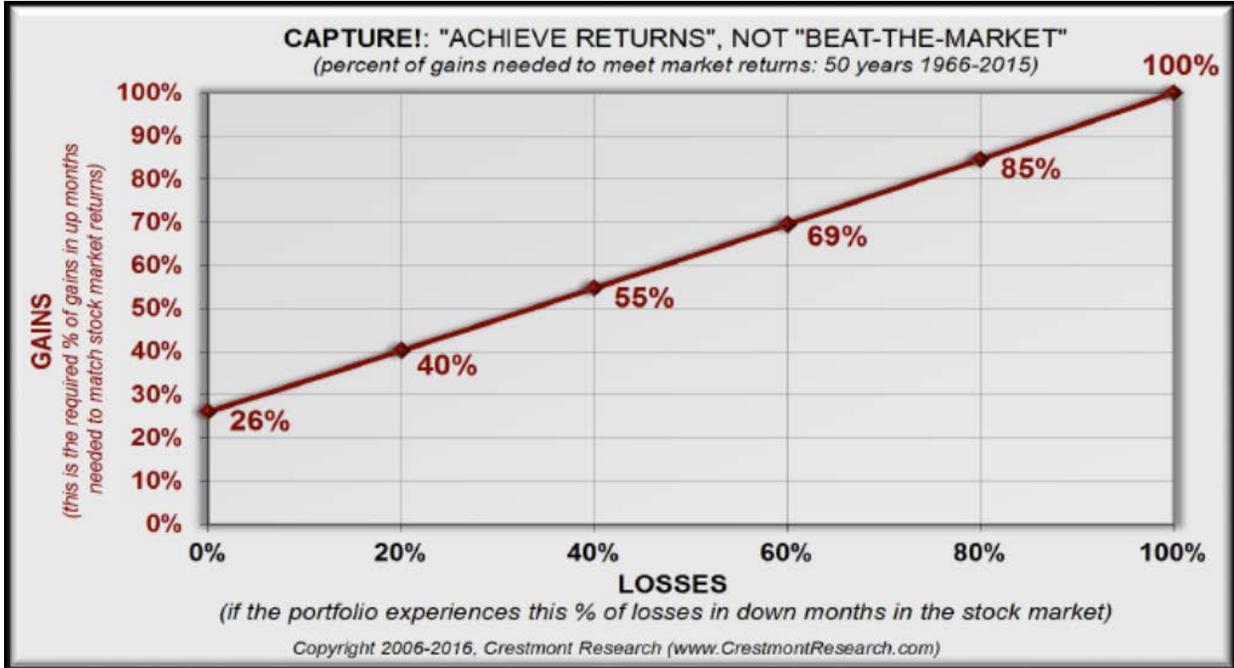


Figure 2: Capture: Achieve Returns, Not Beat-the-Market

Said differently, 74% of your investment returns are wasted because your portfolio is forced to play "catch-up" and recover from the losses incurred earlier. Just think how much more money you might have had if you could have avoided all of the market losses over the past 20 years...



Figure 3: S&P 500 Index return from 1996 to 2016

What is the point? Is there a way to invest and avoid market losses? The simple answer is yes. Later in this presentation we will introduce three (3) different strategies that are designed to mitigate the downside risk of investing in the financial markets – yet at the same time, these same investments may capture a significant portion of the upside (but not all) when financial markets are advancing.⁴

No matter how your investments are currently being managed (through a broker, an advisor or DIY), you need to be able to “read the signs” and make good decisions for yourself. But if you or your current broker are getting bad data (or incomplete data) the sad truth is that you may not reach your investment goals.



⁴ The three investment strategies that were introduced in the webinar cannot be fully covered in this whitepaper.

I wish financial success was as easy as following the signs! It would sure make it much easier if we could merely look for the clearly posted road markers and just make the proper adjustments to our financial planning and investment portfolios.

Unfortunately, this is just not how it works. So you might be wondering why there isn't much advertising on any of these investment strategies that can mitigate the downside risk, while still potentially growing your account values (when markets are advancing)?

The best way to explain this is that often brokers tend to adopt the "traditional" Wall Street "group think" about how money should be managed. Wall Street, like many of our large well-established institutions, uses spin to control the public narrative. Said differently, Wall Street sells investment management and investment products and naturally presents the data on the products and services they are selling in the best possible light. Let's visit a very simple example related to the math of annual returns and performance reporting.

A simple question? Would you want an investment that would deliver a guaranteed average return of 25% over two (2) years? Most people would say yes. Most people would not ask the most crucial question BEFORE making a decision. Why? The Wall Street propaganda machine has convinced us that achieving the highest annual returns is the primary consideration when making investment management decisions. But is this the truth? No. What else must the investor understand at a minimum before selecting investments? The investment's volatility.

Volatility Reduces Returns

Volatility, the variability of annual returns, standard deviation, and/or risk... these are all different ways of saying the same thing. (Let's use "volatility" for simplicity purposes.)

How does volatility change the math? Simple. The more volatility you have in a portfolio, the less you will actually earn over time. Said differently, when comparing two investments with the same average annual rate of return, the investment with lower volatility will always deliver a larger account balance over time. In other words, if you want more money in your account you should focus your efforts on lowering volatility and not just the finding the investments with the highest annual returns.

Let's go back to that investment opportunity delivering a 25% 2-year average annual return and look at the Wall Street preferred math of reporting "average" returns.

If you start with \$100 and grow the account by 100% in the first year, you end up with \$200. If in the second year you lose 50%, you would wind up with \$100 at the end of your second year. Would you believe me if I told you that Wall Street reports this as a "2-year 25% average annual return"? In actuality you broke even on this investment so how can Wall Street report that this investment made 25% average annual return (for two years) when in fact it didn't really make you any money? Isn't this a lie? No. Their math is correct. This IS a 2-year 25% **average** return.

Here's the math: $100\% + (-50\%) = 50\%$ divided by 2 (years) = 25% average return.

The volatility of this investment removed all of the growth even though it actually "averaged" a 25% return for two years. What would this look like if there was zero ("0") volatility (i.e. no losses)? The client's initial \$100 would be worth \$156.25 after the two

years.⁵ It goes without saying that most people naturally assume they would receive a positive outcome (i.e. more money in their account) when hearing the offer regarding an investment that provided a “guaranteed 2-year 25% average annual return.”

When we review the average annual returns of any investment we also need to evaluate the volatility of the investment – but how does one actually do that? This is easier than you think. Remember volatility is also expressed as “standard deviation” and this measurement of risk is required to be disclosed by both FINRA and the SEC. What are you looking for? Typically the lower the standard deviation, the better.

Where else has the Wall Street spin machine misled the investing public?

Let’s go back and look at the chart which showed the S&P 500 Index returns over the last 20 years (**Figure 3** repeated.) When people look at this chart they see that over the last 20 years the financial markets have given and it has also taken away.

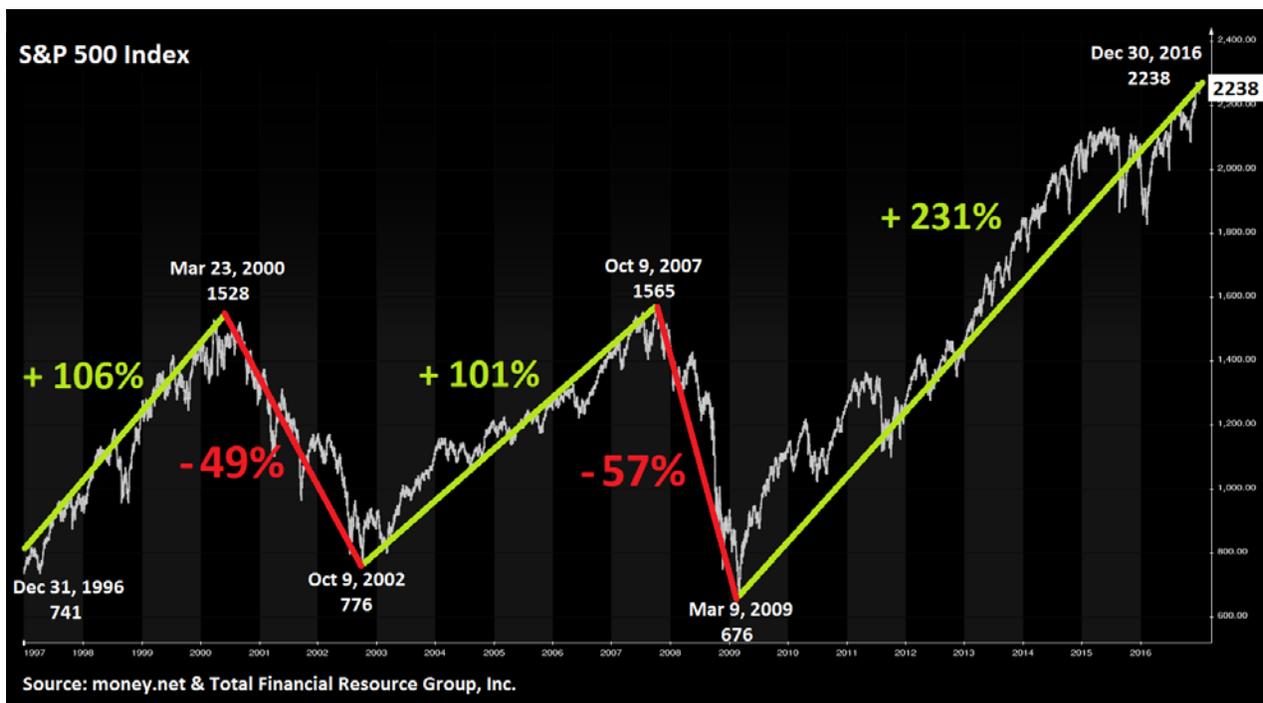


Figure 3 (Repeated): S&P 500 Index return from 1996 to 2016

From the market low reached on March 9, 2009, through the end of 2016, the S&P 500 has made significant gains and has seemingly erased the losses of the both the dot.com collapse and the Great Recession. Is this the truth? Have the markets actually made up for the earlier losses?

⁵ \$100 x 1.25% (a one-year 25% gain) = \$125; and \$125 x 1.25% (the second year’s 25% gain) = \$156.25. This result is also considered a 2-year 25% average annual gain; however, this is with zero volatility.



Instead of focusing solely on the S&P 500 – let’s look at the three (3) major U.S. market indexes. Specifically, let’s review the Dow Jones, S&P 500 and NASDAQ performance since the tech bubble burst in 2000 and sent our financial markets plummeting.

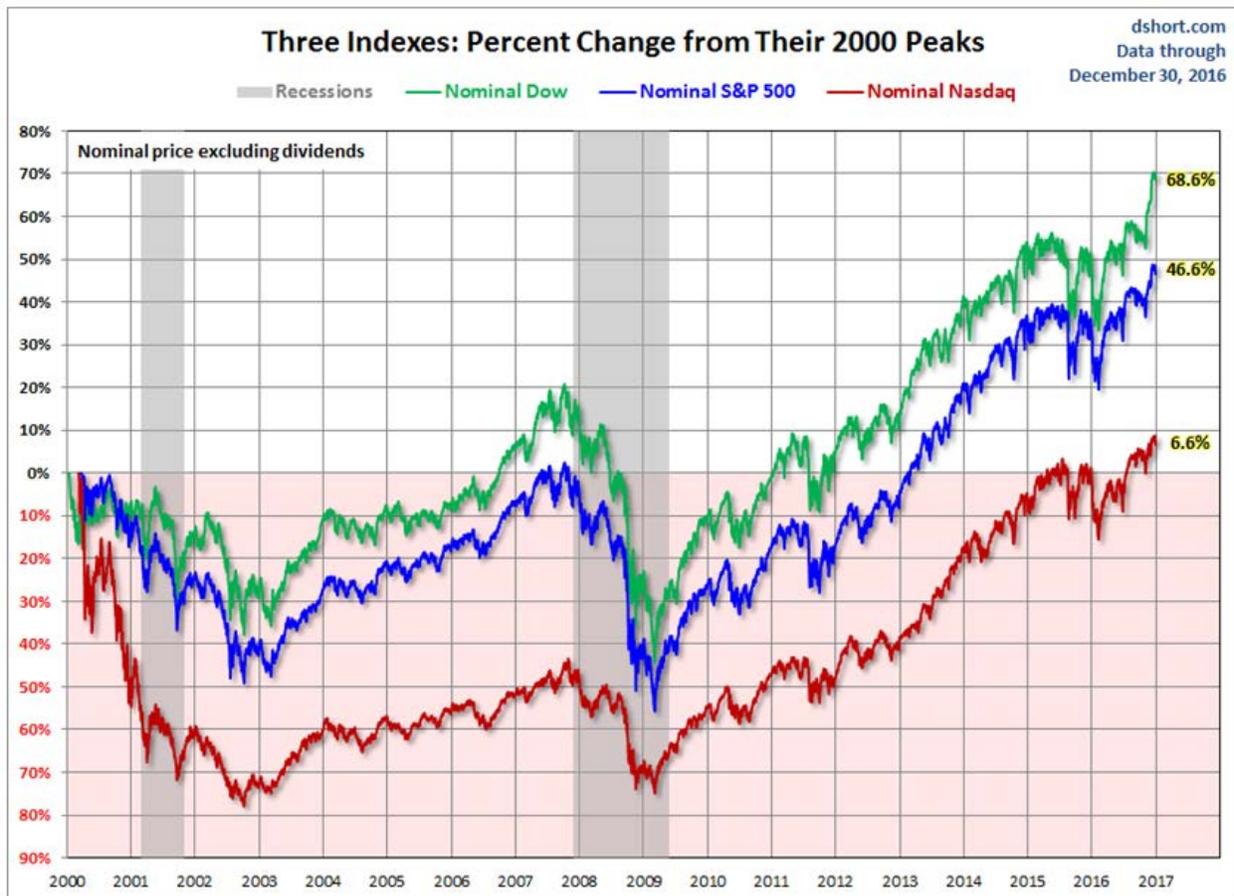


Figure 4: Three Indexes: Percentage Change from Their 2000 Peaks

This chart shows that only the Dow Jones (DJIA) really made it above the breakeven point in late 2006 just before the Great Recession in 2008 and 2009 sent all three market indexes back down. We can also see that as of mid-2016 all three of these market indexes have now recovered to levels above their previous 2000 market highs.

Is this the whole picture? Absolutely not. What else should we consider when reviewing our investment returns? Rather than make this exercise incredibly complex by incorporating a withdrawal rate into the calculations to illustrate how the “real math” worked for those who were already retired and taking an income from their portfolio... we will keep it simple and ONLY add inflation into these calculations.

Why is inflation important to this calculation? Because we must factor inflation into the calculation of ALL market returns to determine exactly how well we have done in “real” terms. How does inflation change the numbers? Let’s look at a simple example.

If we start with a \$100 investment and this grew by 100% we would have \$200. We can now buy \$200 worth of goods, ignoring inflation. However, if inflation was at 100% during this same timeframe (that we earned our 100% return), then our \$200 in “real” terms bought the same amount of goods when compared to our original \$100. So in “real” terms we really didn’t increase our purchasing power (i.e. make any money.)

This tells us that the goal of investing is to not only grow our account balances but to also exceed the annual rate of inflation. If the growth in our account values only kept pace with inflation, we really aren’t growing our purchasing power. So let’s look at these same three indices adjusted for inflation using CPI (i.e. the “real” rate of return) since 2000.⁶

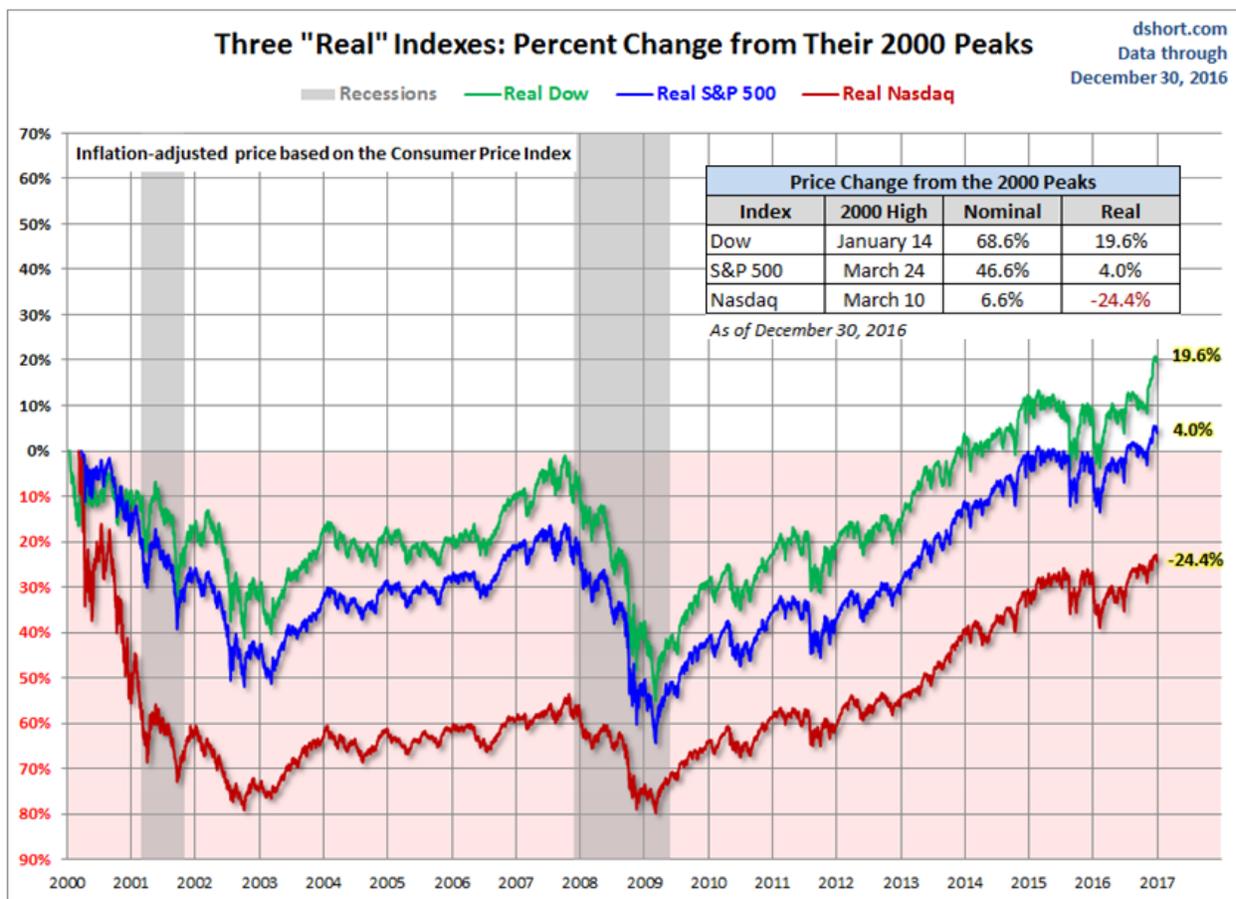


Figure 5: Three Inflation-adjusted or “Real” Indexes: Percentage Change from Their 2000 Peaks

⁶ The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services. It is a gauge of the cost of living to better explain how the consumer’s lifestyle is being affected by the prices of common purchases.

Figure 5 shows a VERY different picture than the typical Wall Street narrative and makes it clear that we have just recently pushed above “breakeven” on the S&P 500. This also shows that NASDAQ is still about 25% underwater from its 2000 high. If we were to factor in even a modest income from any of the three indexes, they would be nowhere near breakeven when compared to our 2000 market highs.

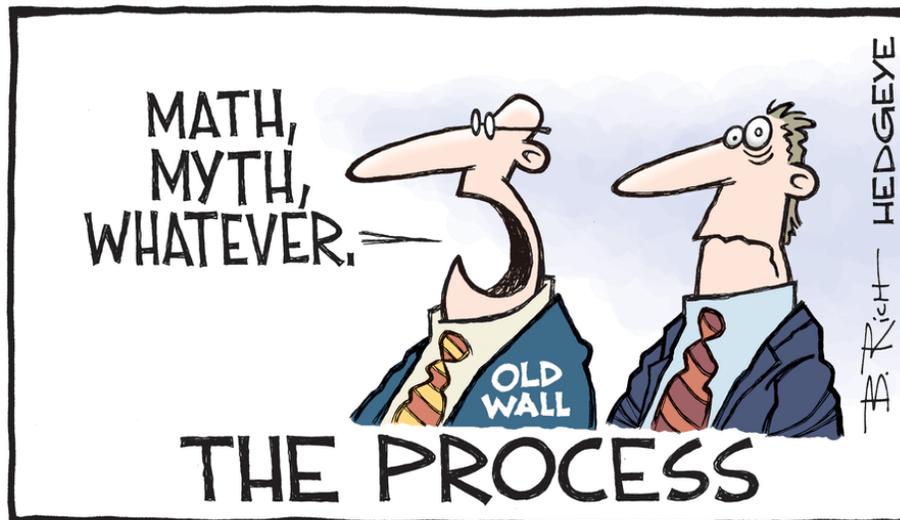
What an amazingly different story! If Wall Street told investors that after 16+ years, adjusted for inflation, they just recently broke-even on their investments (when compared to the 2000 high) – do you think the “average” investor would continue to blindly place all of their retirement money at risk on the Wall Street rollercoaster? Probably not. They would actively look for alternatives that preserve principal, yet also provided growth.

And therein lies an example of the Wall Street “conflict-of-perspective” that isn’t discussed often enough. A money manager is focused on the long-term performance of their investment strategies (usually discussed in nominal terms) and not the individual investors’ actual investment results (inflation adjusted) during specific timeframes. However, as an investor you are obviously much more concerned with the actual performance and the gains in your own specific portfolio.

Math, Myth... Whatever Over-simplification Wall Street Can Sell

So why does Wall Street ignore these very important “adjustments” (i.e. volatility and inflation) when discussing investment returns? In my opinion, they are just providing the “average” investor what they want.

What do I mean? I’m sure you’ve heard that interesting anecdote that most people spend more time planning their next vacation than they spend planning their retirement. This makes absolutely no sense to me as a well-planned retirement is like a “decades-long” vacation spent doing whatever one really wants to do.



So what is it that the people really want? Over-simplification. It seems to me that nobody wants to do their own homework. Nobody wants to spend any more than the absolute minimum amount of time required to make financial decisions.

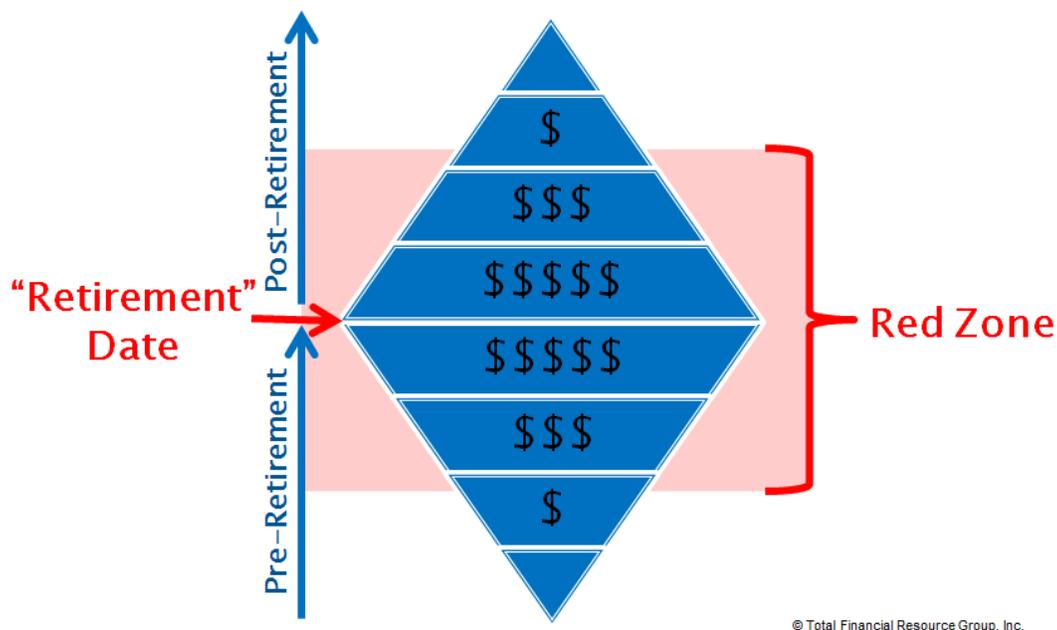
Instead we watch Jim Cramer and Suzie Orman or listen to Dave Ramsey or the many others who are clogging our airwaves selling us on their own brand of financial “advice.”

What many people fail to understand is that these shows are primarily financial entertainment and NOT meant to provide ANYONE with financial advice specific to their own financial situation. Don't believe me? Look for the legal disclosures next time you watch or listen to your favorite financial entertainer. What other way do we over-simplify our investment planning?

The large firms create "sound bites" (i.e. commercials) that appeal to our desire to oversimplify and which suggest that your investment success can only be achieved by giving them your money. We then have a natural tendency to buy into the "pitch" offered by these money managers who have been able to break through the noise and capture our attention with a clever commercial. What's wrong with this?

Investors often fail to understand how various investment strategies are affected by the market and economic cycles. Different strategies move in-and-out of favor depending upon where we are in the current market and/or economic cycle. In other words, a good investment strategy isn't always appropriate for every investor. Specifically, every investor must select investment strategies that are appropriate for their own specific circumstances as what might be OK for a 20-something might not be appropriate for someone nearing or entering retirement.

I certainly don't want to oversimplify this, but google "sequence of returns risk" as this demonstrates the poorly understood NEED to avoid losses when withdrawing money from your account – especially in the early years just following the date you began taking income. What are the "early years" defined as? This actually depends upon how long you live but the generally accepted timeframe is that you will need to avoid major losses in the first 10 years (or so) after you begin taking income from your portfolio. This can be graphically represented by the following illustration:



This also illustrates that the "red zone" (i.e. when you can't afford to suffer significant losses) also includes about a 10-year period leading up to your planned retirement date.

In total, the “red zone” is approximately a 20-year period that sandwiches your retirement date right in the middle.

It’s fairly obvious why you don’t want to lose money just before you retire as this will affect the total available in your account to draw your income from. What isn’t as intuitive is how early losses (once you are retired) can dramatically alter your results. Again, please google and review what is commonly referred to as the “sequence of returns” risk.

Confusing Market Predictions from Wall Street

Many have heard that some of the Wall Street billionaire legends including the likes of Carl Icahn, George Soros, Bill Gross, Jeffrey Gundlach and others have warned us market valuations are high and the eventual market correction will be devastating. Then we see other Wall Street money managers appearing on TV only to tell us that there is nothing to worry about - our markets and economy are fine. So what gives? What are these billionaire investors seeing that these other managers are not? Or is there something else driving the different narratives emanating from Wall Street?



As you know the money managers and their firms are compensated by bringing in new assets under management (or AUM) and if they warned the investing public about what they know will eventually happen (i.e. that markets are dangerously overvalued and it can’t continue forever); they might find it difficult to continue bringing in new AUM and they may even lose a majority of their existing AUM to redemptions. More importantly, they might potentially trigger the market correction they’re hoping to postpone.

The P/E Ratio Explained

To understand this dynamic we need to explore market valuations and P/E (Price-to-Earnings) Ratios. Let’s first examine what the P/E Ratio actually means? When they say the P/E Ratio is 20 – this means that investors are currently paying \$20 for \$1 of future earnings. High P/E Ratios are generally paid when an investor believes that the company will grow faster than its competitors or the market in general. The company’s P/E Ratio will go down below the “market P/E” when investors believe the company will struggle relative to its peers or the market in general.

How exactly does the P/E Ratio change? Keep in mind that there are but just two variables that affect whether a P/E Ratio goes up or down. There is the Price (or P) and there are the Earnings (or E.)

How does the P/E Ratio go up? One way it changes upward is when the Price goes up and Earnings remain the same. Or the stock price can remain flat when the earnings drop as both will cause the P/E Ratio to increase. Both are called “multiple expansion” and this is translated as a situation where investors are willing to pay more today for the same earnings they used to pay less for. Interestingly, this is also commonly known as the “greater fool” theory of asset pricing. More specifically, you are purchasing the asset (or holding onto it) with the hope that you can later sell the stock at a higher price to “an even greater fool.”

An example of this type of asset pricing is when a new tech company goes public with the promise of big future earnings. The stock price is bid up on the hope that either there is continued multiple expansion OR that earnings eventually “catch up” with the price being paid. If the company brings in the earnings that are expected, the P/E Ratio will drop – but the price might remain the same or continue to increase. Conversely, if the company’s projected earnings don’t materialize and investors become impatient and sell, then the price will drop which will also bring the P/E Ratio down.

How does the P/E Ratio decrease? Obviously the most attention is given to price drops. The other way we see a decrease is when the earnings increase (and the price remains flat.) This drop in the P/E Ratio is also referred to as “multiple compression.”

Current Market P/E Ratios Explored

Now that we know what the P/E Ratio means and how a change in price and/or earnings affects the P/E Ratio let’s look at the current market valuations vs. historical market valuations. The following chart averages four (4) of the leading market valuation methods starting from 1900 through January 2017:

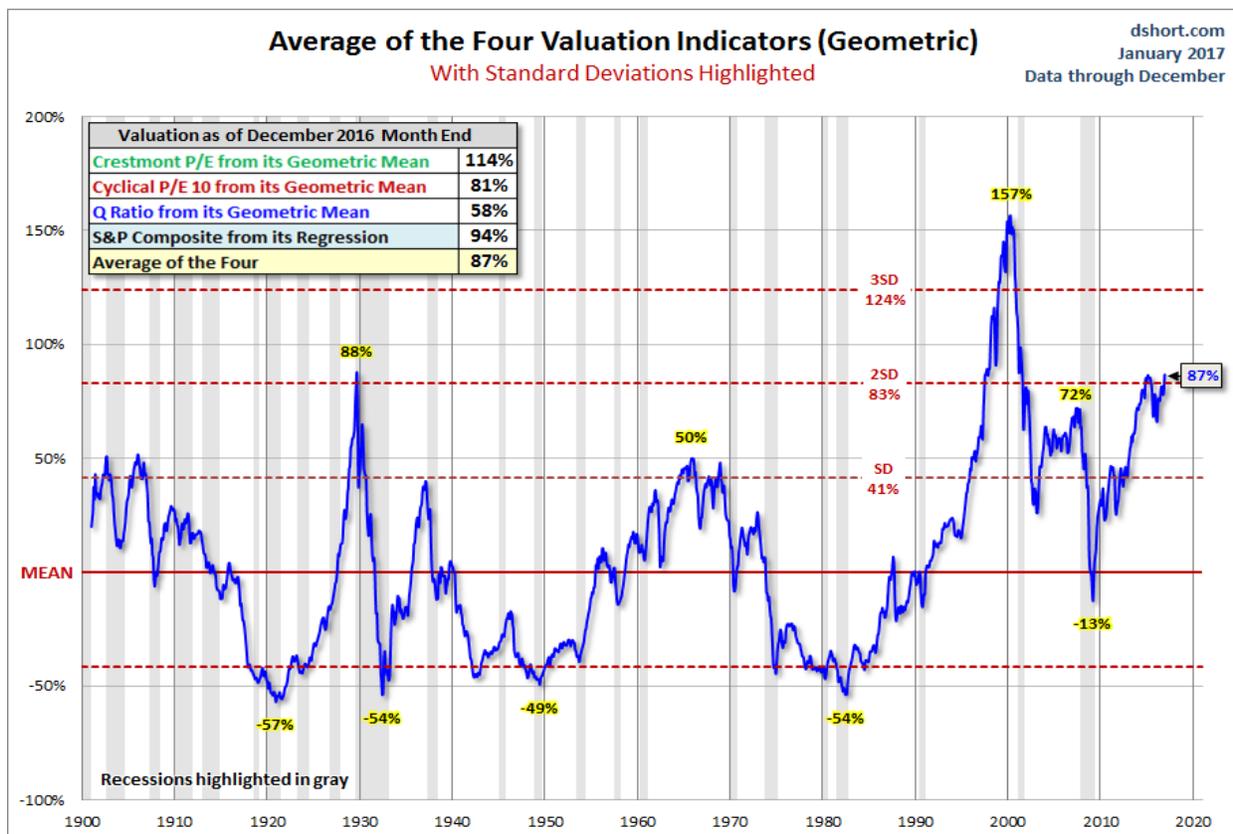


Figure 6: Average of the Four Valuation Indicators (Geometric)

What this chart shows is that using the average of the four (4) valuation indicators our markets are currently 87% above the “mean” (or average) market valuation dating back to 1900. This places our current market valuations a little more than two (2) standard deviations (also known as “double-sigma”) above the mean valuation. In plain English what does this mean? How overvalued are the markets?

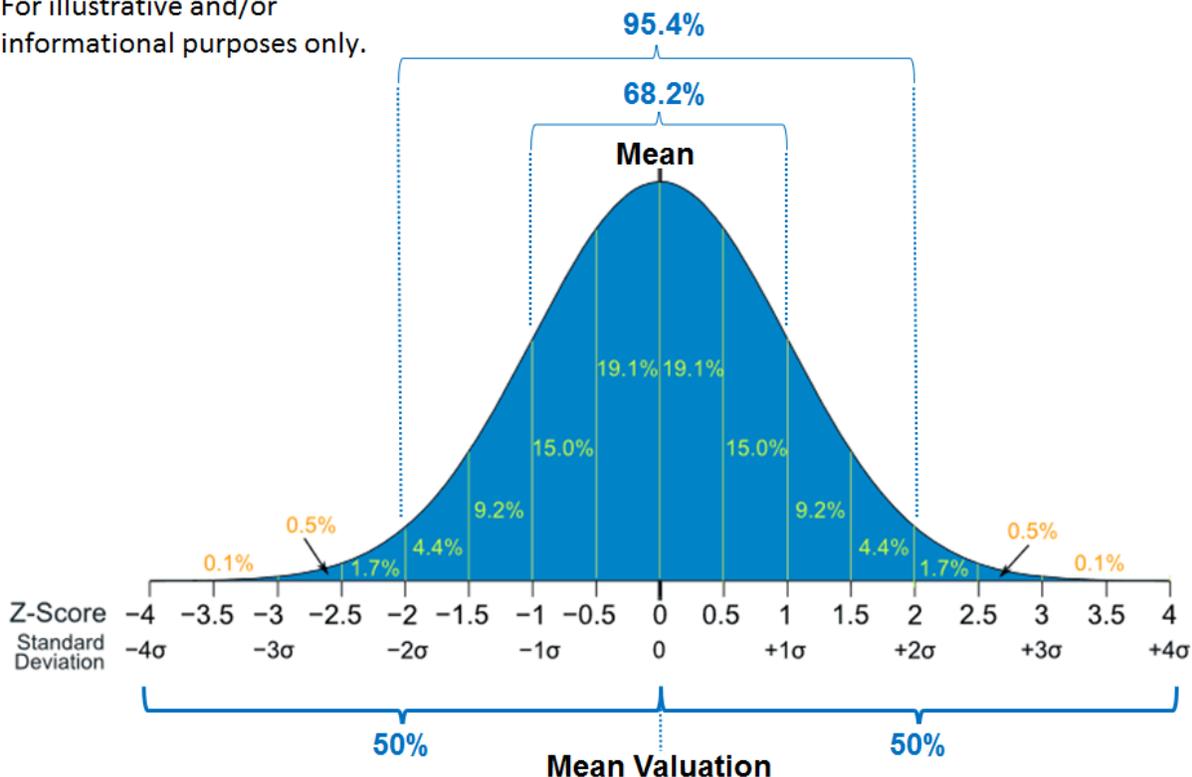
In order to put this in proper perspective we need to revisit basic statistics and first understand what “standard deviation” and the “mean” are defined as. We will also revisit how these are related. From there we will then further explore how these statistics affect our understanding of where the markets might be headed from here.

Revisiting Statistics 101

The illustration below shows the “Standard Normal Distribution” (or SND) or what is more commonly known as the Bell Curve. The “mean” is another way of saying the “average” and in this first SND below it is also the median result. The median is the data point in the middle. An example: if our data points are the numbers “1, 2 & 3” then “2” is the median or the middle number and “2” is also the average ($1+2+3 = 6$, and 6 divided by $3 = 2$, as 2 is the average of the 3 numbers added to equal 6 .) In some distribution results, the median might not be equal to the mean.

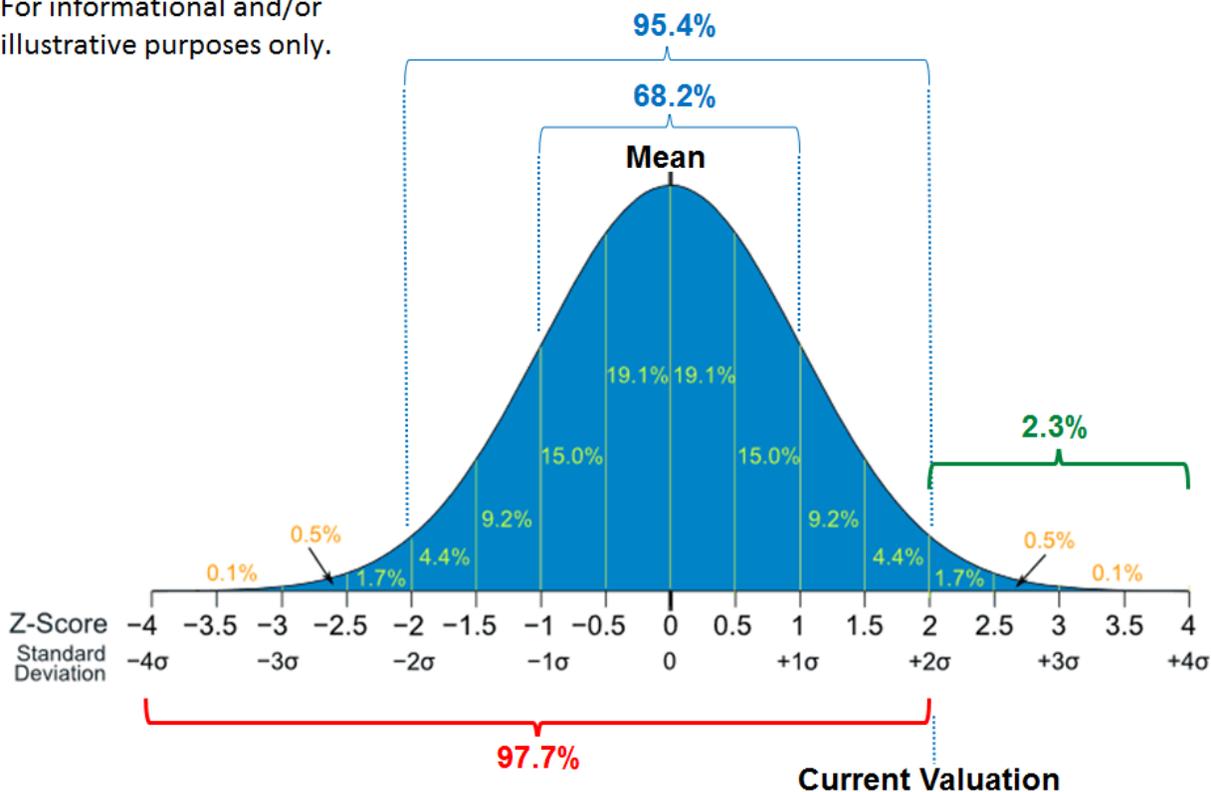
In a Standard Normal Distribution if the current data point (i.e. current market valuation) was equal to the “mean” (or the long-term average market valuation) then there is an equal probability (i.e. a 50/50 chance) of the next “data result” (i.e. market valuation change) to be either above or below the mean (or average.) In plain English, market valuations could go either up or down with no particular bias in either direction. In other words, if we ignore market momentum... it’s a coin toss.

For illustrative and/or informational purposes only.



With the current data point or current market valuation at two (2) standard deviations (or “double-sigma”) above the mean, the next “data result” (or said differently “where the market might go from here”) will eventually be based on basic math. Specifically, there is only a 2.3% probability that the next “data result” will be above current value and a 97.7% that it will be below the current value. See the illustration below:

For informational and/or illustrative purposes only.



Does this mean that our markets must have an immediate price correction? No. This only means that statistically speaking, there is very little chance that our markets (as measured by P/E ratios) continue their march higher without a major drop in Price or a radical increase in Earnings (or some combination of both which would reduce our current market valuations down to more normal P/E Ratio levels.)

In other words, “multiple expansion” has pushed our markets to extreme valuations and we desperately need a significant increase in Earnings to bring our market valuations back in line with historical norms. Without a significant increase in Earnings – we are only left with a significant drop in Price to bring the P/E Ratio back in line with historical norms. We’ll look at Earnings (or corporate profits) in more detail later.

Let’s look at this market valuation data in a different format. If we were to plot all market valuations dating back to 1900 to show P/E10 Ratios by Percentile with percentile (on the X-axis) and P/E Ratio (on the Y-axis) then we would have the following chart:

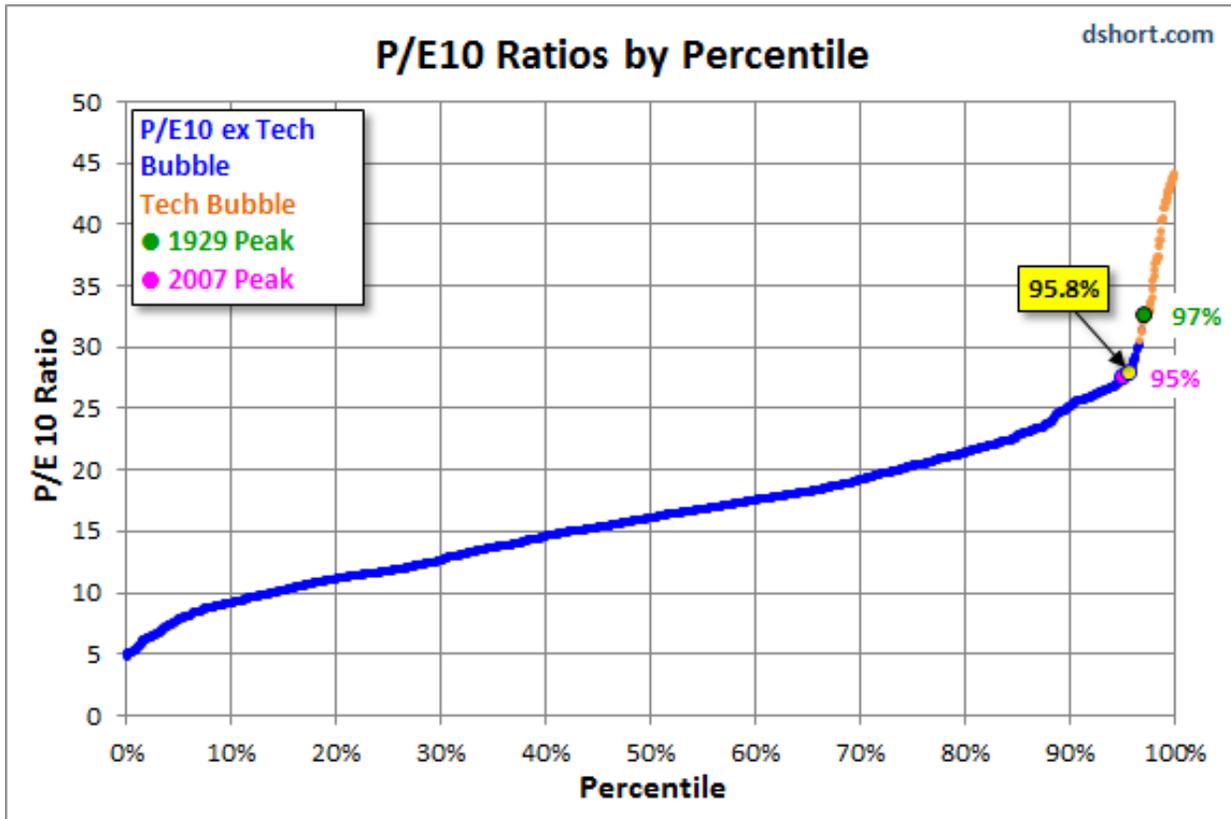


Figure 7: P/E10 Ratios By Percentile

Maybe this chart will help you understand that although the market valuations have gone higher in the past, and there is a possibility that they go higher from here; there is very little room (“statistically” speaking) for market valuations (which is different than Price) to move much higher without an eventual significant move downward. Again, to bring P/E Ratios down to normal levels either Price collapses, Earnings or corporate profits shoot significantly higher or we see some combination of both.

Long-Term Market Valuation Trends

Am I saying that the markets will go down really soon? No. What I’m saying is that statistically the probability of “market valuations” (which is different than Price) going higher than where they are now is very low. Does this tell us anything about the timing of any market moves? No. The markets can (and do) remain at valuations both above and below the mean (or average valuation) for long periods of time.

So if markets can have valuations “above the mean” for long periods of time... what does this tell us about where the markets are? And more importantly, doesn’t this support the idea that our markets can go a lot higher from here? Not really.

But let’s take this analysis one step at a time. First, on the top of the next chart, let’s show the inflation adjusted market returns of the S&P 500 Index dating back to 1870 in log-scale format. And then, using a red line let’s illustrate the average P/E Ratio (or the long term trend line) during this same period. Under that, let’s use the same time frame and show the trend line (or average P/E Ratio) as a flat line to show how P/E Ratios have fluctuated in comparison to the movements of the market index over these extended periods of time. With this information shown we get the following chart:

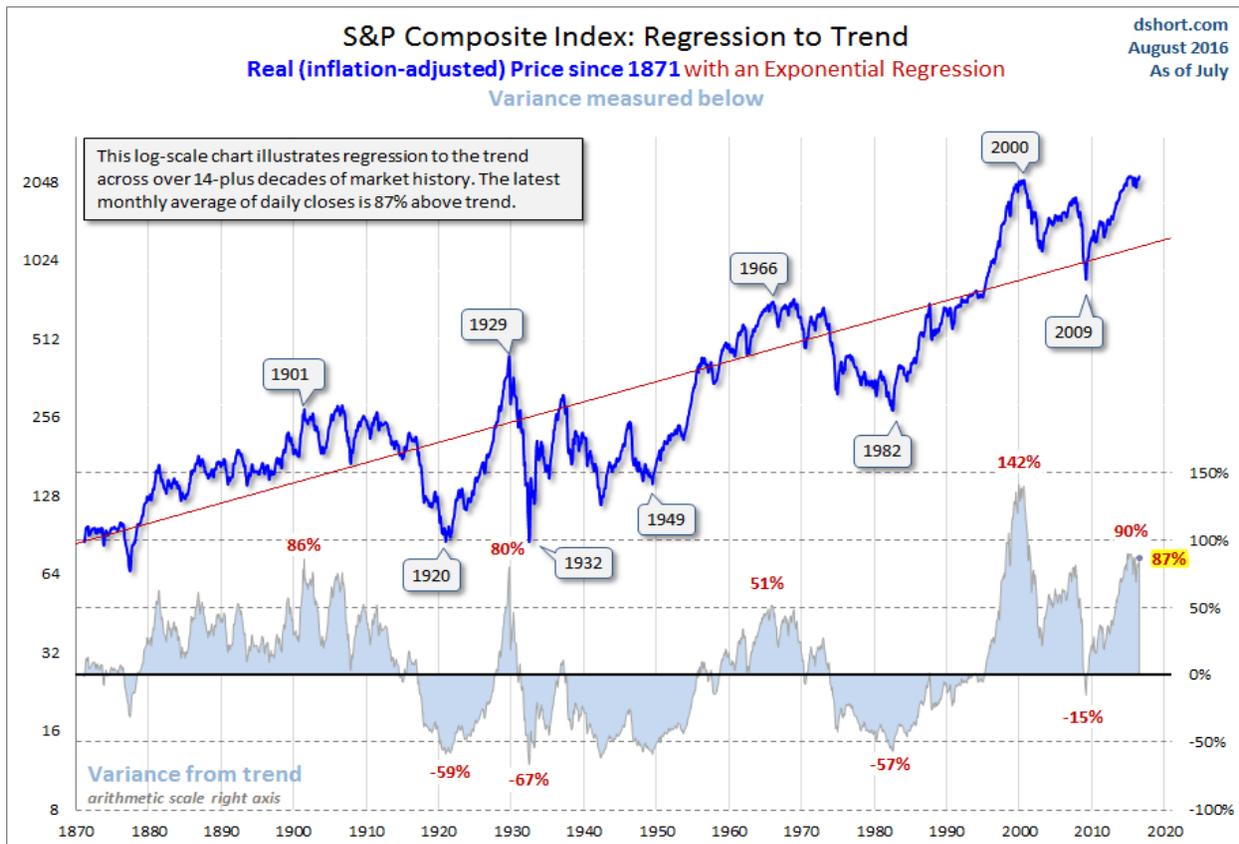


Figure 8: S&P 500 Composite Index: Regression to Trend

Ok. We can see that markets can stay both above and below their “average valuations” (i.e. the red “Trend Line”) for very long extended periods of time.

How do we know we are NOT entering a long-term secular bull from here?

This is a little more subtle to understand. Instead of “vomiting out” a staggering amount of technical economic data which would probably confuse you more than it might clarify this issue... I will show you an extremely simple reason why I believe the markets will have a correction or a bear market before they resume their natural path upward.

Are we really headed for a major correction? Can earnings improve enough to avoid a major drop in prices? Let’s take this one step at a time.

Let’s examine the markets using the Dow Jones dating back to 1884 through 2014. We don’t need the two most recent years as it won’t change this chart on the next page.

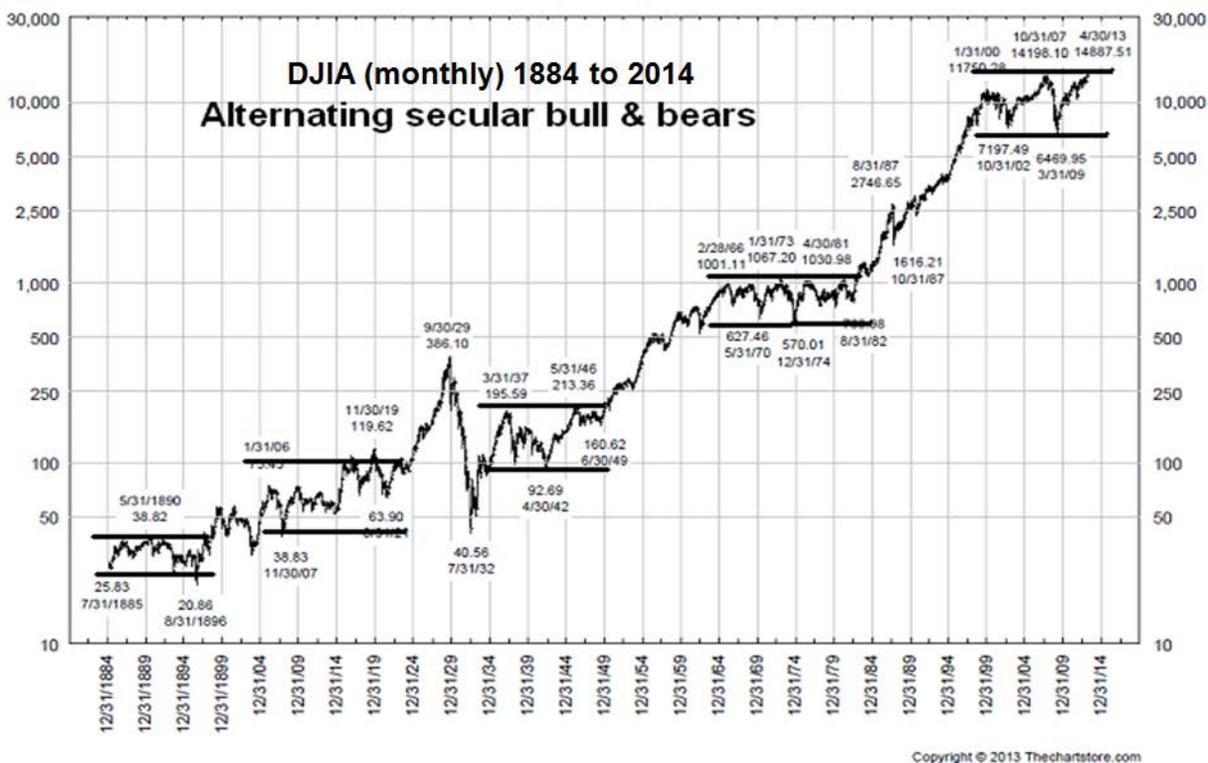


Figure 9: DJIA 1884 to 2014: Alternating secular bulls & bears

The “bulls” on Wall Street are currently arguing that we are on the cusp of another major secular bull run and that stock prices will shoot higher for several years. Is this possible? I would seriously doubt it.



In fact, I can’t believe anyone really actually believes that the broad “market” is ready for a breakout to the upside. Are certain specific sectors poised for a breakout? Maybe. But even these sectors can only go higher after the broad market works through and delivers the drop in market valuations that are needed. Let me explain...

First, let’s highlight the three (3) major secular bull runs that occurred in the last 100 years on our last chart (**Figure 9**) as follows:

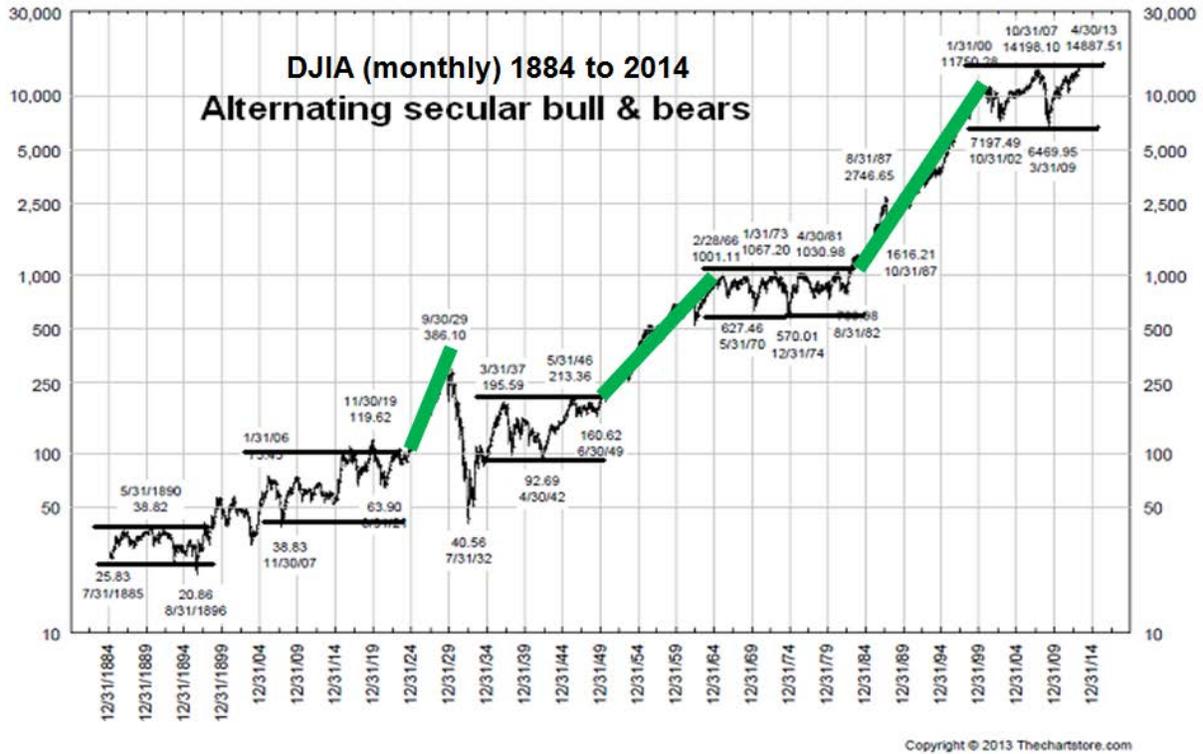


Figure 10: DJIA 1884 to 2014: Alternating secular bulls & bears (highlighted)

And now let's drop these same secular bull "highlights" onto our previous chart showing the long-term "market valuation" trend line as follows:

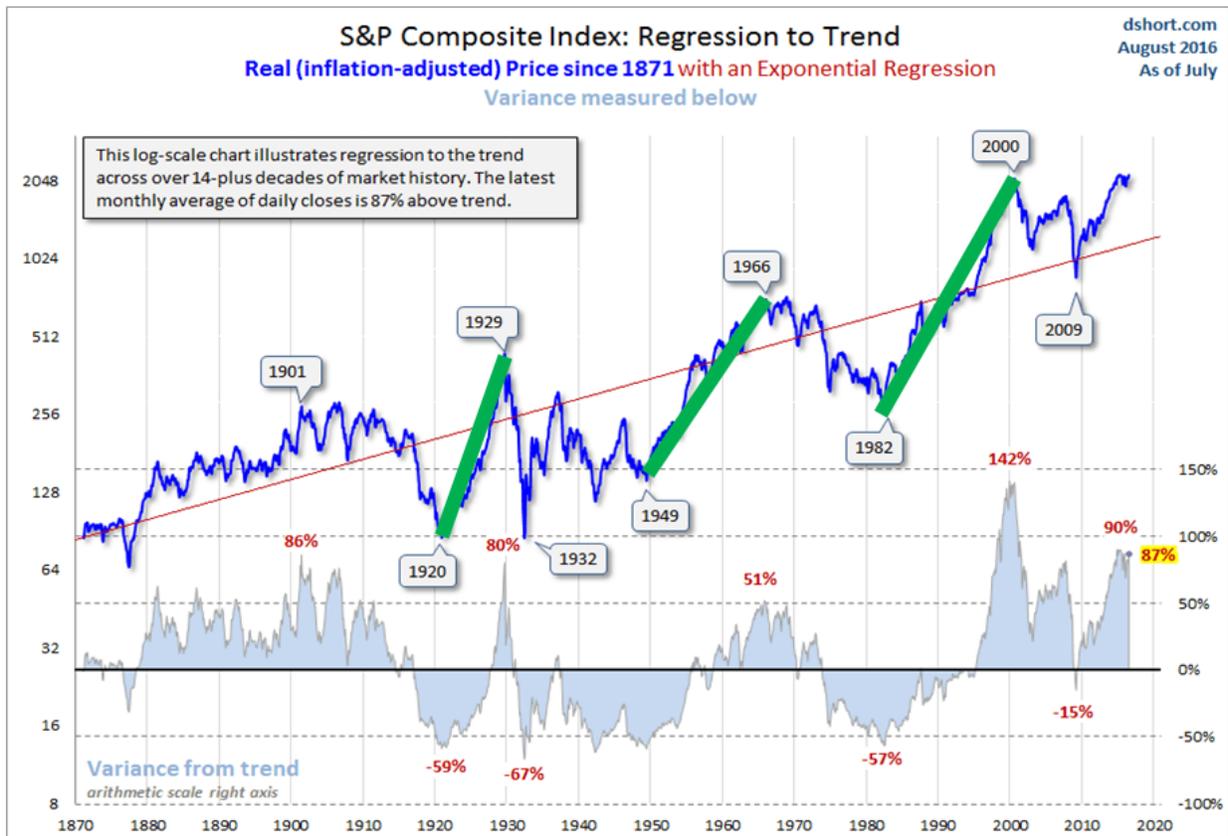


Figure 11: S&P 500 Composite Index: Regression to Trend (secular bulls highlighted)

To directly answer the question regarding a secular bull run being possible right now let's review **Figure 11** (the highlighted Regression to Trend chart) and then make some simple observations about how our financial markets normally behave (based on 130+ years of history.)

Beginning of a New Secular Bull Market?

What is painfully obvious from this simple exercise is that not one (of the three) secular bull-runs that we've had in the last 130+ years established its foundation and began a new move upward when overall market valuations were at extreme or record highs. In fact, **Figure 11** shows that all three long-term secular bull markets began when valuations were approximately 50% below the long-term trend line.

This clearly indicates (again, if we use 130+ years of market history as our guide) that before our markets can begin their next secular bull market run higher we should expect to see market valuations (as measured by P/E Ratios) drop well below the long-term trend line – unless you truly believe that this time it's different and somehow our mathematical laws have been magically altered and no longer apply to our financial markets. How far down must valuations go to establish this necessary foundation?

Ending of our Current Secular Bear Market?

If you review **Figure 10 & Figure 11** together, you will also clearly see that we did not end a secular bear (or sideways) market until the market valuations were cut down to roughly 50% below the long-term trend line. This implies (again using more than 130+ years of market history as our guide) that we cannot end our current secular bear market in order to enter into a new secular bull market run until after we see market valuations (as measured by P/E Ratios) significantly below where they are today.



So I ask you... do you REALLY believe that this time it's different? Do you REALLY believe that market valuations can defy gravity (i.e. basic math) to continue their climb to ever higher extreme market valuations (because of the unprecedented monetary policy enacted worldwide since 2009) forever? I seriously doubt it!

Interest Rates & Our Economy

The world's central bankers including the Fed, in their attempt to stimulate the world economies since the Great Recession, have manipulated interest rates to abnormally low levels. Some central bankers have even enacted "negative" interest rates which is theoretically impossible but nonetheless being done. Can interest rates continue to go down? And can interest rates stay low forever? Not without adverse consequences.

But let's not forget that interest rates were already on their way down since their 1980 highs and this downward path essentially created a 35+-year bull-run in the bond markets. How has the interest rate policies of the last 30-40 years affected our global economies and what does this mean for future financial markets? Let's examine the effective Federal Funds Rates dating back to 1955.

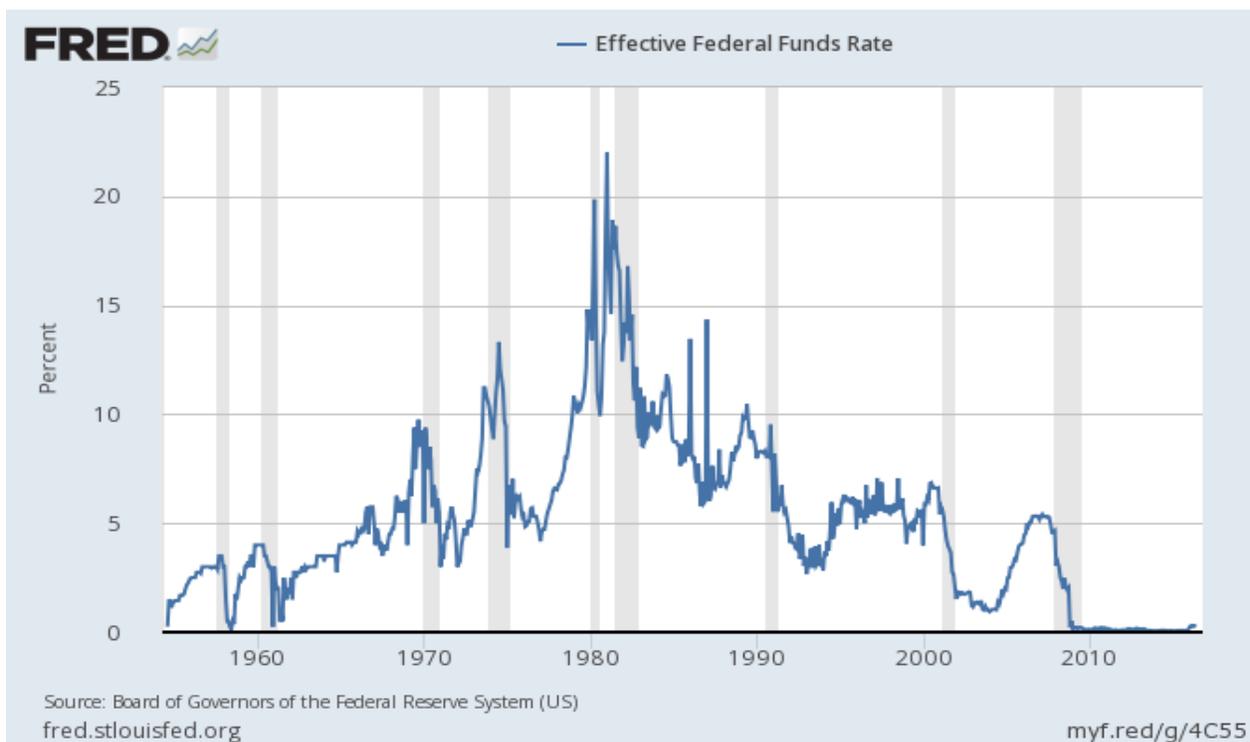


Figure 12: Effective Federal Funds Rates

And let's compare this to our last chart (**Figure 11**) and look at the interest rate and market trends from the mid-1960's to the end of our last secular bull run (in 2000.)

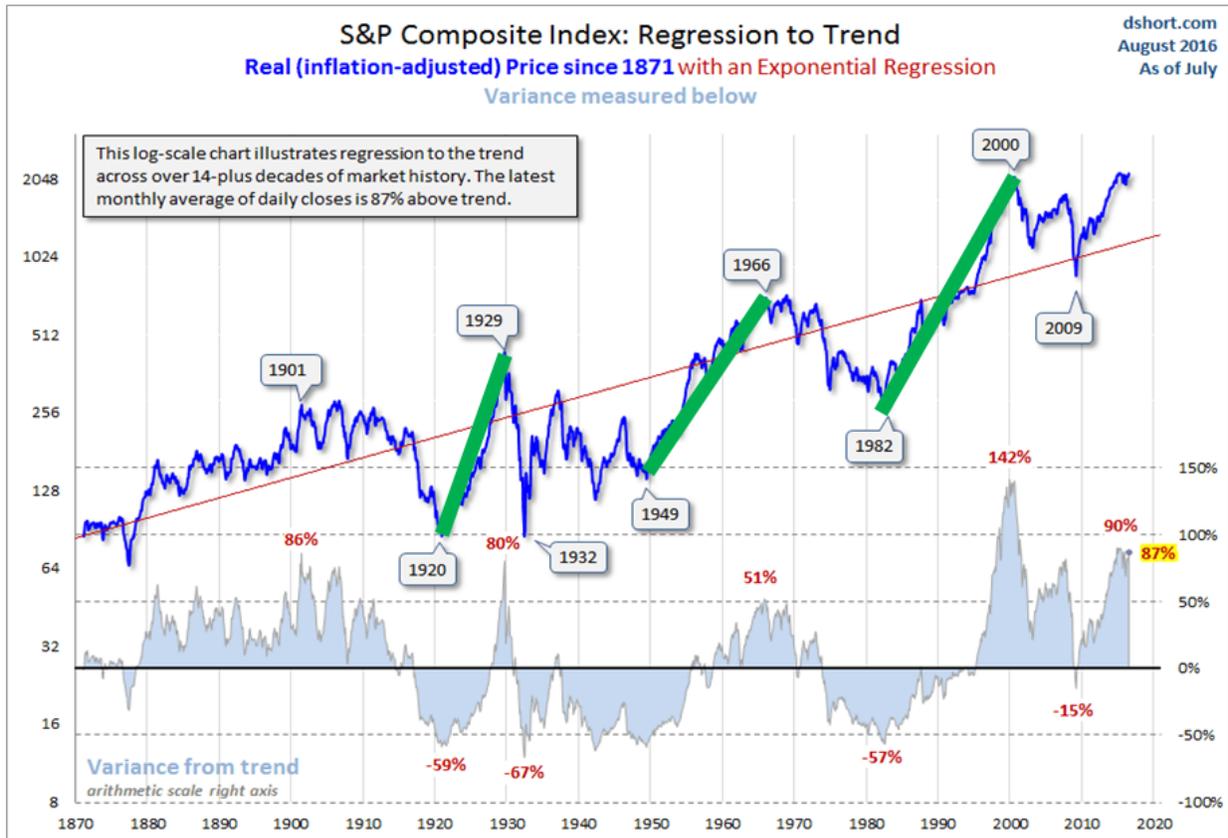


Figure 11 (repeated): S&P 500 Composite Index: Regression to Trend (secular bulls highlighted)

Is it a coincidence that the secular bull market which began in 1949 came to an end in 1966 when interest rates started going up? Probably not!

Is it a coincidence that in the early 1980's our markets began our most recent secular bull market run as interest rates began coming back down in 1982? Probably not!

Were lower interest rates the only factor that drove our last secular bull market run? No, but the lowering of our interest rates certainly played a key role.

Do you really believe that eight (8) plus years of very low or near zero interest rates will not have any unintended consequences? When interest rates were lowered in the past to very low (or zero) rates it was a short-lived policy (please refer to **Figure 12.**)

The intended result of low interest rates was that it would "jump start" the economic engines of the world's economies... but we have not really seen that as the United States has suffered the worst economic recovery (following the Great Recession) since the 1930's Great Depression.⁷ The rest of the world's economies haven't fared any better.

⁷ Source: Ferrara, Peter J., "Why the United States Has Suffered the Worst Economic Recovery Since the Great Depression" August 2016, The Heartland Institute Policy Brief.

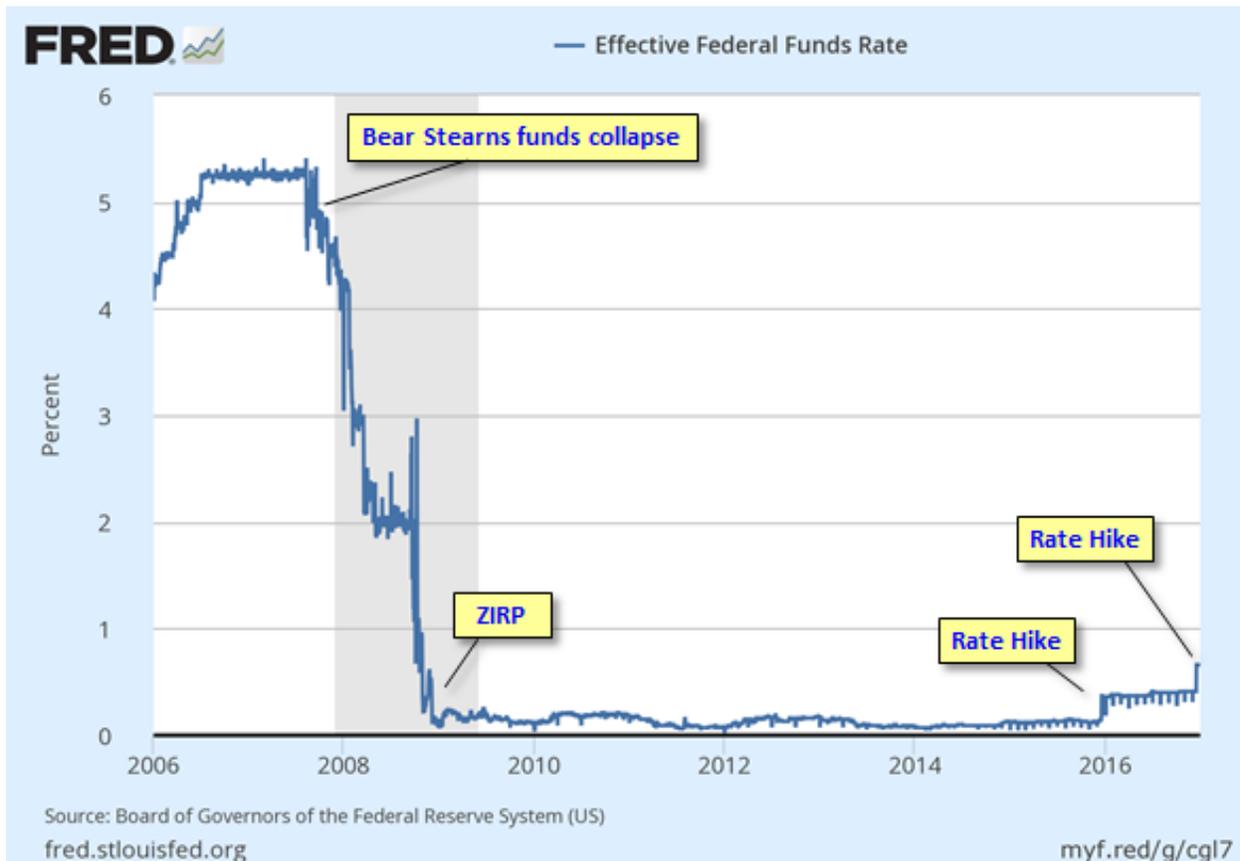


Figure 14: Effective Federal Funds Rates

Another intended result was that our corporations would invest for future growth (using low cost capital)... but we did not see that either. What did our corporations do with access to vast amounts of low-cost capital? They bought back their own shares at record levels.

Buyback Monsters & Conflicts of Interest

Now the thing about buybacks is, they're great in an environment where earnings aren't growing. And everyone knows, or should know, we just recently came out of a six-quarter earnings recession which began in 3Q 2014. (More about this later.)

Of course, if you're a corporate management team you don't have to sit idly by and watch helplessly as your earnings decline and your stock price falls as a result. You can always mitigate the poor earnings situation by artificially inflating earnings per share (or EPS.) How can this be done you ask? Well, by instituting a share buyback program and reducing the number of outstanding shares.

When all else has failed to create growth, our public companies have just leveraged their balance sheets and financial engineered their way to increased earnings per share or EPS. Interestingly, the higher EPS means higher share prices which in turn boosts the equity-linked compensation of the very same corporate management teams who decided it was a good idea to take on more debt in order to repurchase shares in the first place. Yes, that's how it really works and no one complains about the obvious conflicts of interest.

It is important to note that before 1982, when John Shad, a former Wall Street CEO who was the head of the Securities and Exchange Commission (SEC) at the time, loosened regulations that defined stock manipulation, corporate share buybacks were illegal. That rule change, and a shift on Wall Street toward stock-based compensation for top executives, has essentially created this environment where stock buybacks are a major “engineering” tool employed by our public companies that is used to manipulate earnings per share (EPS) and thereby boost their share prices.

If you review **Figure 15**, at least since 2005, one can see that our market valuation levels (as measured using the S&P 500) have seemingly gone up and down with share buybacks. Many financial commentators have suggested that these massive share buyback programs are single-handedly supporting our financial markets. What will happen if share buybacks slow down or stop altogether?

How prevalent are these share buyback programs?

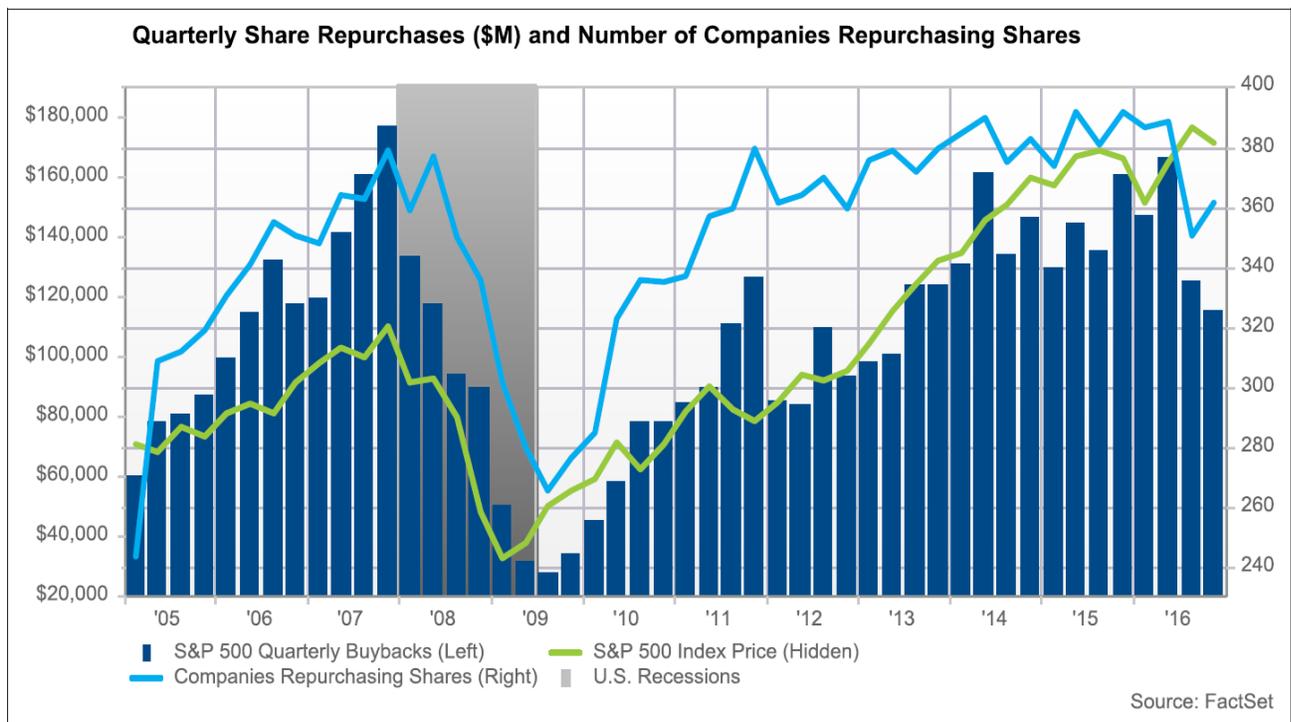
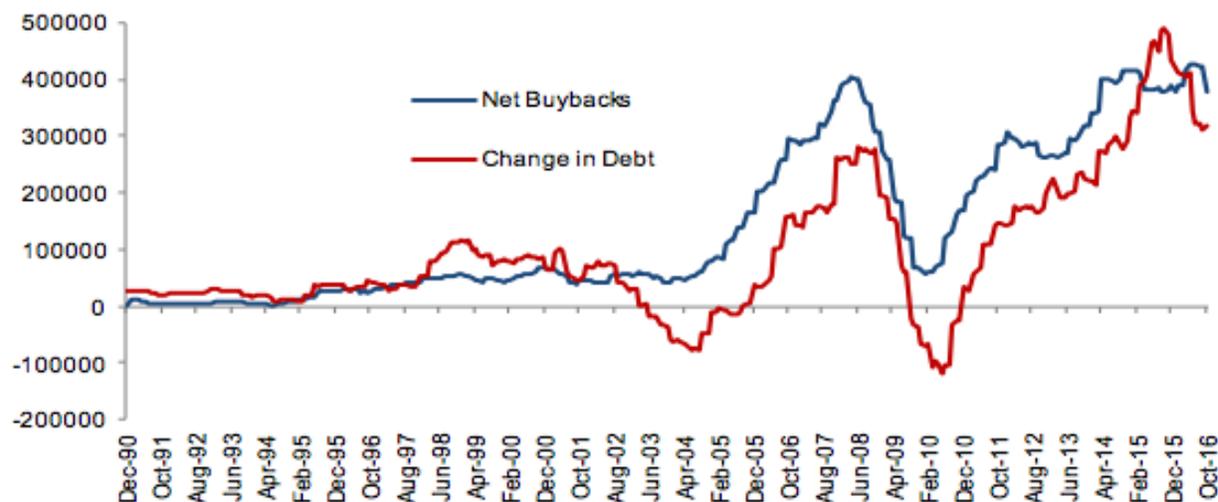


Figure 15: Quarterly Share Repurchases and Number of Companies Repurchasing Shares

Figure 15 shows some interesting facts. First, we are off the recent highs but we still have more than 70% of the 500 companies in the S&P 500 presently buying back their shares. Second, the combined purchases by these companies have exceeded \$100 billion per quarter since mid-2013. And where does most of the money come from for all those buybacks? Why, new corporate debt of course. Have a look:

Debt-funded buybacks have been a major feature of US equity markets for a long-time



SG Cross Asset Research/Equity Quant, Factset, US company report and accounts

Figure 16: Debt-funded Buybacks (Source: SocGen)

Figure 16 hints at an increasingly problematic consequence of massive amount of new debt used to fuel share buybacks. While the market cap of U.S. stocks has soared over the past seven years, companies have increasingly issued new debt in order to buy back stock. This process of swapping debt for equity by borrowing to buy back stock effectively reduces market cap while adding debt to their balance sheets. As a consequence, non-financial corporations have never been more highly leveraged than they are today and this is the direct result of the massive amounts of share buybacks.

According to HSBC, over the last 5 years all U.S. businesses have spent \$2.1 trillion buying back their shares. That's \$2.1 trillion not spent on training employees, building new factories, or paying off debt. It's not even directly being handed back to shareholders in a dividend that could be reinvested or used for income.

Enterprise Value to Gross Value Added (or GVA)

In 2015, Dr. John Hussman introduced a new way to value the broad stock market using total market cap of non-financial U.S. corporations relative to their "gross value added" or GVA. Essentially, he created a more efficient version of the Buffett Yardstick which measures the total market cap of the U.S. stock market relative to GDP (which is essentially a price-to-sales ratio.)

Hussman's version is more efficient because it incorporates foreign revenues earned by domestic corporations. The major criticism of the Buffett yardstick is that it did not include these foreign revenues. However, one thing that Hussman's measure doesn't account for is corporate debt levels. From a fundamental investment standpoint, you can't accurately value the equity of a company without also measuring the amount of leverage being employed in the business. By logical extension, the same need to account for the use of leverage should be true for the broad equity market, as well.

When we add debt into the Hussman equation we can account for this important dynamic (or the use of leverage.) What we then get is an "enterprise value" to sales measure. This is a very subtle change but an important one. After the rally in stocks over the past

several years and the massive corporate debt issuance over that same period, U.S. total non-financial corporate enterprise value relative to sales is hitting new multi-year highs as can be seen in the chart below.

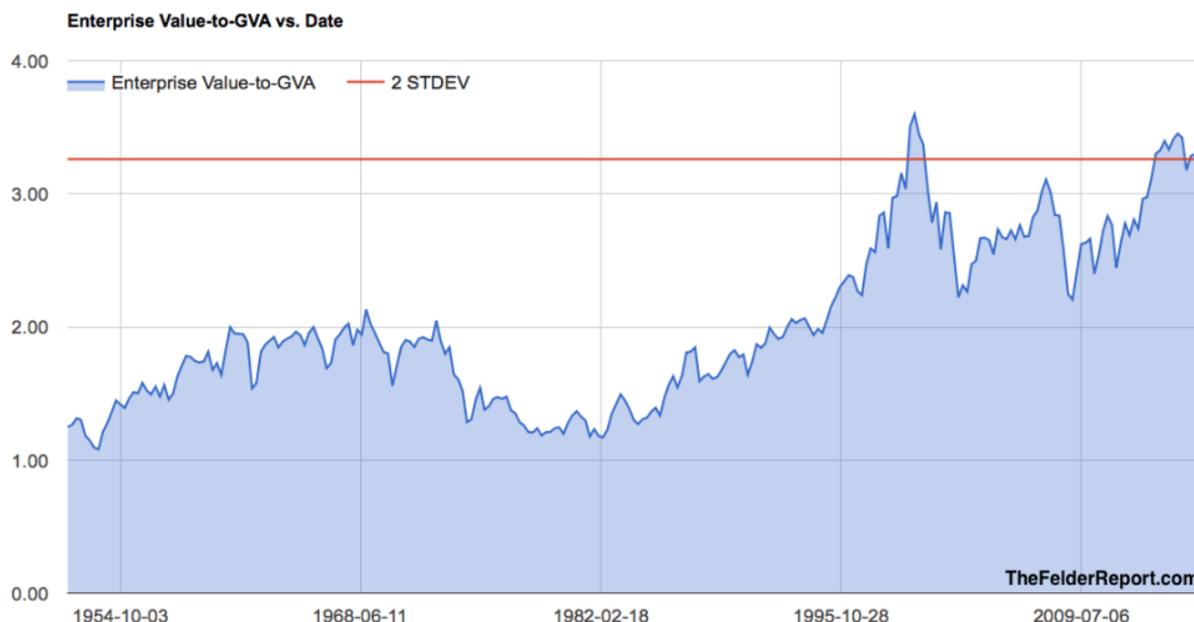


Figure 17: Enterprise Value-to-GVA vs. Date

Figure 17 shows that our markets have almost reached the peak values from the dot.com mania which burst in 2000. And if that earlier time is widely accepted as a textbook financial bubble, what should we call the current market environment? How can one reasonably ignore these valuation extremes?

If we go back to our earlier statistical discussions using either P/E Ratios, or now Enterprise Value-to-GVA, our current market valuation levels are currently beyond two standard deviations (double sigma) above the long-term trend line (or average), which is precisely what a “financial bubble” is defined as by Jeremy Grantham.⁸ If we then factor in the massive amounts of leverage being used, **Figure 17** shows that we are much closer than most people believe (when just reviewing P/E Ratios in **Figure 8**) to the valuation extremes that we saw just before the dot.com collapse.

Actual Corporate Earnings

As one can plainly see, market valuations are at all-time highs. This is our “P” in the P/E ratio. What about the “E” or earnings?

It’s not hard to understand how dangerous our current market valuations are. What will eventually send our markets down? Simply put, it will go down when there are more sellers than buyers. Until then, we will continue to hear the Fed and Wall Street money managers put a positive spin on our present market valuations and why Price could still continue to climb ever higher despite lackluster earnings reports.

⁸ Jeremy Grantham is well-known investor who is particularly noted for his prediction of various bubbles.

Lackluster earnings reports? Interestingly, corporate earnings (also known as profits)⁹ have been down since late 2014 and they have been down for approximately six (6) plus consecutive quarters through mid-2016 before seeing a slight tick back up in 3Q 2016. In the past, anytime corporate profits have been down for two (2+) plus consecutive quarters we have had a market crash in the following year.

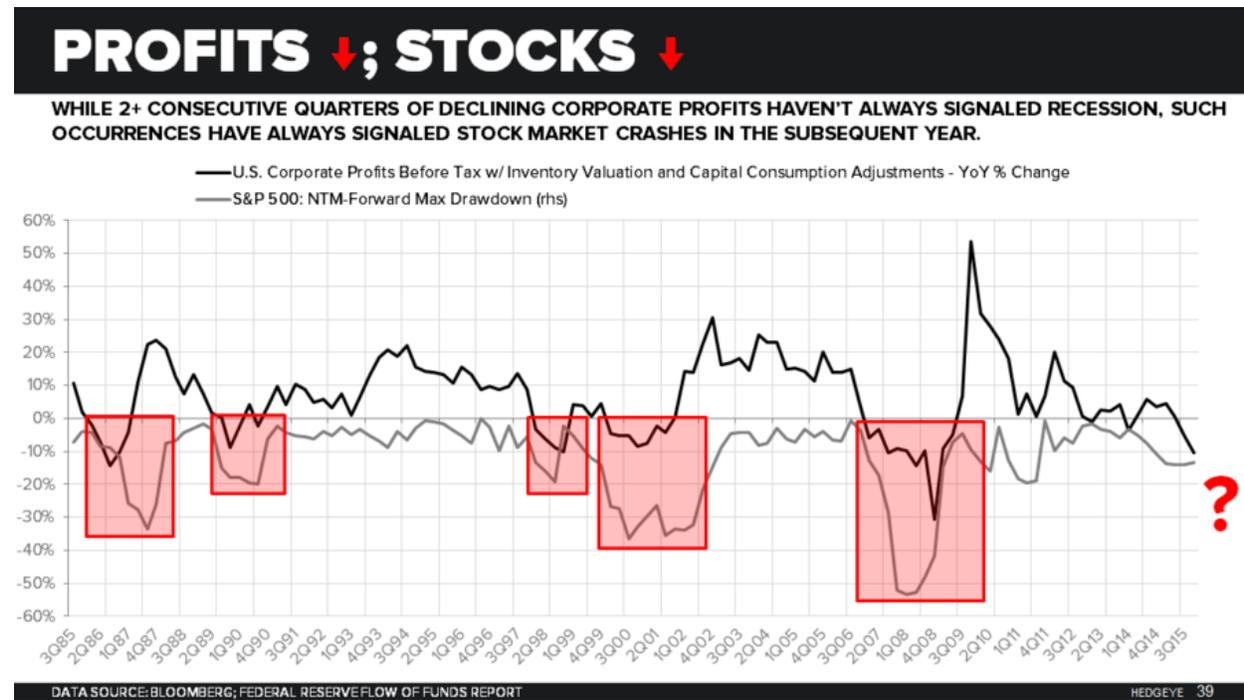


Figure 18: Corporate Profits vs S&P 500 Forward Drawdown

Both 2015 and 2016 (through the election on November 8) were mostly flat – but they certainly did not crash. After November 8, the markets took off but what will happen in 2017? No one knows for sure, but let's understand that corporate earnings (or profits) have fallen quite a bit during this most recent prolonged earnings recession and yet prices actually went up. Therefore the P/E Ratio is further strained and will require even stronger earnings improvement in 2017 and beyond than would otherwise have been required to move our markets valuations down from the current nose-bleed P/E Ratios.

But wait... I thought President Trump's combined policies of lowering corporate taxes and deregulation are supposed to increase corporate earnings.

Will lowering corporate tax rates and the deregulation (that is expected) provide enough of a boost to corporate earnings to bring our P/E Ratios back down to more normal levels? Will investors have the patience to wait at least a few quarters (and possible a few years) for the new administration in Washington D.C. to enact their pro-business agenda? Only time will tell... but are you willing to risk your own capital while waiting to find out how this turns out?

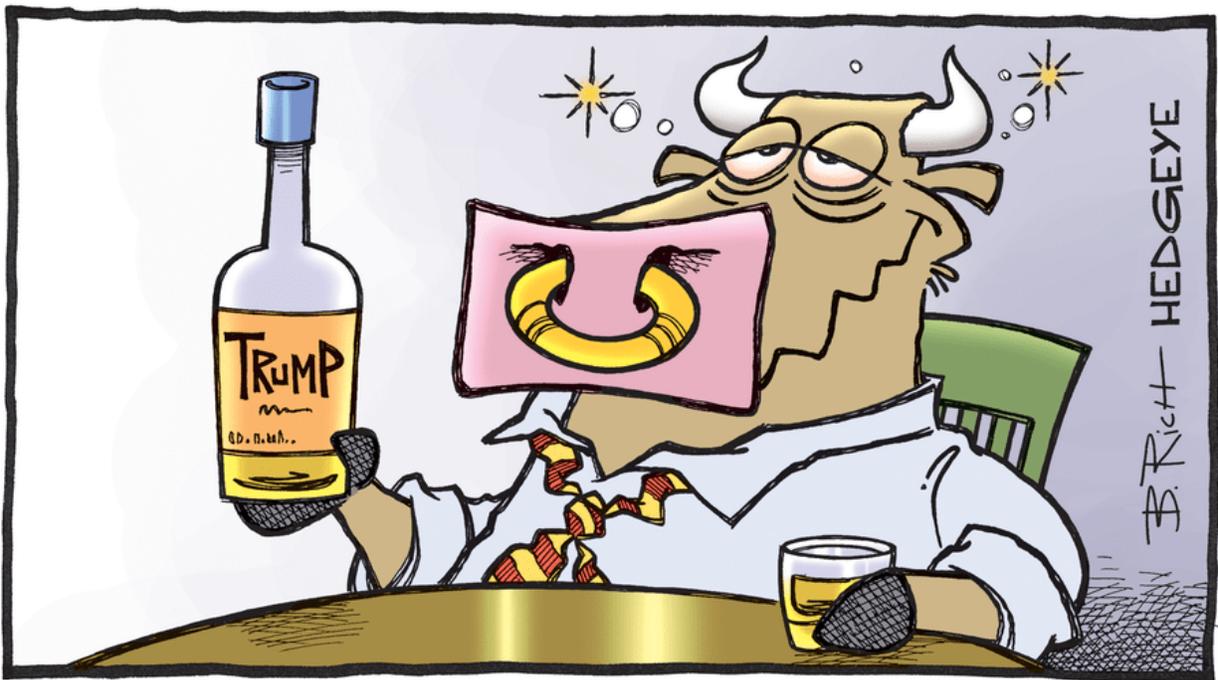
Ignoring any change in Price (downward), how much do Earnings need to improve to merely bring our P/E Ratios back down to the long-term trend line? If we begin with the

⁹ **Earnings** and **profits** are often used interchangeably. Others might make a distinction between the two words. In the case of **earnings** per share, **earnings** means a corporation's net income after income tax expense. However, in another context the word **earnings** could mean an amount that is prior to income tax expense.

current P/E Ratio at 87% above the long-term trend line, then simple math tells us that we need an approximate 87% increase in Earnings to bring the P/E Ratio back down to the Trend line. An increase in earnings of that magnitude is a very tall order no matter how pro-growth our federal government becomes over the next 2 to 4 years.

Trump-onomics to the Rescue (or Wishful Thinking)?

The uber-bullish meme right now is that Trump, through his proposed corporate tax cuts and deregulation, is going to kick start the U.S. economy like Ronald Reagan did in the 1980s. Implication: A major financial market boom is about to commence.



It's a terribly misguided analogy. The following are the three (3) main reasons why our current economic environment is not anything like the 1980s and will prevent a major financial market boom¹⁰ (at least until after we see P/E Ratios back down):

1. **Demographics Favored Reagan, but not Trump** -- In the early 1980s, a large generation of youth was entering the United States labor force, giving the U.S. an extra 1.4% annual kicker to GDP growth. Today this annual growth kicker is only 0.2%. More importantly... back then, a new flood of working women added an extra push. Today, the women's Labor Force Participation rate is actually falling. Reagan also didn't have 10,000 baby boomers retiring each day thereby leaving the labor force and beginning to draw down on their investments. Instead, he had these same baby boomers entering their peak earnings and savings years.
2. **Valuations Hugely Favored Reagan, but not Trump** – Most equity valuation measures were roughly 50% below the long-term trend line (or average) when Reagan was elected (as seen in **Figure 11**.) Today market valuations are more than two (2) standard deviations (or double-sigma) higher than the long-term trend line: Shiller's CAPE, Tobin's Q, market cap/GDP, sales/GDP, household net worth/GDP.

¹⁰ Source: hedgeye.com, December 18, 2016: "3 Reasons Why Trumponomics Is Not Reaganomics"

Overall market valuations flashed green in 1980, these same market valuation indicators are flashing bright red today.

3. **Debt, Savings & Earnings Favored Reagan, but not Trump** – In the early 1980s, the federal debt and total nonfinancial debt as a percentage of GDP were low; today they are high. Additionally, in the early 1980's the net national savings rate was double what it is now (in 2016); the current account surplus was positive (not negative as it is today); and S&P profit margins were historically “thin” (not “fat” - as they are today).

Here's another thing to keep in mind... Shortly after Reagan was elected, U.S. equities crashed because his proposed corporate tax cuts and deregulation weren't expected to happen fast enough. From November 1980 to August 1982, the S&P 500 fell -27%.

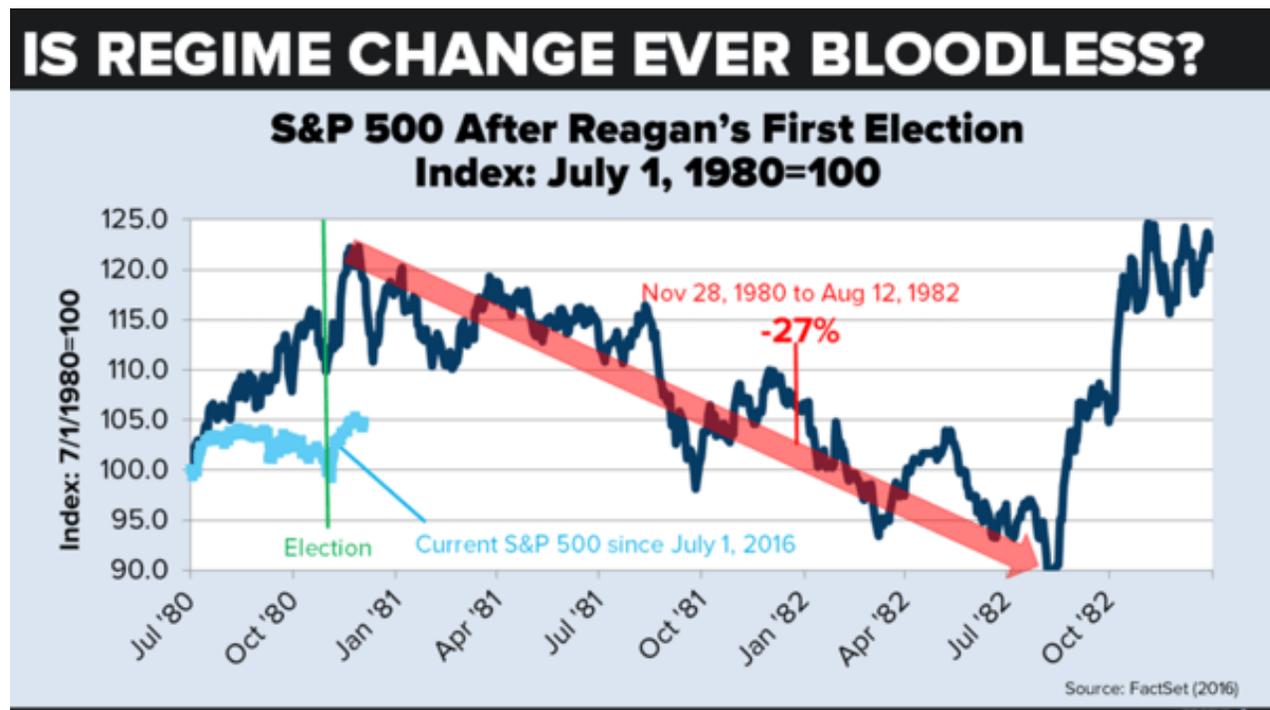


Figure 19: S&P 500 After Reagan's First Election

Is it possible we see a repeat where our financial markets crash because Trump's proposed corporate tax cuts and deregulation can't happen fast enough?

So what are most investors missing (or ignoring)?

Where do we start? There are so many potential landmines that could trigger a correction/bear market that it's hard to provide a complete list.



Just focusing on the United States (and naming only a few):

- 46 million Americans on Food Stamps
- Healthcare costs spiraling out of control
- U.S. National Debt approaching \$20 Trillion
 - Ignores our commitments to entitlement programs of \$100+ Trillion
- Public Pensions are significantly underfunded
 - CalPERS recently reduced return forecast from 7.5% to 7% (Dec 2016) acknowledging that they are 68% funded and need a lot more money to meet their future pension obligations
- Public pensioners are also owed lifetime health care coverage and these state obligations are mostly pay-as-you-go systems (so they're not funded at all)
- Potential trade wars and other protectionist policies...
- Drop in corporate earnings since the high reached in 2014 (see **Figure 18**); and
- Fed Tightening of monetary supply
 - Interest rates are going up that will increase inflation and strengthen the U.S. Dollar – which will:
 - Increase borrowing costs for the government, corporations and individuals
 - Negatively impact the revenues and earnings/profits of our multinational companies
 - Negatively impact foreign and emerging markets

Turning our focus on the rest of the world (and again naming only a few):

- Terrorism Risks
- Political instability
 - Brexit and EU (both Italy and France have votes in 2017)
- Global Financial Risk
 - China's economy (fabricated GDP, ghost cities, currency issues, etc.)
 - Bank of Japan is a Top 10 shareholder of 90%+ of the Nikkei 225 companies
 - Italian banks have solvency issues...
- Zero Interest Rate Policies; and

- Global Debt-to-GDP at 325%

I know I am really glossing over these really complex issues and skipped many others but any one of these issues could prove to be the trigger or flash point that sets off a significant global recession.

So if our earnings can't make up enough of the difference, does this means that we will see a drop in price? Most likely. To better understand how our P/E Ratio will behave we need to understand the mathematical law known as "Reversion to the Mean" or what can also be referred to as Reversion to the Trend Line.

Reversion to the Trend Line

Once you understand that our P/E Ratios are at their all-time highs and although prices can go higher, P/E Ratios cannot go much higher. When you also understand the economic headwinds that will prevent the massive boost in earnings that we need – you can begin to appreciate the precarious situation we find ourselves in today. As a consequence, what will our P/E Ratios eventually do to resolve this situation?

Anytime an asset gets too far out ahead of its long term trend line (i.e. its average or mean return for that asset) – we will always see a "reversion to the mean" at some point. What does this look like on a chart?

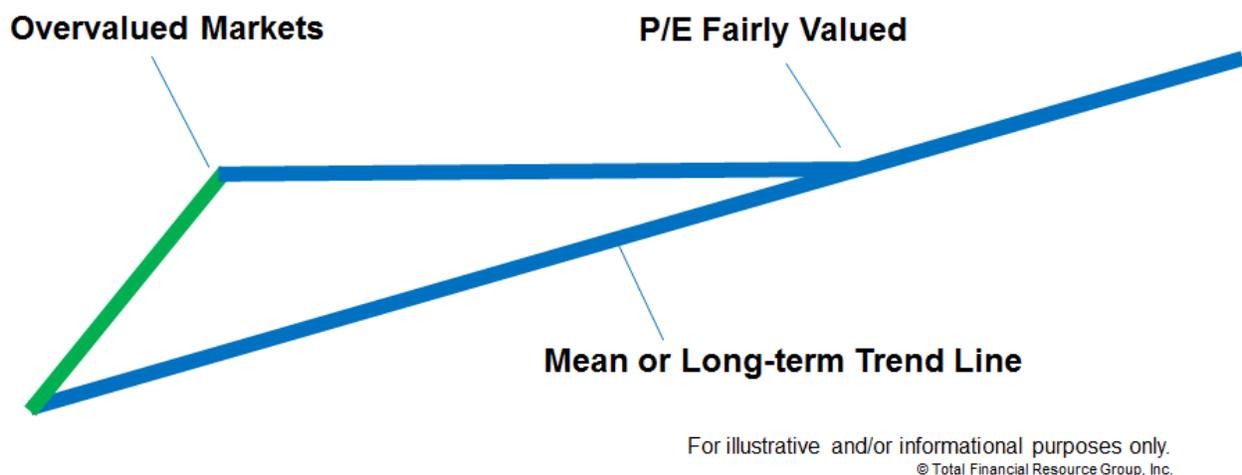


Figure 20: Reversion to the Mean – Flat, Sideways Market

Figure 20 illustrates one possibility where our prices remain flat (no further up or down movement) for prolonged timeframes. This flat market will eventually allow our current pricing (i.e. the P/E Ratios) to gently glide back down to the long-term trend line. Is this how financial markets normally behave in a “bubble” situation? No, not really.

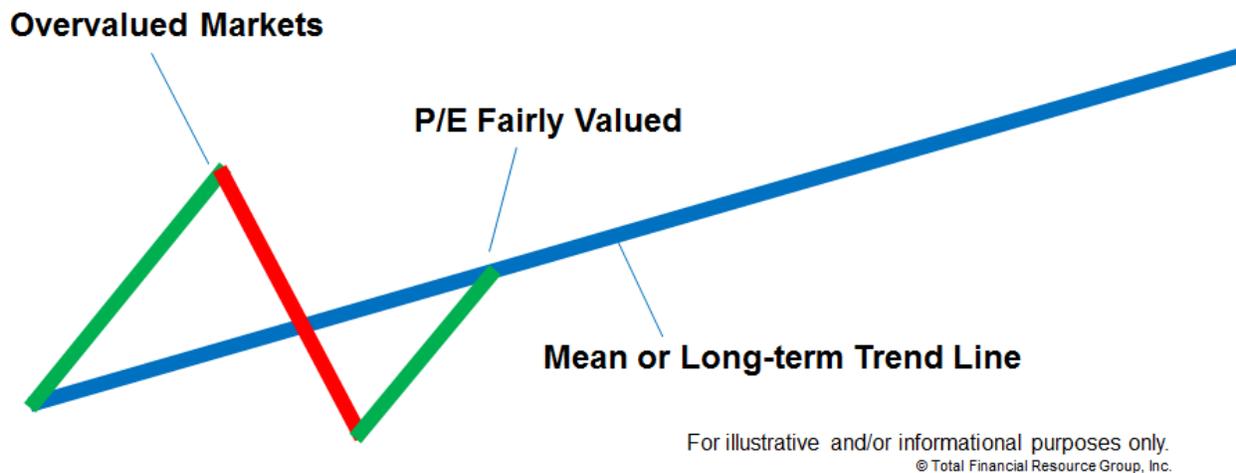


Figure 21: Reversion to the Mean – Sharp Over-Correction

Figure 21 illustrates how most financial markets behave when a bubble bursts. Why? We have a market of individuals that are going to eventually act in their own best interests. When markets begin to correct, they seem to “over-shoot” to the downside past “fair value” to eventually find a bottom below the long-term trend line.

If we only saw Price adjusted downward to get us back to our long-term trend line, how much does our current market need to drop to get us back to fair value? Starting with the 87% overvaluation, using simple math we would need to see a market correction or loss of 46.5% to get the P/E Ratio back down to its long-term trend line.

How much could it overshoot to the downside? This is anyone’s guess... but if we see a market drop of this magnitude, I would have to believe that we could actually see our markets accelerate to the downside and shoot well past this 46.5% drop taking our P/E Ratios well below the long-term trend line. And if you think back to what P/E Ratios we need to see before we can begin our next secular bull market run (using history as our guide) we could potentially end up at 50% below the long-term trend line.

OK. But when we look back at **Figure 11**, we see (if we ignore 1929) that when our markets correct back down to their long-term trend line they tend to go downward over a period of years in what can be a long, choppy ride down.

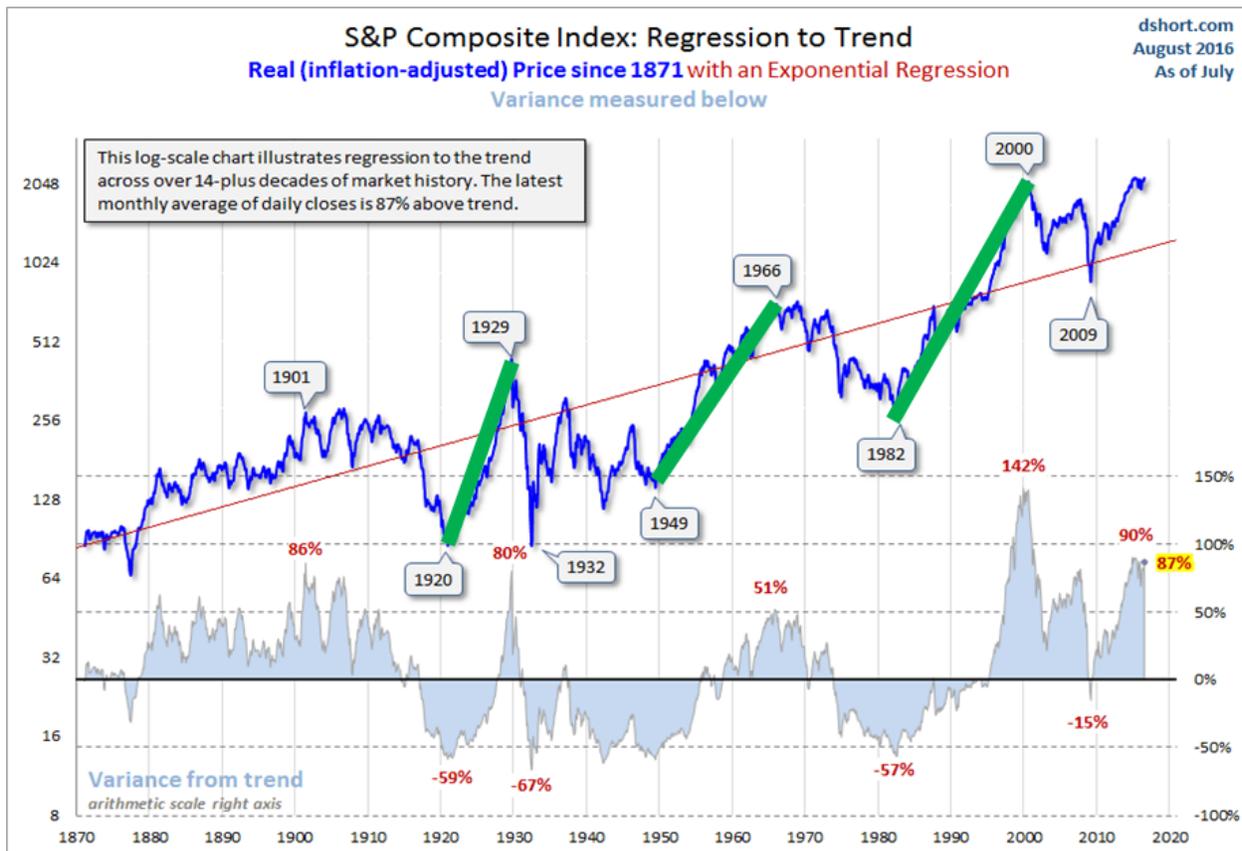


Figure 11 (repeated): S&P 500 Composite Index: Regression to Trend (secular bulls highlighted)

What's different in today's markets that may potentially cause an acceleration to the downside? One thing immediately comes to mind. The pervasive use of leverage that has dramatically increased since the 1980's.

Markets Partially Driven by "Stealth" Leverage

Figure 22 on the next page shows the amount of leverage being used to partially fuel the markets.¹¹ Unfortunately, this chart only shows the "net" credit balances in NYSE accounts. The red bars in the chart show that currently we have a net negative credit balance of approximately \$200 billion inside investors' NYSE accounts. This leverage is plotted against the S&P 500 Monthly closes.

¹¹ The other major "fuel" used to propel the markets has been unprecedented monetary policy provided by the Fed and other central banks. As the Fed began a tightening cycle on December 14, 2016, this "Fed put" holding up our markets will be withdrawn slowly over time. How this ultimately affects our markets is unknown as the connections between market fundamentals and market prices are currently missing. As these prices and fundamentals reconnect, we truly don't know what will happen.

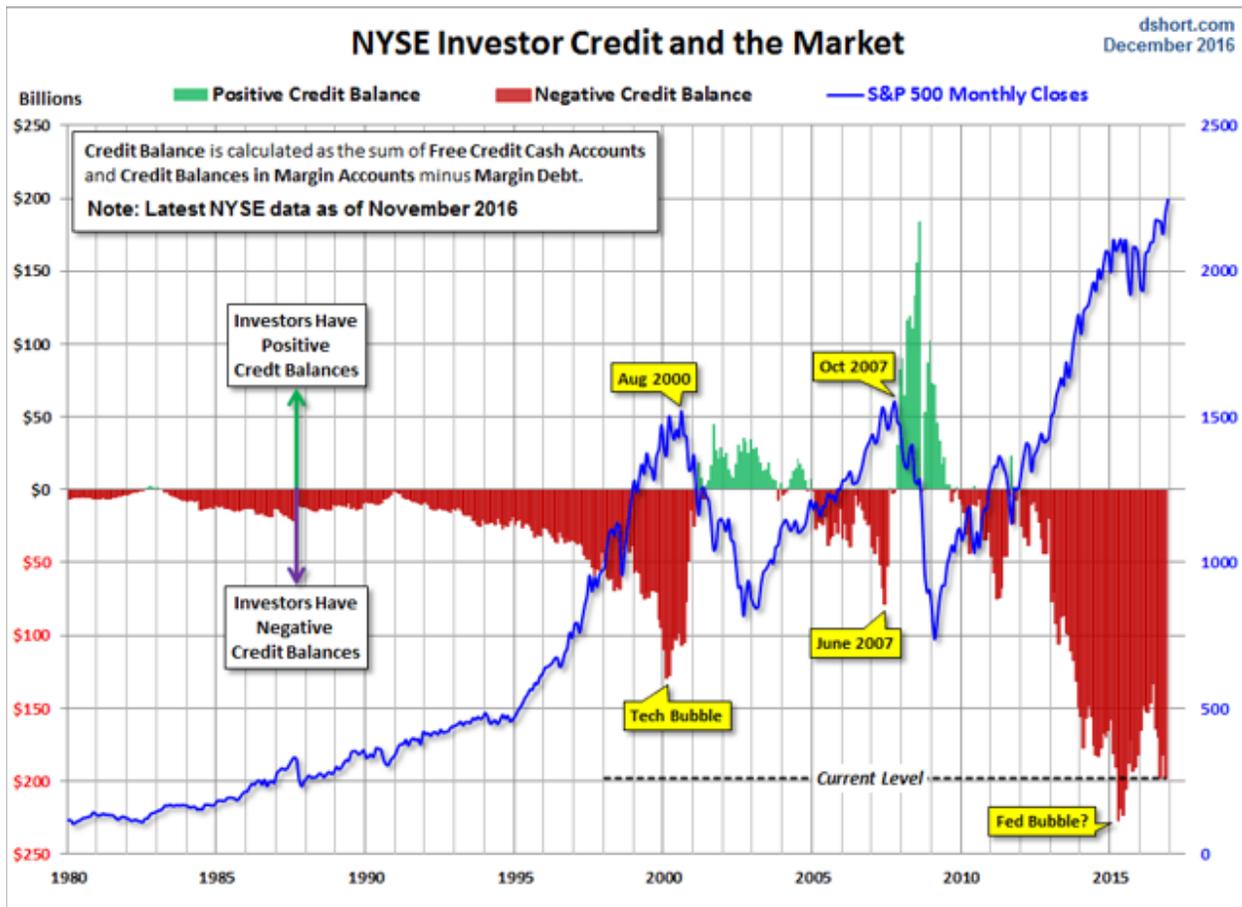


Figure 22: NYSE Investor Credit and the Market

Although this looks bad, it's even worse than what is shown here. When you review the raw data, at present we actually have a collective \$500 billion in margin debt as of the end of November 2016.¹² Why does this chart show a much lower amount? Because cash held in other accounts offsets this "net" figure, therefore this chart shows about \$300 billion less than the current total margin debt actually held.

What impact will this incredible amount of leverage have on our markets? Simply put, when we begin to see the markets turn, there might be an increasingly likelihood of an accelerated "mad rush to the door" as collectively we are using way too much leverage. Keep in mind that leverage can improve accumulation, but it is equally if not more devastating when markets correct.

So when (not if) this market cycle turns, the markets might go down fairly quickly as it does in every correction AND more importantly, there is a real potential that it could go down much lower than just bringing valuations back to normal. In other words, there is a higher probability that the correction will go deeper into negative territory than otherwise warranted.

¹² http://www.nyxdata.com/nyxdata/asp/factbook/viewer_edition.asp?mode=table&key=3153&category=8 is the link to the raw data.

How Will A Correction Affect Investors?

In 2009 - during the depths of the global financial crisis - the S&P 500 reached levels not seen since 1996! Of course, this doesn't account for dividends, but who is thinking of total returns when market values are down 50%?

An economic optimist might be right roughly 90% of the time, but that 10% error rate could destroy their standard of living for good. For example, after crashing during the 2008/2009 crisis it took about six years for the S&P 500 price level to get back to its 2007 peak (when ignoring inflation). That's a long time for someone who is retiring, or has ill health, or has kids in college, etc.

And going further back to the previous bear market, the unfortunate person who invested at the market peak in 2000 had to wait 7 years to break even in 2007, then experienced another crash and waited another 6 years to get back to even again. This 13 year journey "back to even" (ignoring inflation) for those who had their money invested in the index in 2000 could have been dramatically different had they positioned their investment portfolio into investment strategies and products designed to limit market losses.

Engineering a Soft Landing

If we can somehow avoid a major market selloff triggered by any number of the major economic problems we are facing AND investors can be patient enough to allow our earnings to improve over the next five-plus years ... what might that look like on our "reversion to the mean" diagram?

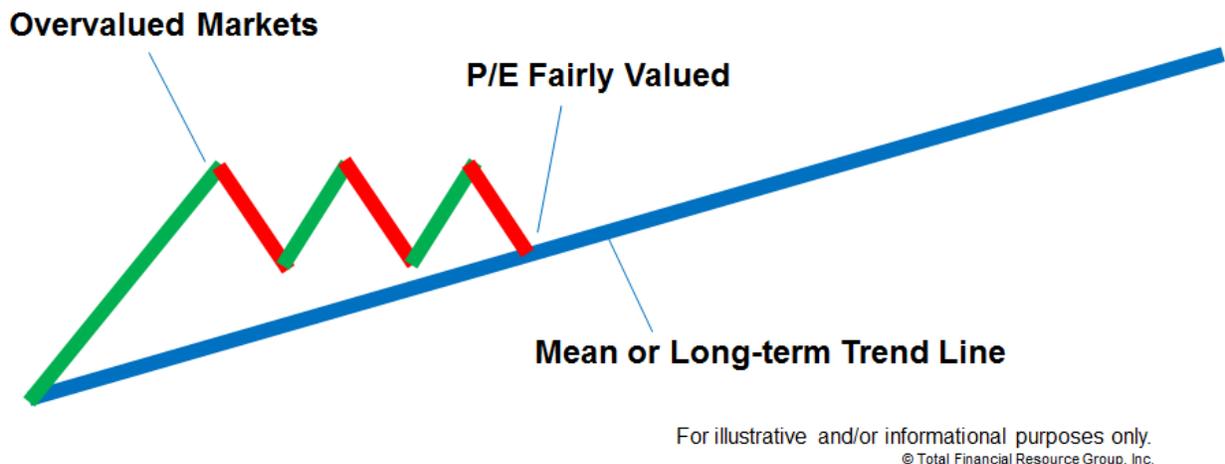


Figure 22: Reversion to the Mean – Volatile, Sideways Markets

In **Figure 22** we see a choppy sideways market taking us back to the long-term trend line and interestingly, this is the type of market that we are actually hoping for.

Why do I say this? If we see a massive, sharp drop in the market we will most likely overshoot to the downside and erase a massive amount of wealth very quickly similar to what happened in 2008/2009. This would not only be financially devastating (for those who didn't prepare) but also emotionally devastating to many investors; and these unprepared investors may never financially recover because many of them will refuse to reinvest what little they have left at the market lows. And it's this necessary re-investment at our market lows that not only helps our markets heal but would also help these

investors recover what they had previously lost (albeit over a longer period of time - assuming these investors weren't taking any income from their portfolios.)

Demographics to the Rescue

How long will investors need to adopt a defensive strategy to safeguard their portfolios? And how are we looking at our population age groups here in the United States and incorporating what we know about demographics into our financial planning?



Let's take a quick look at the major demographic groups as defined by age:

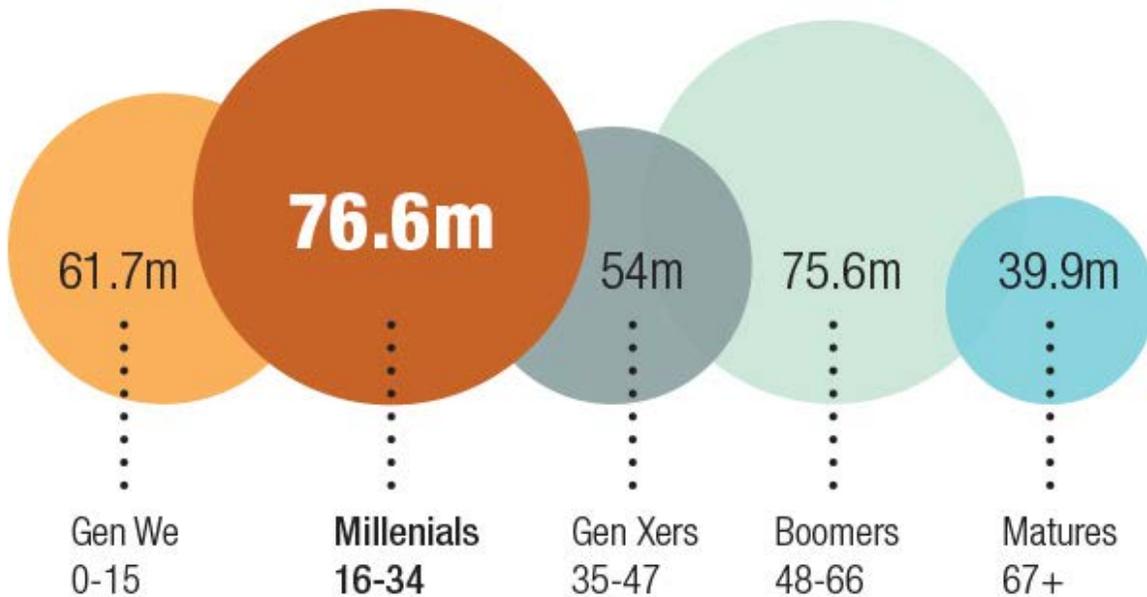


Figure 23: Demographics – Population Numbers by Age Groups¹³

¹³ Source: <http://www.democraticunderground.com/1251734059>

So what does this tell us? First, it's a well-known fact that 70% of the U.S. economy is driven by personal consumption. If personal consumption drives the majority of our economy, then it follows that the peaks and troughs of the purchasing habits of these different age groups should have a profound effect on our markets as well.

Understanding how the shifts in demographics affect consumption and therefore markets is crucial to understanding market cycles. Using demographic analysis, this tells us that we expected difficult markets as the Baby Boomers began retiring because there wasn't enough Gen Xers to pick up the slack in demand for goods and services.¹⁴

When the Millennials enter their peak consumption period based on the formation of households (i.e. getting married and having children) we should see a big increase in demand for goods and services. This predicted increase in demand from the Millennials is projected to be the major catalyst that is expected to propel our markets in the next secular bull market run. However, the Millennials aren't projected to begin entering their peak consumption years until between the years 2021 to 2022.

Since the Millennials have been late to every party... I believe it's prudent to plan on managing your investments using defensive investment strategies at least through the year 2025 or so. This is a seven (7) to ten (10) year time frame. This longer period of time is why you can't move your money to cash to avoid the bumpy ride as potentially leaving your money in cash for that long is a really bad idea. Why? When we factor in even a modest inflation rate, you will lose too much purchasing power over that timeframe.

The following chart (Figure 24) shows what we hope to see happen between now and roughly 2025 in order for our markets to be set for our next secular bull market run. In other words, this chart is the "best case scenario" as we are hoping to dodge all of the potential economic bullets that can cause our markets to implode.

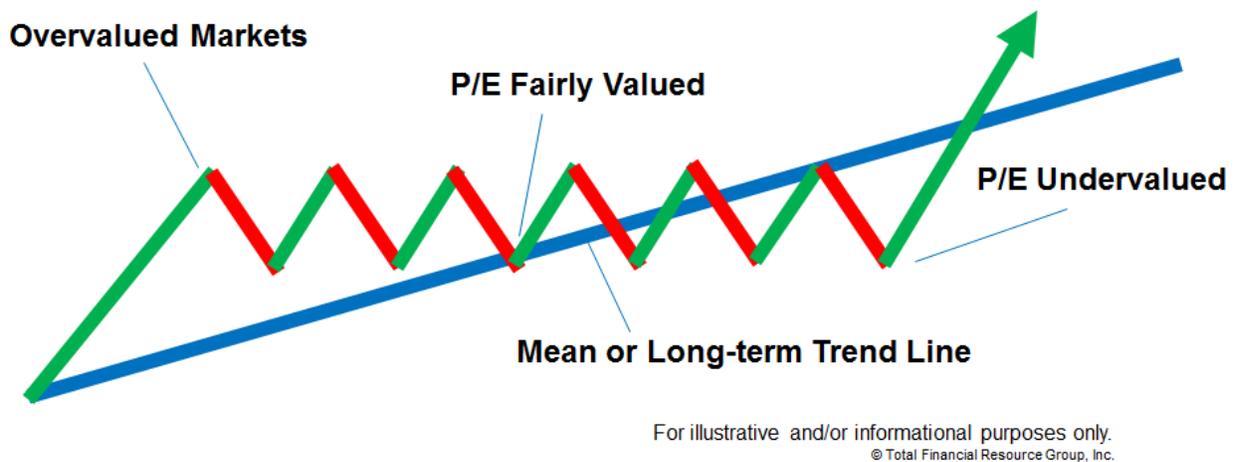


Figure 24: Reversion to the Mean – Volatile, Sideways Markets with Consolidation

Figure 24 illustrates volatile, sideways markets which will eventually bring our P/E Ratios down to a level of 50% undervalued – and thereby setting the stage for a new massive long-term bull market run driven by the Millennials.

¹⁴ Harry Dent is a well-known economist who pioneered the use of demographics to predict market cycles.

I ask... is your portfolio invested to safeguard against a significant market drop while still giving you a decent upside potential?

Plan for the Worst & Hope for the Best

If it is easy to understand why you need to safeguard your portfolio because of the current market valuation extremes... What are most investors doing right now?



U.S. Consumer confidence climbed in December 2016 to the highest level since August 2001 as Americans were more upbeat about the future economic outlook than at any time in the last 15 years. How has this newly found confidence translated into investors' behavior?

On December 19, 2016, TrimTabs Investment Research reported that U.S. equity exchange-traded funds received a record \$97.6 billion from Tuesday, November 8 through Thursday, December 15, 2016. "The stampede into U.S. equity ETFs since the election has been nothing short of breathtaking," said David Santschi, chief executive officer at TrimTabs. "The inflow since Election Day is equal to one and a half times the inflow of \$61.5 billion in all of last year. One has to wonder who's left to buy."

This massive inflow into the equity markets, however, is far from a bullish sign according to TrimTabs, which issued the following warning as a result of the "breathtaking" inflows: "ETF flows tend to be a good contrary indicator when they become extreme, so the buying frenzy doesn't bode well for U.S. equities," said Santschi.

S&P 500 Performance vs. Equity and Bond Net New Flows

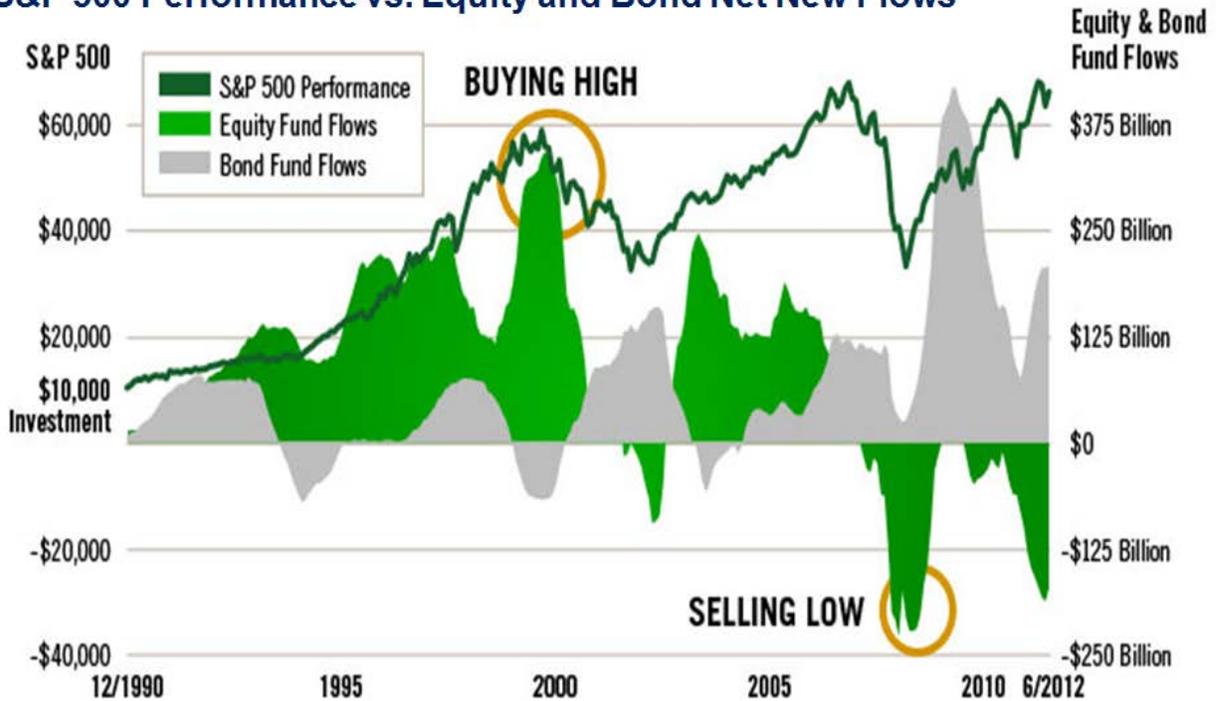


Figure 25: S&P 500 Performance vs. Equity and Bond Net New Flows

Figure 25 from Morningstar illustrates that investors tend to “buy high and sell low” which therefore would support the recent market warning issued by TrimTabs.

Historically, what does large investor inflows into the markets signal? Investors tend to chase performance and invest at market tops. Market tops are defined as having P/E Ratios at extremely high levels with market prices pushing to new record highs. Sound a little familiar?



Performance Chasing Behavior

If we are approaching or are now currently in the green zone shown in the chart below the question you have to ask yourself... Is it a good time (right now) to take risk? Or is it the right time to take risk off the table and be defensive with your investment strategies?

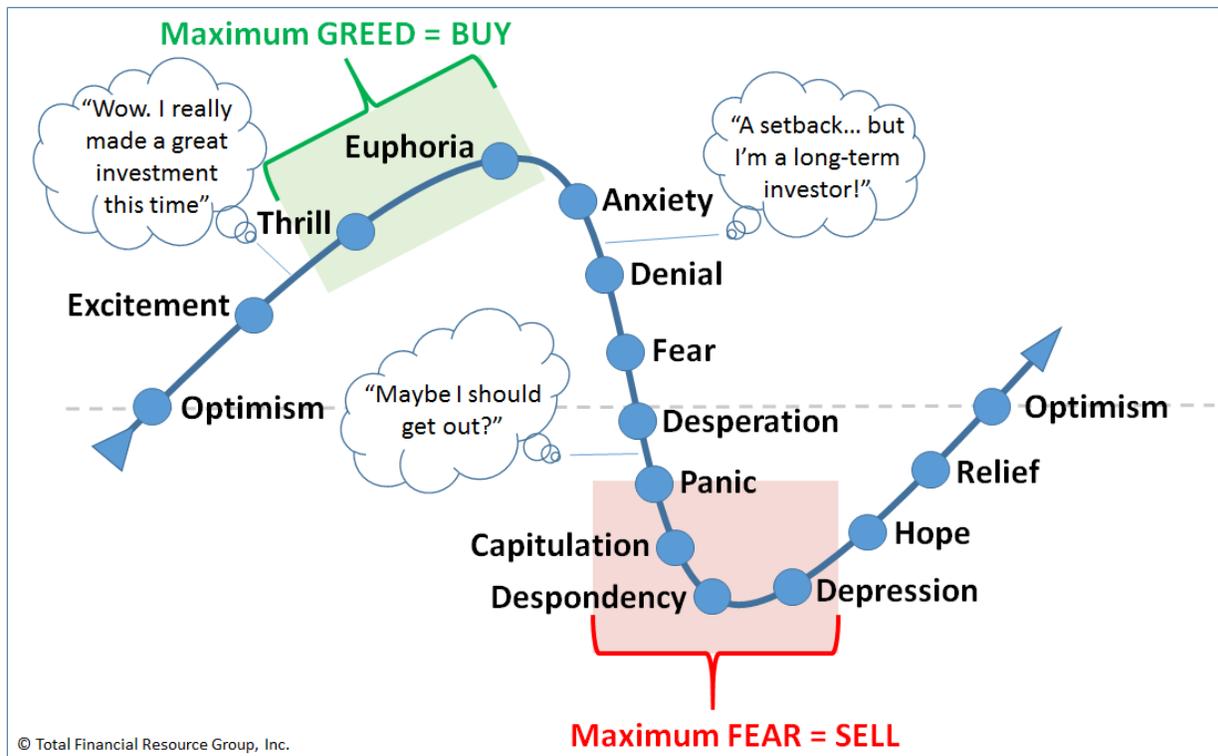
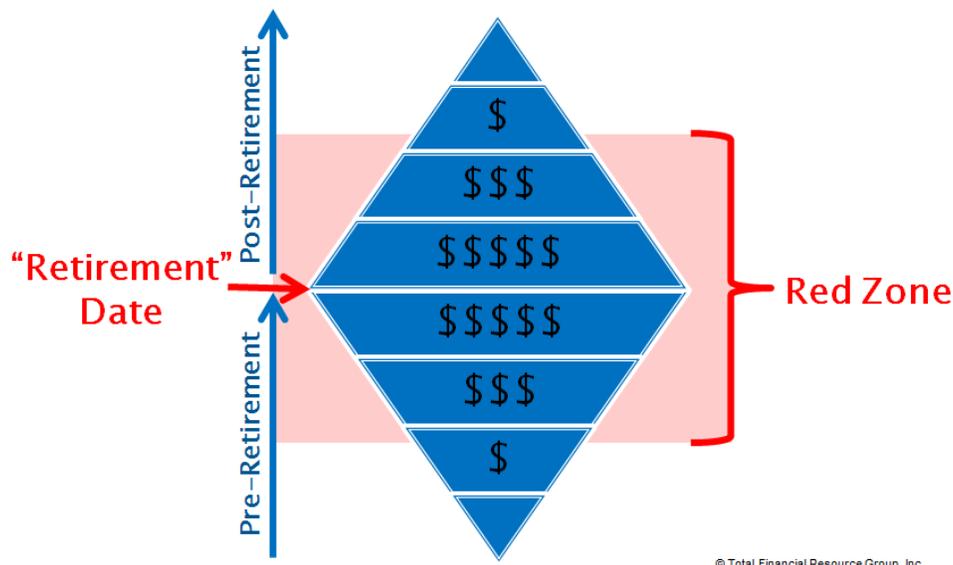


Figure 26: Greed / Fear Cycle of Investor Behavior

Remember to answer these questions for your own circumstances you must first determine when you are looking to draw from your account (i.e. retire) and how much risk (or potential losses) that you are willing to accept as this current market cycle works through to its eventual end. Let's refer back to the retirement red zone chart and determine just how close you are to needing your money...



Keep in mind by most all indications from market valuations (currently at extreme P/E Ratios) to investor sentiment (at its highest since 2001) to massive equity inflows (per the ETF data reported by TrimTabs), we are near the top of the current market cycle. This puts us somewhere in the red shaded area in the illustration below:

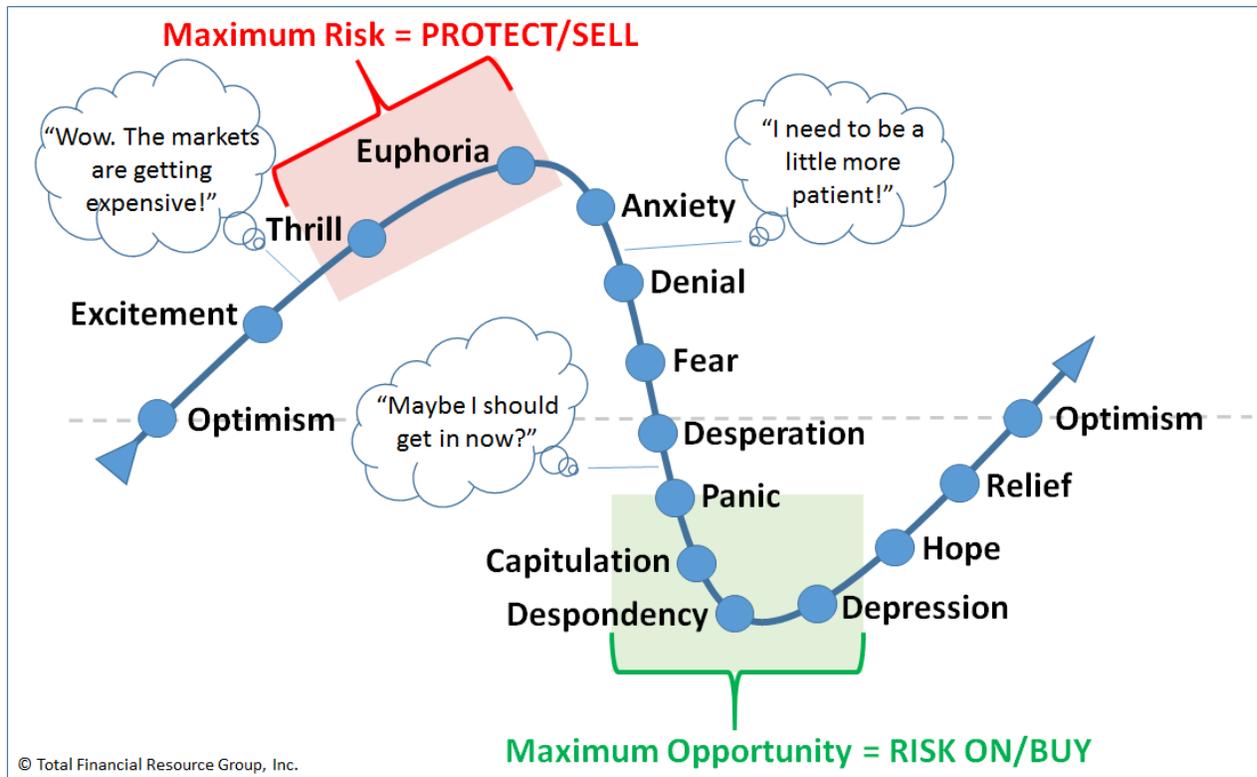
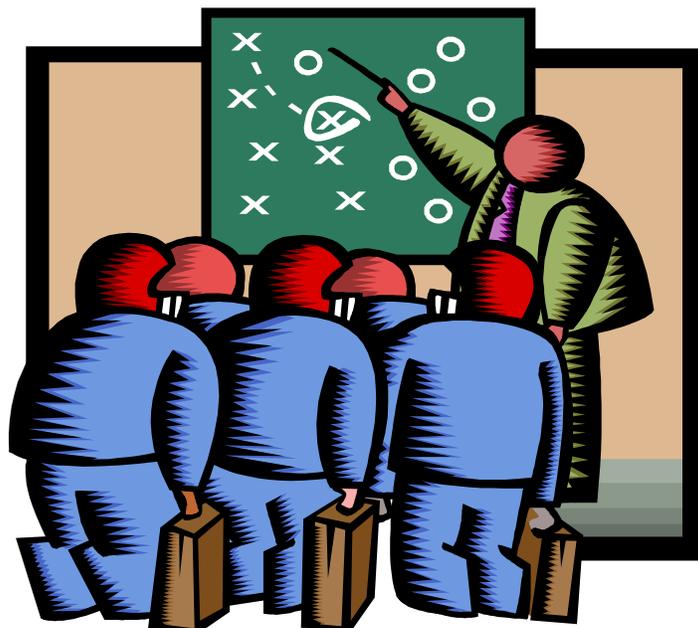


Figure 27: Risk / Opportunity Cycle of Investor Behavior

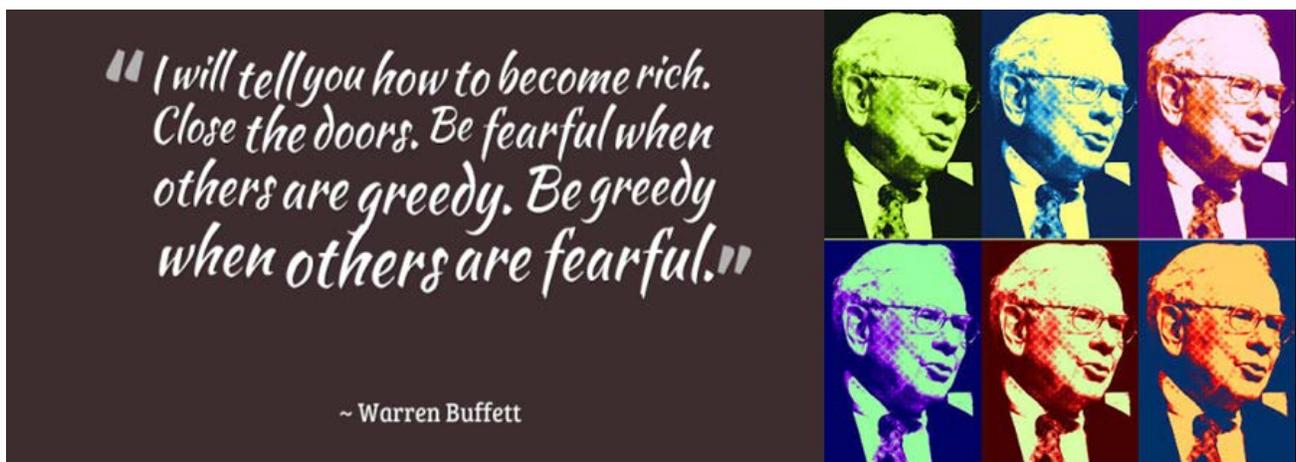
Investors need to understand that they must shift their focus from the emotional Greed vs. Fear Cycle that dominates investment management today to a new model based on Risk vs. Opportunity. In other words, as investors we need to take our strategic planning cues from sports and learn when to play “offense” and when to play “defense” (with our investments).



We must begin to understand how market cycles, with their ups and downs, can have a direct effect on our investment performance. If an investor loses too much money at the wrong time (in the retirement red zone) it will substantially impact their path in life. When we can clearly identify that markets are nearing their highs in risk, this is when an investor needs to shift their portfolio and play defense to preserve the money that they will need to rely upon in retirement.

Bottom line... Hope is not a strategy. What does this mean? You cannot really think that “hoping that this time it will be different” is a viable option. Can we know for certain that the markets will correct next week, next month, next quarter or next year? No – the timing or source of the coming P/E Ratio correction cannot truly be known. But does that mean that it might not happen? Said differently... can P/E Ratios stay this high forever? The simple answer is... No.

Most would agree that Warren Buffet knows how to invest successfully and taking your investment cues from the Oracle of Omaha is probably a good idea. What does Mr. Buffet have to say about taking risk?



What should you do right now? It depends upon your ability to accept losses if they occur. If you are not prepared to absorb the loss of more than a nominal amount of your current portfolio, then you need to explore using investment strategies and financial products that are designed to preserve your principal yet still allow for growth. Remember, you also probably cannot afford to sit on the sidelines in cash earning nothing for any extended period of time either.

What Are Your Options?

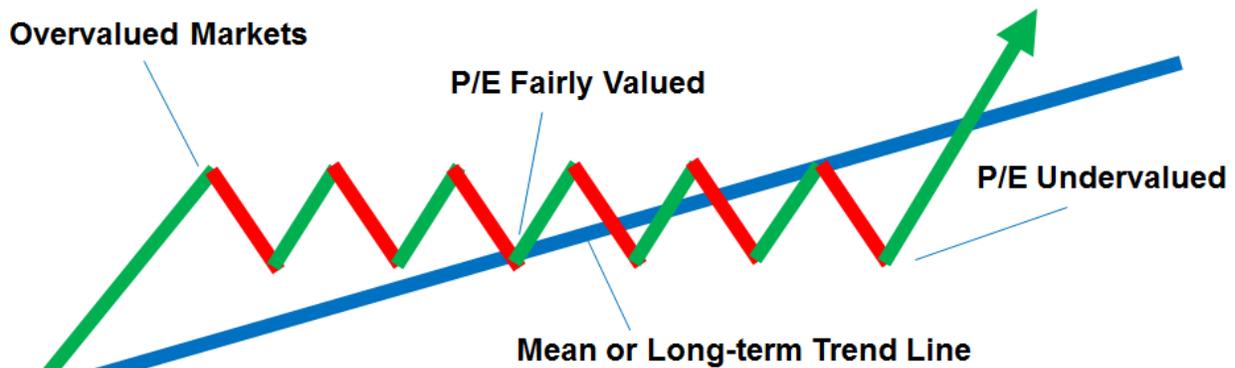
You can always do nothing. You can remain fully invested with 100% of your money at risk despite the significant overvaluations we currently have. Are we suggesting to clients and prospective clients to get out of the markets entirely? Absolutely not.

It's possible, but not highly probable, that we are able to somehow navigate through all of the potential landmines out there and achieve our market P/E Ratio “consolidation” goals without having a major market disruption (while we wait for the Millennials to begin their peak consumption years.) With globalism having irreversibly interconnected all of the world's economies, to avoid any real financial fallout this would require that not only does the U.S. government and our central bankers play a perfect game, but we would need to see the same from every other player on the world stage.

If somehow “this time it’s different” and the light we see is the end of the tunnel and not an oncoming train... then you should be OK. If this time it’s not any different... and you fail to take action (and get off the tracks)... you might have no one but yourself to blame. As mentioned earlier, an economic optimist might be right roughly 90% of the time, but that 10% error rate could destroy your standard of living for good.



Remember, using history as our guide, we will need to reset our market valuations before the next secular bull market run can begin and this can’t be done without P/E ratios moving well off their current all-time highs. We would also like to avoid a sharp correction which could potentially wipe out a decade or more of market gains. The type of markets we are hoping for looks something like this (as a reminder):



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Figure 24 (repeated): Reversion to the Mean – Volatile, Sideways Markets with Consolidation

If this is the best case we can hope for, we need to look to utilize investment strategies and financial products that will give us upside performance yet at the same time mitigate or eliminate the downside risk.

And don’t forget, with P/E Ratios remaining at these higher levels and with all of the potential trigger points, we will have a constant threat of a severe market crash (Price drop) until we work our way to undervalued P/E Ratios. At that point the Millennials peak consumption years may provide significant demand thereby driving earnings higher. Our

reversion might potentially look like this if our world's leaders aren't able to all "play that perfect game" to avoid a sharp correction:

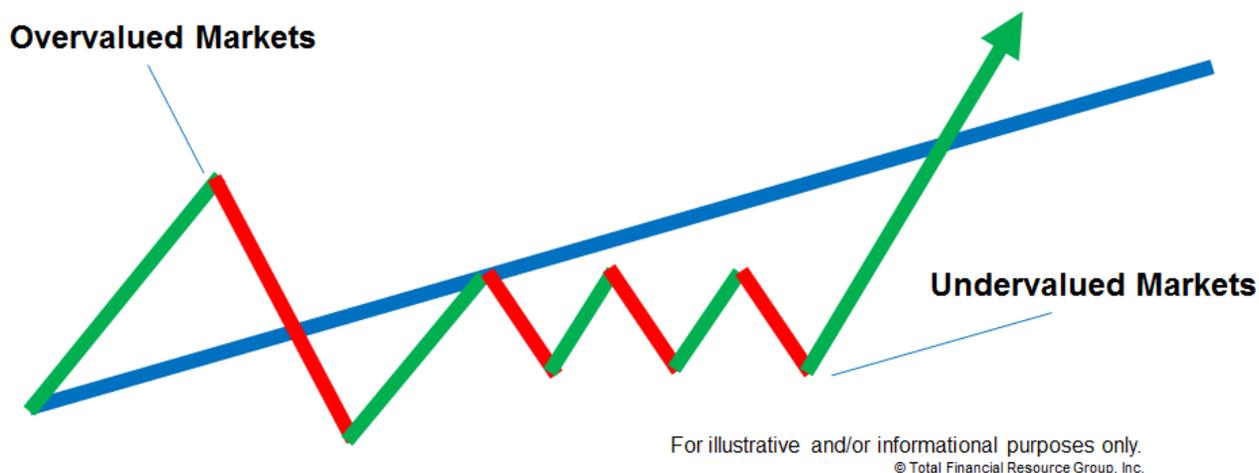


Figure 28: Sharp Over-Correction, Followed by Volatile Consolidation

How much could we lose in a sharp correction? **Figure 29** illustrates just how much we would need to see Prices on the S&P 500 Index fall to in order to accommodate the various "value measurements" on this index. If a P/E Ratio of 15 is considered "fair value" then we need to see the index drop about 46.5% to around 1300.



Figure 29: Decades-long Bull Market in Bonds as Yields Fell

Because of the expected volatility, investment strategies and financial products that can use volatility to their advantage will also be increasingly important and should also be considered for inclusion in a "strategically defensive" portfolio allocation.

What About Using Bonds?

The fixed income markets have traditionally provided us with a “safe-haven” from equity market turmoil. Can’t we just move our money into U.S. Treasuries, municipal bonds and/or some other fixed income asset and wait this out? Unfortunately, the fixed income markets also have their own problems and may not be able to fulfill their traditional “safe-haven” role in portfolio construction that they have been known to provide in the past.

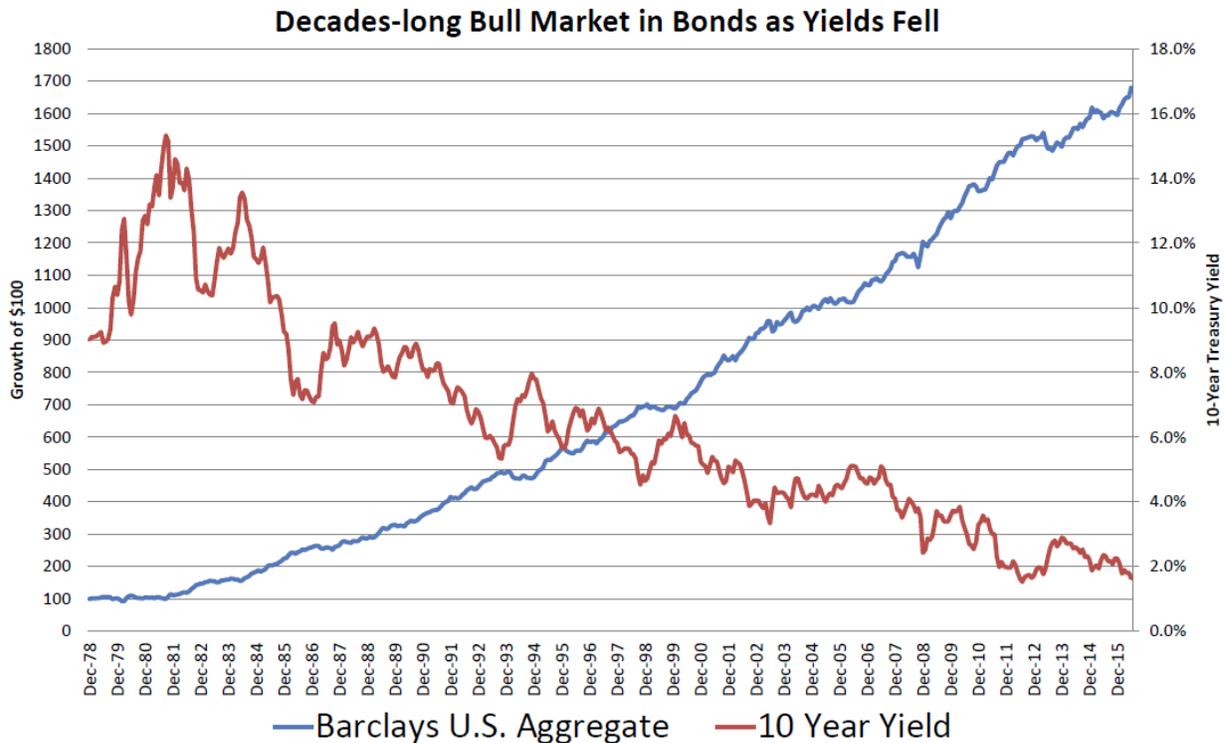


Figure 30: Decades-long Bull Market in Bonds as Yields Fell

Simply put, the largest “debt super cycle” in modern history might also be coming to an end and this could prove to be another major threat to economic growth and financial markets, including those assets allocated into bonds.

It’s possible that the biggest bubble of all bubbles is in the bond market. European sovereign debt might just be the first to crisis. Further, global debt has reached 325% of GDP. Academic studies show that economies can get into trouble when debt-to-GDP exceeds 90%. Expand that to the U.S. and you’ll find a 105% debt-to-GDP number. (The number is actually much higher — 250% — if you include Social Security and Medicare debts.)¹⁵

To understand the implications of the current Global Debt-to-GDP ratio at 325%, let’s review what this means. If we lumped the whole world together and thought of it as one giant household this would be the equivalent of earning a \$100,000 per year, but also owing \$325,000 on our credit card. And let’s not forget that the interest rate on the credit card is now beginning to go back up...

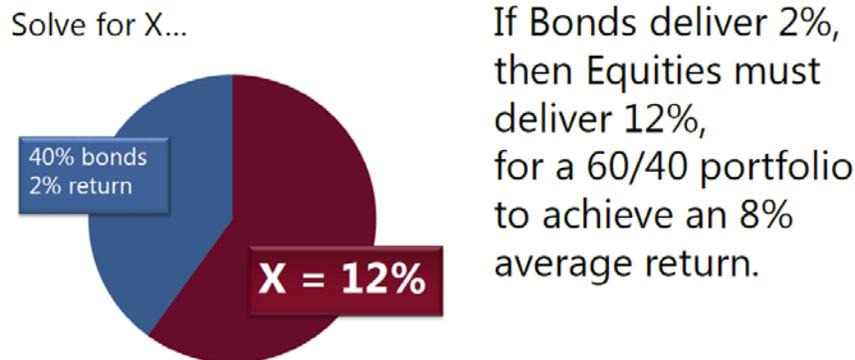
In 2015 the U.S. federal government incurred \$223 billion in net interest. Federal net interest costs, which have been held down by very low interest rates in the Great

¹⁵ Source: valuwalk.com, January 7, 2017: The Bond Market is Facing the “Perfect Storm”

Recession and its aftermath, amounted to 1.3 percent of GDP and 6.1 percent of government spending in 2015. Both of these figures are near their lowest levels over the last 50 years. But interest costs — in dollar terms, as a percent of GDP, and as a share of the budget — will increase as debt continues to grow and interest rates return to more normal levels.¹⁶

60/40 Portfolio Historical Returns

A potentially bigger issue for your portfolio... In a 60/40 portfolio¹⁷, with our 10-year treasuries and many municipal bond portfolios delivering about 2%¹⁸, how much better must equities perform to deliver 8% annually? The answer... 12%. Do you REALLY think you have a chance to get 12% on your equities every year?



Although interest rates are going up and bonds may begin to pay investors a little more than 2%, the real problem with a rising interest rate environment is that bond prices go down (when interest rates rise.) This means that the long-term bull market in bonds created by the decreasing interest rates (over the last 35+ years) may no longer add to an investor's return. In fact, those investors not holding the actual bonds (think bond mutual funds, ETFs, etc.) may lose even more as they do not have the ability to "hold their bonds until maturity" to get their principal back.

With bonds poised to revert back to their pre-1980's role of primarily delivering income and then your principal back at maturity, we need to re-think how we use bonds in our investment portfolios. Too many investors are not ready for this dramatic shift and they might get hit equally hard on their bond allocations (as well as their equities.)

So what can an investor do right now to preserve their principal AND potentially get some growth at the same time? Let's erase everything you think you know about investment management and explore those options that are particularly attractive in today's volatile and uncertain market environment.

In our webinar presentation we explored three (3) VERY different options to order to get the conversation going and to get webinar attendees to consider a different approach to their investment selection process given the significant risk that is prevalent in today's financial markets.

¹⁶ Source: Center on Budget and Policy Priorities, February 12, 2016: Policy Basics: Deficits, Debt and Interest

¹⁷ A portfolio that is 60% equities and 40% bonds.

¹⁸ Coupon rate is not the same as yield-to-maturity. In our low-yield world you can expect about 2% on your bonds – unless you are willing to take on extra risk to boost this yield up by a few percentage points.



Please understand that there are additional options that can be explored (depending upon an investor's individual financial situation.) The three (3) different investment options that we explored in our webinar could be used as a foundation to manage risk and preserve what investors have worked so hard to accumulate over their lifetime.

Big Mistake, Little Mistake

If investors adopt a defensive investment strategy that provides the opportunity for upside, yet protects against the downside risk... what's the worst that could potentially happen?

A big mistake... is to ignore 130+ years of market history which shows that we have never begun a new secular bull market run when market valuations are at their highs. The fear of missing out on something that has never happened in the past could cause investors to be forever financially devastated when our current market cycle concludes.

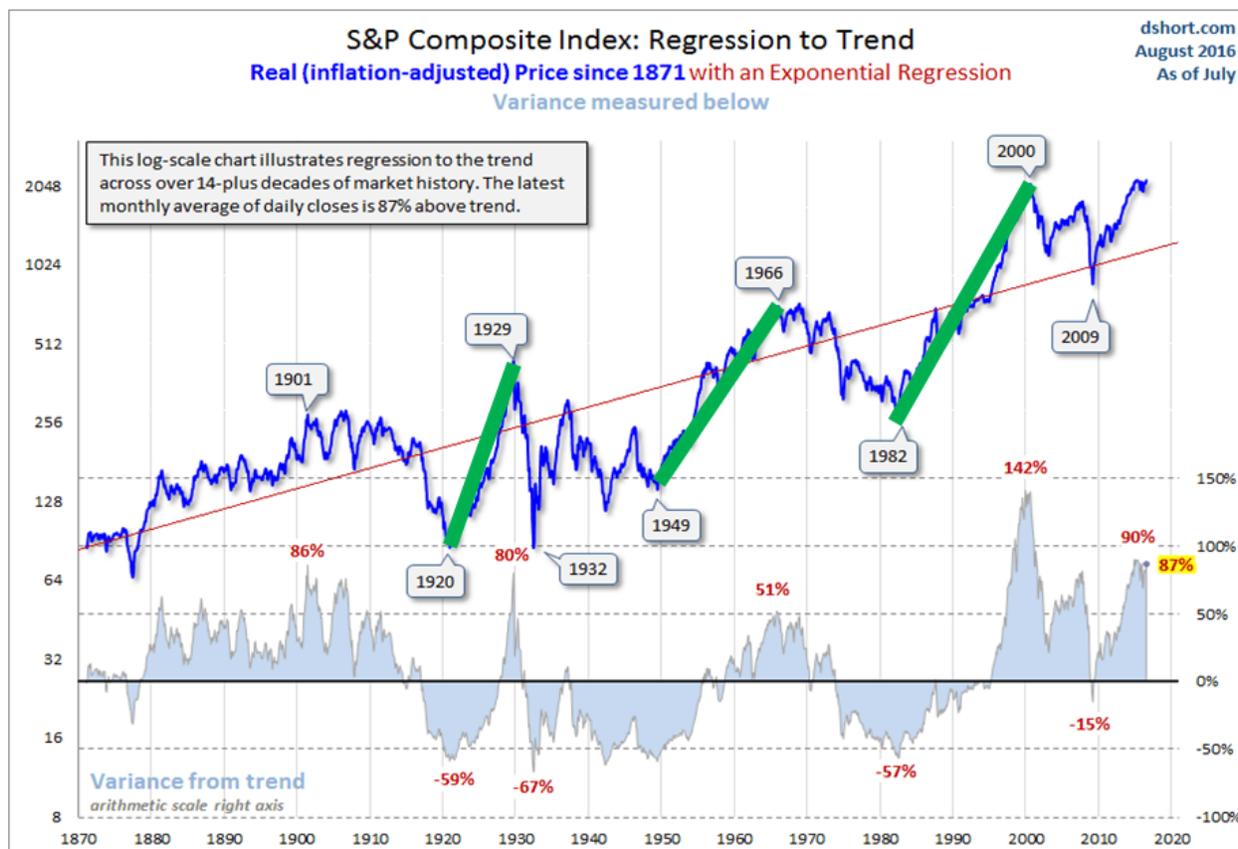


Figure 11 (repeated): S&P 500 Composite Index: Regression to Trend (secular bulls highlighted)

A little mistake... is to adopt a defensive investment strategy only to look back and realize that the markets continued to go up indefinitely without the normal expected correction of 20% or more. More importantly, we also look back and find that our world leaders played that “perfect game” and we were able to side-step a major market loss greatly exceeding a normal 20% correction.

If this is our future... then you might potentially have a little less in your accounts than what you would have had otherwise.

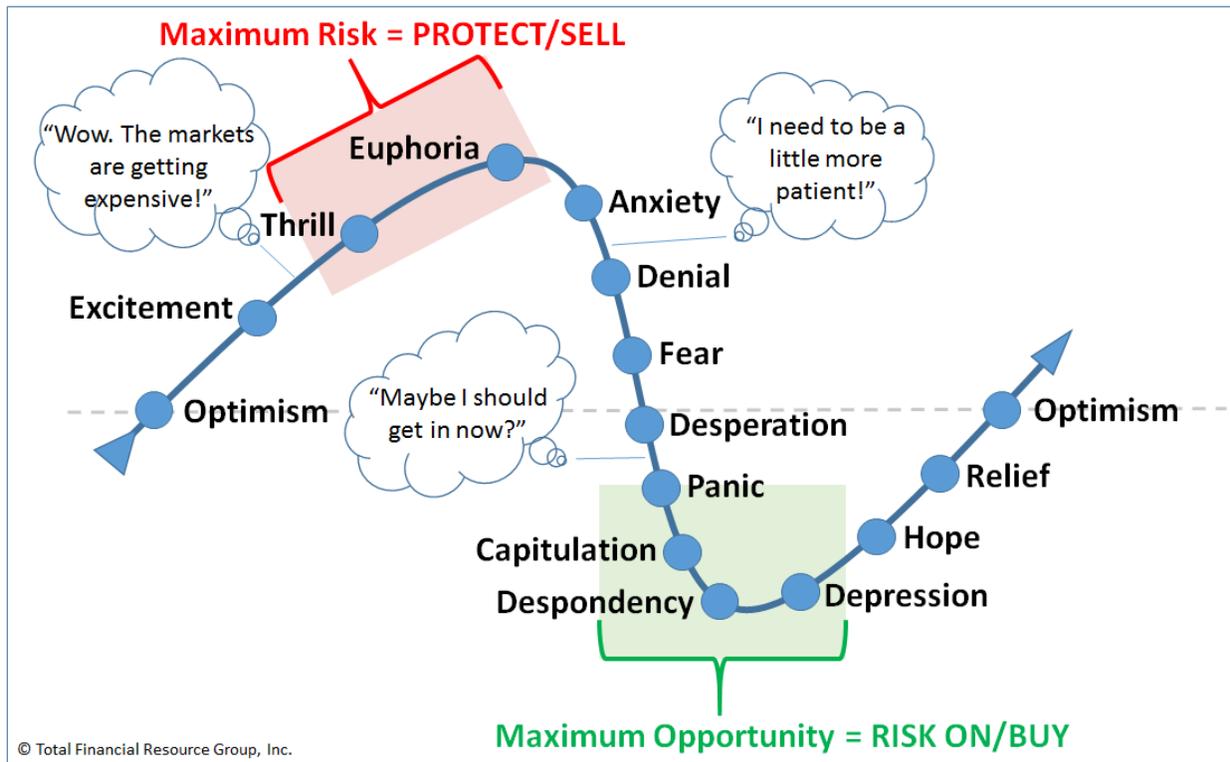


Figure 27 (Repeated): Risk / Opportunity Cycle of Investor Behavior

IN SUMMARY

- Too many investors may be forever financially devastated when our current market cycle concludes. As history has shown, market P/E crashes are a mathematical certainty.
- One way the P/E ratio changes upward is when the Price goes up and Earnings remain the same. Or the stock price can remain flat when the earnings drop as both will cause the P/E Ratio to increase. This is called “multiple expansion” and is translated as a situation where investors are willing to pay more today for the same earnings they used to pay less for. Interestingly, this is also commonly known as the “greater fool” theory of asset pricing.
- “Multiple expansion” has pushed our markets to extreme valuations.
- As of January 30, 2017: using the average of the four (4) valuation indicators our markets are currently 87% above the “mean” (or average) market valuation dating back to 1900. This places our current market valuations a little more than two (2) standard deviations (also known as “double-sigma”) above the mean valuation.
- To bring P/E Ratios down to normal levels either Price collapses, Earnings or corporate profits shoot significantly higher or we see some combination of both.

- Not one (of the three) secular bull-runs that we've had in the last 130+ years established its foundation and began a new move upward when overall market valuations were at extreme or record highs.
- We cannot end our current secular bear market in order to enter into a new secular bull market run until after we see market valuations (as measured by P/E Ratios) significantly below where they are today.
- Our current economic environment is not anything like it was during Ronald Reagan's first term in the 1980s and this will prevent a major financial market boom (at least until after we see P/E Ratios back down).
- Shortly after Reagan was elected, U.S. equities as measured by the S&P 500 fell -27% because his proposed corporate tax cuts and deregulation weren't expected to happen fast enough.
- If Wall Street told investors that after 16+ years, adjusted for inflation, they just recently broke-even on their investments (when compared to the 2000 high) – do you think the “average” investor would continue to blindly place all of their retirement money at risk on the Wall Street rollercoaster? Probably not.
- The more volatility you have in a portfolio, the less you will actually earn over time.
- If you could eliminate all market losses on your investments then you would only need 26% of the up-side to equal the market performance.
- Investors tend to chase performance and invest at market tops. Market tops are defined as having P/E Ratios at extremely high levels with market prices pushing to new record highs. Sound familiar?
- Unfortunately, the fixed income markets also have their own problems and may not be able to fulfill their traditional “safe-haven” role in portfolio construction that they have been known to provide in the past.
- As investors we need to take our strategic planning cues from sports and learn when to play “offense” and when to play “defense” (with our investments).
- When we can clearly identify that markets are nearing their highs in risk, this is when an investor needs to shift their portfolio and play defense to preserve the money that they will need to rely upon in retirement.
- Because of the expected volatility, investment strategies and financial products that can use volatility to their advantage will also be increasingly important and should also be considered for inclusion in a “strategically defensive” portfolio allocation.



Bottom line... Investors need to immediately revisit their overall investment planning and look for ways that they can adopt a “defensive” position to preserve what they have amassed in their investment accounts so far.

Please contact us to learn more about the investment ideas that we presented in our webinar and to further discuss how these strategies may work for you in light of your own specific financial situation.



Bradford D. Creger

Biography

Bradford Creger is currently the President/CEO of BFF Financial, Inc., an independent diversified financial services firm with their main offices located in Pasadena, CA. Brad obtained a BA in Economics from UCLA and has continued his commitment to education throughout his career and has the following current Financial Services Designations:

- AAMS[®], Accredited Asset Management SpecialistSM
- AIFA[®], Accredited Investment Fiduciary Analyst[®]
- CFS[®], Certified Fund Specialist[®]
- CLTC[®], Certified in Long-Term Care
- CPFA[®], Certified Plan Fiduciary Advisor[®]

In addition to his private practice, Brad has offered estate and business succession planning services through numerous investment brokers at PaineWebber, AG Edwards, Morgan Stanley Dean Witter and Prudential for their Southern California VIP clients. He also successfully forged new and exclusive planning relationships with Crowell Weeden and Citizens Business Bank Trust Department for their VIP clients as well. In 1999, Brad was asked to spearhead Sagemark Consulting's Southern California effort to forge planning relationships with CPA firms for their VIP clients. With his growing investment brokerage, bank and CPA relationships, Brad became one of the most sought after estate and business succession planners in the Southern California.

Brad made the difficult decision to "go independent" and founded Total Financial Resource Group, Inc. in early 2001. .

From the beginning of his career Brad has worked extensively with business owners, professional athletes, entertainers and other high net worth clients to assist them in all aspects of their wealth management planning.

Brad is an Amazon international Best-Selling Author and has been seen on & in:



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Are You Ready For A Market P/E Crash?

by Bradford D. Creger, President & CEO

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Fixed and Variable annuities are suitable for long-term investing, such as retirement investing. Gains from tax-deferred investments are taxable as ordinary income upon withdrawal. Guarantees are based on the claims paying ability of the issuing company. Withdrawals made prior to age 59 are subject to a 10% IRS penalty tax and surrender charges may apply. Variable annuities are subject to market risk and may lose value. An investment in Exchange Traded Funds (ETF), structured as a mutual fund or unit investment trust, involves the risk of losing money and should be considered as part of an overall program, not a complete investment program. An investment in ETFs involves additional risks such as not diversified, price volatility, competitive industry pressure, international political and economic developments, possible trading halts, and index tracking errors. Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values will decline as interest rates rise and bonds are subject to availability and change in price.

The Standard & Poor's 500 Index is a capitalization weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The Dow Jones Industrial Average is comprised of 30 stocks that are major factors in their industries and widely held by individuals and institutional investors. The NASDAQ Composite Index measures all NASDAQ domestic and non-U.S. based common stocks listed on The NASDAQ Stock Market. The market value, the last sale price multiplied by total shares outstanding, is calculated throughout the trading day, and is related to the total value of the Index.



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