

## To Crash or Not to Crash

Adam Hamilton August 25, 2000 3016 Words

**“To be, or not to be: that is the question: Whether 'tis nobler in the mind to suffer the slings and arrows of outrageous fortune...”** – William Shakespeare, *Hamlet*, Act 3 Scene 1, ca 1600 AD

In Shakespeare's famous tragedy, our hero Prince Hamlet began a great soliloquy with this legendary quote. In a wonderfully wild, erratic, and largely one-sided discourse with the beautiful maiden Ophelia, Hamlet used the ancient arts of strategic deception and psychological warfare to great advantage. Suspecting Ophelia would report his crazed rantings to her father Polonius, who was the trusted advisor and chief counsel of the villainous King Claudius, whom Hamlet suspected had murdered his father to marry his mother, Hamlet put on a great show of lunacy for the fair lady. Hamlet's clever stratagem worked brilliantly, and its operational leverage was magnified greatly as King Claudius and Polonius were actually hidden nearby listening to Hamlet's mad musings with their own ears. Through a carefully orchestrated personal propaganda campaign, Hamlet successfully convinced the enemy he was becoming a lunatic while he was secretly plotting his revenge on the usurper.

If Shakespeare's descendants had a nickel for every time this opening quote has been shamelessly appropriated (like in this essay), they could probably buy a nice sized chunk of the current NASDAQ equity market. The past 12 months, without any doubt, have been the most exciting in its 29 year history. Beginning last autumn, the index made an unparalleled run from near 2500 to over 5000 in March, netting extravagant returns for those fortunate enough to have exquisite market timing for their entry and exit points. In April, the NASDAQ was caught in a dizzying whirlpool, and dragged down to near the 3000 level less than six weeks after its highs were attained. Since then, the index has traded sideways, and the near future vector of the index is the question currently burning in every investor and trader's mind. With trillions of dollars at stake, is the NASDAQ destined to make another respectable gain in 2000? Have the long slumbering bears awakened and began plotting a brutal bear market to grind the index to new lows before the year ends? Will the executioner pull the rope that triggers the trapdoor underneath the market, initiating a true crash of unprecedented violence and fury? Is the NASDAQ, like Hamlet early in his quest, only playing dumb and ready to charge northward, or, like Hamlet later in his tragic journey, really slipping into dementia with little chance of recovery? We will briefly examine the current NASDAQ from the perspective of the 1929 US equity market debacle in this essay, attempting to glean some insight on this important question...

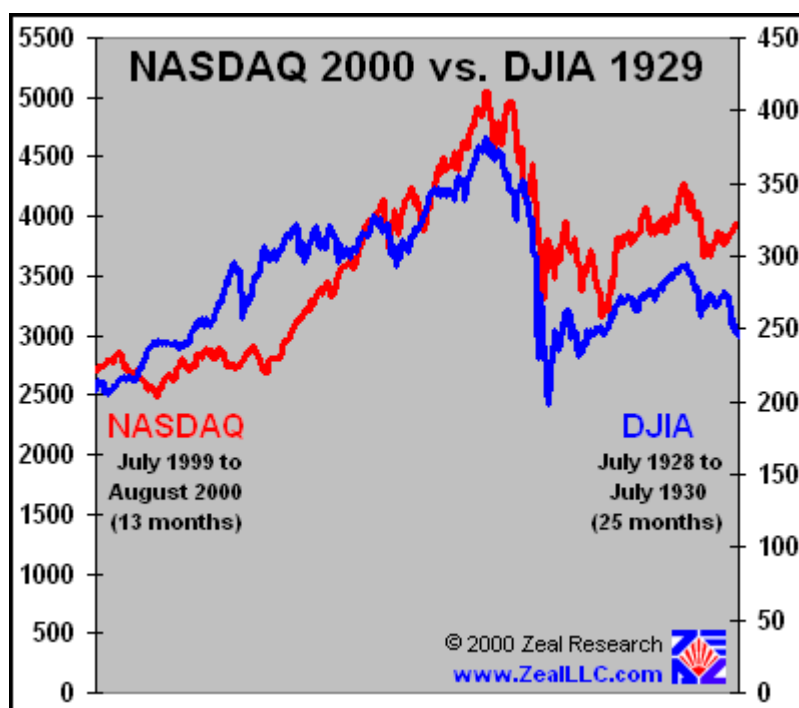
Although the strong form of the economics efficient market hypothesis (EMH) would dispute this contention, it seems there are very few times in history when equity markets are fairly valued. In bear markets, most assets tend to become undervalued as no one wants anything to do with those infernal equities. In bull markets, most assets eventually become overvalued, as everyday folks are sucked into the mania and throw every penny they control at the perceived key to endless prosperity, those dear equities. The EMH (strong form) states that all equity assets are always fairly priced, as the independent actions of millions of market participants ensure that all available information that is material to the price of an investment is instantly factored into equity prices the moment it becomes known to any participant. As a testament to how goofy theories can sound out of the ivory tower environment of academia, however, the EMH is a straw man and is easy to knock down. The very existence of booms and busts, panics and crashes, and speculative manias suggests that the EMH is a woefully inadequate hypothesis. After all, if the NASDAQ was fairly valued at 5100, why did it lose 40% of its value over a few short weeks?

In order to answer the critics' attacks on the strange EMH concept, a semi-strong and weak form of the hypothesis were created, but the underlying concept is still flawed. As long as human EMOTIONS are not considered, any valuation hypothesis is doomed to failure. The primary factor that drives market overvaluation and speculative manias is naked investor

greed. The primary factor that drives panics and crashes is raw, visceral investor fear. Unfortunately for equity market investors, these emotions are massively asymmetrical. While greed is nurtured and grown slowly, fear can well up instantly and be as unpredictable and violent as the surprise atomic bomb explosion over Hiroshima was to its unfortunate residents on that fateful morning in August 1945. While greed seduces one investor at a time, fear can wrap its icy, black fingers around millions of hearts simultaneously, leading to the same catastrophic herd instinct that goads lemmings to rush over a rocky cliff and plummet to their deaths on razor sharp rocks and frigid arctic seas. Fear is much more pungent than greed. Imagine going to a busy street corner in New York City and throwing 100 Krugerrands in the air and yelling "free gold!" Pedestrians would think for a second, and many would decide to dive for the glittering coins on the hot concrete without too much additional thought. Now, imagine an 800lb gorilla, hungry and mean, holding a sharp 18" straight razor, rushing to the same street corner where the mad dash for gold is occurring. INSTANTLY, with zero hesitation, everyone would scatter and run for their lives, all greed vaporized as primal fear grips souls.

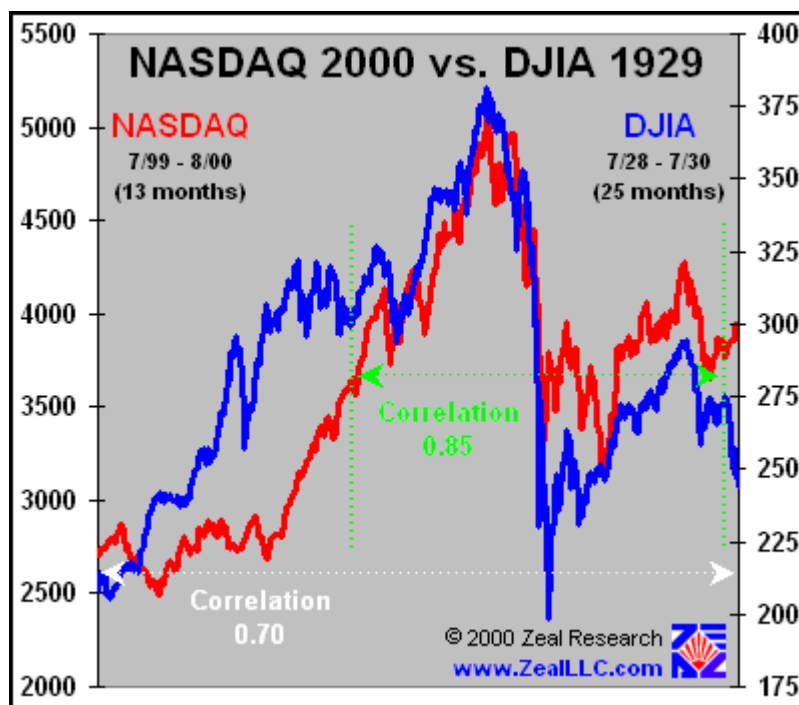
If markets are driven by greed and fear, crashes and panics are inevitable. Although technology changes, the velocity of information flow changes, so-called "safe-guards" (anti-free market atrocities like program trading restrictions, collars on volatile days, etc.) are futilely employed, and every new generation thinks they are the most sophisticated traders in history, over and undervaluation of markets is still rampant. The human heart NEVER changes... as long as humans exist, they will still experience greed and fear, and drive booms and busts. As these integral emotions are the same for every generation, history can become an extremely important professor, as it can show us past periods where greed turned to fear, and its effect on equity markets. Historical analysis will always be valid when viewed through the lens of human investor emotion.

So how does the current NASDAQ spectacle stack up against the great US equity crash and resultant bear market of 1929? The graph below shows daily closes for the DJIA (blue) from July 1928 to July 1930, with the NASDAQ (red) from July 1999 to August 2000 superimposed. As the velocity of information flow has increased practically infinitely since 1929 (things happen faster now), the time-scale of the NASDAQ graph has been dilated and expanded roughly 2 to 1, enabling a better peak to trough comparison of two similar historic market events...



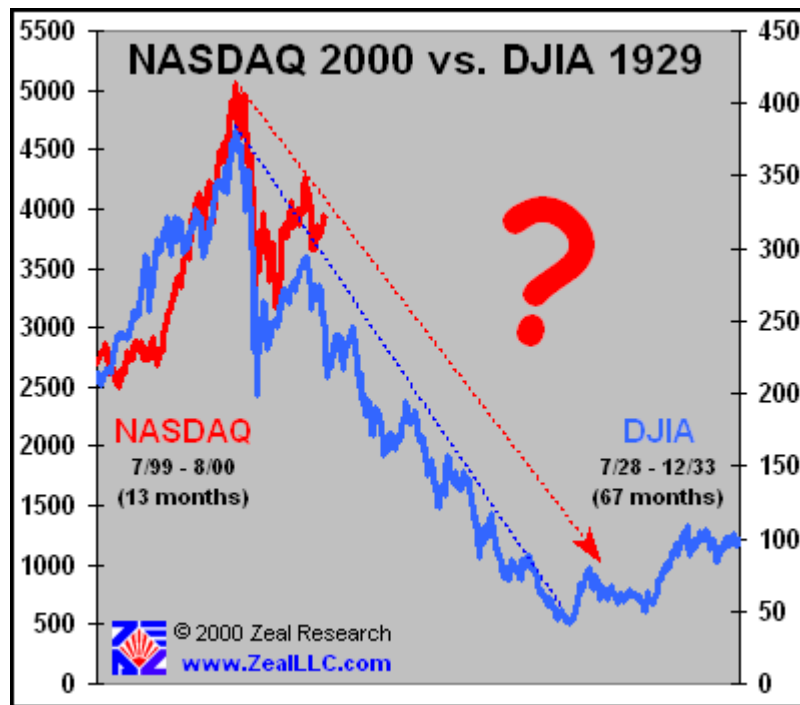
The intimate way the lines of these two vastly different indices dance together is eerie. The DJIA in the graph only represents 30 stocks, is from an era long past, and would seemingly be

absolutely unrelated to the modern high-tech NASDAQ. The NASDAQ is comprised of over 4,500 equities, is currently the pinnacle of human equity market achievement, and is ethereal and virtual, as no physical exchange exists and all trades are matched in the cyber void. Yet either data series could easily be mistaken for the other if the labels of the Y-axes were removed... The constant that links these seemingly disparate indices together through the threads of history, is of course, unchanging human emotions. As an unsustainable bubble top is breached, greed rapidly turns to utter fear, and a massive sell off occurs known as a crash. The graph below exaggerates the Y-axes of the two eras, and allows a better comparison of specific peaks and troughs of these equity waves...



The correlation of the entire data series is 0.70, which is not stellar but very strongly positive. When a smaller portion of the data that immediately surrounds the massive selling plunges is analyzed (outlined in green on the above graph), the correlation jumps dramatically to 0.85. The parallel between specific peaks and troughs of both indices is uncanny in the green zone of the graph. They both have distinctive double tops near their respective apexes and they both have similar dead cat bounces from their initial freefalls. A locksmith could use one of the series to cut a key that would fit the other. Fear and greed never change, markets will always become cyclically over then undervalued, and market history WILL repeat itself... over and over ad infinitum.

In a final look at the data, the remainder of the DJIA debacle of the early 1930s is added to the graph. Will the NASDAQ mirror the DJIA's sickening historic performance in the next 18 months?



Viewing the current NASDAQ from a broader historical perspective is certainly ominous. Once again, without the prior knowledge of which data series was which, the current NASDAQ graph could EASILY be mistaken for a classical bubble top followed by the initial crash sell-off and a dead cat bounce. Even the top trendlines (dotted lines in the graph) between the two markets are almost as parallel as railroad tracks stretching into the horizon. The graph above appears to build the case that the NASDAQ crash may have ALREADY occurred one exciting week in April, and a nauseating multi-year bear market lies ahead.

For a bullish investor, the lesser of two evils between a bear market and a crash is very difficult to discern. It is like choosing death for capital via a mortal bullet wound that soon proves fatal or slowly starving to death. The end result is much the same, the total annihilation of valuable and scarce capital. From its intraday peak in September 1929 to its intraday trough in February 1932, the DJIA lost a staggering 89% of its value. The NASDAQ would be trading around 500 in winter 2001 if it followed a similar trajectory in half the time. Will the NASDAQ endgame play out this way? It is impossible to predict, but the probability certainly exists.

Zeroing in on investor emotions, bear markets are much more dangerous than crashes. Bear markets are long, drawn out affairs, tailor made to lead on and string out investor hope until the last possible moment, the bear market bottom. Hope and optimism are extremely valuable human traits, which spring eternal. They are lethal emotions in a bear market, however. Through a seemingly endless series of relatively small setbacks, bear markets allow just enough hope to keep believers from making the appropriate sell decision. Bear market rallies are fast and exciting, but they always collapse and lead to a new slightly lower low. The eternally optimistic equity bulls are slowly ground into oblivion by the bear market. By the time their hope is shattered, the market has bottomed and 80%-90% of investor capital has vanished. Few optimistic bulls escape the iron clutches of a true bear market.

Crashes, on the other hand, are like electro-shock therapy. There is nothing like a swift kick in the teeth to let investors know a market is dangerous. Everything else being equal, much more capital is preserved if it is sold after an initial crash than if it is sold after a long secular bear market. Crashes provide a bright, flashing neon warning sign to the prudent, proclaiming all is not as it seems. Looking at the DJIA graph above, those who sold on the dead cat bounce following the 1929 crash look like geniuses with the benefit of 20/20 hindsight. Those poor lost souls who believed the Wall Street hype and rode the market straight into the ground, however, were slaughtered like sheep. The bullish drumbeat echoing from Wall Street during the holidays in 1929 could have sprung right out of a newspaper today...

"Buy the dips." "It is only a correction." "Some investors simply took profits." "The future for the markets looks fantastic." "All is well." "Long-term investors always win." ... and the scariest five words ever uttered about any market ... "THIS TIME IT IS DIFFERENT."

Investing, distilled down to its essence, is ultimately glorified gambling. Like a horse race, prudent speculators assign probabilities to different outcomes, and only after they are comfortable that their probabilities factor in all relevant and known information do they put scarce capital at risk... Could the NASDAQ crash this fall, losing 50% of its value in a single day? Definitely. Could the NASDAQ languish in a multi-year trading range like the DJIA of the last 18 months? Absolutely. Could the NASDAQ bull roar back and shatter 6000 before Christmas of this year? Possibly. Could the NASDAQ be entering a multi-year bear market? Yes...

With the present data available to assimilate, here are my current probabilities for the four possibilities mentioned above. These are most likely wrong and change often, so please take them with a grain of salt and perform your own personal due diligence and NASDAQ market handicapping...

Since market crashes are exceedingly rare events historically, and the action of the NASDAQ in April matches suspiciously well with the DJIA in 1929, I believe the probability of a crash in the next 12 months is low. Crashes are typically seen every 50 to 60 years, so the probability of one in any given year is around 1 in 55. The graph above looks and smells like the NASDAQ really may have crashed in April. The probability of TWO crashes in a given year is a very narrow  $1/55 \times 1/55$ , or roughly 1 in 3000. Since the valuation fundamentals of the index are still so wickedly obscene, however, and NASDAQ bellwether Cisco Systems is still trading near a ludicrous and utterly unsustainable 180x earnings, I am currently assigning a crash probability this autumn of 5%.

Another possibility is the NASDAQ languishes in a large trading range of 3500 to 4500 for a couple years, similar to the DJIA "action" of the last 18+ months. While this is possible, it seems pretty unlikely with the 100 biggest and best stocks in the NASDAQ currently sporting a market capitalization weighted average P/E ratio exceeding 100. Even if the NASDAQ is still trading at 4000 in 2002, it would STILL be far more overvalued than the DJIA in 1929 from a pure cashflow multiple perspective. I am currently assigning this eventuality a probability of 5% as well.

With an election year upon us, and mounting evidence of massive manipulation of the supposedly free equity markets by large mutual funds and the Clinton administration's Working Group on Financial Markets (aka the "Plunge Protection Team" mentioned in the Washington Post on February 23, 1997), as well as the unprecedented degree of gullibility of an American investing public which spends 10x as much time each week watching TV as it does reading, it would not be a huge surprise to see the NASDAQ rally continue. A 50% gain in the NASDAQ on the year would put the index at 6000, and VAST amounts of capital would have to be sacrificed to get it there. One of the fun things about fiat currency, however, as it can be created out of thin air with a computer keystroke and cast into the equity markets in seconds. (Never mind the bitter harvest that will be reaped by all when the inherently worthless inflated dollars later flee the equity markets...) Since the integrity of the so-called guardians of the free markets is simply non-existent, and Wall Street has zero hesitance to lie to a greedy and blind public about the massive fundamental problems in the US equity markets and economy, I regretfully am currently handicapping this probability at 10%. The longer the speculative excesses pile up, the more painful it will be for everyone when they are unwound. Ultimately, the sooner we return to normal historical valuation ranges, the easier it will be on everyone, mainstream and contrarian alike.

The most likely probability for NASDAQ performance in the next 18 months, weighing in at 80% in my humble opinion, is a multi-year bear market in the index. The brave tech investors (and we all know some) have more zeal and faith in their stocks and market than most religions can command. They will not give up hope easily, and are likely to slowly go

down with their mortally wounded ship, the USS NASDAQ. The only likely way the backbone of irrational investor hope in companies valued at 100x to 3000x earnings will be broken is through a gut-wrenching and excruciating multi-year bear market. From a contrarian perspective, playing the market based on the human emotions of greed and fear, it is becoming increasingly evident that nothing can scare the NASDAQ disciples. They largely have no concept of critical fundamentals, exist in a blue-sky ethereal world where history is irrelevant, and invest based on hype, not cashflow prospects. If a one day 634 point drop and recovery (April 4) and a one-week 25% drop in the index (April 10 to 14) can't knock some sense into them, it is hard to imagine what can. Without a fearful selling panic, a devastating crash is impossible. The massive weight of the fantastically overvalued fundamentals of the NASDAQ is like a heavy millstone secured around its neck with a great chain. It is highly unlikely the NASDAQ will be able to keep swimming and ignoring these critical systemic fundamental valuation problems, and will begin to slowly sink below the murky investment waters... Dreams are wonderful things to have, but without a fundamental foundation they can easily be dashed on the hard jagged rocks of financial reality.

To crash or not to crash? Only God knows for sure, but the probabilities continue to increase that April was a classical index crash and a demoralizing NASDAQ bear market lies dead ahead in the fogbank right off the bow...

**“Be brave when others are afraid, and afraid when others are brave.”** – The Sage from Omaha, Warren Buffett

Adam Hamilton, CPA August 25, 2000

©Copyright 2000-2009 Zeal LLC All Rights Reserved