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Whither Volatility?

"The stock market is too risky, it has become much too volatile." Not long ago, this was a common refrain among investors, and indeed it seemed the stock market traded up and down with ever more violent swings. Then, without warning or obvious cause, the volatility subsided. So which is it, turbulent or calm?

Certainly there are plausible reasons to expect increased volatility, what with the prevalence of round-the-clock financial programs, exchange-traded funds(ETFs), and especially high frequency traders… all tied into a global financial system that has become more inter-connected. This is a common rationale for individuals exiting stocks, opting for the safety of bonds or money markets.

But is this greater volatility a reality, or do we just perceive it because we lived through the debacle of the great recession? And if it is a new reality, where is it now hiding?

The following study attempts to answer these questions. We look at historic volatility since 1928 in three ways. First, we examine daily returns for the stock market over the past 85 years, comparing the standard deviation of returns for each of those years.

Second, we look at monthly returns for the past 85 years, again comparing the standard deviation of these returns for each of the years.

In both these cases, we include a five-year rolling average to smooth the data.

Third, over the same timeframe, we look at the prevalence of daily market moves -- up or down -- in excess of two percent, arbitrarily choosing this level as a measure of high volatility.

In all cases the S&P 500 index is used as a proxy for the US stock market.

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Daily Price Changes

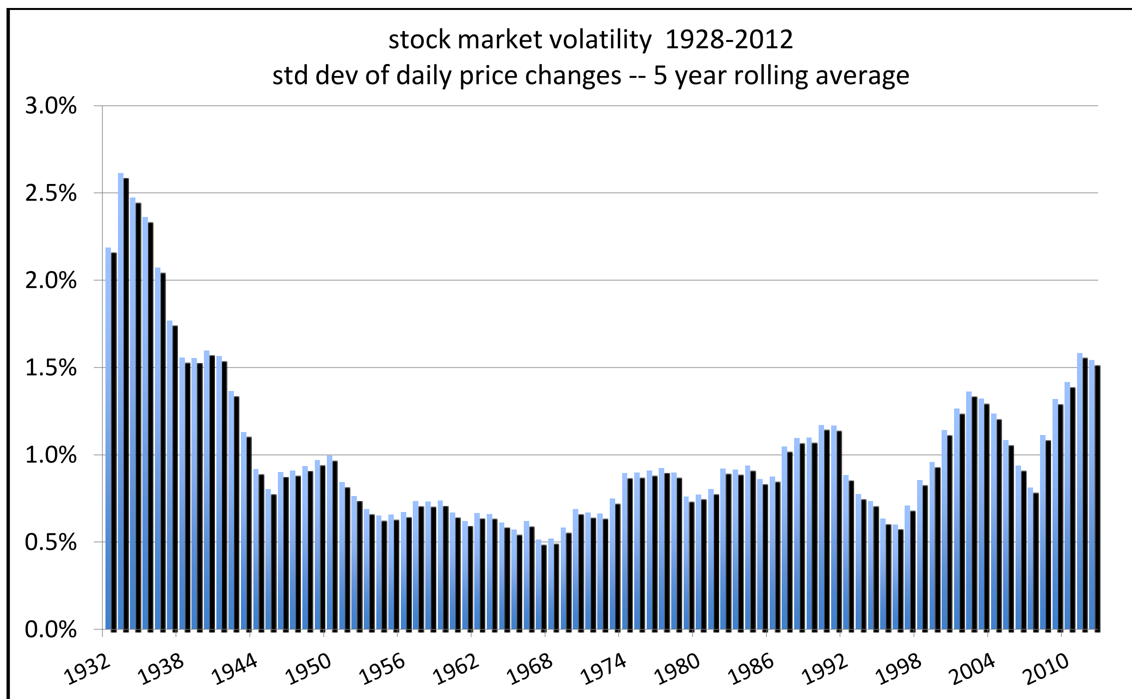
In reviewing daily price changes on the US stock market, it is clear that the 1930s were by far the most volatile era. And why not? Investors were facing an economic depression, a financial system collapse, all while trading in a less developed market system.

In particular, 1931, 1932, 1933 and 1938 were the most volatile years of stock price moves, with these years showing standard deviations two-to-three times the average of the 85-year history.

As shown below, the most volatile five-year period was 1929-1933, while the calmest five-year period was 1963-1967.

The market has not approached the 1930s-era instability on a sustained, multi-year basis, but is has in single years. The year 2008 showed the highest volatility on a daily trading basis since 1933, and the third highest in the period studied.

Also noteworthy, the recently ended decade was more volatile than any decade since the 1930s, due to the extreme price swings during the period's two severe bear markets.



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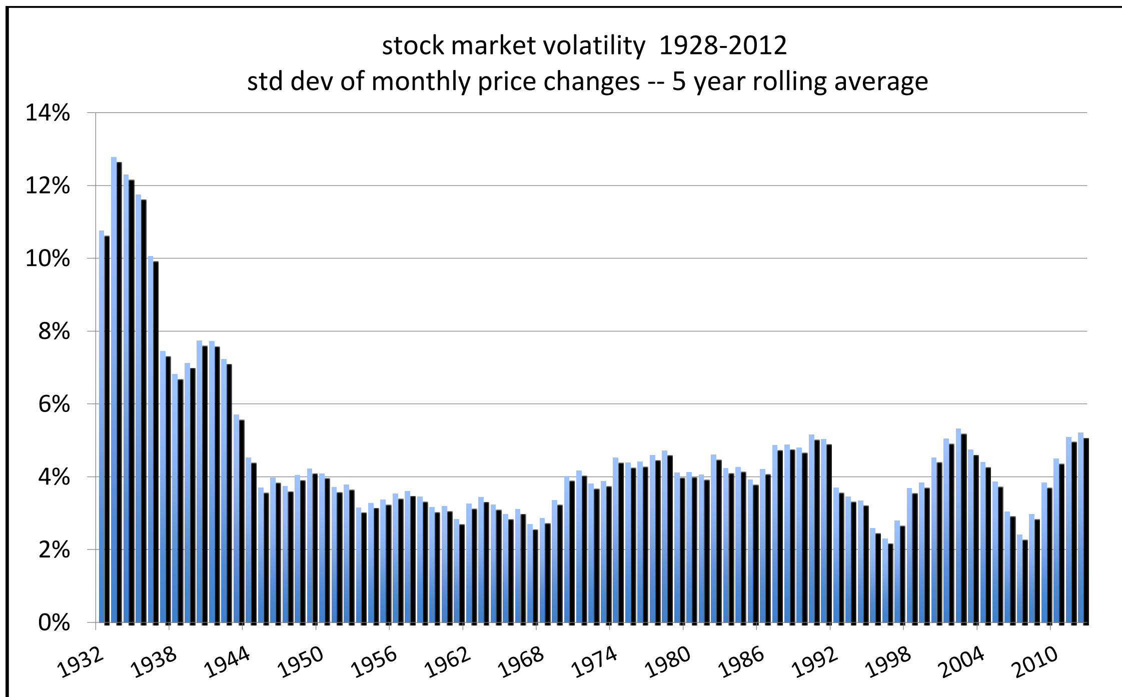
Monthly Price Changes

Looking at monthly price changes, once more it is clear that the 1930s were by far the most volatile era.

Again, 1931, 1932, 1933 and 1938 were the most turbulent years of stock market activity, each year displaying standard deviations at least two-and-a half times the average of the 85-year history.

As shown below, the most volatile five-year period was 1929-1933, while the calmest five-year period was 1992-1996.

The recently ended decade was slightly more volatile than the 1990s, but less volatile than the 1980s or 1970s.



Two-Percent Daily Price Swings

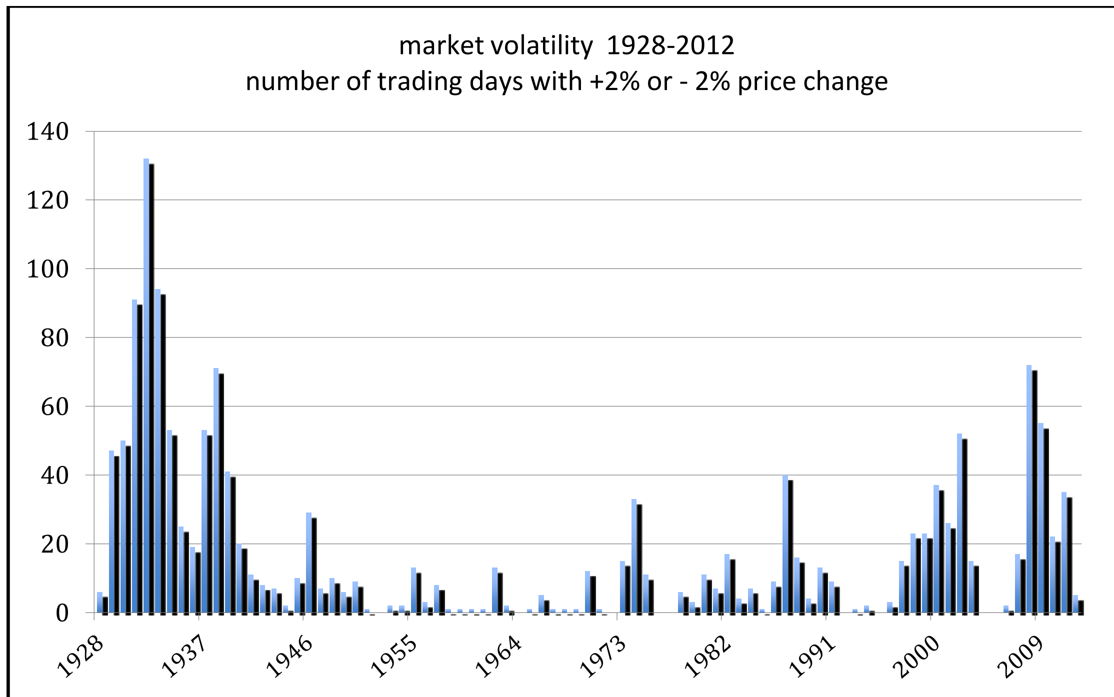
In this final study, we arbitrarily choose a two-percent daily price change as the threshold for defining high volatility.

In the 85-year history, there have been 1,482 trading days with price changes of two percent or more . This averages out to 17 days per year of highly volatile trading. As is often the case, the averages hide the real story.

Once again, 1931, 1932 and 1933 were by far the least stable years in the stock market, each year displaying high volatility for at least 91 trading days, roughly one-third of the time.

The single most turbulent year was 1932, with 132 days of high volatility. There have been nine years of tranquility, without a single day of high volatility. Two of these years were 2004 and 2005, perhaps serving as the calm before the storm.

To no surprise, the most volatile period overall was the 1930s. The market had not approached that era's instability until 2008 and 2009. In particular, 2008 was a wild and painful ride, producing 72 days of high volatility, representing nearly 30 percent of all trading days.



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Are stocks more risky today? Have fast-moving traders, or fickle investors, made the market more volatile? The evidence is mixed.

Based on monthly price changes, it is hard to make a case that stocks have become less stable. Notwithstanding two major bear markets, the recently-ended decade was only somewhat more volatile than the 1990s, and less volatile than the 1980s and 1970s.

The picture changes when considering daily price swings. On this basis the more recent five-year rolling averages show a marked increase in volatility. However, the period 2008-2009 was extremely volatile and does not necessarily reflect a new trend in trading activity.

In looking at the two-percent threshold for high-volatility, the evidence is somewhat more compelling. The year 2008 was the fourth most volatile year in the history, the highest since 1933; and 2009 and 2011 also showed price swings well above normal.

All in all, there is some evidence to support the statement that the US stock market has become more volatile, but timeframes and context are critical in this judgment. To be more accurate, the stock market was extremely volatile in 2008 and 2009. Exclude these two outlier years and the data appears much less compelling.

A reasoned view is that high volatility is a passing phase, and this has been borne out in 2012. There is a natural volatility in stock prices, and outliers will occur, but there is little to suggest that stocks have become inherently less stable. We should remember that high volatility is a hallmark of severe bear markets, be it the 1930s, 1974, 1987, 2002 or 2008. After two severe bear markets in the same decade, we are due for a bit less excitement.

There remains an open question.. does volatility itself carry predictive power? Are significant price moves foreshadowed by changes in volatility? This line of thinking has been advanced by the financial media -- with an obsession on the VIX index -- but most of the evidence is anecdotal. A harder look says this is the tail wagging the dog. An early warning system would be nice, but volatility measures do not seem to provide it.

25 Years After

October 19 marked the 25 year anniversary of Black Monday, the stock market crash of 1987. To most of us working in the investment industry at the time, the memories are so vivid they could be recollections not from yesteryear, but yesterday. It was as close to watching a slow-motion train wreck as one could imagine; and there was no hiding. With the passage of time and the unfolding of events, the aftermath turned out well; but nobody knew that amidst the carnage.

While every bear market has its own unique character, this one stood out on several fronts.

First is the sheer size of the sell-off, the Dow Jones Industrial Average suffering a one-day decline of 23 percent. A drop of this magnitude, almost double the prior one-day record of October 1929, was considered all but impossible -- something akin to the Titanic sinking on its maiden voyage. Oops.

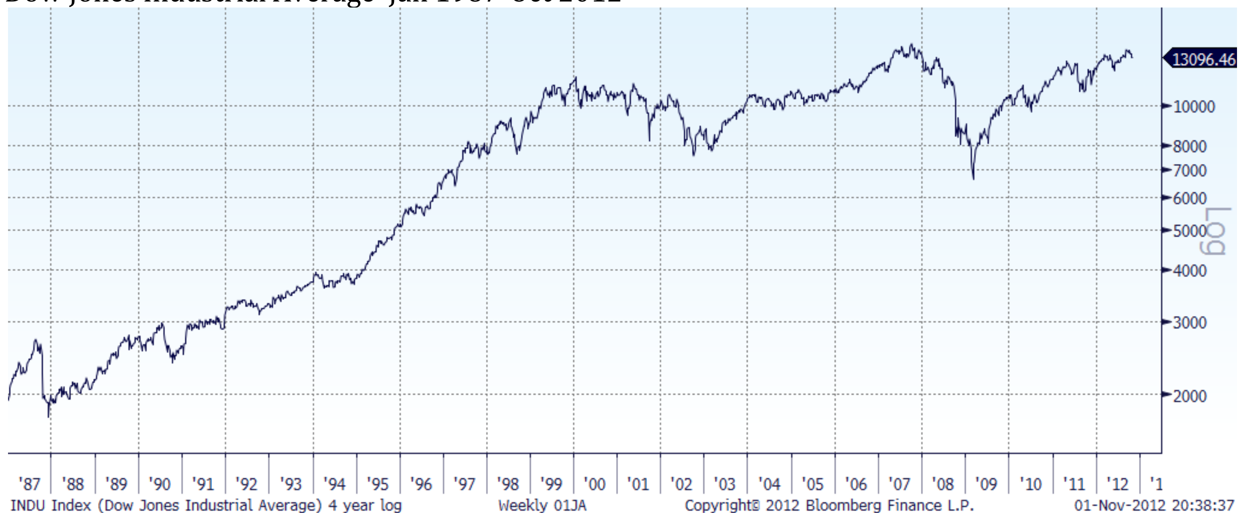
Second, the crash marked not the beginning of a prolonged bear market, but the end of perhaps the shortest. The Dow peaked on August 25 of that year. Less than two months later the index had fallen 36 percent and, unbeknownst at the time, a bottom had been set.

Third, and lost in the moment of panic, the crash of 1987 was primarily a market malfunction, not an economic event.

Comparisons to the collapse of 1929 were inevitable, replete with fears of recession or financial system meltdown. With the help of concerted intervention, those fears subsided. To any investor who looked back to the depression for guidance, the crash of 1987 might have been the perfect excuse for exiting the stock market. That decision would have been a mistake of monumental proportions. 25 years later, the Dow Jones Industrial Average sits seven times higher.

In 1929, markets foundered, and spoke with remarkable clairvoyance of a disastrous era ahead. In 1987, stocks sank mainly because there were more sellers than buyers, and said little else. Markets are funny that way.

Dow Jones Industrial Average Jan 1987-Oct 2012



GM and the Market Mavens

Recent reports out of Washington describe the ongoing dilemma at the US Department of Treasury over the disposition of its General Motors stock. Not to re-live a bad dream, but this is the stock the government acquired when it "bailed-out" GM by forcing the company into bankruptcy. The alternative of course was that GM would have entered into bankruptcy on its own, playing by established bankruptcy rules, without the federal government auto-Czar playing… well, Czar.

No matter, we cannot turn back time. The issue at hand is what to do with a stock the US Treasury believes it paid 53 dollars per share to acquire, when it is now trading at half that level. It seems our Treasury Department frowns upon taking losses. Such weighty matters for government work.

Here's the rub: The notion that the US Treasury as an investor could ever "make" a profit on GM stock is really quite absurd.

How so?

For starters, the game is rigged. A century of bankruptcy law was circumvented in the auto bailouts. Government then sets policies, including fuel economy, emission and crash-test standards, with a vested interest. Ford, Toyota and Mercedes must share the global market with a subsidized competitor. Trade and currency negotiations are distorted by ownership of an auto company whose two largest markets are... China and the US. Oh, don't forget cash-for-clunkers. Call it what you want, this is not investing.

Opportunity costs exist. Since its IPO, GM shares have declined 23 percent**.** Meanwhile the readily-traded S&P 500 index is up 20 percent. Or the market wizards at Treasury could have owned Apple, up 98 percent; or shorted natural gas, down 32 percent in the same timeframe. In holding GM shares post-IPO, Treasury decided it is in the investment business. If so, all scrutiny is fair game, no matter how far above their pay scale it may be.

Moreover, consider the entire portfolio. Our government did not fund just the auto industry. The total cost of Fannie Mae and Freddie Mac, twin disasters created by government and subsidized by taxpayers conservatively at hundreds of billions of dollars, will dwarf any profit made elsewhere, forever.

Finally, the math is fuzzy. Even if we focus solely on GM, the 53 dollars per share breakeven point does not include 25 billion dollars in federal pension guarantees that were part of the deal. That add-on pretty much busts the budget.

At some point in the distant future, a bookkeeper at Treasury may declare a profit on GM. Don't believe it. Government officials have wasted too much money playing a strange game of auto tycoon and market maven. They should give it up, sell their holdings, and get back to their real jobs.

Sources:
Bloomberg
Wall Street Journal

Tidbits..

Euro-region unemployment reaches 11.6 percent, record high. Greece approaches year six of recession. Spain faces persistent deficits, bank bailouts, sovereign credit rescue.

The spoils after taxing and spending their way to disaster; pray we don't go there.

European Central Bank announces bond-buying plan to support Euro Zone peripheral nations. Federal Reserve begins new round of quantitative easing -- QE3, bigger and better -- extends forecast of easy money to 2015.

Central banks playing super-hero in face of fiscal policy failures.

US job market participation drops to lowest level since 1981.
Income gap reaches record high as middle class decline accelerates.
Household incomes fall to 1995 levels.
Wages, inflation-adjusted, decline for fifth consecutive quarter.

Chipping away at the middle class in a long, painful, and so far irreversible trend.

Mortgage lending drops to 16-year low despite record low interest rates.

What good are low rates if people can't borrow?

Federal Reserve study says US fiscal policy uncertainty is a drag on employment, overall economy.

Someone tell Congress, White House.

Existing home sales reach two year high, home inventories approach seven year low.

Half full or half empty? Housing at depressed levels, but moving in the right direction.

World Trade Organization says global trade volumes slowing to 2.5 percent, half last year's rate.

US exports, a driver of recent growth, now seen at risk.

Survey of financial officers suggests 20 percent of companies issue "fudged" earnings reports.

Only 20 percent?

US auto sales climb to highest level since March 2008.

Private Equity firms pour billions of dollars into foreclosed homes, targeting rental market.

Smart money chasing low prices.

US unemployment rate reported at under eight percent, uncorroborated by other job data.

Government statistics move to fiction section.

IMF cuts global growth forecast yet again, sees "alarmingly high" risk of steeper slowdown.

Japan's Softbank to enter US cellular phone business, spending $20 billion for 70 percent of Sprint.

Citigroup CEO Pandit makes hasty departure, replaced by career banker Michael Corbat.

A123 Systems, government-subsidized car battery maker, files bankruptcy.

$132 million of taxpayer money down the drain.