Wells Capital Management

James W. Paulsen, Ph.D.

Economic and Market Perspective

April 6, 2015

Bringing you national and global economic trends for more than 30 years

Has Stock Market Stability Increased Vulnerability?

The emotional state of investors has long been recognized as central to the stock market's overall risk-return profile. Typically, stocks do best when the investor community is something less than comfortable. A culture of anxiousness about the future tends to keep portfolio exposures low and valuations reasonable augmenting stock market prospects. Conversely, an exuberant or even comfortable investor is typically less discriminating about values, more focused on good stories rather than good fundamentals, and is often already "all in," mentalities which simultaneously elevate risks and lower prospective returns.

Assessing investor sentiment is an inexact science. Many use investor surveys to calibrate bullishness and bearishness. Other measures assume sentiment is reflected by investor behaviors (e.g., mutual fund flows, exposures to aggressive versus defensive stocks, overall allocations to stocks over bonds, etc.). In general, however, sentiment appears to be formed primarily by recent experiences. That is, by the persistence and stability of recent investment returns. This note introduces and examines a measure of stock market sentiment based on the stability of recent stock market returns. Historically, this measure has been useful in assessing the future risk-return profile of the U.S. stock market.

Lately, the U.S. stock market has trended steadily higher with remarkably low volatility. Indeed, during the last 36 months, the stock market has experienced one of its most stable advances since 1900! While this steady stock market action has improved investor sentiment, it has also probably worsened the near-term outlook for stocks. Since 1900, the median annual percent change in the U.S. stock market has been about 8% and it has suffered annual declines only about 34% of the time. However, when this measure of investor sentiment has been as high as it is today, the U.S. stock market has historically declined in the coming year more than half the time suffering a median percent decline in the next 12 months of about 1.5%.

Measuring return stability

Investors always look to exploit a good stable trend. Trends are predictable and the longer they persist, more and more investors join as confidence rises. Conversely, random and volatile stock markets breed apprehension, pessimism, and increasingly force investors to the sidelines for safety. In this fashion, investor sentiment is often formed by the degree of stability exhibited by the stock market.

Charts 1 and 2 illustrate two very diverse stock market trends. Chart 1 shows the last three years and Chart 2 illustrates the three years leading up to the 2008 stock market crash. In each chart, the dotted line represents the stock market's trendline which is calculated from a regression of the stock market against time. Between 2005 and 2008, the stock market essentially exhibited no trend (i.e., the dotted line was flat) and was exceedingly volatile. Conversely, during the last three years, the stock market rose steadily and remained tight about its trendline.

The R-squared derived from a regression of the stock market against time provides a good measure of stock market volatility and thereby a good proxy of investor sentiment. R-squared ranges between 0 and 100 and measures the portion (in percent) of the total variability of the stock market which can be explained by its trendline. For example, the stock market swung wildly between 2005 and 2008 and the R-squared was only about 1% suggesting most of the stock market's volatility was unpredictable. By contrast, during the last three years, the stock market has remained in a narrow upward band and the trendline has explained almost 97% of its volatility. Essentially, stock markets that produce a high R-squared (i.e., are highly predictable) imply positive investor sentiment whereas a low R-squared connotes a stock market with bearish investor overtones.

Chart 1: S&P 500 Index versus 36-month trendline
April 2012 to March 2015
S&P 500 Composite Stock Price Index, natural log scale (Solid)
Trendline calculated by a trailing 36-month regression between the natural log of the S&P 500 Index against time (Dotted)

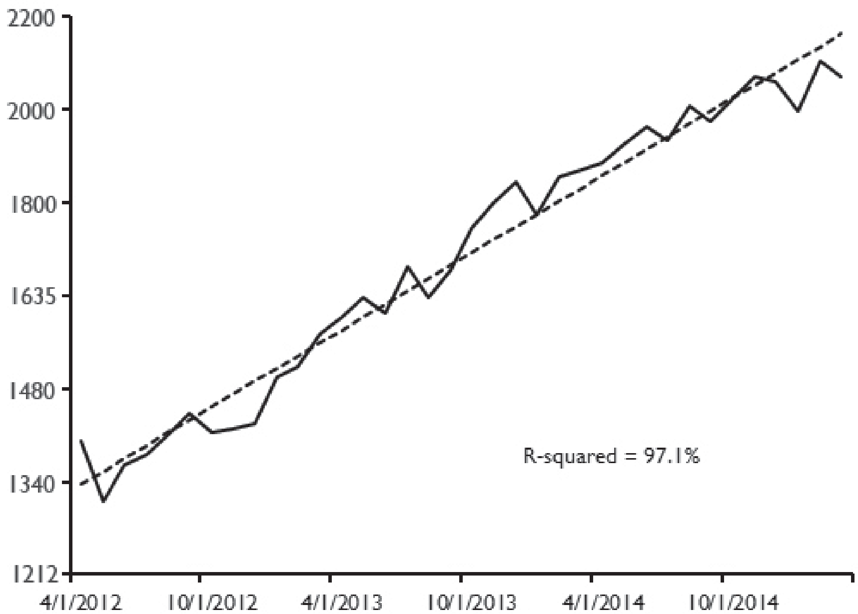


Chart 2: S&P 500 Index versus 36-month trendline
November 2005 to October 2008
S&P 500 Composite Stock Price Index, natural log scale (Solid)
Trendline calculated by a trailing 36-month regression between the natural log of the S&P 500 Index against time (Dotted)

Investor sentiment since 1900

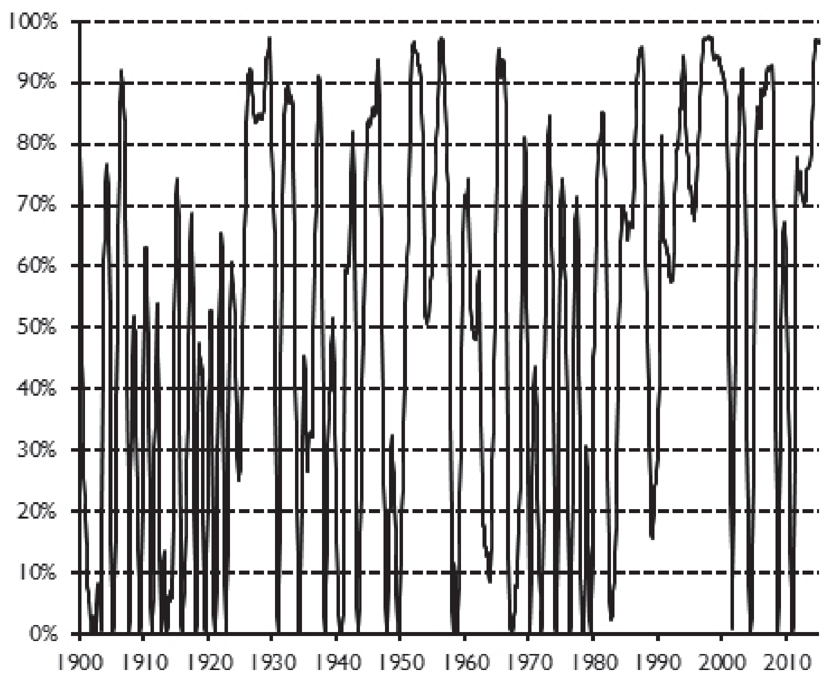
Chart 3 shows the R-squared on a rolling 36-month basis for the U.S. stock market since 1900. Measuring sentiment on a trailing three-year period is somewhat arbitrary. It may be actual investor sentiment is more appropriately established by a shorter or longer time period. However, a three-year assessment has provided good historic indications when caution toward the stock market was warranted.

A few observations. Until the 1920s bull market, stock market stability, and therefore investor sentiment remained mostly modest. The R-squared only rose above 90% one time during this era. Most likely, this reflected that recessions were nearly as prevalent as economic expansions and the stock market remained volatile but essentially flat during the entire period. Another really ugly period for investor sentiment was during the 1970s. Perhaps the persistently low level of investor sentiment in this era provided the foundation for the prolonged and significant bull run which began in the early 1980s.

It is also worth noting that since 1980, investor sentiment (R-squared) has persistently been more positive than any other period since 1900. With the exception of some brief collapses (e.g., during the 1990s recession, after the dot-com collapse, and after the 2008 crisis), investor sentiment has been above 70% much of the time. Never, since 1900, have investors been this persistently bullish. Perhaps this explains why U.S. stock ownership is broader today than ever in U.S. history?

Finally, by this measure, investor sentiment is currently at one of its highest levels since 1900! There have been only 14 periods since 1900 when the R-squared has risen above 90% and today it is near an all-time high record at slightly above 97%!

Chart 3: Estimating U.S. investor sentiment
Stock market trendline regression R-square
Rolling 36-month calculations



Economic and Market Perspective

Chart 4: Stock market trendline regression R-square

Rolling 36-month calculations

*Solid dots represent every peak above 90% in the R-squared since 1900.

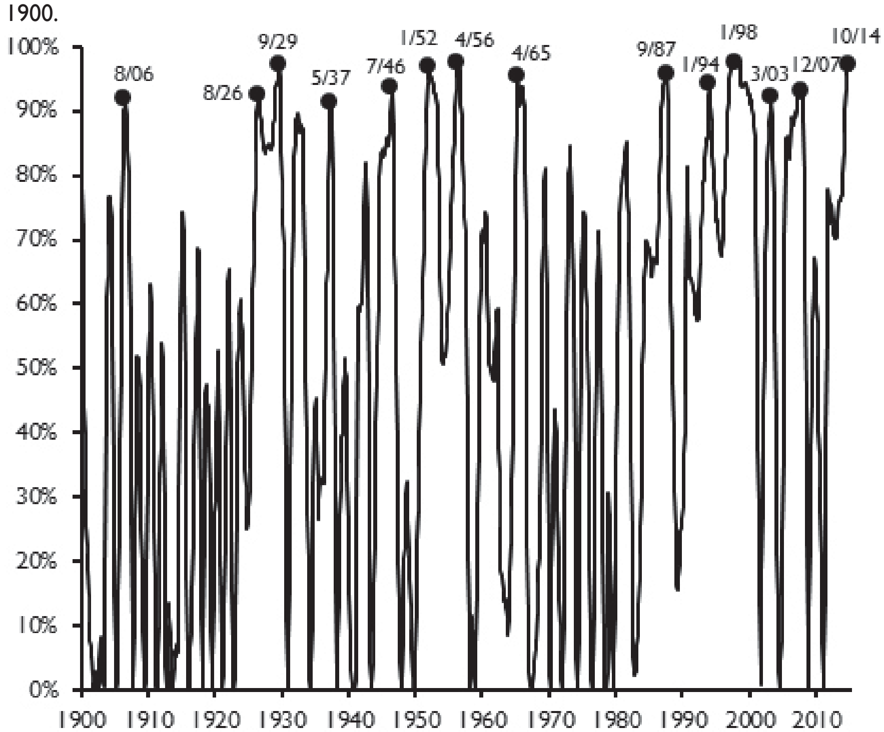
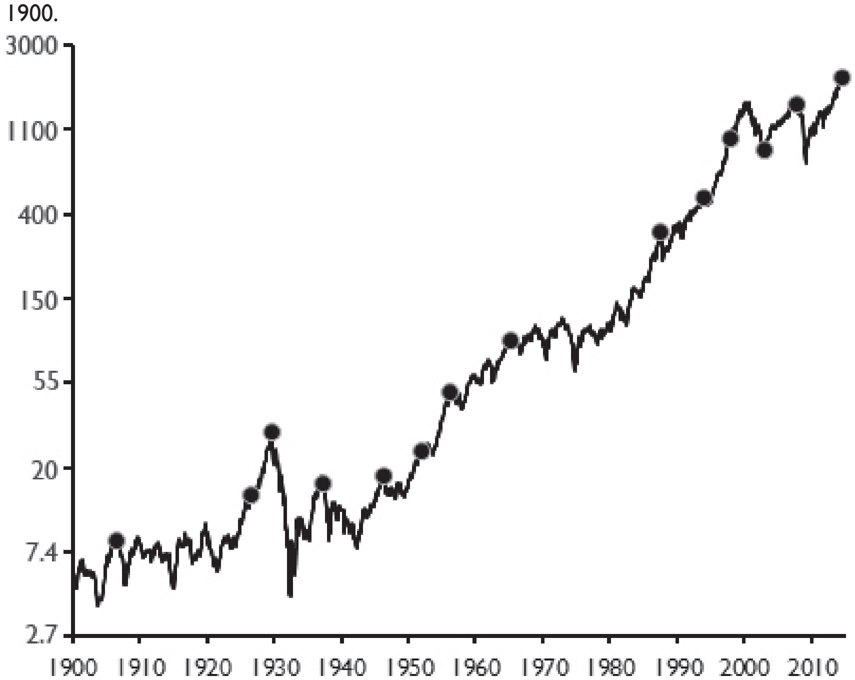


Chart 5: U.S. stock market* versus R-squared peaks**

Rolling 36-month calculations

*Dow Jones Industrial Average from 1900 to 1927 and thereafter S&P 500 Index, natural log scale

**Solid dots represent every peak above 90% in the R-squared since 1900.



Does current investor optimism warrant caution?

Charts 4 and 5 relate the R-squared measure of investor sentiment to the U.S. stock market. The dots in both charts show the 14 times since 1900 when the R-squared peaked above 90%. The actual dates are shown in Chart 4.

As illustrated, the stock market has typically struggled once the R-squared (investor sentiment) has risen above 90%. While the 13 previous cautionary signals since 1900 suggesting investor sentiment was too high have not been perfect, they have proved to be fairly good warning signs. For eight of the 13 signals, the stock market either immediately or fairly soon suffered a bear market (i.e., 1906, 1929, 1937, 1946, 1956, 1965, 1987, and 2007). After both the 1926 and 1998 signals, the stock market eventually suffered a correction and after both the 1952 and 1994 signals, the stock market was essentially flat and volatile during the subsequent two years. Only the caution suggested by the 2003 signal proved inappropriate. Finally, the timing of a few signals were remarkably clairvoyant (i.e., September 1929, September 1987, and December 2007).

The implications of a high R-squared for the stock market's risk-return profile is illustrated by Charts 6 and 7. Since 1900, only when investor sentiment is above 90% has the median one-year forward percent change in the stock market been negative. Moreover, since 1900, the stock market has suffered an annual decline about 34% of the time. However, as shown in Chart 7, when the R-squared has been above 90%, the stock market has declined in the coming year almost 52% of the time!

Finally, cautionary signals from this measure of investor sentiment appear to be important primarily when it rises above 90%. As Charts 6 and 7 illustrate, this is the only time when both the return and risk profile of the stock market tends to worsen significantly relative to any other R-squared reading. However, for reasons we do not fully understand, this investor sentiment measure has also offered a good buy signal for the stock market. Readings between 60% and 80% have historically indicated much better median annual returns with a much smaller chance of a stock market decline.

Chart 6: Median one-year forward U.S. stock market percent change by R-squared range since 1900

R-squared ranges since 1900

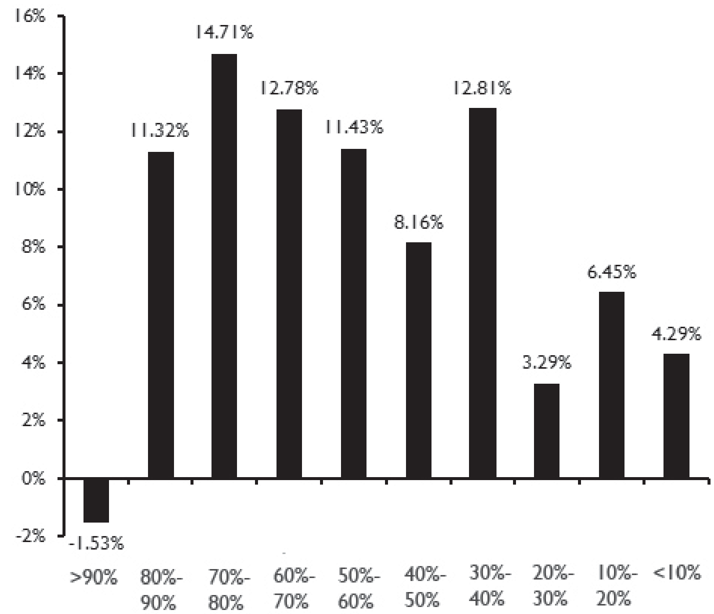
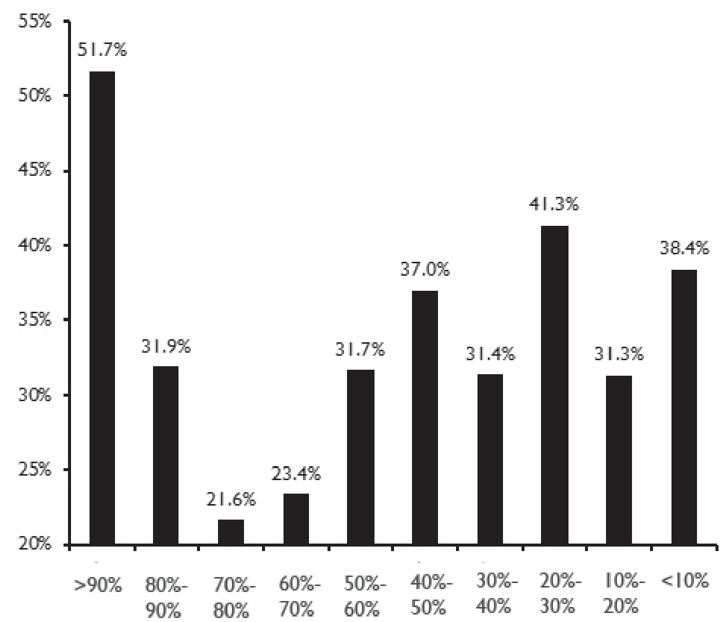


Chart 7: Percent of the time stock market declines in the next 12 months by R-squared range since 1900

R-squared ranges since 1900



Summary

Recently, we have become concerned about three major challenges facing the U.S. stock market—investor sentiment has become a bit too calm and confident, valuations are a bit too extended, and interest rates finally seem likely to soon be reset higher. We continue to expect the stock market to eventually navigate these challenges and most likely the bull market will persist for several more years. However, until these issues are addressed, the stock market seems likely to struggle, remain more volatile, and perhaps suffer a correction.

One of the three challenges currently facing the stock market, investor sentiment, is now signaling caution. In the last few years, U.S. stock prices have advanced more steadily than nearly any time since 1900. Historically, periods of persistently stable stock market gains (i.e., in particular those whereby the R-squared rises above 90%) have been associated with rapidly rising investor sentiment and often a more difficult stock market.

Our advice is to stay overweighted equities but to diversify away from the U.S. toward offshore stock markets. Most international markets have underperformed U.S. stocks in the last few years and currently offer more attractive relative valuations. Moreover, investors can diversify away from increasingly hostile U.S. policy officials toward hospitable policies for the foreseeable future in both the eurozone and in Japan. Investors should also take advantage of an emerging stock market which probably offers much higher sustained economic growth than available in the U.S. at about two-thirds the price/earnings multiple. Finally, investors should consider an overweight among resource-based stock markets (e.g., Canada and Australia) who also significantly underperformed last year as commodity prices collapsed and deflationary fears intensified. We expect the U.S. dollar to peak this year, for commodity prices to bounce, and for commodity-based stock markets to outpace the U.S. stock market.

Thanks for taking a Look!!