When happier days are here again

by Austin Lemoine

Expectations for future stock returns may be too high.

For the period 1984 through 1999 the S&P 500 delivered annualized return of over 16 percent, a phenomenal run for the U.S. stock market. Every dollar invested in the S&P 500 at the beginning of 1984 would have been worth $10.75 at the end of 1999.

Since March 2000 the market has flirted with the gates of Hell. Investors hope for rejuvenation and reliving glory days of yore. So what's in store for stock returns: Paradise or prolonged sojourn in Purgatory? We'll weigh the question on the scales of history, then view it through the prism of the so-called equity premium.

A Historical Perspective

Stocks have been probing the depths once again. When are things going to improve -- not just a token move upward but a sustained advance through higher levels? Let's see what happened after previous market peaks.

From 1880 through 2000, there were four periods when stock market bubbles (and price-to-earnings ratios) peaked: periods ending in June 1901, September 1929, January 1966, and March 2000. The 2000 rise was spectacular -- only 1929 comes close. (See *Irrational Exuberance* by Robert Shiller, professor of economics at Yale University.)

What happened following those bubbles? For the 20 years after each peak, real (inflation-adjusted) return on the S&P Composite Stock Price Index, including dividends, averaged *minus* 0.2 percent after June 1901; 0.4 percent after September 1929; and 1.9 percent after January 1966. In each case it took at least 20 years for the market to regain and surpass the highs of the bubble years.

Let's look at the outcomes of investing $1000 a year for 20 years at those post-bubble rates, compared with a real rate of return of 7 percent -- which Wall Street has told the American public it can rely on with a long-term stock investment program. Under Wall Street's "7 percent solution," an investment of $1000 a year would be worth $43,873 after 20 years. Using rates of 1.9, 0.4, and minus 0.2 percent, $1,000 invested annually would be worth $24,506, $20,861, and $19,962, respectively, at the end of 20 years.

Those latter rates of return would not provide for a comfortable retirement in the years ahead. They are lower than the 2 percent inflation-adjusted annual return promised by the Social Security system (which also provides a cost-of-living allowance) – and considerably below the 4 percent return that is guaranteed by the recently created inflation-indexed Treasury bonds. Wall Street's dictum that, "It's always a good time to buy stocks," didn't hold following those prior market peaks.

If past is prologue, then starting from March 2000 a real return for stocks of 2 to 4 percent a year would be a realistic expectation for the next 10 to 20 years.

"Two percent a year! No way! That's un-American," you say. And you might well be right. So let's view future stock returns through another prism.

The equity premium

The equity premium is the extra return necessary to induce (or seduce) investors into choosing more risky investments (stocks) over safer alternatives (bonds). In nominal terms, the equity premium is the difference between the return on a broad market portfolio of stocks and the risk-free interest rate. Average return on the S&P 500 Stock Index has been used as a proxy for market return, and yield on six-month commercial paper as a proxy for the risk-free interest rate.

For the 129-year period of 1872 through 2000, average real return on the S&P 500 was 8.8 percent per year and average real return (yield) on commercial paper (rolled over at six months) was 3.2 percent. Holding stocks versus bonds over that period would have resulted in an average equity premium of 5.6 percent. (Our source here is Fama and French.[1])

When bonds outperform stocks, the equity premium is negative. For instance, from 1965 through 1981, the cumulative total return of the S&P 500 was 6.3%, versus 6.7% for one-month Treasury Bills. Indeed, that 17-year stretch prompted the infamous *Business Week* cover story, "The Death of Equities."

The equity premium has profound practical ramifications. The preferred portfolio allocation of most investment managers is probably predicated on historical data: stocks will outperform bonds in the future, that is, the equity premium will remain at historical (average) levels. If you're still working and saving for retirement, your 401(k) may be more heavily invested in stocks than bonds. If you're retired, you may still have some money in stocks because you believe they'll provide inflation protection by outperforming bonds. Moreover, the equity premium is relevant to the debate over putting Social Security funds into stocks.

Fama and French contend that using historical averages for stock return produces an equity premium estimate that's too high; in other words, a premium for stocks over bonds that may not be sustainable. Since 1950 stock market returns have been driven by expansion of price/earnings ratios rather than by growth of earnings, with stock returns higher than the real rate of growth in corporate profits. In that case, businesses ought to liquidate and invest in the market! But that would be an unstable and unsustainable situation.

Fama and French argue the stock return component of the equity premium should be estimated using models based on growth of dividends or earnings rather than average returns. (Roughly speaking, stock return is equal to dividend yield plus capital gain, with the latter estimated by using the growth rate of dividends or earnings.) The idea makes sense because there should be a link between stock returns and corporate profits. At an intrinsic level, when you buy a share of common stock you buy the earning power of the company -- a record of generating profits or the potential to do so. And dividends, when paid, come out of earnings.

For the years 1872-1950, the dividend-growth and average return approaches produce similar equity premiums. For 1952-2000, however, the average return approach produces an equity premium almost three times that of the dividend-based estimate (and twice that of the earnings-based estimate). For 1872-2000, the equity premium using the dividend-growth model for stock return is 3.5 percent, versus 5.6 percent using average return.

If you believe stock returns are tied to corporate profits, those results are not encouraging. A dollar compounding at 5.6 percent doubles in about thirteen years, versus twenty-and-one-half years at 3.5 percent. That's a very big difference in everyday terms.

If stocks are going to produce lower returns, we'll have to save more to reach our goals and draw down less of our capital during retirement. If the lower equity premium estimate seems more credible to you, maybe your plans should be based on more conservative assumptions. After all, you might only wind up "saving too much" for retirement.

Should you invest differently or modify your allocation between stocks and bonds? Reliable answers to those questions can only be known in hindsight. No one is saying stocks will return less than bonds, but that in the future stocks may not deliver the returns we've been used to.

[1]Eugene Fama and Kenneth French. *The Equity Risk Premium*. Working Paper No. 522, Center for Research in Security Prices, University of Chicago, Graduate School of Business (April 2001). See also: Arnott, Robert and Ryan, Robert. *The Death of the Risk Premium*. Journal of Portfolio Management (Spring 2001). And: Arnott, Robert and Bernstein, Peter. *What Risk Premiums is Normal?*. Financial Analysts Journal (March/April 2002).