



WAITING FOR AVERAGE AND MARKOWITZ

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The long-term average return from the stock market is 10.1%. As Baby Boomers continue to retire, they will increasingly rely upon their investments and pensions for income. The youngest Boomers have about a decade to compound their savings into a retirement payload. Even younger Millennials have a vested interest in stock market returns for a secure retirement. So, from 2016, what length of time is needed to assure that you will receive the historical long-term average return of 10.1%?

NEVER—investors from today will never achieve the long-term average return. Not in ten years, twenty years, fifty years, or the nearly ninety years that represent the most recognized long-term average return.

According to the most recent *Ibbotson Classic Yearbook* published by Morningstar, Inc., the long-term average return from the stock market is 10.1% (pg. 157). Ibbotson starts their long-term series of financial data at the beginning of 1926 (pg. 37). Nine decades (89 years) is a long, seemingly credible period of time—why wouldn't it be reasonable for today's investors to expect a similar return over the next one, two, or nine decades?

There are only three components to stock market returns: earnings growth, valuation-level changes (i.e. the change in the P/E ratio), and dividend yield. A discussion of these three components will confirm that a reasonable future return assumption is close to half of the long-term average.

Before we look forward, let's look backward for insights. Let's use the certainty of history to explain the contribution of each of the components to the long-term average of 10.1%. According to Ibbotson on page 157, earnings growth contributed 5.2% to the long-term average. The increase in P/E over the 89-year period provided 0.6% to the long-term average, since the market P/E ratio was 10.2 at the beginning of 1926 and has more than doubled since then. Finally, mostly related to the starting P/E ratio, dividend yield averaged 4.3% over Ibbotson's period of choice. Combined together, the compounded total return (before transaction costs, fees, expenses, etc.) averaged 10.1%.

So looking forward, from conditions that exist today, what are reasonable assumptions for each of the three factors over the next few decades? For this discussion, concepts and principles from the book *Unexpected Returns: Understanding Secular Stock Market Cycles* will be referenced.

First, given that we are near historical highs for the P/E ratio (excluding bubbles during the past century), any further material increase in P/E is unrealistic. Past bull markets peaked with P/E in the low to mid 20s; as explained in *Unexpected Returns* (pgs. 155-161), there are financial reasons that the market P/E ratio cannot be sustained above the mid-20s. Therefore, if the market P/E is just maintained at currently high levels, the best-case long-term return is 9.5%, which is the long-term average return of 10.1% less the 0.6% impact of historical P/E expansion.

The second component, earnings growth, is driven by economic growth. Over the past decades and century, as discussed in chapter 7 of *Unexpected Returns*, earnings growth is closely related to nominal Gross Domestic Product (“GDP”) growth. Nominal GDP growth is real GDP growth plus inflation. Not only is real growth expected to be slower in the future, current and expected inflation is about 1.5% below the historical average. As a result, future nominal earnings (i.e. including inflation) would be expected to increase at a slower rate than averaged in the past. Although it may not seem to be much of a change, a 1.5% slower nominal growth rate shaves about 1.5% off of the stock market’s long-term total return. Keep in mind that if the inflation rate does increase over that period, the resulting decline in the P/E ratio will more than offset inflation’s benefit to earnings growth. So under an optimistic low-inflation scenario, we’re down to a best-case long-term return of 8.0%. This, of course, ignores the current position of most economists that future real growth is likely to be slower than its historical average—further lowering returns.

The final component, dividend yield, is directly and mathematically related to the starting level of the P/E ratio (*Unexpected Returns*, pgs. 103-105). In 1926, when the P/E ratio was close to 10, the dividend yield was more than 4%. At the current level of P/E, a bit over 25, the normalized dividend yield drops to near 2%. The dividend policy and payout rates for companies do not change as the result of the level of its P/E ratio. A company that generates \$2 per share in earnings will typically pay out a little less than \$1 per share in dividends regardless of whether its stock price is \$20 or \$50 (i.e. 10x P/E or 25x P/E). Yet the dividend yield when the P/E is 10 will be 5% (\$1 dividend on a \$20 price), while the dividend yield at a P/E of 25 will be 2% (\$1 dividend on a \$50 price). The effect of today’s higher valuation levels reduces the expected yield by more than 2% versus the historical dividend yield. As a result, our best-case future long-term return falls below 6%.

Of our three components in the future, two of them—earnings growth and dividend yield—are good soldiers that provide a relatively predictable contribution to total return. The third component—changes in the P/E ratio—will determine whether returns are near 6% or lower. The future direction of P/E significantly impacts multi-year returns. During periods when P/E rises, earnings growth is multiplied; whereas, periods of P/E decline offset earnings growth. The result is periods known as secular stock market cycles. From the current relatively high level of P/E, any decline in P/E will additionally reduce long-term returns. The magnitude of the shortfall will depend upon whether the

P/E decline stops at the historical average level or declines further toward typical secular market lows.

The discussion of the components for future returns is complete—all three parts indicate below average returns in the future. Earnings growth will be lower than average, unless the inflation rate increases. Dividend yields will be well below average as a result of current valuation levels. P/E cannot contribute its past benefit of expansion due to its currently high level. Finally, any decrease in P/E, due to higher inflation or other factors, would more than offset the resulting increase in earnings growth. Combining the three components, with 2016 as the starting point, investors can expect that the long-term return for the stock market will be significantly less than the historical average. As P/E retreats toward average or below-average levels, future long-term returns from that point can increase. Yet during that period of P/E decline, investors would suffer significant reductions in their returns or even losses. And only when the starting point for P/E is again near 10.2 can investors expect to receive the historical long-term average return.

In the current stock market environment, investors have two alternatives: reasonable expectations or blind hope. Unfortunately for the Baby Boomers as well as the Millennials, historical average returns are not in the cards.

But What About Markowitz, MPT, & Your Stock Market Investments?

Modern Portfolio Theory (“MPT”), the model that acclaimed a Nobel Prize, should come with a warning label. “Use with caution. It’s only as good as *your* assumptions.” What did Harry Markowitz intend to impart with his ground-breaking research and what are the implications given a reasonable view of future long-term returns from today?

Harry Markowitz published his research titled “Portfolio Selection” in The Journal of Finance during 1952. He led with: *“The process of selecting a portfolio may be divided into two stages. The first stage starts with observation and experience and ends with beliefs about the future performances of available securities. The second stage starts with the relevant beliefs about future performances and ends with the choice of the portfolio. This paper is concerned with the second stage.”*

Help! What about the first stage? What do you mean that the assumptions are OUR responsibility?!!

It’s been many decades since the article was first published. Many, many ‘buy-and-hold’ constituents have reiterated their mantra in concert with Dr. Markowitz. But that isn’t what he intended. Yes, investors should only be rewarded for taking risks that can’t be neutralized. Yes, stocks have more risk than bonds and over time have realized higher returns. BUT, what if your timeframe isn’t 75 to 100 years and what if you are starting from a period of relatively high valuations and the expectation of below-average future returns?

Please Dr. Markowitz, help me with my 10 to 20 year investment horizon. For that, we can reflect upon historical 10 to 20 year horizons for your assumptions. That is the first stage to which Markowitz referred—before MPT can be applied to your portfolio.

Since 1900, there have been 97 twenty-year periods, the first was from 1900 to 1919 and ninety-six double decade periods thereafter. The results can be sorted into two groups: those above the average and those below the average. Is there a way to determine whether the next twenty years is likely to be a top half or bottom half period? This would enable us to improve our outlook by using an above-average or below-average return assumption.

One characteristic that is blatantly obvious for the two halves is the starting level of valuation in the market as determined by the price/earnings ratio (P/E). It's the bellwether measure of prices in the stock market. Almost unanimously throughout the past century, when the P/E is above average, subsequent returns are below average. As well, below average P/E's historically delivered above average returns.

So since the current P/E is well above average, shouldn't the assumption for Markowitz's model be below average returns? Wouldn't this be consistent with the assessment of future returns provided earlier?

Markowitz gave us the holy grail to portfolio management; conventional wisdom has forgotten or ignored the need to use appropriate assumptions—the essential “*first stage*” of portfolio management. As Markowitz emphasizes, it is our responsibility to use “*observation and experience*” to develop “*beliefs about the future performances.*” Although future performance of the stock market cannot be predicted with certainty, through observation and experience we may be able to at least refine the assumptions into above-average or below-average territory. Based upon current market valuations, it is very likely that we're in the 'below-average' batter's box and should include a below-average return assumption for the next twenty years and even longer.

Oh no. Should we hang on to hope that this time will be different? Or should we rationally include a scenario that presents below average assumptions to Dr. Markowitz? Dear Dr. Markowitz, what should we do if the assumptions for stock market returns are below average?

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