

# CHART OF THE MONTH

NOVEMBER 2015

As a follow-up to our discussion on the [correlation between stocks and earnings](#), we have chosen to focus the November Chart of the Month on the link involving stocks and the *economy* (as measured by nominal GDP). We're calling the connection among stocks, earnings, and the economy "The Seven Percent Solution" because all three have increased at about that rate over the past 50-plus years.

Generally speaking, stock prices are influenced by earnings and earnings are influenced by the economy. There are other factors that affect stocks, most notably price-earnings ratios (P/Es). Earnings per share (EPS) x P/E ratio = Price. As such, earnings (or the economy, if you will) comprise one of the two primary determinants of stock prices.

Interestingly, the relationship between the Dow Jones Industrial Average and Gross Domestic Product is virtually the same in terms of percentage change and levels. With respect to the latter, the DJIA is approximately 18 *thousand* (17,732 to be exact) and the U.S. GDP is roughly 18 *trillion* (\$18.035T as of the most recent quarter). While the label on the y-axis in the graph below is based on the DJIA, adding nine zeroes makes it applicable to the GDP as well.

We believe there are three takeaways from this graph:

1. Stocks and the economy are linked over the long run.
2. Stocks gyrate much more than the economy.
3. Stocks are more fully valued today than at any time other than the late-1990s.

Going down the list, the linkage is certainly not simultaneous on a monthly, quarterly or even yearly basis, yet it is observable directionally over the intermediate term and from the standpoint of magnitude over the long term.

Since the end of World War II, the major stock market indexes have gone up or down in double-digit percentages annually about two-thirds of the time whereas nominal GDP has always gone up (with the exception of 2009 when it fell 2.0%) but rarely in double-digit percentages.

As a crude measurement, it would not be unreasonable to conclude that stocks are undervalued when the DJIA (blue line) is below the GDP (red line) and overvalued when the DJIA is above the GDP. When the two are aligned (as is the case today), it follows that stocks are neither under- or over- valued and instead are probably *fairly* valued.

Although the stock market is too complex to distill into one simple, predictive metric, we believe paying attention to the economy, earnings, and valuations at the macro level and company fundamentals at the micro level will add value over the long run.

## THE LINK BETWEEN STOCKS AND THE ECONOMY

