

Inside the Black Box

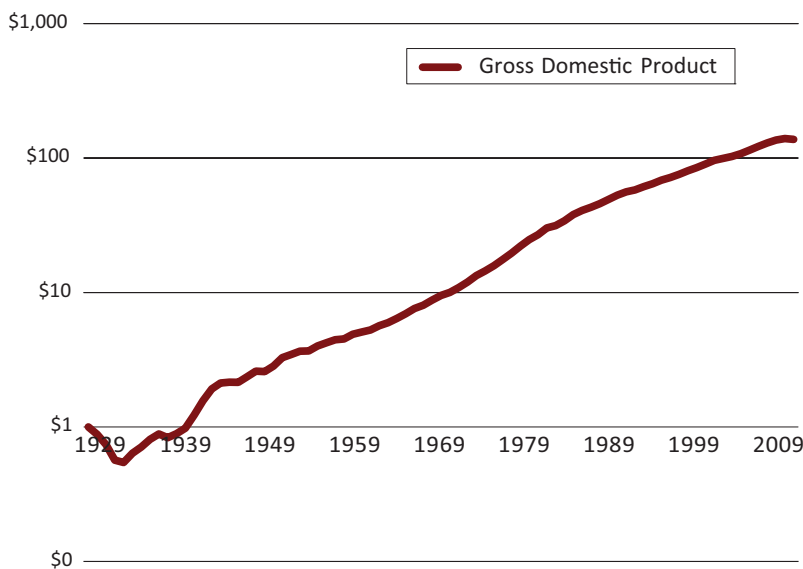
IS IT REALLY ‘THE ECONOMY, STUPID?’

by James S. Hemphill, CFP® ChFC CIMA

In recent months the financial markets have been distressed by worries about a possible double-dip recession. As employees and employers, citizens and taxpayers, we all have concerns about the current economy. But how important are recessions to us as long-term investors?

Consider the following chart of U.S. Gross Domestic Product, which starts in 1929, immediately before the onset of the Great Depression. (For the sake of consistency, all charts are adjusted so the December 31, 1929 value is \$1.00.)

Graph 1: U.S. Gross Domestic Product



What does this chart tell us? First, we Americans are a fortunate people. The modern market economy, tempered by regulation, has made us many times richer than were our parents or grandparents at similar ages. In fact, the standard of living of the average American at the end of the Roaring Twenties, immediately before the Great

Depression, would be considered Third World today. We often forget just how lucky we are.

Second, long-term GDP growth has been quite stable, except during the decade of the Great Depression. Once World War II jump-started industrial production, real economic growth (economic growth minus inflation) has averaged between 2% and 4% per decade. The recession of 2007-2009, which saw a maximum contraction of economic activity of 3.8%, was one of the most severe of the last fifty years. But using

a logarithmic scale (as we must to make the data understandable, given the huge compounded growth over time) the recent recession is barely even visible.

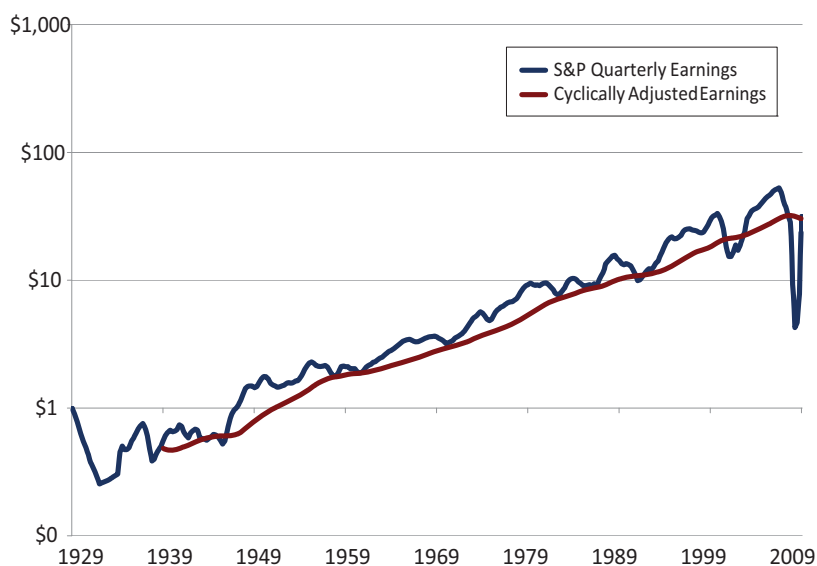
Our current level of public and private debt may well act as a drag on economic growth. Ditto the gap between our public-sector ambitions (government spending) and resources (tax revenues). But assuming we avoid the policy errors that turned a financial panic into a persistent Depression back in the 1930s, and to the extent that investment returns are a function of long-term economic growth, this chart suggests that investors should stop worrying about the economy.

Or maybe not. We know that investment returns over the last ten years have been poor, even when the economy was growing.

Perhaps there is more to the investment picture than simply economic growth?

Classic investment theory assumes that stocks have value because they will provide us with a series of future cash flows in the form of dividend payments. By discounting each of those future cash flows to the present, we can

Graph 2: S&P 500 Earnings



determine the value of a company's stock. The updated version of that theory says stock investors are paying for future earnings, and need not receive those earnings in the form of dividends as long as they are prudently reinvested and create shareholder value. Similar principles apply, whether we are talking about an individual company or about the market as a whole.

Dividends are quite stable and change slowly, even during times of significant economic turmoil. Earnings, on the other hand, are highly variable in the short term. Seldom more so than during the Great Panic of 2008-2009, when earnings cratered. (See blue line in Graph 2 above.)

But if we adjust earnings to reflect the cyclical nature of the economy, by using a ten-year trailing average, the volatility largely disappears. (See red line above.) The earnings chart now looks very much like the prior chart of Gross Domestic Product. If we assume the world economy is not going into another decade-long depression, once again we appear to have reason to remain optimistic. We now have a model in which the main variables (GDP growth, corporate

earnings growth and stock dividends) are quite stable and predictable over a time frame relevant to the long-term investor. Maintain a long-term perspective, have a little patience, and we are home and dry. Our portfolios will be fine.

Or will they? All might be well if the story ended with corporate earnings. But it does not. When we add price into the picture, much of our confidence disappears. The *price* investors are willing to pay for common stocks, compared to the underlying *earnings* of public corporations, is wildly variable. Part of that variation is rational, reflecting short-term uncertainty about the economy, corporate earnings, interest rates and inflation expectations. But a great deal of it is irrational, and reflects short- and long-term trends of optimism and pessimism, greed and fear.

Consider the fluctuation in market prices during the panic. A 4% decline in GDP triggered a 90% decline in month-by-month corporate earnings, but only a 5.6% decline in ten-year trailing earnings – *yet it caused a 56% decline in the broad stock market*. Stock market prices are *ten times* more variable than trailing corporate earnings, and as much as *twenty times* more variable than the growth of the overall economy.

Here is a model for thinking about investment returns: *future investment returns can be conceptualized as a function of the slope of the line between today's prices and a constellation of possible values that lies out in the future*, clustered around the long-term growth trends of the economy, corporate earnings and dividend payments. The slope of the line (expected future annual returns) is a function of the two points through which the line is drawn. The steeper the upward slope of the line, the higher our rational expectation of future returns.

In the graph below, I've illustrated compound earnings growth at 6% (twice the long-term growth potential of the economy) and at 2% (below the historical growth rate of the economy).

Changing the rate of earnings growth affects the future terminus of the line, which has an effect on the slope of implied future returns. But far more important is the left anchor of the line, which represents the current price.

Stock prices are profoundly variable. Consider the recession of 2007 to 2009, and the financial panic that was both result and cause of that recession. At the market high in 2007, just before the onset of recession, the slope of implied future

returns was actually negative, even given an optimistic assumption of 6% compounded earnings growth. But at the 2009 market low, even a pessimistic earnings growth assumption suggested strongly positive returns.

What do we conclude? The endless obsession of the financial press and the cable business channels on projecting the near-term direction of the economy and corporate earnings is a massive distraction, of little interest to long-term investors. *But price matters.*

After a 70% recovery in the markets, what do today's prices for stocks and bonds imply about future returns? I'll return to that question in my next *Black Box* column.

Graph 4: Historical and Potential Earnings Growth

