ANALYTICS INVESTMENT ADVISORS, LLC

The Improving U.S. Economy

Economic expansions tend to go on until something kills them.
Today, not many dangers lurk…[1]

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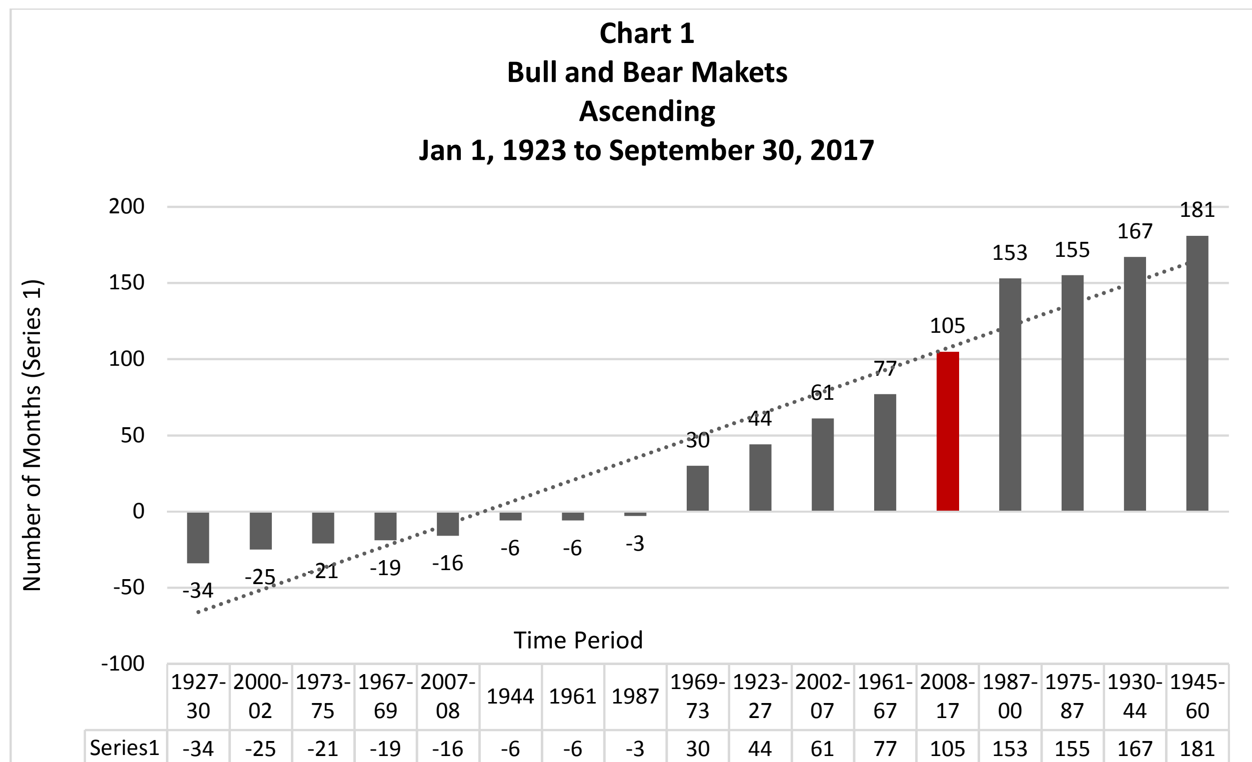
What?

- The United States economy is in its 105th consecutive monthly expansion since 2008.
- There have been eight bull markets since 1923 lasting an average of 116 months (9.7 years); with four of these eight bull markets having an average duration of 164 months (13.7 years); 1930-44 (167 months), 1945-60 (181 months); 1975-87 (155 months); and 1987-2000 (153 months); all of which manifested after 77 months of continuous growth.
- There have been nine bear markets since 1927 averaging 14 months (1.2 years).

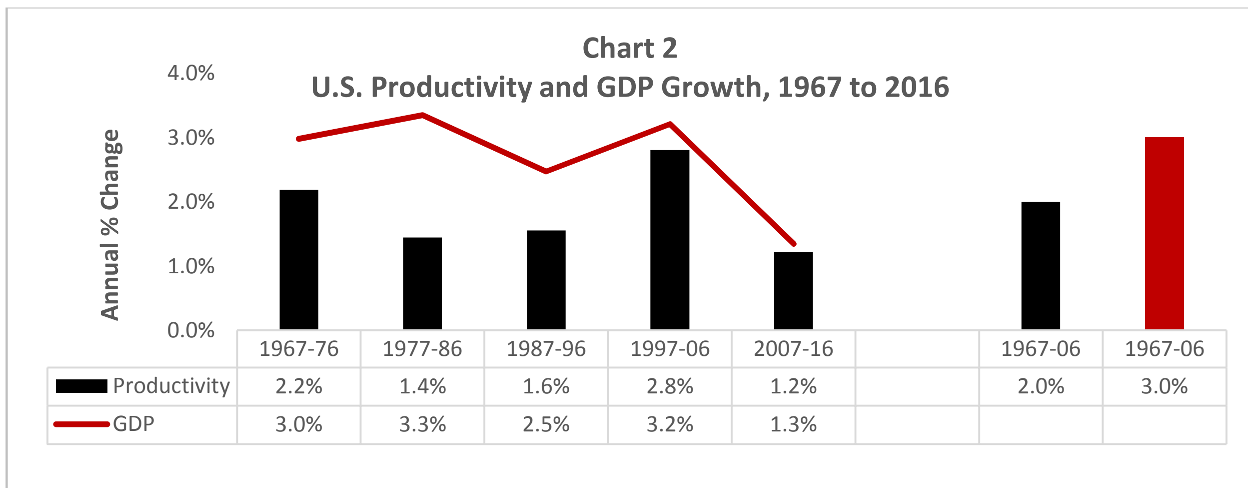


Source: 1923-2015, Jerry Kerns, Morningstar; 2016 to Present Analytics Investment Advisors, LLC.

[1] Alan S. Blinder, "More Sunny Days Are Likely Ahead for the U.S. Economy, The Wall Street Journal, August 17, 2017, p.A15. Mr. Blinder is a professor of economics and public affairs at Princeton University and a visiting fellow at the Brookings Institution, and former vice chairman of the Federal Reserve.

Why?

- The most common cause of U.S. recessions in the post war era has been tight Federal Reserve monetary policies as a means to fight inflation. Adroit monetary management can, however, result in "soft landings" as observed in 1994 and 1995.
- Other recessions historically resulted from "shock action", most notably the oil embargos in 1973 and 1979. While energy sector volatility is unpredictable, the current markets and experts do not seem to indicate an oil shock is likely due to new technology, increased productivity, additional sources of energy, and growing global BTU output.
- Unlike in 2007, households and businesses are less leveraged, banks hold more capital, and financial regulations are more stringent. It is always possible that consumers and business confidence can wane causing spending to plummet, reversing current trends, but presently Americans and U.S. companies are buoyant.[2]
- GDP growth in the 3Q17 is estimated to be in excess of 3%, significantly higher than the 1.3% average between 2007 and 2016 (see Chart 2). In my April 5, 2017 commentary "Labor Productivity and GDP Growth" I argued that for GDP growth to improve there must be a significant and commensurate increase in labor productivity, and estimated using U.S. Bureau of Economic Analysis data that historically an average of 1% increase in productivity generated a corresponding 1% increase in GDP. Recently, John F. Gogan, Glen Hubbard, John B. Taylor and Kevin Warsh also commented: "For individuals and households, the recent economic performance is insufficient to improve standards of living to which most Americans are accustomed. Most Americans rely largely on wage income. The conduct of economic policy during the past several years, however, has failed to address structural impediments to more rapid growth in productivity"[3]
- Given universal agreement on this topic for the recent rise in GDP to over 3% to have occurred in a relatively short period of time, there must have been the requisite increase in productivity, which one could reasonably argue: 1) has resulted from the structural changes implemented by the Trump administration; 2) was caused in part by an increase investment in research, plant & equipment in anticipation of more favorable individual and corporate taxes; 3) is probably understated and not totally appreciated give the lack of proper measurement and understanding of the benefits of new technology, automated labor and shift to service sector jobs; and, 4) is likely to continue in Schumpeter "creative destruction" fashion for years to come.



	1967-76	1977-86	1987-96	1997-06	2007-16		1967-06	1967-06
Productivity	2.2%	1.4%	1.6%	2.8%	1.2%		2.0%	3.0%
GDP	3.0%	3.3%	2.5%	3.2%	1.3%			

U.S. Bureau of Economic Analysis

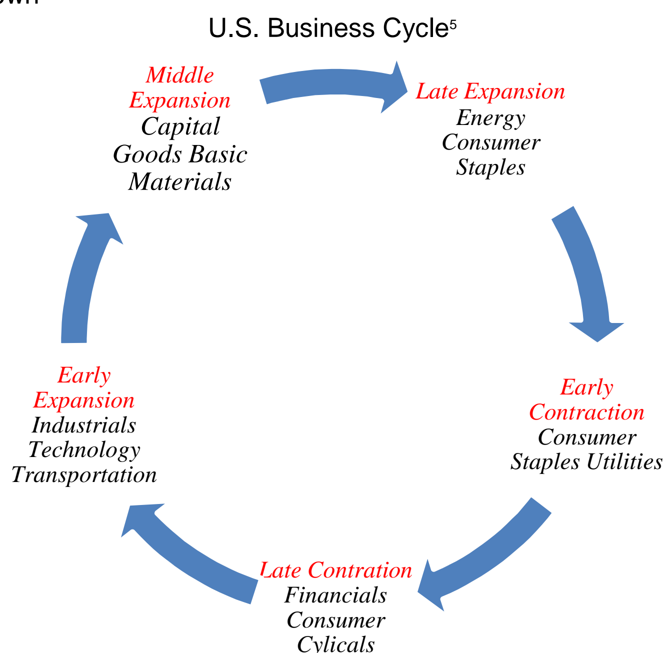
[2] Ibid.
[3] White paper "On the Prospects of Higher Economic Growth, July 18,2017

- In addition to the structural consideration referenced above, relative strength, which compares the performance of each sector with the performance of the broad market based on changes in the ratio of the securities' respective prices over time, suggests a potential realignment of the business cycle depicted below may be taking place.
- The business cycle was first identified in 1860 by Clement Juglar a French economist, and later confirmed by Joseph Schumpeter (1883-1950), who argued that a Juglar cycle has four stages:

    1. Expansion (increase in production and prices and low interest rates);
    2. Crisis (stock exchange disruption with bankruptcies);
    3. Recession (decline in price and output and high interest rates); and,
    4. Recovery of stocks resulting from falling prices and income.

  A generally accepted refinement and definition of the business cycle is presented below as fluctuations in the activity of nations that organize their work mainly in business enterprises where a cycle consists of expansions occurring at about the same time in many activities (sectors), followed by similarly general recessions, contraction and revivals which merge into the expansion phase of the next cycle. In duration, business cycles vary from more than one year to ten to twelve years; and are not divisible into shorter cycles of similar characteristics with amplitudes approximating their own[4]

U.S. Business Cycle[5]



- "From a historical and definitional perspective, current signs of market strength, a drop in buying power back below selling pressure over the near term might simply be in response to the current short term overbought position. These signs suggest this bull market still has further room to run

[4] A. F. Burns and W.C. Mitchell, *Measuring Business Cycles*, National Bureau of Economic Research, New York, 1946.
[5] Sam Stovall, Sector Investing, *Standard & Poors*, May 1996

in the months ahead"[6] and that the business cycle is closer to Early Expansion than Late Expansion as some analysts postulate.

How?

If you have a long-term investment perspective, don't focus on short-term moves in the market. Market pullbacks in business cycle expansion cycles means equities are on sale, so think of dips as buying opportunities.

- Stay invested in sectors (preferably using ETFs) with good momentum and relative strength while staying flexible and aware of changing market conditions. This is a proven market strategy most recently demonstrating by the fact that relative strength explained 75.8% of return volatility where a 10% increase in relative strength resulted in a statistically significant corresponding 2.43% increase in return over a one year period.[7]

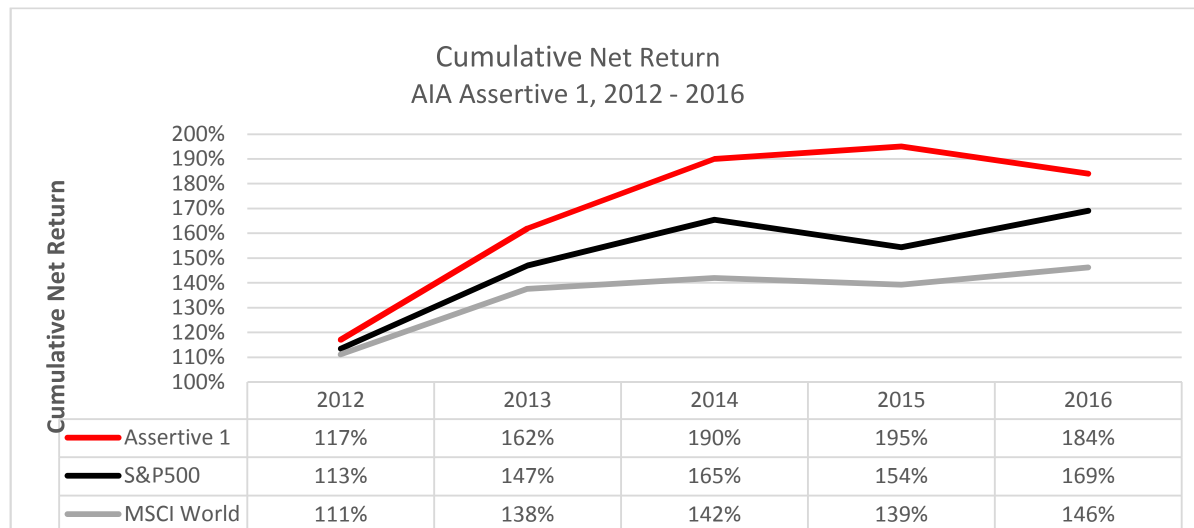
Performance Summary

	Average 2012 - 2016	AIA YTD 09/30/2017	%AUM	Beta**	R^2**	SD**
S&P 500	**12.90%**	**12.01%**				
Barclay US TR	**2.23%**	**3.14%**				
Cautious	8.30%	12.82%	<1%	1.26	0.61	4.01
Moderate	11.29%	14.35%	47%	1.30	0.85	3.52
Assertive 1	13.92%	15.39%	33%	1.39	0.72	4.11
Assertive 2	17.68%	23.48%	10%	1.54	0.73	4.50
Aggressive	17.56%	30.02%	9%	2.68	0.69	8.07

*Net Average Return, Portfolio Center, Schwab Portfolio Technologies. Returns are net of fees, which are negotiable and range between 50 and 125 basis points.

**Risk Return Statistics, Analytics Investment Advisors, LLC; most recent 24 months (computed quarterly).

Beta — Expected change in portfolio return per 1% change in market index return.
R^2 — Percent of variation in regression equation explained by the independent variable (S&P 500).
SD — Standard deviation of the dependent variable (Net Return).



[6] Lowry's New York Stock Exchange Market Trend Analysis, October 6, 2017.

[7] Analytics Investment Advisors, LLC: Return (1 Year) = .243RS (t=29.3), R^2 = .758, August 22, 2017, random sample of 274 ETFs exceeding daily volume of 10 million shares.