

WHITE PAPER



LET'S GET REAL

Expected economic growth is at the center of virtually everything related to economics and finance, and it strongly influences consumer behavior, politics, world affairs, and our general sense of well-being. Investors base many of their decisions regarding markets and individual securities on their economic forecasts and politicians inevitably run on the basis of optimistic predictions. So, it is worth spending some time understanding the sources of economic growth and the sensitivity of forecasts to changes in assumptions regarding the underlying variables.



BY BILL SPITZ, PRINCIPAL

continued on next page >

DIVERSIFIED
TRUST

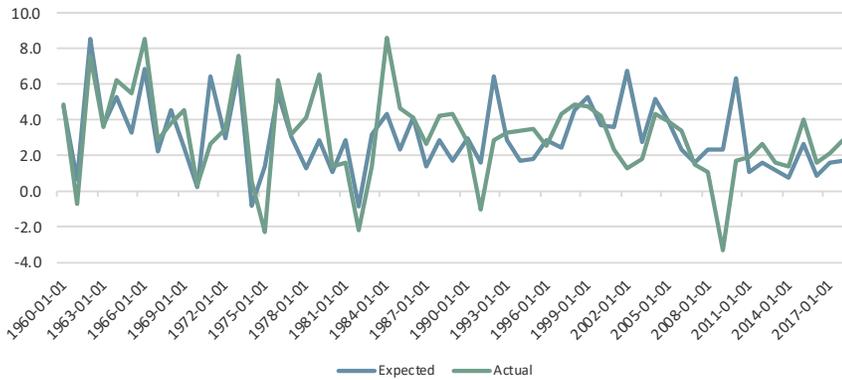
diversifiedtrust.com

Real Growth

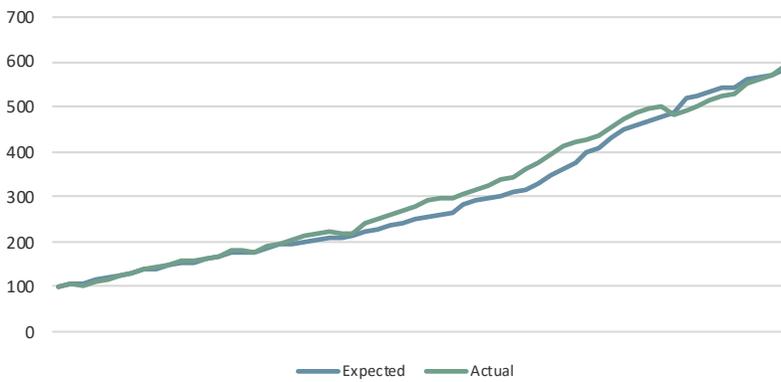
The most commonly used gauge of our economy is Real Gross Domestic Product or Real GDP which measures the amount of goods and services that our country produces. Over the past 60 years, it has grown at an average annual rate of 3.1% although growth has moderated to 2% and 1.6% for the past twenty and ten years, respectively. Economic output or real GDP is determined by two factors: the number of people working, and the amount they produce during each hour worked. It therefore follows that economic growth is determined by population growth and growth in output per hour worked, more generally known as productivity growth. The basic relationship is relatively straightforward-Real GDP growth equals population growth plus productivity growth. The chart below depicts actual Real GDP growth versus the sum of population and productivity growth and you should note two things: actual growth is a good deal more volatile than expected growth, and the two series can diverge over short periods of time. So, factors such as the business cycle, tax rate changes, consumer and business confidence, and so on, can impact growth over the short term. But, as indicated in the second chart, the basic relationship between the sum of population and productivity growth and real GDP holds as demonstrated by the fact that both experienced annual growth of exactly 3.1% for the sixty year time frame.. So, let's look at the individual components of growth and then take a stab at forecasting future trends.

Economic output or real GDP is determined by two factors: the number of people working, and the amount they produce during each hour worked.

Expected versus Actual Growth-Annual



Cumulative Growth Actual vs. Expected (1960-2017)



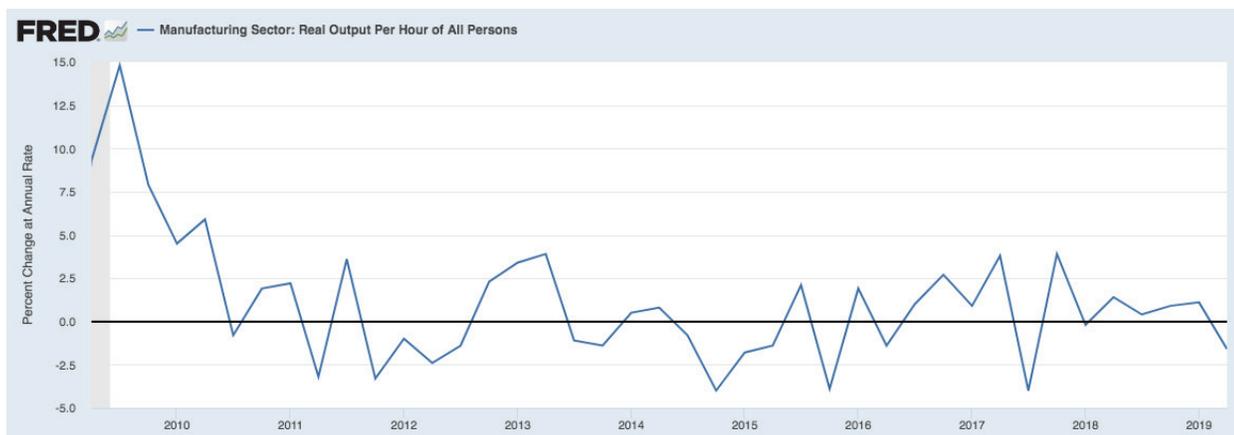
Since 1995, the S&P 500 has been above fair value 97% of the time and it has been above fair value plus one standard deviation 71% of the time.

Sources of Real Growth

Over the entire sixty year period, US population has grown at a 1% average annual rate although that has slowed from 1.7% in the early 1960's to approximately .7% over the past five years and .62% in 2017, the last year for which data is available.



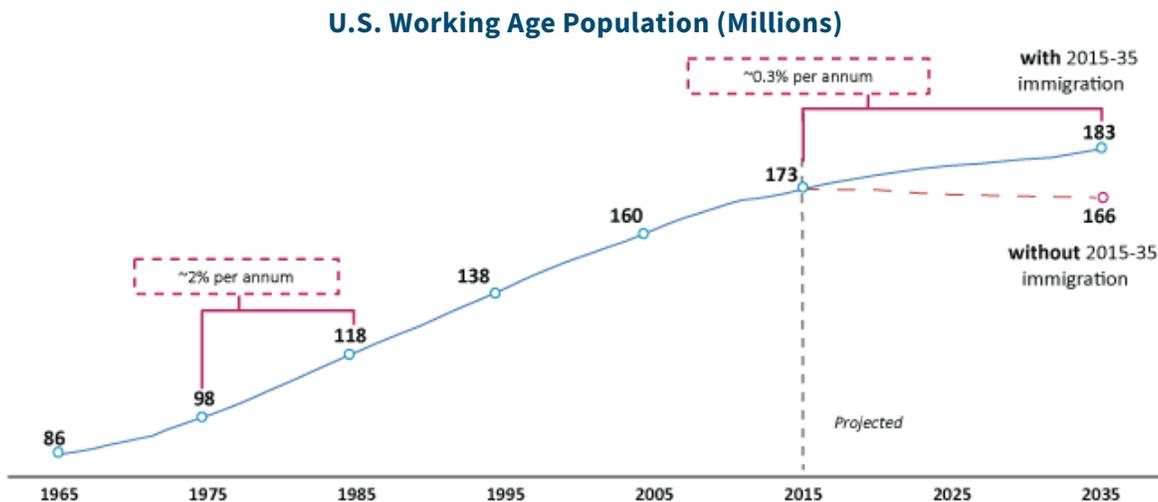
The greater contributor to economic growth has been productivity growth which has averaged a little over 2% for the entire period. Adding the 2% productivity growth to 1% population growth gets you to the 3.1% historical Real GDP growth figure. But the critical issue is that, as illustrated in the following chart, productivity growth over the past ten and five years has slowed from 2% to 1.3% and .8%, respectively.



Why is this so important? If you extrapolate recent population and productivity growth of .7% and .8%, respectively, you arrive at expected future growth of 1.5%, not the 3%+ that is touted by politicians! And this is much more than an academic exercise because growth impacts our incomes, the performance of financial markets, elections, and many other critical outcomes. So, let's delve into population and productivity growth with the hope of understanding the forces that drive each of them and the likelihood that the numbers will change significantly from recent trends.

Population Trends

Population growth is relatively predictable because birth and death rates change very modestly and only slowly over time. But, there still is one major unknown. The Pew Research Center forecasts annual population growth through 2035 of .3%. However, in the absence of immigration, they expect an annual decline of .2%. This is consistent with expectations for many mature, industrialized countries that have very low birth rates. So, depending upon the outcome of the contentious immigration debate in the US, future population growth might vary between -.2 and .3% as compared to more recent growth of .7% and longer term increases that averaged 1%. The bottom line is that we can argue about all of the many facets of immigration policy and its implementation, but our economy needs a reasonable level of immigration to grow.



The Mystery of Productivity Growth

As previously mentioned, productivity growth has slowed from its long term average of 2% to just .8% over the past five years. This slowdown is particularly vexing given that productivity growth generally surges during an economic expansion such as we have experienced from 2009 to present. Additionally, most observers of the economic scene expected the proliferation of new technology associated with the Internet, cell phones, robotics, and artificial intelligence to materially enhance productivity growth. And, for whatever it is worth, a similar slowdown has occurred in many other industrialized countries. So, what is going on? The answer is that no one really knows although there are lots of theories. There are more explanations than I can recount here so I will provide a representative sample.

Some argue that government statisticians are simply not counting correctly. Proponents of this theory point out that it is difficult to measure output in the service sector and in parts of the tech economy. For example, how do you measure the output of social media which clearly is an important part of our contemporary world? Another point of view is that we have underinvested in research and development as well as plant and equipment, both of which would have enhanced the productivity of most workers. Instead, companies have used profits primarily for stock buybacks. Similarly, many believe that we have underinvested in education and training which results in a less productive workforce. A third explanation is that low interest rates and a healthy economy have allowed poorly run companies (nicknamed Zombies) to survive which drags down the overall productivity numbers. Fourth, some attribute poor productivity to excessive regulation. Finally, a more optimistic scenario suggests that we will enjoy a surge in productivity growth as a result of technology; it has just been slower than expected to develop. Needless to say, selecting from among these explanations is way beyond my pay grade since a whole gaggle of economists cannot reach consensus.

This slowdown is particularly vexing given that productivity growth generally surges during an economic expansion such as we have experienced from 2009 to present.

What Does This All Mean?

Despite all of the political bickering, I assume that we will continue to have moderate immigration into the US which results in the Pew Research Center's expected population growth of .3%. The most recent productivity growth reading for the quarter ending in January of 2019 was only .4% at an annual rate. But, let's assume that we do get some improvement in productivity as a result of technology, albeit delayed, that results in annualized growth of say 1.2%. Well, that gets us to expected Real GDP growth of 1.5%. Perhaps we will get a little bigger surge in productivity that gets us close to a 2% growth rate. But, it seems highly unlikely that we will get anywhere close to the 3-5% growth that has been promised by some politicians. And, if productivity growth remains at recent levels, we could experience economic growth of less than 1%. As a reality check, the official forecast of the Congressional Budget Office for the next ten years is 1.75%.

IMPORTANT NOTES AND DISCLOSURES

This White Paper is being made available for educational purposes only and should not be used for any other purpose. Certain information contained herein concerning economic trends and performance is based on or derived from information provided by independent third-party sources. Diversified Trust Company, Inc. believes that the sources from which such information has been obtained are reliable; however, it cannot guarantee the accuracy of such information and has not independently verified the accuracy or completeness of such information or the assumptions on which such information is based. Opinions expressed in these materials are current only as of the date appearing herein and are subject to change without notice. The information herein is presented for illustration and discussion purposes only and is not intended to be, nor should it be construed as, investment advice or an offer to sell, or a solicitation of an offer to buy securities or any type of description. Nothing in these materials is intended to be tax or legal advice, and clients are urged to consult with their own legal advisors in this regard.

Implications for Investing

So, what does 1-2% economic growth mean for investing? First, it will seem disappointing to many which will place considerable pressure on the Federal Reserve to maintain interest rates or even make further cuts. Today, the 90 day Treasury Bill yields 2% while the ten year Treasury Bond yields 1.75%. Depending upon quality and maturity, corporate bonds provide an additional 1.25-2% in yield. Putting this all together, a blend of cash, Treasuries, and corporates, yields about 2.5%, and stable to declining interest rates suggests that the actual return should be in that neighborhood.

Forecasting stock returns is much more difficult because sentiment plays such an important role. But, we can point to a couple of fundamentals that are influenced by economic growth. Combining real growth of 1.5% with the market's inflation assumption of 1.7% results in nominal GDP growth of 3.2% which is also a good proxy for corporate revenue growth. Assuming no change in profit margins, earnings would then also grow at 3.2% as compared to Wall Street's double digit consensus forecast. If this scenario occurs, actual earnings will be quite disappointing which would likely place downward pressure on P/E ratios. Without boring you with the math, the net result of all of this is our seven to ten year forecast of 4% returns on US equities. How might we be too conservative? First, P/E ratios could rise although they are already in the top 5% of historical experience. Second, a surge in productivity and/or a further rise in profit margins could lead to faster earnings growth than we have assumed. However, we are hard pressed to come up with a scenario that would lead to sustained double digit growth consistent with Wall Street expectations.

Low to middle single digit returns on stocks and bonds certainly does not represent the end of the world, but it does present a significant challenge to both institutional and individual investors who typically have spending needs of 3.5-5%. So, what does one do about it? First, try to capture extra return through the use of private equity and real estate. Second, make use of non-correlated and other niche strategies where appropriate. But, most important, stick with your investment plan and avoid the temptation to reach out on the risk curve to generate extra return. It is much smarter to simply accept the returns that the markets give you and wait for another day.

ATLANTA

400 Galleria Parkway, Suite 1400
Atlanta, GA 30339
Phone: 770.226.5333



GREENSBORO

701 Green Valley Road, Suite 300
Greensboro, NC 27408
Phone: 336.217.0151



MEMPHIS

6075 Poplar Avenue, Suite 900
Memphis, TN 38119
Phone: 901.761.7979



NASHVILLE

3102 West End Avenue, Suite 600
Nashville, TN 37203
Phone: 615.386.7302