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## **Market Update – *From Fixed Income to FAANG Stocks***

by David A. Jaffe, M.D.

Stocks have gone nowhere in 2018, so let's talk about the bond market for a change. Sounds exciting, eh? Well, it shouldn't be. That's why we own bonds in the first place! Still, it's not uncommon to hear such astute investors as Warren Buffet proclaim that there is too much risk in bonds. Not all of our clients own bonds, but most do. For the all stock investors out there, bear with us for a few moments. Besides, rising interest rates are of consequence for *all* investors, and the yield on the 10-year U.S. treasury just logged its fourth consecutive quarterly gain.

Let's start by dismissing worries over the risk of bond ownership. It is true that when interest rates rise, the market value of bonds goes in the opposite direction. The longer the bond maturity, the greater the price move. So, for investors holding long-term bonds and planning to sell them, rising rates most certainly carry risk. In the PASI investment structure, however, we own only short to intermediate term bonds, with maturities no longer than five years. Further, we intend from the day of purchase to hold the bonds to maturity. Unless a bond is sold there is no loss of principal; we collect the interest payments that we anticipated from the day we bought the bond and the full face value when the bond matures. Aside from the chance of a default, remote in our investment grade portfolio, the only market risk is what is known as "opportunity cost"; while holding a bond yielding 2.5%, we may miss the opportunity to add a new bond paying 3.5%, for example. Since we keep the maturities short and hold a "ladder" of bonds maturing in serial fashion, the opportunity cost is minimized. As bonds mature, we reinvest the proceeds at current rates, capturing the rise in yield if this is in fact what has occurred.

Rising rates are reflective of a strong economy. The job market is tight and recent data shows the biggest pickup in inflation since 2012. The Federal Reserve notched short-term rates higher twice already this year; the Fed Funds target currently rests between 1.75% and 2.00%, with speculation that another two hikes are in the offing for 2018. Ultimately, higher rates slow the economy, as may the looming trade war. While those speculating about interest rate and bond price moves guess the future direction of rates, our structure allows us to be agnostic to changes in interest rates while we collect income payments and wait for our bonds to mature.

Having said all that, the PASI corporate bond portfolio and benchmark Citigroup 1-5 year corporate bond index ended the first half of 2018 with *negative* total returns, -0.37% and -0.45% respectively. Due to rising interest rates, the price decline in the bonds exceeded the interest payments, leaving a slightly negative net (total) return. Fortunately, as the bonds mature, we will collect the full face value and this “paper loss” will disappear.

Stock market behavior in the second quarter, as is true of the last several years, can be summarized in one “word”: *FAANG*, (Facebook, Amazon, Apple, Netflix, and Google, while “M” for Microsoft should now be added to that catchy collection). In fact, investment has become so concentrated in the high growth tech companies that Amazon, Netflix, and Microsoft together account for 70% of the S&P 500 price move year-to-date. The NASDAQ index actually logged several new all-time highs in the month of June, while the more narrow and cyclical Dow Jones Industrial Average remains in *negative* territory for 2018.

In this environment, it is particularly gratifying to see the broadly diversified PASI composite stock portfolio edge ahead of the S&P 500, with a YTD gain of 2.78% vs. 2.65% for the S&P 500 (both with reinvested dividends). These gains have come from our selections in technology, but also health care, retail, energy, and our real estate investment trust (REIT), and we continue to shun popular stocks like Netflix and Amazon with stratospheric price-earnings ratios that we believe carry inordinate risk.

The resilience of stocks has been quite remarkable when one considers the length of the current bull market and economic uncertainty inherent in a rising interest rate environment and threat of tariffs and trade wars. While the stock market will, time and again, humble those foolish enough to predict its future direction, it doesn’t seem outlandish to suggest that we may be in for a bumpy ride.

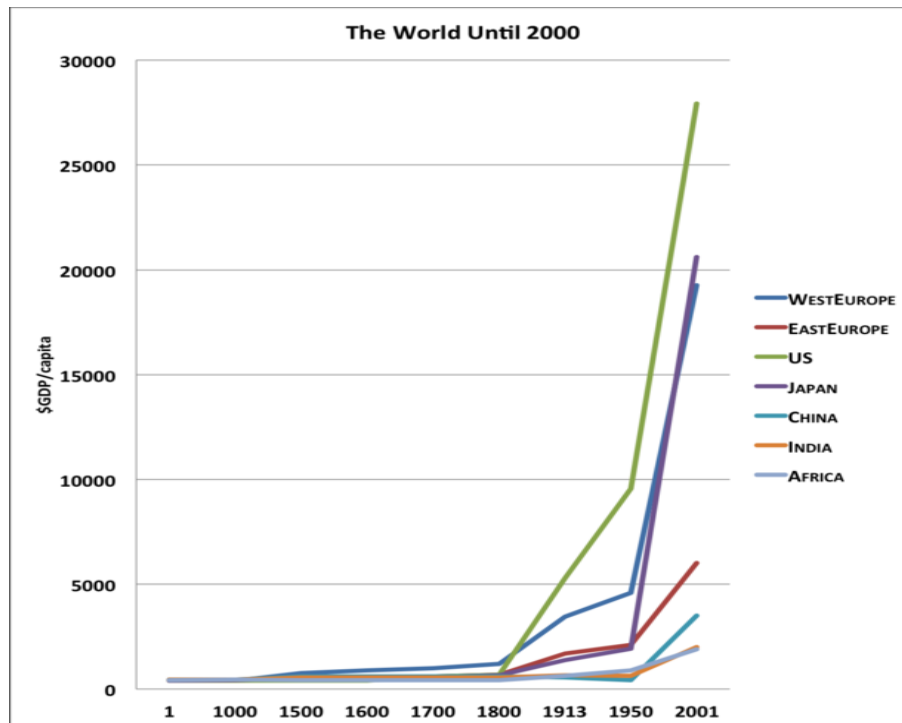
## **The Limits of Growth**

by Nathan Polackwich, CFA

Many years ago famed investor Jeremy Grantham wrote about the almost incomprehensible power of compounding returns and its implication for the sustainability of long-term economic growth. To emphasize his point, Grantham calculated how large the Egyptian economy would be today if, starting with a single cubic meter of physical possessions, Ancient Egypt had endured and grown its wealth 4.5% a year over the last 3,000 years. How much *stuff* would Egyptians now own? Well, the pile would encompass roughly  $10^{57}$  cubic meters, a number so outlandishly huge it wouldn’t fit inside *a billion of our solar systems*! And even if we temper Gratham’s growth assumption to just 1% annually, Egypt’s wealth would still be nine trillion cubic meters in size, or enough to fill more than 3.6 billion Olympic swimming pools.

Fortunately for the environment, long-term economic growth was close to zero for most of human history. As I’ve noted in prior newsletter articles, only two factors drive economic expansion – 1) an increase in the labor force (more workers) and 2) higher labor productivity (more productive workers). That’s it. And up until the Industrial Revolution kicked into gear around 1800, growth

mainly came from a rising population, which was modest.<sup>1</sup> Further, labor productivity growth was practically nonexistent. This can be seen in the chart below which shows that GDP per capita (a measure of labor productivity) was essentially flat until a rapid ascent that began around 1800.



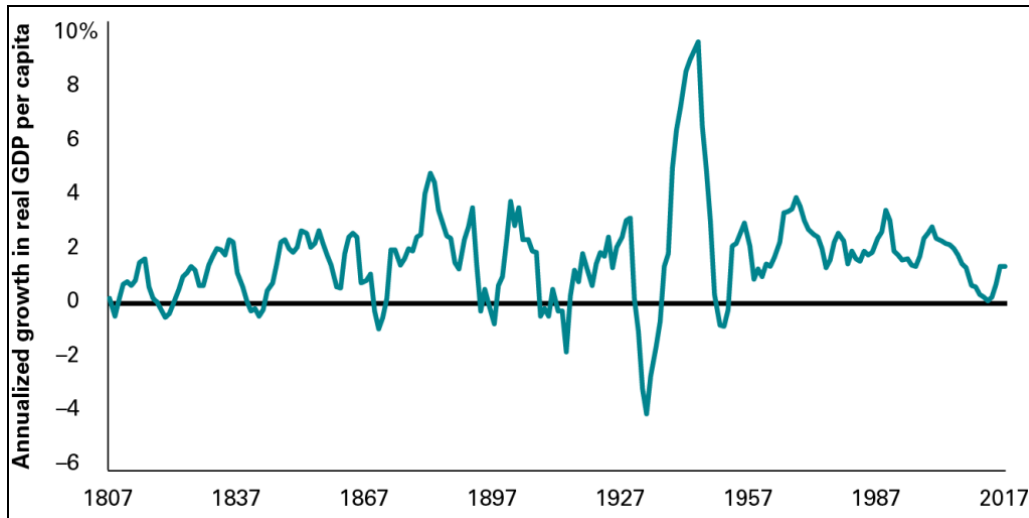
As the chart shows, the last two hundred years have been anomalous. Labor productivity surged, and this led – thanks in particular to advances in farming and transportation – to a burst in population growth of over 1% annually (ten times faster than pre-1800 and hitting a peak of 2.2% in 1962/1963). The result was a dramatic economic acceleration that’s reshaped our world. The question now is whether this pace of growth is sustainable.

From the standpoint of a rising population, we know that it’s not. In fact, the growth rate in the global working-age population (15-64 years of age) – which is what matters for economic expansion – has already begun to slow (from 1.65% in 2000-2010 to a projected 1.05% from 2010-2020 and just 0.59% from 2020-2050). Further, most of the remaining increase will occur in developing nations. In the U.S., for instance, annualized working-age population growth is already below 0.3% and projected to advance at a similarly sluggish rate in the coming decades.

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<sup>1</sup> There were around 200 million humans in 1 AD vs. about one billion in 1800. This sounds like a large increase but actually equates to less than 0.1% annual growth.

With minimal workforce expansion, the global economy – and particularly developed nations like the U.S. – will have to rely almost entirely on rising labor productivity to continue advancing. How likely is that? The chart below shows the U.S. productivity growth rate (by looking at annual growth in GDP per capita) over the past 200+ years.



We can see that the annualized change in productivity is fairly volatile but seems to gravitate around 2%. That said, in the last few decades the trend has been down, with productivity rising at about a 1% annual rate. The \$64,000 question is whether the recent productivity slowdown is just a momentary blip or the start of a new, more sluggish paradigm. I think the answer may lie in assessing the titanic shift in consumer spending patterns over the last century.

**Consumer Spending Today vs. 1900** – In 1900 an astonishing 80% of U.S. household spending went towards food, housing, and apparel. In other words, almost all household income was once directed towards items needed just to survive. Fast forward a little more than a century, though, and those same three categories comprise just 49% of household spending. What changed? The biggest factor is lower food costs, which fell from 43% of household spending in 1900 to just 13% today. Further, almost half of food spending is now effectively entertainment, occurring away from home in restaurants.

Why did food costs drop so sharply? The productivity of farm labor exploded. In 1900, it took 11.7 million American farm workers to feed 76 million total citizens. Today, less than 5 million farm workers grow food for over 325 million Americans (though, admittedly, the U.S. is a modest net importer of food).

So U.S. households received a windfall of extra purchasing power as food costs declined over the 20<sup>th</sup> century. To a great degree, they used this windfall to purchase more *stuff* like cars, appliances, vacuums, etc. Thus, over time farming jobs became manufacturing jobs, which peaked in the mid-1950s at over 30% of the total workforce (excluding WWII).

But then something strange happened: over the subsequent decades manufacturing employment began its own relentless descent such that it now represents just 10% of the total U.S. workforce. Meanwhile service jobs surged from 45% of the workforce in 1950 to over 70% today.

While it's true that many U.S. manufacturing jobs were offshored by companies seeking cheaper foreign labor, rapid productivity gains in goods production has been the primary driver of lost jobs. For proof consider that while the number of U.S. manufacturing workers has fallen 15% since 1950, over that same time U.S. manufacturing output has *tripled*. So we now make three times as much with 15% fewer workers – That's a massive gain in productivity.

The question then is if labor productivity in manufacturing has grown so quickly, why hasn't the demand for goods kept pace so that manufacturing employment remained steady? Well, remember the hypothetical I described in the opening paragraph where Ancient Egypt started with a single cubic meter of possessions that grew exponentially? The last hundred years have shown us why such an event will never come to pass. Namely, there is a limit to how much *stuff* people actually need or want. Once you have shelter, food, clothing, cars, appliances, electronics, etc., services like education, healthcare, vacations, yoga classes, and entertainment suddenly become relatively more desirable.

This is why, in my opinion, manufacturing jobs will never return to the U.S. economy in any meaningful way regardless of our trade policy. Our ability to continue driving productivity gains in manufacturing (now through software, automation, and robotics) greatly exceeds our need or desire for more stuff at this stage in our economic maturity.

Services, then, will maintain and expand their dominance over the U.S. economy in the coming decades. From a productivity growth standpoint, unfortunately, that's not a great trend, as services (think of a haircut) are notoriously difficult to make more productive. Further, less productive services with more of a human touch are actually a mark of luxury! People don't go to Starbucks because the coffee tastes better or is prepared more quickly than what they could make at home. Starbucks' customers go for the experience, the ambiance, to see other people, and have a barista make them a drink. In short, they go for the human touch. This is the future of the global economy, with developed countries of course being further along the path.

Most goods production and under the radar (more menial) services will increasingly be automated and, like food in the 20<sup>th</sup> century, become a smaller and smaller component of consumer spending. The growth – both in employment and overall importance to the economy – will occur in the service industries that deliver greater experience and human connection. While that may not drive the kind of economic growth we grew accustomed to in the post WWII era, it's a tremendously positive development for humanity in general.

## **Disney: *The Mouse that Roared***

By: Christopher Brown, MBA

Remember when TV only offered a few free network channels like ABC, CBS, and NBC? Then came cable and satellite TV, offering consumers a “bundle” of hundreds of channels with set show times and a few premium movie channels like HBO – but you had to pay for every channel

including those you never watched. Today, with the rise of the Internet, consumers have begun “cutting the cable cord” and accessing their favorite movies and programs from internet streaming providers like Netflix, Hulu, and Amazon Prime. Consumers want to watch what they want, when they want, on the device of their choice. This revolution has enabled content providers, such as PASI holding Walt Disney Corp., to shift from delivering its movies/shows primarily through intermediaries like cable companies to reaching consumers directly over the Internet. And with the recent approval of the AT&T/Time Warner deal (now being challenged by the DOJ), media consolidation is likely as companies jockey for position in this rapidly changing landscape.

As an illustration of the intensifying competitive environment, Disney and Comcast are currently locked in a bidding war for Twenty-First Century Fox’s key assets. These properties include the Twentieth Century Fox studios, a 30% stake in streaming service Hulu, its US Cable Networks, and fast growing international businesses. The winner of the bidding war will have a head start in the race to create a premier direct to consumer entertainment giant to rival current leader Netflix. So far, Disney has the upper hand with the Department of Justice antitrust approval and Rupert Murdoch’s blessing (he controls 40% of Fox’s votes and prefers exchanging his shares for Disney’s shares to avoid taxes).

Disney already dominates the global movie industry with key franchises such as Star Wars, Pixar (*Incredibles*), Marvel Universe (*Avengers*), and Animation (*Beauty & the Beast*). With the Fox acquisition, Disney will take control of two of the biggest back catalogs (legacy content) in entertainment – 20<sup>th</sup> Century Fox Films and 20<sup>th</sup> Century Fox Television (including hit shows like *The Simpsons*, *Family Guy*, *X Files*, and *Empire*).

In movies, the combined Disney/Fox will have owned 29% of the box office market share since 1995 including six of the top ten US box office hits this year and 14 of the top 25 grossing movies of all time internationally. One of these hits was *Avatar*, the highest grossing movie ever, with \$2.79 billion in worldwide box office receipts. Excitingly, four potential blockbuster *Avatar* sequels are already in development with release dates scheduled from 2021 through 2025. Other notable Fox movie franchises include *Planet of the Apes*, *Alien*, *Predator*, *Ice Age*, *Die Hard*, and *Home Alone*.

Comic book fans are particularly excited to see Disney regain full ownership rights to Marvel characters *X-Men*, *Deadpool*, and *The Fantastic Four*. But more importantly, Disney gains the rights to two of the most powerful villains in the Marvel universe, Dr. Doom and Galactus, threats that will require a team of *Avengers* to assemble.

Disney has been quietly planning its own streaming strategy for years. The company went into action in 2017 when it acquired a 75% controlling stake in BAMTech, the interactive media and Internet company of Major League Baseball. Disney is using BAMTech to launch two new direct-to-consumer content-distribution services. The first, called ESPN+, has already successfully launched for \$5 a month. It provides access to 10,000 live international, national, and regional games every year as well as exclusive sports-focused TV shows. The yet to be named second service launches next year and could be a game changer, as Disney plans on pulling most of its content from Netflix and launching its own extensive entertainment streaming package. This product will feature the company’s vast library of movies and TV shows as well as exclusive new content such as series based on *Star Wars*, Pixar’s *Monsters Inc.*, *Marvel*, and *High School Musical*. Pricing is initially expected to be substantially below Netflix in order to encourage rapid signups. The new platform will become even more compelling once Disney adds 21<sup>st</sup> Century Fox’s content to the mix.



With the Fox acquisition Disney will also double its current 30% stake in Hulu, the world's number two streaming service with over 20 million U.S. subscribers. Hulu was originally formed as a content contributing partnership between Disney, Fox, Comcast and Time Warner. The service began as a place to watch TV shows, but has been busy adding original programming like *The Handmaids Tale* to increase subscriptions. With a majority ownership of Hulu, Disney will soon be able to control and shape the popular enterprise.

Disney should have little trouble ramping up its new streaming services considering its unparalleled customer engagement. Disney's popular attractions such as its theme parks, resorts, and cruises help draw in massive global audiences. In 2017 alone, Disney attractions, which include seven of the ten most visited theme parks on the planet, saw attendance levels reach over 150 million guests. When you consider all of Disney's interactions with people on a daily basis, it's easy to imagine ways to convert them into paying subscribers for their new on-demand platforms.

Disney/Fox would be expected to spend over \$15 billion annually on its video-streaming push. This amount dwarfs rivals, including Netflix, which currently spends around \$8 billion a year on new and original content. Disney/Fox's spending would not only strengthen the streaming platform's offerings, but should also help them rapidly increase market share. Furthermore, Disney/Fox can actually afford that level of spending from its own cash flow alone. Netflix, conversely, consistently sees billions in negative cash flow and is thus forced to regularly tap the junk bond market to pay for its prolific spending.

Astonishingly, despite Disney's strong cash flow, countless properties, great franchises, and beloved content built up over nearly a century, Netflix actually has a slightly higher market capitalization (\$181 billion vs. Disney's \$160 billion) as of this writing (Netflix subsequently dropping 10% on a disappointing Q2 earnings report). This reflects investors' willingness to pay 147 times each dollar of Netflix's earnings vs. just 15.2 for Disney. In other words, relative to each company's profits, Netflix's valuation is currently ten times Disney's. This seems like a risky bet considering that Netflix may soon have an inferior product once Disney's major streaming services launch.

Disney's acquisition of Fox is less about a short-term boost to profit margins or earnings than a strategic plan to dominate the future of entertainment. At \$108, we feel the stock has a lot to offer investors and that the House of Mouse is about to Roar.

## Electronic Communication

E-mail and text messages have become commonplace communication tools today, and are simple and efficient. However, there is a risk. With a voice call to another party, you know the message was received, while electronic communications occasionally fail for varied reasons and feedback is lacking.

When a member of our team is out of the office we make every effort to enter an automatic reply which will alert correspondents that an e-mail message may not receive attention for some time. In the last couple of years, a growing number of clients communicate with portfolio managers with a text message, and it is important to emphasize that these are easily missed and there is no way for the *sender* to know if the intended recipient ever saw the message. Further, because of regulatory

and privacy concerns, business related electronic communication is strictly limited to e-mail or fax. No services can be provided based on text message communication.

Bottom line: if your message is important and you don't receive feedback confirming that your message was received, *please call our office to be sure that we are able to provide the service that you need.*

## **Hurricane Season – *It's That Time of Year Again!***

It's said that we have two seasons in Florida, *Tourist Season* and *Hurricane Season*. The latter is upon us. After twelve quiet years, we were forced to close the office in advance of Hurricane Matthew in 2016 and again in preparation for arrival of Hurricane Irma in 2017. Each time, our physical office was prepared to minimize the impact of water intrusion, while our IT folks packed up our computer gear and headed for a secure location clear of the storm path. Telephone service was routed to our secretary's cell phone, with my Montana office as backup. State Street Bank was alerted to initiate contingency processing for client needs. Within 24 hours our portfolio management system was up and running at the remote site.

As it turned out, Vero Beach dodged the worst of Matthew and Irma, and our office sustained no damage. Still, these drills reaffirmed the strength of our disaster planning. Rest assured – good systems are in place to serve you if the need should arise.

You can read our Disaster Recovery Policy on our web site [www.pa-services.com](http://www.pa-services.com). Please follow the "contact us" tab; you will find a link to the policy on the bottom left area of that page. In the event that primary communications are affected by a storm, we will make every effort to post updates and any important information on our web site. If you have any questions about our contingency planning, don't hesitate to call.

## **Disclosure**

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