International Review of Business Research Papers
Vol. 15. No. 1. March 2019 Issue. Pp.1-17

A Recessionary U.S. Economy Will be a Surprise: Declining the Rate of Growth of Profits and Other Indicators in 2018 Predicts a Slow Growth in the US Economy in the Coming Months

Bob Namvar*

Recession is a built-in feature of the market economy; it is unavoidable but controllable. Almost all of the recent recessions have had the same chain of causes from the demand and supply sides and profit has been the first leading indicator to signal a sluggish U.S. economy. The recent economic slow growth began in the third and fourth quarters of 2015 but it did not start suddenly. It was a result of cumulating tensions built up in the expansion after the recession of 2007-2009. All economic indicators show that American economy will continue to experience a moderate growth but no recession is in making for the next several months.

Keywords: Recession, Economic Forecasting, Economic Indicators

1. Introduction

All leaders in corporations and in businesses need to have a vision for the future of their businesses. They should be able to foresee the future in regards to their businesses. Knowing that the performance of almost all businesses are proportionally related to the performance of the economy and the future of the state of the economy. A good and scientific economic forecast will help the business leaders to form and build their vision about the future of their businesses. This paper presents a scientific method of forecasting the future state of the US economy and can be applied to other economies.

Through the third and fourth quarters of 2015, almost all of the key economic variables have shown that the U.S. economy started with a sluggish growth. The GDP grew at an annual rate of 3.2% in the first quarter followed by a good second quarter of 2015, compared with -1.2% growth during the first quarter of the last year and 4% growth in the second quarter of 2014 and 5% in the third quarter. The average annual growth rate decreased from 2.67% in 2013 to an annual growth of 2.54% in 2014 and to 2.9% in 2015, slightly decreased to 1.85% in 2016, and increased to 2.6% in 2017 and almost the same rate in 2018. This magnitude of growth for the size of the American economy indicates a moderate growth is in the making in the rest of 2018 and possibly in 2019. The unemployment rate decreased from a monthly average of 7.36% in 2013 to 6.15% in 2014, to 5.28% in 2015, 4.8% in 2016, 4.3% in 2017, and 3.8 in 2018– a good sign of

*Dr. Bob Namvar, Professor of Economics, Dr. Robert K. Jabs School of Business, California Baptist University, 8432 Magnolia Ave, Riverside, CA 92504, Phone: (951) 343-4314, Email: bnamvar@calbaptist.edu

a relative moderate economic growth. However, some economists have questioned the reliability of the last two years data on unemployment claiming that the rates do not reflect unemployed people who have given up looking for job and they are not actively searching for employment. Housing start, a good economic indicator, rose by 9.2% from November 2014 to November of 2015 and rose 5.36 % in 2015, rose 8.69% in 2016, and jumped 9.7% percent month-over-month to an annualized rate of 1,326 thousand in January of 2018, following a downwardly revised 6.9 percent fall in December and beating market expectations of a 3.4 percent rise. It is the highest rate since October of 2016. New home sales were up 2.67% in 2015, 1.9% in 2016 and 2.35% in 2017. The U.S. Census Bureau announced the new orders for manufactured durable goods picked at 291 billion in July of 2014, continued to drop to 227 billion in December of 2016 and increased to 249.4 in December 2017. Also, the U.S. durable goods order fell 4.8% in November of 2016 after a healthy increase of 4.8% in October of the same year. The average monthly rate of growth of the durable goods order was less than 1 percent during 2017 and in 2018.

The key economic indicators, led by rising costs and lower income figures in the manufacturing sector, signaled a slow growth in the U.S. economy as early as the first quarter of 2014. Many key economic indicators have been fluctuating since the second and third quarters of 2014, and this trend has continued through 2015-2018. Other trends, such as the extent to which rising federal tax revenues outpaced government spending, clearly suggesting an eventual slow growth in the economy through much of 2017.

In the following sections of this paper, literature reviews of the recent economic forecast researches are presented. The methodology of this research is explained in the next section. Hypothesis and the testing are discussed followed by the summary and conclusion.

2. Literature Review

Economic forecast has been done by researcher, economists, journalist, politicians, and government and private agencies.

The Conference Board Economic Forecast for the US Economy indicates that at the third quarter of 2018 it is a high growth environment but slowing growth ahead. The Consumer Confidence Index remains at the highest level since 2000 but the CEO confidence Index declined in the third quarter of 2018. However, economic growth encounter more headwinds in 2019 especially with the Federal Reserve set to raise interest rates three or four times by the end of 2019. One notable concern in the following year is the US auto industry which must not only contend with continued steel tariffs, but stepped up requirements on worker compensation and use of components from outside the NAFTA zone. The real GDP growth is predicted by the conference board at 3.1% in 2019.

The congressional Budget Office (CBO) published an economic outlook for 2018-2028.

According to this projection, real gross domestic product grows 3.1 percent in 2018 and declined to 2.4 percent in 2019 and slow down even more in the years after 2019 until 2028. The 2018 growth is 0.6 percent higher than 2017 largely because of increases in government spending, reduction in taxes, and faster growth in private investment. In 2019, GDP growth slows down due to growth slowdown in business investment and government purchases. According to CBO, from 2023 to 2028, real GDP will grow by about 1.7 percent each year.

The May 2018 forecast by the Organization for Economic Co-operation & Development (OECD) indicates that the economic growth is strengthening to about 3 percent mainly because of substantial fiscal boost. Employment growth couple with higher asset prices and strong consumer confidence generate strong income and consumption growth. Also, tax reform and financial conditions have strengthened the business investment and labor market got tightened. According to OECD, inflation will pick up in the rest of 2018 and 2019.

William Strauss and Thomas Haasl of the Federal Reserve Bank of Chicago predicted that economy will grow at a pace slightly above the average in the rest of 2018. With inflation moving up a little and the unemployment rate remaining low. In the 31st annual Economic Outlook Symposium (EOS) in December of 2017, more than 100 economists and analysts from business, academia, and government attended. The general agreement in this symposium was the rate of growth of real GDP since the great Recession in 2007-2009 has been quite restrained. Inflation, as measured by the CPI is predicted to be around 2% in the rest of 2018.In this symposium, Dian Swonk, the CEO and founder, DS Economics explained that despite the longest economic expansion, there has been unevenness in the distribution of income gains and employment among various demographic groups. Therefore, according to her analysis, many segments of the population are being left economically behind.

In its forecast for 2012-2022, the US Bureau of Economic Analysis predicted that consumption spending grows at an annual rate of 2.6 percent, gross private investment grows at annual rate of 4.7 percent, exports growth 5.4 percent, import at 3.9 Percent, government spending at 0 percent and personal income grows at 4.6 percent and no prediction of any recession for the same period. According to this report, the economy will face slower GDP growth to become the “new normal”.

Daniel Bachman and Rumki Majumdar express their concern that the new tariffs caused companies to begin rebuilding their supply chains. They believe that there is a higher possibility of recession, but it is still unlikely. According to them, the economic growth of 2019 will be slower reflecting two major changes. The impact of the US tariffs imposed in 2018 and the impact of US trade partners’ retaliatory measures. This raise the probability of recession to 25 percent in 2019 and in 2020 because of shocks such as financial crises and uncertainty created by the new trade policy. Using the Oxford Global Economic Model. They forecast the growth of consumption spending will decline from 2.7 percent in 2018 to 1.3 percent in 2023 and housing starts, as a reliable economic indicator, to decline from 1.2 percent in 2018 to -1.1 in 2023. The same report forecast the rate of growth of real GDP to decrease to 0.1 percent and -.04 percent in 2021, an indication of a possible mild recession.

Bill Conerly reports that the economic condition of the rest of 2018 and early 2019 will be moderately positive. However, according to him, the Wall Street Journal the risk of recession is 14 percent in coming months due to geopolitical instability. For instance a war with North Korea would trash the economy in short order. Also, Russia messing with its neighbors enough to provoke a NATO response which can raise the probability of recession. However, he believes that none the potential causes of a downturn seem very strong but a number of small probabilities does add up to a bigger probability of something going wrong.

Chairman Jerome Powell believes that in addition to a strong labor market in 2018, steady income gains, rising household wealth, and elevated consumer confidence, improvement in investment spending, fiscal stimulus and continued accommodative financial conditions which support both consumption and investment, and strong global growth are the reasons for the continuation of the US moderate economic growth.

Svosen, T Schmidt introduced a new indicator to forecast consumption spending based on time series provided by Google Trends. This indicator is based on factors driven from the search feature of the Google. This new indicator is assessed in comparison to The University of Michigan Consumer Sentiment Index and the Conference Board Consumer Confidence Index. According to this research, this new indicator outperforms the other economic indicators used in economic forecasting.

Zhao-Guo Chen and Ka Ho Wu focused on the Benchmark Forecasting. Benchmark is a process which uses less frequent and more reliable data in forecasting. They concluded that the regression method of benchmarking leads to better result than widely used numerical methods in forecasting.

Christian Proano concludes that forecasting the business cycles of the German economy is superior to other techniques based on the rate of growth of economic activities due to population and technical growth.

Michael P. Clements compared two forecasting techniques, the density forecasting and unconditional density forecast. Survey density forecasts use US Survey of Professional Forecast (SPF). The unconditional forecasts assume that the average level of uncertainty experienced in the past will continue in the future while SPF forecasts are adapted to the current conditions and the outlook in the region. According to this research, the SPF forecasts might be expected to outperform the unconditional densities in short run but not for aggregate economic forecasting cases.

Jorg Dopke, Ulrich Fritsche, and Christian Pierdzioch use a machine-learning approach known as Boosted Regression Trees (BRT) to examine the application of economic indicators in forecasting the economic recession. The use German data to study the feasibility of this approach. They found out that the probability of recession is a nonlinear function of the short-term interest rate as an important economic indicator.

They concluded that the recession probability depends on the interactions between the leading indicators and not on the short-term interest rate. In other words, the predictive of the short-term interest rate has declined over time.

The hypothesis of this research paper is mostly driven from the above-mentioned article and papers. We are testing the hypothesis that the US economy is not going to experience an economic recession from the third quarter of 2018 until the end of the third quarter of 2019.

3. Methodology

The methodology of this paper is different from the above-mentioned research projects. The corporate profit is the main source for the new business investment, creation of jobs and eventually new consumer spending. Consumer and investment spending are the main engine of growth for the US economy. Without reasonable profit, businesses are not going to expand their business spending and will not create new jobs. Without new jobs and additional income, new consumption spending will not be generated and not get multiplied according to the spending multiplier concept. A new methodology is to consider the US economy as a business. If a business does not generate profit, no expansion and no new investment spending will be resulted. If economy does not generate net gain, no growth is generated. If all the growth rates of spending, which can be considered as the receipt for the economy, and the expenses of the economy are analyzed, we can conclude if the economy will have potential net gain and room for growth. If rate of growth of all expenses for businesses is higher than the rate of growth of all receipts in form of spending, the economy does not have room to grow and possibly experience a gradual and consistent slowdown and eventually face recession.

4. Analysis of Findings

Let’s examine the behavior of some of the key economic indicators in recent months. The Conference Board Leading Economic Index is an economic leading indicator intended to forecast future states of an economy. It is calculated by a non-governmental agency called “The Conference Board.” This organization determines the value of the index from the values of ten key economic variables. These variables have historically turned downward before a recession and upward before an expansion. The single index value composed from ten variables has generally proved capable of predicting recessions over the past 50 years. The Conference Board’s composite index of ten leading indicators for the U.S. has been increasing since 2010 and through the first quarter of 2018. This indicates that the US economy will not experience a recession in the rest of 2018 and a part of 2019. The Consumer Confidence Index (CCI) has been increasing from October of 2016, throughout 2017 and 2018.

During 2014 and 2015, the world economy, particularly some European and the Chinese economies, experienced economic slowdown for an extended period of time. In 2015, the major stock markets in several large countries went through a volatile period of up and down indicating a dominant uncertainty in those countries. Logically, as global economy experiences slow down, the American economy will follow a sluggish growth with a time lag in the coming months. This is because of the strong interdependence of the U.S. economy and the global economy. However, the world economy has experienced a relatively good growth since 2016.

The total personal saving can be considered as a good indication of consumer expectation and certainty. Despite a very low interest rate on personal saving, during 2017 personal saving increased by a monthly average of 3.9%. This may be a good indication of increasing uncertainty among the U.S. consumers which may lead to a low economic growth in the following months.

The Business Confidence Index (BCI) is based on enterprise’s assessment, orders and stocks, as well its current position and expectations for the immediate future fell in 2009 to 96, peaked at 101 in 2011 but started to drop in the following years resulting with 99.8 in the third quarter of 2015, increased to 101 in August of 2017 and averaged 101.1 through the first seven months of 2018 indicating a consistent moderate growth in the rest of 2018 and part of 2019. Almost all of the above-mentioned indicators portrayed a moderate economic growth for the US economy in the past tow years and in months ahead.

Americans spend more than their income. According to the Federal Reserve's data, during 2017 the average American household carried $137,063 in debt. Yet the U.S. Census Bureau reports that the median household income was just $59,039 and the average household income was $78,378 in 2017, suggesting that many Americans are living beyond their means. Aggregate household debt balances increased in 2018, for the fifteenth consecutive quarter, and are now $526 billion higher than the previous 2008 peak of $12.68 trillion. As of March 31, 2018, total household indebtedness was $13.21 trillion, a $63 billion (0.5 percent) increase from the fourth quarter of 2017. Overall household debt is now 18.5 percent above the 2013 trough. Consumer debt has been increasing since 1995 and predicted to raise to $4 billion trillion by the end of 2018.

Total credit outstanding percentage of personal income started to rise from about 17% in 2005 to 27% of personal income in 2018. Since 2015, for the first time in U.S. history, there has been more money invested in the stock market than in saving accounts. Also, for the first time since the inception of the program, 401(k) saving accounts has reached to all-time peak at $93,300 billion showing an average yearly growth of 6.4% for the last five years. This may be a good indication of a trend of saving more and leading to a slowdown in consumer spending. The rate of growth of consumption spending grew by 1.8% during the first quarter of 2016, increased to 1.9% in 2017, and decreased to 1% during the first quarter of 2018, the slow rate comparing to the previous years after the recession of 2007-2009. The Chain Store Guide consumer report predicts a cool start to retail and restaurant spending in January 2018 which can be an indication of a slow growth in the months ahead. Despite the fact that the Labor Department reports a continuous drop in the claims for unemployment since 2009 and the unemployment rate dropping to a record low of 3.9% in 2018 as well as inflation fluctuating around 2% during the last three years, consumer spending index indicates a slow growth for the last two years. According to the report by the Federal Reserve Bank at Saint Louis the capacity utilization index continued to increase from 67.5% in 2009 to 79% in November of 2014 but has started to drop since the first quarter of 2015 and ended up at 78% in May of 2018. This may be considered as a sign of production slowdown in the future months in 2018.

Strong corporate profits usually help growth in the US economy, but the recent corporate profit data show contraction**.** Profits from current production (corporate profits with inventory valuation adjustment and capital consumption adjustment) decreased $12.4 billion in the first quarter of 2018, compared with a decrease of $1.1 billion in the fourth quarter of 2017.

The US companies posted their largest annual decline in third-quarter profits in 2015 since the recession of 2007-2009. As the US dollar gets stronger in terms of other currencies, the global demand for American products and services have been hindering corporations' ability to drive margins like before. A slowdown in U.S. corporate profitability, a return of stock market volatility in the U.S. due to potential trade war between the US and other countries and because of uncertainty about the new administration on fiscal policies, healthcare or regulatory policy and rising geopolitical risks are the main concerns of the investors for 2018. Also, the decline in corporate profit is because the investors are now facing a new sense of uncertainty due to ongoing tensions in the Middle East, international future trading, possibility of terrorist attacks in Europe and in the U.S., and volatility in stock markets in the U.S. and in the world. This can be considered as a signal of the continuation of slow growth in the coming months.

Comparing the annual real GDP growth of 2.9% in 2015, 1.5% in 2016, 2.3% in 2017, and 2.4% in the first two quarters of 2018 show a good indication of slowdown in the US economy during the last 4 years. Also, a slow growth in consumer demand during the last three years will induce a slow growth in the labor market in the future. Also, even with cost cutting measures, companies have continued to report lower profits in 2018 — often below their adjusted projections. This may to lead to stock market volatility. The gross private domestic investment has kept increasing from 2010 until the first two quarters of 2018. Also, the rate of growth of technology spending on equipment and software was slow during 2017 and the first two quarters of 2018.

The recent increases in the interest rate by the Federal Reserve, and the potential stimulus of the tax cuts, the possible U.S. trade war with the trade partners inducing an imbalance in the trade and the ongoing tension in Europe and in the Middle East will continue to impact the growth of the U.S. economy in the coming months. The trade imbalance has increased in the past three years to almost 3% of the GDP and the increasing strength of the U.S. dollar, in terms of other currencies, will slow down the U.S. export in the future coming months. Comparing the annual rate of growth of the U.S. export for the last three years, it increased 13.9% while the imports grew 15.5% during the same period indicating a continuous increase of the rate of trade deficit for the US. From mid-2017 until August of 2018, trade deficit has increased for goods and services. Total exports of goods and services are reported at 211.2 billion while total imports are reported at 257.4 billion at the end of April 2018 for a total deficit of 46.2

billion. In addition, the Baltic Dry Index which is a measure of cargo shipping rate experienced a sharp decline since January of 2018.

The Morgan Stanley Business Conditions Index is an economic barometer which is based on an internal monthly canvass of the industry analysts in North America Equity Research and shows the proprietary Business conditions of the US economy increased from 51 at the end of 2017 to 55 in February of 2018 showing a slow growth. Also, analyst estimate that profits of Standard and Poor's 500 companies in the first two quarters of 2018 has not change significantly since 2017.

The Purchasing Managers Index is one of the main economic indicators that Federal Reserve Chairperson and the Board of Governors examine closely to gauge the U.S. economy's health. An index above 50 is an indication of economic expansion and an index below 50 is a sign of possible future economic slowdown. Any index below 42.7 is very a good indication of a likely future recession. The index started to fall from 55.5 in the third quarter of 2014 to 48.6 in one year and declined to 48.2 at the end of 2015, a 13.2% decline in 15 months. It increased to 59 in November of 2016 and stayed above 50 until December of 2017. In May of 2018 it increased to 50.80 indicating a moderate growth in the US economy. Comparing this index in 2016 and 2018, this may indicate that a recession is not in the making, but a good sign of the continuation of moderate economic growth in the following months.

All in all, the US economy has been growing slowly during the last thirteen quarters. However, almost all economic indicators show that despite the false public expectation of having recession in United States every decade, there is no recession in the making for the rest of 2018 and the first few beginning months of 2019.

In the following sections, the key economic variables during the most recent economic cycle will be compared with those of the three previous cycles (1991-2007). All data used in this article are in real term, adjusted for seasonality and are in 2009 prices.

4.1 Investment Spending is a Major Economic Indicator

In this article, investment spending is referred to as gross investment. This term excludes residential investment. Residential investment has its own cycle that does not coincide with the cycle of the key economic variables.

The growth of the economy is determined by new investment spending. Investment spending has been used as an indicator to show whether the economy is in recession or expansion. Investment is important for two reasons: first, additional investment creates more demand for capital goods in the form of plant, equipment, and inventories – the new demand means more employment that brings more income and stimulates new spending; second, investment is also the key variable in the business cycle because it is the most variable element of aggregate demand.

To show the magnitude of the fluctuations in investment during the business cycle and its correlation with the slowdown of the economy, we compare it with the fluctuations in consumer spending. For example, in the long expansion of 1990’s, investment spending rose 254% while consumption spending rose 41.6% and in the recent expansion after the recession of 2007-2009, investment spending rose almost three to four times more than consumption spending. In the contraction phase of the three business cycles of 1991-2009, on average, consumption spending dropped only by 0.6% while investment spending plunged 11% per each cycle. During the last two years of 2016-2018, consumption spending rose an annual average of 2.78% while investment spending rose an average annual rate of 5.2%.

In short, although investment is the most variable component of total spending, it is the means of growth of the economy. When it rises, the economy expands; when it falls, an economic contraction results and when it slows down the economy experiences a sluggish growth.

4.2 What Determines Investment?

Investment spending is determined by available funds – including profit as well as the expectation of profit. Economists have focused on different factors affecting business expectations and, therefore, expectation of profit. However, most economists believe that profits are the only business of business. Businesses invest in anticipation of making a profit. When actual profits decline, expectations for profit decline and the funds for investment decline. There is a time lag between the expectation in profits and new investment because of the time lag in information, planning, the purchase of large equipment, and the construction of new plants.

Based on the seven expansions from 1970 to 2018, total profits led investment by one or two quarters. The total profit, through its impact on available funds, has had significant impact on investment. The higher the profit, the more progressive investment spending will be. All data and corresponding research indicate that total profits and profit rates do influence investment spending and a positive correlation exists between these two variables. In the average of the three economic expansions of 1970-1973, 1975-1980, and 1980-1991, corporate pre-tax profits rose 32%. Investors were optimistic, their funds rose along with a 47% increase in their investment. In the long expansion of 1990’s, profits rose 88.7% and investment increased by 254%. Investment rose more than profits because of the excessive optimism and speculation of investors. In the average of the three recent expansions of 1992-2000, 2002-2007, and 2010-2018 corporate profit rose 57.5% while investment increased by 58.9%, an almost one to one correlation. In the last seven expansions of 1970-2018, profits first rose very rapidly in the early expansion, then the rate slowed in mid-expansion and eventually slowed down declined toward the end of the expansion period. We can conclude that the pattern of changes in profits and investment was the same in all of these economic expansions. Also, the rate of growth of investment spending has been higher than the rate of growth of profit.

4.3 What Determines Profit?

Economists have tried to pinpoint the most important factors affecting profits and, consequently, investment spending. Profits are defined as the difference between business revenues and the costs of doing business. Revenues come from four sources of spending. It includes consumer spending on goods and services, investment spending by businesses, government spending, and foreigners spending for U.S. exports. Business costs include all employee compensation (wages, salaries, and benefits), interest payments, costs of raw materials, and taxes. To understand profits further, the behavior of the components of business revenue and cost are examined in the following sections.

4.4 When Did the U.S. Economy Start to Slow Down?

Table 1 portrays a window picture of the present economic situation in terms of percentage change in the key economic variables from 2015 to 2018(Q2). The table presents the percentage change of the U.S. GDP, gross domestic spending, the components of gross domestic spending, rate of growth of imports, exports, government spending, national income, and profit before tax for 2015-2018(Q2). The data for 2015 is in annual growth rate and it will be used as a benchmark for the corresponding data in 2016, 2017, and 2018.

As shown in Table 1, the annual average growth rate of 2.45% for the 2015-2017 GDP, indicates a slow growth for the last 12 quarters. However, despite a moderate growth of 3.1% and 3.2% in the second and the third quarters of 2017, the first quarter growth of 2018 declined to 2.2%. During the same time period, the growth of gross domestic spending was higher than the GDP growth for the following reason. The rate of growth of consumption spending has been higher than the GDP growth due to the fact that consumers like to keep the same lifestyle even though their income growth has slowed down. This means that consumption spending is usually adjusted with a time lag. Also, the rate of growth of government spending was about 1% in the last three 3 years.

Table 1: An Overview of the U.S. Economy Key Variables, 2015-2018
Figures are in percentage at seasonally adjusted annual rate,
2015 (annual), quarterly data for 2016, 2017 and 2018

	2015	2016				2017	2017	2017	2017	2018	2018
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
GDP	2.9	0.6	2.2	2.8	1.8	1.2	3.1	3.2	2.9	2.2	4.2
Consumption spending	3.0	1.8	3.8	2.8	2.9	1.9	3.3	2.2	4.0	1.0	3.5
Nonresidential investment	2.4	-4.0	3.3	3.4	0.2	3.5	4.3	4.6	6.3	6.8	-0.5
Residential investment	10.2	13.4	-4.7	-4.5	7.1	11.1	-7.3	-4.7	12.8	-2.0	1.4
Exports	-1.8	-2.6	2.8	6.4	-3.8	7.3	3.5	2.1	7.0	4.2	9.3
Imports	2.9	-0.2	0.4	2.7	8.1	4.3	1.5	-0.7	14.1	2.8	-0.6
Government expenditures	1.6	1.8	-0.9	0.5	0.2	-0.6	-0.2	0.7	3.0	1.1	2.5
National Income	2.2	-0.6	0.9	1.5	0.2	1.0	0.7	1.3	0.7	1.1	4
Profit	-8.8	2.9	-2.2	5.3	2.6	-1.8	1.0	4.2	0	0.71	2.9

Source: Bureau of Economic Analysis, Department of Commerce

Let's examine the growth rate of the components of gross domestic spending. The rate of growth of consumption spending, which has the highest share in total spending (about 70%), was healthy in 2015, 2016, and 2017 up until the first two quarters of 2018. It rose slower in the first quarters of 2017 and 2018. One of the main reasons for the consumption spending slowdown has been the fluctuations in the stock market in the recent months and the potential future trade war between Europe and United States. Increasing the rate of growth of personal saving in the U.S. has indicated that consumer uncertainty has intensified and possibly consumer spending may slow down more in the coming months. This is a good indication of slow growth for the U.S. economy in the following remaining months of 2018. Middle East crises and the terrorist potential attacks in different parts of the world are two other reasons for the slowdown in the consumer spending in coming months. Also, the uncertainty in the oil market for several months has resulted in layoffs in this industry and its horizontal and vertical industries as well.

Investment spending was strong in 2017 followed by very good quarters in 2018. However, residential investment started to slow down significantly in the second and third quarters of 2016 and 2017. The negative growth of -7.3 and -4.7% reported for the second and third quarters of 2017 were the lowest growth since the recession of 2007-2009. The corresponding data on residential investment verifies that this variable tends to have its own cycle and its fluctuation does not coincide with that of other economic indicators. For example, residential growth changed from negative growth in the second and third quarters of both 2016 and 2017 to positive growth in the last 4 quarters of both years.

4.5 Exports and Imports

In terms of exports, economic theories indicate that U.S. exports depend strongly on the economic condition of the rest of the world and the strength of the dollar. The weakness in the economies of other countries motivated the world's investors to invest in the US in search of higher returns, buying dollars has made dollar stronger every year since 2013 until recent months in 2018. The data on exports reinforces the pro-cycle behavior of exports and its positive correlation with the performance of the U.S. economy. As shown in Table 1, exports grew more than an average quarter of 5% in 2017, declined to 4.7% in 2018. The potential future trade war between Europe, Canada and the US is an indication of a potential slowdown in American exports to other countries during the rest of 2018 and possibly in 2019. Exports declined the fourth quarter of 2016 but started to grew during 2017 and 2018. A comparison of the trends of the rates of growth of exports, the U.S. GDP, and national income shows that these variables have been moving in the same direction in 2016, 2017 and 2018, which is an indication of a close correlation. We can conclude that the economic condition of the rest of the world has been closely related to the performance of the U.S. economy. Any slowdown in the U.S. economy will be reflected globally and eventually reduce foreign demand for U.S. products. Considering this correlation and examining recent trends in key domestic and international economic variables indicates that the recession of 2007-2009 of the U.S. economy led to a global recession.

The rate of growth of both imports and national income show the same trends during the last thirteen quarters – confirming the economic theory that imports are a function of national income. National income growth started to slow down in the first quarter of 2016 and has continued this trend in subsequent quarters. The same movement has been reported for imports. Thus, the rate of growth of imports has coincided with the rate of growth of national income despite the fact that the dollar has been stronger than before. Knowing that the U.S. economy has had the highest share in the world GDP, the highest per capita income, and the highest level of exports and imports for decades, it reinforces the conclusion that the recession of the U.S. economy has reflected in the economy of the rest of the world and has led to global recession. The reverse correlation may be quite possible. A slowdown in the economies of other countries will impact the global demand for American product and slowdown the US economy.

4.6 Cost of Doing Business

Table 2 shows the rate of growth of some key cost variables from 2015 to 2018 (Q2). The data for 2015 can be used as a benchmark to compare with the corresponding data in 2016, 2017 and 2018. The rate of change of the major cost variables (taxes, Federal Funds rate, price of raw material, and employee compensation for 2015-2018(Q2)) are presented in the table. In terms of the components of the cost category, changes in the interest payment cost on the loans are reflected by the changes in the Federal Funds Rate. Data on the FFR reflect several minor interest rate increases implemented by the Federal Reserve. Also, as shown in Table 2, the slow growth of tax collection and the relative slow growth rate of employee compensation compared with rate of growth of national income for the last thirteen quarters could be considered as signs of the U.S. economic slowdown in the rest of 2018.

As the economy started to slow in the first quarter of 2016, the rate of growth of profits dropped, investment spending slowed down, and manufacturers slowed down their production. As a result of the slowdown in production, the growth rates of tax collections and employee compensation (in the form of wage and salary raises and benefits) declined in 2016. Corporate profit and investment started to grow during 2017 and 2018 indicating that manufacturing and production started to grow as well.

According to Table 2, the producer price index shows negative growth in 2015 indicating a large surplus in the raw materials market due to contraction in the manufacturing sector of the economy. The newly created surplus in the raw materials market is the main reason for the deflation of non-labor inputs. Growth in productivity may have had an impact too.

Table 2: Cost Economic Indicators in the U.S. Economy, 2015-2018(Q1)
Figures are in percentage at seasonally adjusted annual rate,
2015 (annual), quarterly data for 2016, 2017, and 2018 (first quarter).

	2015	2016				2017	2017	2017	2017	2018	2018
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Taxes	6.9	-4.5	1.7	1.7	-0.9	0.9	0.8	1.2	0.0	-6.7	0.95
Federal Funds Rate	118	50	5.5	5.5	35	46	31.7	11.5	0.0	31	13.7
Producer Price Index	-2.6	-1.7	0.9	0.0	-1.8	0.9	1.8	0.9	-1.8	0.0	2.4
Employee Compensation	2.5	-3.6	2.1	0.6	-7.1	2.0	0.4	1.5	-0.8	-0.1	1.08
Capacity Utilization	-3.9	-2.1	-0.5	0.5	-0.5	1.1	0.9	-0.8	1.9	0.65	0.65

Source: Bureau of Economic Analysis, Department of Commerce

In short, most of the key spending and cost variables indicate that the U.S. economy started a moderate growth in 2015 and continued at low rate throughout 2016, 2017 and the first quarter of 2018. The present economic situation did not start suddenly. The slowdown may continue due to other factors such as the potential trade war and the recent slowdown in the economies of several European countries and China – China being the second largest economy in the world. However, there is no solid evidence that a recession is in making in the following several months. The main questions are how we got to this situation and what were the main contributing factors. The following section is an attempt to answer these questions.

4.7 An Analysis of the Most Recent Expansion

How did the U.S. economy get to this point? To answer this question, we need to examine the behavior of the main economic variables and analyze the trends of these key indicators during the expansion of the 2010-2018(Q2).

Total profit is defined as the difference between total revenue and total cost. In the following parts, the behavior of the components of total spending and total cost will be examined for the 2010-2018 (Q2) expansion. Then, we can conclude how the economy got to the present economic slow growth. Table 3 summarizes the percentage changes in revenue and cost categories for this expansion.

4.8 Revenue and Spending

During the 2010-2018(Q2) expansion, consumption spending rose 22.2% while national income rose 30.4%. This means that the share of consumption in national income decreased by 8.2%. Since consumption spending is the largest component of aggregate spending, a reduction of 8.2% in consumption spending was a multibillion-dollar slowdown in the U.S. economy. In addition, over time, this reduction will become worse through the reverse spending multiplier effect and will cause the economy to continue to experience a slow growth. However, this expansion after the recession was different from other expansions with respect to consumer demand. First, this expansion followed a great recession of 2007-2009 and was marked by a sharp rise in the stock market. Given that about half of U.S. households own stock in some form, the “wealth effect” was one of the main reasons motivating consumers to spend more money in the early phase of the expansion. Second, consumers with low income, especially, were forced deeper into debt to maintain their existing lifestyles. Therefore, the amount of debt by consumers per dollar of income rose rapidly. At the end of 2015, the “reverse wealth effect” generated by the weakening stock market, led to a slowdown in spending in 2016. The “reverse wealth effect” of 2015-2016 was almost compensated by the performance of stock market in 2017 and the first two quarters of 2018, Therefore, there is no sign of recession is in the making in the near future in the US economy.

Table 3: Percentage growth in revenue and cost in the U.S. Economy
From the first quarter of 2010 to the first quarter of 2018.
Figures are seasonally adjusted.

Category	**Revenues**	**% Growth** 2010Q1-2018(Q2)
GDP		19.9
Consumption expenditures		22.6
Nonresidential investment		68.9
Exports		33
Imports		27.9
Government expenditures		-6
	Costs	
Taxes		56.4
Federal Funds Rate		1253
Producer Price Index		9.89
Employee Comp as National Income		0.9
National Income		32.2

Sources: http://www.stls.frb.org/fred/data/gdp/nicur,
http://www.stls.frb.org/fred/data/irates/mprime, http://www.stls.frb.org/data/business/compmfb.

As shown in Table 3, investment spending grew at the rate of 68.9% in terms of gross investment from the first quarter of 2010 to the first two quarters of 2018. There were two main reasons for this: first, the rate of growth for profit was 22.1% during this period, which was a good growth rates in the U.S. economy; second, investment increased far beyond profit growth due to a unique speculative environment fueled by confidence in emerging information technologies and the performance of stock market. Another contributing factor was the optimism of some experts who thought the 2010-2018 expansion has been strong and consequently, investors and consumers have been optimistic.

As shown in Table 3, in the expansion of the 2010-2018, government spending declined by 6% while taxes rose 56.4% even though tax rates did not increase. This indicates that government revenues rose faster than expenditures and, therefore, the government deficit declined. This slowed down the potential demand for consumer goods and services as well as plants and equipment.

On the supply side, the cost of doing business includes interest payments, wages and other compensation, and the cost of raw materials raised. In the 2010-2018 expansion, the Federal Funds Rate rates rose 1253%, showing a change from 0.11% to 1.51%. The higher interest payments increased costs of production and cut into profits. Higher interest rates also increased the costs of consumer debt. Also, the Fed officials forecasted that the Federal Funds Rate will continue increase by the end of 2018 and possibly in 2019 indicating that the interest costs of doing business will be much higher in the coming months.

During the same period, as shown in Table 3, the Producer Price index rose 9.89%. The rising cost of raw materials may have been a problem for profits, depending on the behavior of final prices. During this expansion, tax collections increased 56.4% while employee compensation increased only by 0.9%. A comparison of these rates indicates why the demand side of the economy will slow down in the coming months. On the supply side, costs rose more rapidly than national income at the end of the 2010-2018 expansion which will not let the profits and investment go up, and economic slow growth will continue in the following months. In this expansion, exports rose 33% while imports increased by 27.9%. However, the trade deficit for 2016 was 503 billion which increased to 552 billion in 2017 and continued to rise in 2018. From January to April of 2018 the trade deficit was 202 billion indicating an annual potential deficit of about 600 billion at the end of the current year. More money has leaked out of the economy than was injected into it. In addition to a potential trade war, this deterred business activity and limited demand for domestic products.

5. Conclusion

The hypothesis of this paper is not rejected indicating that the US economy continues to experience a moderate growth but not recession in the rest of 2018 and the first three quarters of 2019.

Despite many changes in the new economy such as technological advancement, communication enhancement, and the globalization of businesses, the same sequence of events similar to the previous business cycles led to a reduction in profits and investment and a slowdown in the U.S. economy in 2015 but the trend changed in the last two years and in the first two quarters of 2018. Other contributing factors such as the trade imbalance, the strength of the U.S. dollar, and the recent stock markets volatilities in some other economies have slowed down the U.S. economic growth. Also, due to the close interrelation and interaction between the U.S. economy and the rest of the world, any sluggish growth in the European and Chinese economies have led a slow growth in the American economy. The recent slowdown began in the last quarter of 2015, but signs were apparent throughout the economic expansion of the 2016-2018 that American economy has experienced a moderate growth since 2015. Despite this fact, during this period, rising tax revenues outpaced government spending causing the government to have less and less positive impact on aggregate demand and revenues. A growing trade deficit has been an economic concern for American administration. This may lead to more potential constrain on the demand for American products. Therefore, the main reasons for the future moderate growth of American economy are related to the trends limiting revenues from domestic consumers, from net exports, and from the U.S. government. On the supply side, rising interest rates, higher raw materials prices, and taxes will continue to cut into profits. Moderate corporate profits will lead to slow growth in investment and, eventually, will lead to an economic moderate growth in the coming months of 2018 and possibly in 2019. In conclusion, despite the slow growth in American economy, most economic indicators do not reflect any indication that a recession is in the making.

Profit has been the most important leading economic indicator. It was the first indicator to signal an impending slowdown in the last six business cycles going back to 1980. Analysis of the behavior of the cost and revenue components of profit can provide decision makers with an even earlier warning of an impending slowdown. In anticipating future business cycles, we clearly have much to learn from the past.

References

An Update to the Economic Outlook: 2018-2028, Congressional Budget Office, August 13, 2018

Bureau of Labor Statistics, Monthly Labor Review (mlr), the US economy to 2022: Setting into a New Normal, November 2018.

Chairman Jerme H. Powel , The outlook of The US Economy, Presentation at the Economic Club of Chicago, Illinois, April 6, 2018.

Chapman, Daniel, US Economic Picture Unchanged in Second Quarter of 2018, Federal Reserve Bank of Dallas, June 2018.

Chen, Zho-Guo and Wu, Ka Ho, Benchmark Forecast & Error Modeling, Journal of Forecasting, September 18, 2016.

Clements, Michael P., Are Macroeconomic Density Forecasts Informative? International Journal of Forecasting, Volume 34, Issue 2, April-June 2018, Pages 181-198.

Conerly, Bill, What Could Go Wrong with Economic Forecast in 208? June 3, 2018.

Dopk, Jorg, Fritsch, Ulrich, & Pierdzioch, Christian, International Journal of Forecasting, Volume 33, issue 4, October-December 2017, Pages 745-759.

Strauss, William and Haasl, Federal Reserve of Chicago, Chicago Fed Letter, No 391, US Bureau of Statistics, 2018.

Svosen, T. Schmidt, Journal of Forecasting, January 13, 2011.

The Conference Board Economic Forecast for the US Economy, October 12, 2018.

United States- Economic Forecast Summary, OE CD, May 2018.

US Economic Forecast Q3 2018, Deloitte Insight, 2018.

US Economic Outlook for 2018 and beyond, the Balance, No 6, 2018.