# A sluggish U.S. economy is no surprise: Declining the rate of growth of profits and other indicators in the last three quarters of 2015 predicted a slowdown in the US economy in the coming months 

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## Keywords

Recession, US Economy, Economic indicators, Investment spending


#### Abstract

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 US economy. The recent economic slowdown began in the third quarter 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.


## Introduction

Through the first quarter of 2015, almost all of the key economic variables have shown that the U.S. economy started the year with a sluggish growth. The GDP grew at an annual rate of $0.6 \%$ in the first quarter followed by a good second quarter of 2015 , compared with $-0.9 \%$ growth during the first quarter of the last year and $4.6 \%$ growth in the second quarter of 2014. The average annual growth rate increased from $2.45 \%$ in 2013 to an annual growth of 2.54 in 2014. This magnitude of growth for the size of the American economy indicates a sluggish growth is in making. The unemployment rate decreased from a monthly average of $7.36 \%$ in 2013 to $6.15 \%$ in 2014 and to $5.28 \%$ in 2015 - a good sign of a relative good economic growth. Housing, a good economic indicator, rose by $9.2 \%$ from November 2014 to November of 2015 and new home sales were up $9 \%$ while retail sales increased by $15 \%$ during the same time period. The U.S. Census Bureau announced the new orders for manufactured durable goods in November of 2015 increased $\$ 0.1$ billion or virtually unchanged to $\$ 238.8$ billion. This increase, up two consecutive months, followed a $2.9 \%$ October increase.

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 the first three quarters of 2015. 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 2016.

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. increased $0.4 \%$ in

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November of 2015 to $124.6(2010=100)$, following a 0.6 percent increase in October, and no change in September of the same year. This indicates that the US economy will not experience a recession in 2016. The data on the Composite Leading Indicator (CLI) contradicts with the Conference Index. This indicator increased to 100.47 in the first quarter of 2014, peaked in July of 2014 at 100.74, but continued to drop to 99.2 in November of 2015. The Consumer Confidence Index (CCI) dropped to 99.44 in the first quarter of 2014 peaked in January 2015 to 101.11, but started to drop in the following months to 100.5 in November of 2015.

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.

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 the last three years personal saving increased by $23.6 \%$ while it decreased by $2.6 \%$ from 2010 to the first quarter of 2013. This may be a good indication of increasing uncertainty among the U.S. consumers which will lead to a sluggish economic growth in the following months.

The Business Confidence Index (BCI) 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. Almost all of the above mentioned indicators predict a sluggish economic growth for the U.S. economy in 2016.

Aggregate consumer debt balances started to rise in the first quarter of 2013. It increased in the third quarter of 2015 to the highest level of $\$ 12.07$ trillion since then, a $\$ 212$ billion increase from the second quarter of 2015 . However, overall consumer debt remains $5 \%$ below its 2008 peak of $\$ 12.68$ trillion and consumer debt as percentage of disposable income peaked at $13.1 \%$ in the third quarter of 2007 , but continued to drop since then to $10 \%$ in the third quarter of 2015. Total credit card debt continues to increase from $\$ 841$ billion in 2010 to $\$ 925$ in the third quarter of 2015 showing an average yearly increase of $2 \%$. Given that about half of the U.S. households own stock in some form, the recent stock market's turbulent course through the trading day may have created a "reverse wealth effect." As people see their stock portfolios or 401(k) funds fluctuate in value, they realize that they are not as wealthy as they had felt just a few months before. At the end of the second quarter of 2015, for the first time in U.S. history, there was more money invested in the stock market than in saving accounts. Also, for the first time since the inception of the program, $401(\mathrm{k})$ saving accounts has reached to all-time peak at $\$ 91,300$ billion showing an average yearly growth of $6.3 \%$ 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 spending index increased by 1.8 points at the end of 2015 but it still sits below the current twelve month average index of 105.5. The Chain Store Guide consumer report predicts a cool start to retail and restaurant spending in January 2016 which can be an indication of a sluggish growth in the months ahead. Also, aggregate personal spending grew at a rate of $1.8 \%$ during 2015, the slow rate comparing to the previous years after the recession of 2007-2009.

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 $5 \%$ since 2006 as well as inflation fluctuating around $2 \%$ during the last three years, consumer spending index indicates a sluggish 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 $77 \%$ in November of 2015 . This may be considered as a sign of production slowdown in the future months in 2016.

Strong corporate profits usually help growth in the US economy, but the recent corporate profit data show contraction. 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 open elections 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 2016. Profits before tax from current production (corporate profits with inventory valuation adjustment and capital consumption adjustment) decreased by $\$ 67.7$ billion in the third quarter of 2015, in contrast to an increase of $\$ 141$ billion in the second quarter of 2015. Also, this decline in corporate profit is because the investors are now facing a new sense of uncertainty due to ongoing tensions in the Middle East, 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 sluggish growth in 2016.

Comparing the annual GDP growth of 2.45 in 2013 and 2.51 in 2014 with the growth rate of $2 \%$ in 2015 (Q1-Q3) shows a good indication of slowdown in 2016 and a slowdown in consumer demand which will induce layoffs in the future. Also, even with cost cutting measures, companies have continued to report lower profits in 2015 - often below their adjusted projections. This will continue to lead to stock market volatility. The rate of growth of gross private domestic investment dropped to the lowest rate of $-0.7 \%$ since 2013 (except for the first quarter of 2014). Also, the rate of growth of technology spending on equipment and software was down during the second and third quarters of 2015.

The recent increase in the interest rate by the Federal Reserve, and the potential stimulus of the tax cuts, the U.S. trade imbalance 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 $2 \%$ 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 2016. Comparing the annual rate of growth of the U.S. export for the last three years, it dropped from an annual growth of $5.25 \%$ in 2013 to $2.6 \%$ in 2014 and to almost $0 \%$ in the first three quarters of 2015. At the end of the third quarter 2015, exports increased only by $0.7 \%$ annually while import grew at $2.3 \%$. In addition, the Baltic Dry Index which is a measure of cargo shipping rate experienced a sharp decline recently.

At the end of 2015, the Morgan Stanley Business Conditions Index which shows the proprietary Business conditions fell to its lowest level since February 2009. Also, analyst estimate that profits of Standard and Poor's 500 companies in the last quarter of 2015 had their biggest drop from a year ago since 2009.

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. This may indicate
that a recession is not in the making, but a good sign of sluggish economic growth in the following months.

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.

## 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 recent expansion of 2010-2015, consumption spending rose an annual average of $2.36 \%$ while investment spending rose an average annual rate of $7.2 \%$.

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.

## 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 2015, 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 pretax 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 20102015 corporate profit rose $57.8 \%$ while investment increased by $58.6 \%$, a good one to one correlation. In the last seven expansions of 1970-2015, profits first rose very rapidly in the early expansion, then the rate slowed in mid-expansion and eventually 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.

## 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.

## 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 2013 to 2015(Q3). 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 2013-2015(Q3). The data for 2013 is in annual growth rate and it will be used as a benchmark for the corresponding data in 2014 and 2015.

As shown in Table 1, the annual growth rate of $2.45 \%$ for the 2013 GDP indicates a moderate growth for the year. However, despite strong growth of $4.6 \%$ in the second and the third quarters of 2014, the fourth quarter growth declined to $2.1 \%$ and the first quarter of 2015 declined to $0.6 \%$. 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 $2 \%$ in the last three quarters of 2015.

Table 1. An overview of the U.S. economy key variables, 2013-2015
Figures are in percentage at seasonally adjusted annual rate,
2013 (annual), quarterly data for 2014 and 2015 (first three quarters).

|  | 2014 |  |  |  | 2015 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2013 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Gross Domestic Product | 2.45 | -0.9 | 4.6 | 4.3 | 0.2 | 0.6 | 3.9 | 2.0 |
| Consumption spending | 3.5 | 2.9 | 5.9 | 4.6 | 3.7 | -0.2 | 3.6 | 3.0 |
| Nonresidential investment 4.3 | 8.3 | 4.4 | 9.0 | 0.7 | 1.6 | 4.1 | 2.6 |  |
| Residential investment | 3.75 | -2.8 | 10.4 | 3.4 | 10.0 | 10.1 | 9.3 | 8.2 |
| Exports | 7.5 | -6.7 | 9.8 | 1.8 | 5.4 | -6.0 | 5.1 | 0.7 |
| Imports | 2.43 | 4.7 | 9.9 | -0.8 | 9.9 | 7.1 | 3.0 | 2.3 |


| Government expenditures | -2.850 .0 | 1.2 | 1.8 | -1.4 | -0.1 | 2.6 | 1.8 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| National Income | 2.8 | 1.39 | 7.37 | 7.34 | 2.67 | -0.6 | 4.8 | 3.17 |
| Profit | 2.8 | -8.0 | 7.0 | 3.0 | -2.0 | -5.0 | 6.2 | -2.8 |

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 2013 and 2014 up until the first quarter of 2015. It rose slower in the first quarters of 2014 and 2015. One of the main reasons for the consumption spending slowdown has been the performance of the stock market in the recent months and its "reverse wealth effect" on spending. The slowdown will be intensified due to the performance of stock markets in some European countries and China. 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 sluggish growth for the U.S. economy in the following remaining months of 2016. 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 collapsing 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 2013 followed by two very good quarters in 2014. However, investment started to slow down significantly in the last quarter of 2014 and declined in the two quarters of 2015 and end up with a negative growth of $-0.7 \%$ in the third quarter of 2015. The negative growth of -2.5 and $-0.7 \%$ reported for the first quarter of 2014 and the third quarter of 2015 quarter respectively were the lowest growth since the recession of 2007-2009. As mentioned earlier, the data on investment excludes the residential investment category. 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 fourth quarter of 2013 and first quarter of 2014 to positive growth in the last 3 quarters of 2014 and first three quarters of 2015.

## 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. 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 $7.5 \%$ in 2013 , declined to $2.6 \%$ in 2014, and dropped to an average growth rate of $.06 \%$ in 2015. This is an indication of a slowdown in American exports to other countries during the last two years. They declined from the first quarter of 2014 and continued to plunge throughout 2015. 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 2014 and 2015, 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 seven 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 2015, 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.

## Cost of Doing Business

Table 2 shows the rate of growth of some key cost variables from 2013 to 2015 (Q3). The data for 2013 can be used as a benchmark to compare with the corresponding data in 2014 and 2015. The rate of change of the major cost variables (taxes, Federal Funds rate, price of raw material, and employee compensation for 2013-2015) is 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 seven quarters could be considered signs of the U.S. economic slowdown in 2016.

As the economy started to slow in the third quarter of 2015, the rate of growth of profits will drop, investment spending will slow down, and manufacturers will slow down their production and lay off more employees. 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) will decline.

According to Table 2, the producer price index shows negative growth in the first three quarters of 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, 2013-2015
Figures are in percentage at seasonally adjusted annual rate, 2013 (annual), quarterly data for 2014 and 2015 (first three quarters).

|  | 2013 | 2014 |  | 2015 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Q1 | Q2 | Q3 | Q4 | Q1 Q2 | Q3 |
| Taxes | 6 | -0.5 | 1.5 | 1 | 0.4 | 1.32 | 0.8 |
| Federal Funds Rate | -43.7 | -22.2 | 22.2 | 0 | 11 | 1018.2 | 0 |
| Producer price index | 1.13 | -2.6 | -4 | 8.7 | 6 | -4 -10. | 2.15 |
| Employee Compensa | 2.7 | 1.54 | 0.8 | 1.3 | 1.46 | 0.71 .35 | 1.3 |
| Capacity Utilization | 0.65 | 0.65 | 0.9 | 0.4 | 0.65 | -0.5-1 | -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 to slow down in the second part of 2015 and will continue to decline throughout 2016. The present economic situation did not start suddenly. The slowdown has been intensified due to other factors such as the recent slowdown in the economies of several European countries and China - China being the second largest economy in the world. The main questions are how did we get to this situation and what were the main contributing factors. The following section is an attempt to answer these questions.

## 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 2010-2014.

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 2010-2014 expansion. Then, we can conclude how the economy got to the present economic slowdown. Table 3 summarizes the percentage changes in revenue and cost categories for this expansion.

## Revenue and Spending

During the 2010-2014 expansion, consumption spending rose $14 \%$ while national income rose $18.3 \%$. This means that the share of consumption in national income decreased by $4.3 \%$. Since consumption spending is the largest component of aggregate spending, a reduction of $4.3 \%$ in consumption spending was a multi-billion 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 slow down. However, this expansion 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, will lead to a slowdown in spending in the coming months.

## Table 3. Percentage growth in revenue and cost in the U.S. Economy

From the first quarter of 2010 to the fourth quarter of 2014.
Figures are seasonally adjusted.

| Category $\quad$ Revenues | \% Growth 2010Q1-2014Q4 |
| :--- | :--- |
|  |  |
| GDP | 16 |
| Consumption expenditures | 14 |
| Nonresidential investment | 49 |
| Exports | 7.3 |
| Imports | 23.7 |
| Government expenditures | 2.3 |


| Costs |  |
| :--- | :---: |
| Taxes | 26 |
| Federal Funds Rate | 118 |
| Producer Price Index | 11.35 |
| Employee Comp as \% of GDP | -0.5 |
| National Income | 18.3 |

Sources: http://www.stls.frb.org/fred/data/gdp/nicur, http://www.stls.frb. org/freed/data/irates/mprime, http://www.stls.frb.org/data/business/compmfb.
As shown in Table 3, investment spending grew at the rate of $49 \%$ in terms of gross investment from the first quarter of 2010 to the fourth quarter of 2014. There were two main reasons for this: first, the rate of growth for profit was 20.1 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. Another contributing factor was the optimism of some experts who thought that the 2010-2015 expansion has been strong and consequently, investors and consumers have been optimistic.

As shown in Table 3, in the expansion of the 2010-2015, government spending rose by only 2.3 while taxes rose $26 \%$ even though tax rates did not increase. This indicates that government revenues rose faster than expenditures and, therefore, the 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. In the 2010-2014 expansion, the Federal Funds Rate rates rose $118 \%$, showing a change from 0.1 to $0.24 \%$. 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 increase to 1.5 percent by the end of 2016 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 11.35\%. 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 $26 \%$ while employee compensation decreased by -0.5 . 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 2010-2014 expansion which will contribute to lower profits, lower investment, and economic slowdown beginning in the first quarter of 2016. In this expansion, exports rose $7.3 \%$ while imports increased by $23.7 \%$ resulting in a trade deficit of $\$ 105$ billion. More money leaked out of the economy than was injected into it. This deterred business activity and limited demand for domestic products.

## Conclusion

Although the market economy is the most efficient and productive system in the world, it generates the business cycle as a negative side effect. The economic fluctuation is a built-in feature of this system. This is unavoidable, but it is controllable to some extent. During the last several decades, almost all of the business cycles have had the same chain of causes from the demand and supply sides in expansion and contraction phases.

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. 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 will lead to a slowdown in the American economy.

The recent slowdown began in the last quarter of 2015, but warning signs were apparent throughout the economic expansion of the 2010-2014. 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 high trade deficit intensified the contraction and constrained the demand for American products. Therefore, there were 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 cut into profits. Lower profits will lower investment and, eventually, to the economic slowdown of 2016.

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.

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