



U.S. Forecast

August 2015



**Institute for Economic Competitiveness
College of Business Administration
University of Central Florida**



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FORECAST FOR THE NATION



Forecast 2015 - 2018

August 2015 Report

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HIGHLIGHTS OF THE 3Q 2015 U.S. FORECAST

In this Issue of the U.S. Forecast:

- There is no five-alarm fire that the Federal Reserve must put out, just an economy that continues to smolder. Correspondingly, interest rates will move higher at a gradual pace.
- Is China's economy a pagoda of cards? A plunging stock market, decelerating economy, and increasingly desperate measures by the Chinese government to stop both suggests that the invisible hand may be winning the arm wrestling match with the heavy hand of government intervention.
- What is to blame for this recovery with slow economic growth and weak productivity growth? (Hint: it's not ATMs, but it is related to freeze tag.)
- The Fed Reserve is preparing to enter a tightening cycle of raising interest rates, but the data neither supports a need for an immediate start nor a rapid succession of hikes. We are unlikely to see either as the Fed will take baby steps, as warranted by our tepid recovery.
- Real GDP growth in the 3rd quarter of 2015 will be weighed down by inventory adjustment coming in at a tepid 1.9%. Growth will end up at 2.2% in 2015, 2.6% in 2016, 2.7% in 2017, and 2.5% in 2018 as the Federal Reserve raises interest rates.
- Consumption spending growth should stabilize at a somewhat higher level than the paltry 2.2% average during this recovery. Average growth in real consumer spending from 2015 through 2018 will average 2.8%. The Consumer is the main driver of growth right now; let's hope she has staying power.
- The housing market continues to recover, but at a subdued pace. The housing market should slowly but steadily improve through 2017 when rising rates take their toll and housing starts level off. Housing starts will rise from around 1.0 million in 2014 to 1.47 million in 2018.
- Payroll employment growth remains sluggish. Employer mandates from the Affordable Care Act enforced in 2015 and 2016 will weigh on private sector hiring, especially for full-time jobs. Consequently, payrolls will expand 2.1% in 2015 and 1.4% in 2016 and 2017, before easing to just 1.0% in 2018.
- Unemployment rates (U-3) are expected to fall slightly to 5.3% in the fourth quarter of 2015. Unemployment will stabilize at that level before drifting slightly upward in 2017. Underemployment (U-6) remains a persistent problem and currently stands at 10.4%.



HIGHLIGHTS

The Rules of the Game Matter

Not Only Do They Change the Way the Players Play the Game, They Can Change the Outcome of the Game Itself

In my childhood neighborhood, which my future high school teammates would refer to as “the projects” (it was a low-income housing development), summers were filled with hours of unsupervised play by the large number of children living there. The whole day long we would play without any parents overseeing our activities and did not return home until a parent called out one of our names or, for many, curfew was whenever the streetlights turned on.

No parents were arrested for allowing this autonomous play to take place, even though children as young as five or six were in the mix (however, many of these children themselves ended up in jail). Today that lack of supervision might get you a visit from Children’s Services, a shunning at the school PTA meetings, or at the very least, a healthy dose of shaming on social media.

Without helicopter parents scheduling the activities of our day, we would fill them with games and activities of our own. One staple of those days was freeze tag, a team-focused variation of tag. We would split up into two teams (ock-a-bocka-soda-crocka, ocka bocka boo) and the objective was to touch members of the opposing team, freezing them in place pending a touch by one of their unfrozen teammates, until all the members of the opposing team were frozen and the game won.

These games would always kick off with an orderly start, a few rules, and a well-defined playing field. The “field” would be designated as a stretch of Elmwood Drive (we frequently played in the street and time-outs were called whenever a car or bus was spotted coming down the street) between two telephone poles and a single home base would be designated as a safe zone that a player could touch and be safe from being frozen while in contact with the base.

As the game progressed, however, that orderly start would become a distant memory. In the middle of the game additional home bases would be made. In addition to the red station wagon, the two sewer grates were now home bases. Then the “Watch Children” sign would

be added to the list, then a shrub, a lawn ornament, a driveway. The boundaries of the playing field would expand to include front yards and/or another stretch of the road. Before too long the expansion of the playing field or the addition of a large number of home bases would make playing the game nearly impossible and, inevitably, one or more players would angrily storm off, quitting the game. The teams would become unbalanced and, to account for the disparity between teams, additional rules would be added. Some players would become super players who would require two tags before they were frozen thereby accounting for the discrepancy between the numbers of players on each team. This necessitated additional rules preventing an opposing player from tagging a super-player in rapid succession.

Some players would stay for extended periods on a base, not running for fear of being frozen. This behavior was met with further restrictions limiting the amount of time a player could spend on base.

Keeping track of what served as home bases and how long a player lingered on one, how many tags super players had received, and by whom, and what now defined the boundaries of the playing field became an increasingly onerous process. Disagreements over any of the aforementioned rules led to more defections from the game and more rule changes.

“That bird bath is not a base!”

“Yes, it is!”

“No, it’s not!”

“You’re cheating, I quit!”

Eventually the pace of the game would slow to a crawl and rarely did any team actually win the game. The game itself almost always became a victim of the increasing burden of the all the additional rules.

The rules of the game matter. They affect the way the players play the game, they can change the outcome of the game, and they can spoil the game itself.

The U.S. economy is not freeze tag, but there are rules to this large and complex game as well. Laws and regulations govern all aspects of the U.S. economy and the number, scope, and complexity of these laws and regulations have been on a sharp upward trajectory.

Consider just one law, passed five years ago on July 21, 2010: the Dodd-Frank financial regulatory reform law. The law itself is long and complex at 2,300 pages, but it has triggered a tsunami of additional rule releases that have thus far added 22,296 pages to the Federal Register, which documents federal government regulations and other actions.

Despite being passed five years ago, the Dodd-Frank law has, incredibly, not been fully implemented. Of the 390 rule-making requirements in the law, just 247 have been met with finalized rules. Of the remaining 143 rules to be implemented, 79 are already past their deadlines. If the number of pages of written regulations per rule for the next 143 rules is the same for the first 247, we can expect another 12,900-plus pages to be added to the Federal Register.

That is a total of more than 45,000 pages of rules due to this one regulatory law.

So when will the law be completely implemented? According to the Commissioner of the Securities Exchange Commission (SEC), Dan Gallagher, in a remarkable interview with CNBC regarding rule writing for Dodd-Frank he said, “We’ll be doing this for another five, ten years.”

If the Commissioner is correct, the Dodd-Frank law is so large and so complex that it will have taken 10 to 15 years to implement.

What else did Commissioner Gallagher have to say about Dodd-Frank? Consider this quote from the interview:

“And really, to me, Bob, the burden isn’t necessarily as much as the regulations that came from Dodd-Frank. Some of them are just completely nonsensical. I mean, nothing to do with the financial crisis, aren’t really germane to the function of the SEC and that’s what happens when you get a runaway piece of legislation.”

Ponder this quote for a minute.

Here we had a regulator calling a law that greatly expands regulation (and thus the role of the aforementioned regulator) a “runaway piece of legislation” and saying that some of the regulations are “completely nonsensical”? This is really quite remarkable and telling.

This is the pop “culture” equivalent of a Kardashian telling the media, “The media coverage of my family is runaway reporting and it is completely nonsensical to think that it is newsworthy to report on the adoption of a pet bunny.”

Regulators don’t complain about the amount of regulations and Kardashians don’t complain about media coverage. These things just don’t happen. But in the case of Dodd-Frank, it did happen.

The rules of the game matter, whether the game is freeze tag or the U.S. economy. As the number and complexity of these rules grow, more time and resources are consumed by interpreting and adhering to these rules, with fewer resources allocated towards actually playing the game.

In the case of the U.S. economy, playing the game may be interpreted as the production of goods and services.

There is no doubt that the current economic recovery has been disappointing and is the weakest since the end of the Great Depression. As reflected in this forecast, economic growth will continue to follow this mediocre path. Productivity growth has also been lackluster, but this record extends well beyond the current recovery. Both these phenomena can be explained in large part to a stark increase in regulations governing the U.S. economy, which, according to a research paper published in the *Journal of Economic Growth*, traces back to the 1970s¹.

In this paper, the authors create a time series measure to gauge the extent of federal regulation in the United States and use it to investigate the relationship between federal regulations and the performance of the U.S. economy. The measure the authors use as a proxy for the level of regulation is the number of pages in the Code of Federal Regulation (CFR). We know that every page of regulation does not have an equal impact on

1 Federal Regulation and Aggregate Economic Growth, by John W. Dawson and John J. Seater, *Journal of Economic Growth* (2013) 18:137-177

the economy, but as a proxy for the overall level of the regulatory burden on the economy, it is certainly correlated to that burden.

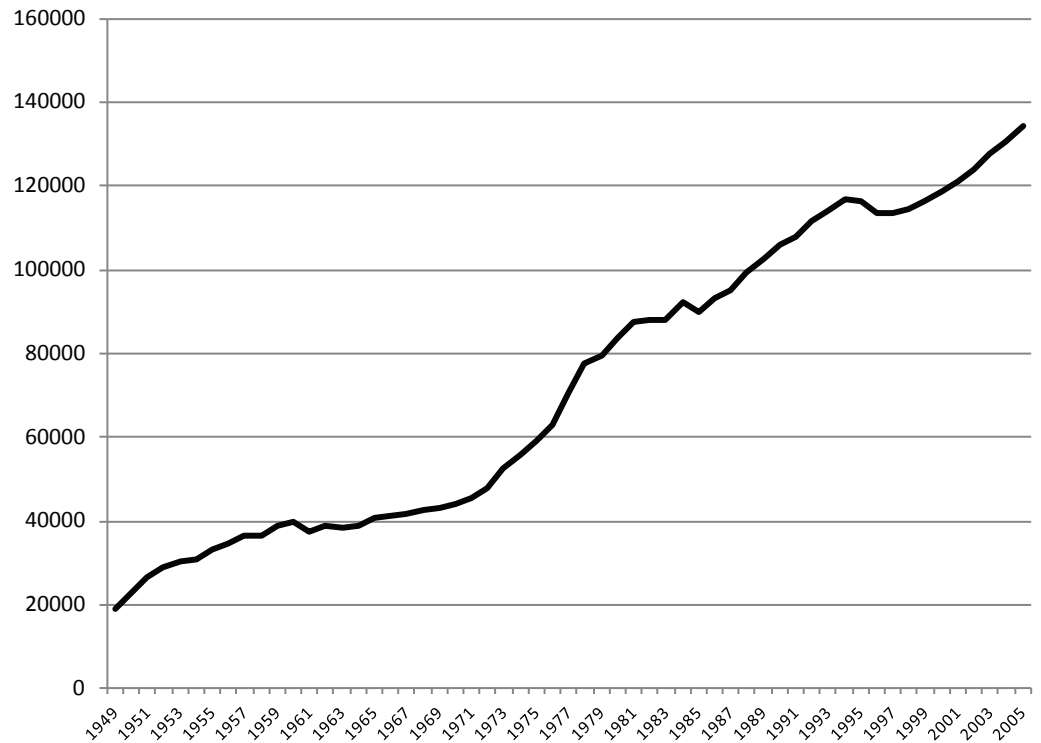
Chart 1 shows the number of pages in the CFR from 1949 through 2005, which is the time period the authors analyzed. As you can see, there was a near seven-fold increase in the number of pages of the code² over this time period. This period does not include the final years of the Bush administration or the first six years of the Obama administration. Given the example of the Dodd-Frank law above, it is clear that the page count has grown substantially over the past ten years, an important consideration given the results of the authors' analysis. As of 2013, the CFR (unadjusted, as comparable to the analysis by Dawson & Seater) hit 175,000 pages. Rest assured that between Dodd-Frank and the Affordable Care Act there has been, and will be, thousands more pages added to that total.

You are welcome to download the paper yourself and examine the authors' work, but if you wish to avoid extreme exposure to mathematical symbols and the Greek alphabet, please let me summarize the findings. Regulation has caused substantial reductions in the growth rate of the U.S. economy and the growth of productivity in the U.S. economy from 1949 to 2005. The sizes of the impacts are staggering.

The authors' results suggest that federal regulations added over the past 50 years have reduced real output growth on average by about two percentage points. That may not seem large at first glance, but the magic of compounding implies that GDP by the end of 2011

² The authors exclude from their page count titles 1-3 covering federal administrative and procedural rules as well as title 32 covering national defense.

Chart 1. Pages in the Code of Federal Regulations Total Pages



Source: Federal Regulation and Aggregate Economic Growth, by John W. Dawson and John J. Seater

was lower by \$38.8 trillion. If regulations had remained at 1949 levels, GDP in 2005 would have been \$53.9 trillion rather than the \$15.1 trillion it turned out to be. The authors also point out that federal regulation is able to explain much of the conundrum of declining productivity in the 1970's, a period during which over 35,000 pages of regulations were foisted upon the economy.

The results of this study are informative for the performance of the U.S. economy over the ten years that have elapsed since the final year of the data analyzed. We find ourselves in a period of slow economic growth coupled with low productivity. Many explanations for the weak growth and low productivity have been floated, including secular stagnation to automated teller machines, but little attention paid to the economic consequences of a regulatory burden that has experienced a near seven-fold increase since 1970 with many more to come.

While people puzzle over the weak recovery and low productivity in an age where technological advances should be leading to just the opposite, we should look in the mirror and see the enemy – it is us – and the plethora of regulations we have self-inflicted over the past 45 years³.

Technology does indeed make us more productive, even if the data obscures this fact, but when it comes to navigating the burden of federal red tape, there just isn't an app for that.

We have doubled down on regulatory growth during this recovery with massive laws like Dodd-Frank and the Affordable Care Act, so it should come as no surprise that economic growth and productivity have both withered under this burden.

ANXIOUS INDEX

Economists' Anxiety Low and Stable

The most recent release (3rd quarter of 2015) of the Survey of Professional Forecasters by the Federal Reserve Bank of Philadelphia suggests that the 37 forecasters surveyed for the publication are 10.04% worried that a decline in real GDP will occur in the 4th quarter of 2015. This quarter's release reflects a slight easing in forecasters' anxiety, their worries diminished by an upward revision of 1st quarter real GDP growth to 0.6% and 2nd quarter growth of 2.3%.

In one section of the Survey of Professional Forecasters, panelists are asked to estimate the probability that real GDP will decline in the quarter in which the survey is taken, as well as the probabilities of a decline in each of the following four quarters. The anxious index (a term coined by The New York Times reporter David Leonhardt) is the probability of a decline in real GDP in the quarter after a survey is taken. In the survey taken in the 3rd quarter of 2015, the index stands at 10.04, which means that forecasters believe there is a 10.04% chance that real GDP will decline in the 4th quarter of 2015.

3 The authors of the paper do not, nor do I, advocate that we should roll back regulations to 1949 levels. Many regulations are beneficial and improve net social welfare; however, we shouldn't bury our heads in the sand when it comes to acknowledging and weighing the economic costs of any regulation.

The forecasters also report just a 7.48% chance that we are currently (as of the 3rd quarter of 2015) experiencing a contraction in real GDP. According to the panel, the probability that real GDP growth will turn negative is averaging around 12.56% through the end of the 3rd quarter of 2016, which implies the forecasters' assignment of probability for a contraction in real GDP in the upcoming year has decreased since last quarter's survey.

Figure 1 plots the historical values of the anxious index, where the gray bars indicate periods of recession in the U.S. economy. The current level of the anxious index is still below the average level during the economic recovery (13.60), and is nearly 1 point lower than the previous quarter's reading.

GDP OUTLOOK

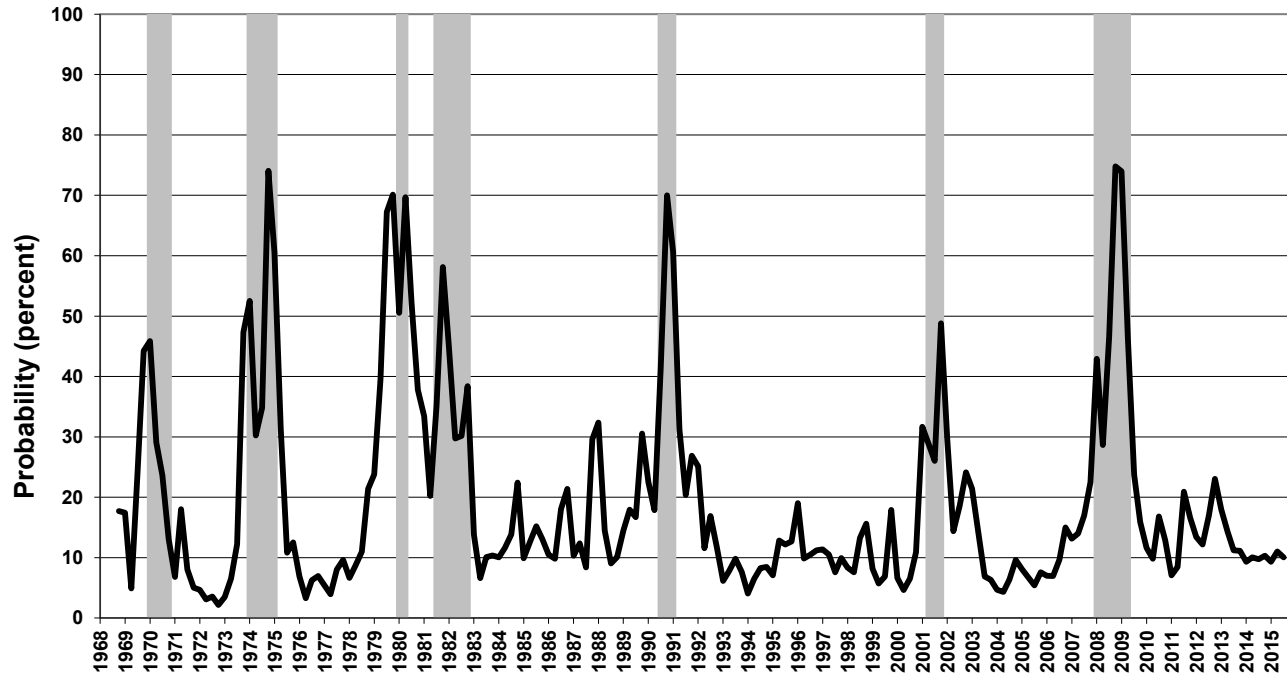
This year was supposed to be the breakout year that many economists and analysts were predicting in 2014, in which growth would finally break out of the doldrums that have defined this economic recovery. But alas, just like the five years preceding it, 2015 is looking to be yet another feather in the cap of economic mediocrity.

The next four quarters of GDP growth will not deliver us from mediocrity as the Lucy recovery slowly plods onward. Growth will be 1.9% in Q3 2015, followed by 2.9% in Q4, 2.8% in Q1 of 2016, and 2.6% in Q2 of 2016. Average quarterly growth from there through the end of the forecast horizon (2018 Q4) will be 2.6%.

In 2015 we are expecting real GDP growth of just 2.2%, then 2.6% in 2016, and holding steady at 2.7% in 2017. As the tightening of monetary policy begins to restrain the economy, GDP growth decelerates to 2.5% in 2018.

While the Fed contemplates when to start hiking interest rates, many predict that the federal funds rate will begin to rise in September or December. The data, however, does not support rising rates. With no sign of inflationary pressure, robust GDP growth, nor a healing labor market to push up wages and salaries, I think the Fed could wait until 2016 before it begins to raise rates without much risk of inflation.

Figure 1.
The Anxious Index
 Probability of Decline in Real GDP in the Following Quarter
 Quarterly, 1968:Q4 to 2015:Q3



Source: Survey of Professional Forecasters, Philadelphia Federal Reserve Bank

The timing of the first interest rate hike is less important than the path that short-term interest rates will follow. Regardless of when the Fed moves, initially it will proceed very slowly with interest rate hikes. Taking small steps as it raises rates will allow the Fed to gauge how the economy is faring and digest additional data as it is released. There is no five-alarm fire that the Fed must put out, just an economy that continues to smolder. We expect the federal funds rate to slowly drift higher beginning in December or January, reaching 3.0% in 2018 and holding there. If another recession were to occur between now and then – a real possibility – the Fed would have to reverse its course and would likely engage in another round of quantitative easing.

THE REST OF THE WORLD IS A DRAG: Is China's Economy a Pagoda of Cards? Greek Crisis Suppressed but Not Solved

The foreign sector, as we discuss below, will be a drag on real GDP growth over the forecast horizon. This is a function of the significant appreciation of the U.S. dollar, supported by higher interest rates as the Fed

begins to tighten, China's deliberate move to weaken the Yuan, and a general weakening in economic growth for many of our trading partners.

After many years of double-digit real GDP growth, China's economy appears to be slowing significantly. Coupled with a stock market that is down more than 32% since June, the Chinese government is taking increasingly desperate measures to shore up both its economy and the stock market.

Some of the moves to prop up the stock market (that have been made public) include: China's Central Bank loaning an undisclosed amount of money and support via interbank lending to a state-owned company that makes margin loans to brokers (China Securities Finance Corporation), relaxing rules on margin financing for stock purchases, and a ban on shareholders with stakes of 5% or more from selling for six months, pointing the finger at "illegal" short sellers with police threatening to arrest any "malicious" sellers. The positive effects of all these moves, and many others, have been fleeting.

The Central bank has also cut interest rates several times, lowered reserve requirements and, just recently, surprised global markets by engineering a depreciation of the Yuan in an attempt to boost GDP growth by making Chinese exports less expensive. This flies in the face of what was supposed to be a move to boost domestic consumption to make China less export-dependent.

This, combined with the rising debt-to-GDP ratio and declining housing prices and sales, raises the question of whether or not the Chinese economy is just one large pagoda of cards that could crumble at any given moment. You just can't instill confidence when the solution to a declining stock market is to threaten short sellers.

When the heavy hand of government controlling an economy is engaged in an arm wrestling match with the invisible hand of free markets, no matter how valiant the effort, eventually the invisible hand will win out.

Greece continues to struggle as it begins to implement another bailout package even more severe than the package rejected by national referendum. The political atmosphere of Greece is currently the greatest obstacle to successfully implementing the agreement with the European Union. August is vacation time in Greece, but come September, expect more bad news from the Euro member most likely to leave the common currency. This drama, having waxed and waned for over five years now, still has no end in sight. Like China, Greece will be back to roil global markets, and it is not a matter of if, but when.

CONSUMER SPENDING

Consumers are the (Relative) Bright Spot in the Outlook

The U.S. consumer is in a pretty good spot right now. The labor market continues to recover, though wage and salary growth remain elusive, housing prices continue to climb, restoring lost home equity, and oil and gasoline prices are in decline again whilst consumer sentiment remains high relative to the doldrums of the recession. As a result, consumer spending growth is expected to accelerate to around 3.0% in 2015 and 2016. This would be the fastest rate of consumer spending growth since 2006.

This increase in consumer spending growth could prove to be ephemeral if increasing chaos in global economies and financial markets persists. Consumers could easily become more skittish in an environment of increasing uncertainty and that 3.0% spending clip would quickly erode, particularly if wage and salary growth do not accelerate. When it comes to sustained momentum in consumer spending growth, wage and salary growth coupled with increasing opportunities in the labor market will be essential to insulating consumer spending from other transitory factors.

Oil and gasoline prices are falling again and they will test the lows we saw earlier in 2015. This is good news for consumers as fewer dollars will have to go in the tank, leaving more in their pocketbooks to spend on other goods and services. Consumer confidence is also boosted when gasoline prices are falling, even when you are not making a purchase, just seeing falling prices on the sign at the filling station can lift sentiment.

Continued improvement in the labor market, further repairs to household balance sheets, and a greater willingness of banks to lend should strengthen the underpinning of consumer spending. These are stronger and longer-lasting supports for consumer spending than a decline in gasoline prices.

Real consumption spending is forecasted to accelerate from the 1st quarter of 2015, lifting growth in that full year to 3.0%, plateauing in 2016 and decelerating through the end of our forecast horizon. Consumption spending growth is expected to fall to 2.7% in 2017, and 2.6% in 2018.

INVESTMENT

In 2013 the pace of real private nonresidential investment grew by just 3.0%. The pace of investment growth picked up in 2014 to 6.2%, but after growing just 1.6% in the 1st quarter and contracting in the 2nd quarter of 2015, growth is again expected to waver in 2015 for the full year, slowing to 3.1%. In 2016, as policy uncertainty begins to fade and a presidential race promises some clarity on the policy path going forward, investment spending growth rises to 5.7% before easing a bit to 4.6% in 2017. In 2018, growth slows further as higher interest rates and a slowdown in overall economic growth pushes investment growth down to 4.1%.

Interest rates will remain historically low for much of the upcoming year before the Federal Reserve begins the process of tightening. The cost of borrowing—either explicit or implicit (opportunity) cost of using retained earnings for investment—cannot explain the lackluster investment spending growth during this recovery as interest rates have lingered at such low levels. As we have argued before, economic policy uncertainty and the doubling down on the regulatory burden that has been growing for decades are the most likely reasons that businesses have been hesitant to invest. No monetary policy can undo the toxic effects they have had on investment.

While interest rates will remain quite low for the remainder of this year, they will rise over the rest of our forecast horizon. Longer run interest rates should begin to rise before the federal funds rate, as the expectation of higher short-term interest rates in the future work their way through the yield curve (expectations of higher short-term rates in the future cause long-term rates to rise today). The fact that longer-term rates have not moved much suggests that markets do not believe, as some do, that an increase in the federal funds rate is imminent. We expect the ten-year Treasury yield to average 2.2% in 2015, 2.7% in 2016, 3.1% in 2017, and 3.5% in 2018.

Business spending on equipment and software will grow at an annual average rate of 4.7% from 2015 through 2018. Investment spending growth in computers and peripherals will enjoy double-digit growth in 2016 as upgrade cycles kick in after contracting in 2013, 2014, and 2015. Spending on communications equipment should expand at an average annual rate of 6.8% during 2015-2018, while industrial equipment purchases average 7.3% growth over the same time frame.

Investment in nonresidential structures experienced a burst of activity in 2012 and expanded at a 13.3% rate. Investment growth plunged year over year and grew by just 1.6% in 2013. The roller coaster ride continues in 2014 and 2015 with growth jumping to 8.2% in 2014 and turning negative again in 2015 to -0.9%. Investment in nonresidential structures will bounce back in 2016, 2017, and 2018 with growth of 4.2%, 3.6%, and 4.3%, respectively.

Investment growth in transportation equipment will decelerate sharply in 2015 to 7.7%, following five years

of double-digit growth that averaged 33.5%. This type of investment will have an average growth rate of just 1.9% during the four-year stretch of 2015 through 2018, with growth at 1.1% in that final year. Investment in this sector is highly volatile due to purchases of high-priced passenger aircraft that result in extreme swings in investment spending growth from quarter to quarter and year to year.

Residential fixed investment growth slipped to 1.8% in 2014 after two years of 11.6% average growth. Growth will average 6.8% through 2015-2018 with a peak growth rate in 2016 of 8.1%. In the final year of our forecast (2018), real residential fixed investment will be dampened quite a bit by both higher mortgage rates (expected to average 5.4% on a 30-year fixed mortgage that year) and a diminished rate of price appreciation. As a result, growth is expected to be just 3.0% in the final year of our forecast. In 2018, real residential fixed investment will be just over \$663 billion.

We expect housing starts to continue to gradually accelerate over the next several years, reaching just below 1.47 million in 2018. Average levels of annual housing starts from 2015-2018 will be 1.3 million, whilst 2018 housing starts are expected to show an increase of 539,000 starts from 2013.

GOVERNMENT SPENDING

The contraction in federal government spending over the past four years will continue to decelerate in 2015. Beyond 2015 and through 2018, federal government spending is expected to remain essentially flat and no longer be the drag on GDP growth that it was from 2011 through this year.

The partial undoing of the 2013 sequester cuts sharply slowed the rate at which government spending was contracting from -5.7% in 2013 to -2.4% in 2014. Beyond 2015, federal government spending growth is expected to continue to hover around zero. During 2015-2018, real federal government spending is expected to contract at an average of 0.1%. Over that same time horizon, state and local governments will oversee spending growth at an average of 1.2%.

Higher revenues from economic growth, new taxes, and a sizeable assist from the Federal Reserve are, along with lower government spending, helping to shrink the size of the annual budget deficit. The Fed is still holding

more than \$2.46 trillion in U.S. Treasury debt and more than \$1.75 trillion in mortgage-backed securities. The Fed turns most of the revenue it earns creating money right back to the U.S. Treasury.

The federal budget deficit will fall in 2015 for the fourth year in a row, down from nearly \$1.3 trillion to under \$450 billion. We are forecasting deficits to tick up in 2016, as faster economic growth cannot compensate for greater spending for entitlements, pushing the deficit to \$535.3 billion. In 2017 the deficit will grow again to \$571.1 billion and will continue to grow in 2018 when it hits \$684 billion. The presidential election in 2016 could be an inflection point, where deficits could accelerate or stabilize. There is little likelihood of a balanced budget in the federal government's near future.

Although we are projecting deficits through 2018 that are relatively smaller than the \$1 trillion-plus deficits that were the norm in 2009-2012, the additional debt added to the national debt over the next four years will be more than \$2.2 trillion, pushing the national debt total to over \$20 trillion.

Currently, the national debt is over \$18.3 trillion and rising. This represents a debt of nearly \$154,491 per taxpayer and over \$57,086 per citizen. Unfunded liabilities of the U.S. are even more frightening. These include Social Security, Medicare parts A, B and D, and Federal debt held by the public federal employee and veteran benefits, representing more than \$97.4 trillion in liabilities, boiling down to more than \$819,902 per taxpayer.

NET EXPORTS

Net exports became a drag on real GDP growth in the U.S. in the 4th quarter of 2014 after contributing to the 4.3% GDP growth in the 3rd quarter of that year. In the 3rd quarter, net exports were a positive contributor to real GDP growth, adding 0.39 percentage points to overall growth. In the 4th quarter of 2014, net exports were a drag on overall GDP growth, subtracting 0.89 percentage points from the growth rate of real GDP. This drag worsened in the 1st quarter of 2015 when net exports subtracted nearly two full percentage points (1.92) from real GDP growth, coming in at only 0.6%.

The net exports boost to GDP growth in the 3rd quarter of 2014 will give way to a persistent drag on GDP growth through the end of 2018. The U.S. dollar

has run a streak of appreciation, surging higher in the second half of 2014 against our trading partners, a run that we are forecasting to last through 2015, augmented by a depreciation of the Yuan engineered by the People's Bank of China.

Over time, a stronger dollar boosts imports and erodes exports by making our goods and services more expensive to foreigners and at the same time making imported goods and services cheaper to U.S. consumers, leading to a worsening of the trade deficit. This will be intensified by relatively stronger growth in U.S. GDP while many of our trading partners are experiencing slower, sometimes much slower, GDP growth. U.S. buyers will thus have income to purchase more foreign goods and services while foreign buyers will have relatively less income to spend on our goods and services.

Overall, export growth continues through the end of our 2018 forecast horizon. Growth will remain fairly constant during the three-year span covering 2016-2018. Real export growth from 2015-2018 will average 3.7% while real import growth will average 4.5% over the same time frame.

Real net exports will average -\$602.1 billion during 2015-2018, with the trade balance worsening in each successive year, following the strong appreciation of the dollar and a weaker global demand for U.S. goods and services.

The four-year period of strengthening of the dollar (2012-2015) is due to the relative strength of the U.S. recovery, the expected upward movement in U.S. interest rates as the Federal Reserve contemplates tightening interest rates in late 2015 or early 2016, and China's surprise depreciation of the Yuan. Meanwhile, the European Central Bank has been forced to take a more aggressive policy stance and has announced the implementation of quantitative easing policies as the Fed did in the U.S. over the past several years. Yet another bailout for Greece has battened the lid down, for now, on further depreciation of the Euro. This could change in the months and years ahead.

The current account deficit will improve slightly until 2016, at which point the appreciation of the dollar that began in 2012 and the depreciation of the Chinese Yuan will begin to manifest themselves in a worsening of the current account deficit in 2016-2018, reaching slightly

more than \$546 billion in 2018. Current account balances will average -\$460.4 billion during 2015-2018.

UNEMPLOYMENT

The national headline unemployment rate (U-3) in July remained steady from the June reading at 5.3%, the lowest level since May 2008. A significant decline of 432,000 in the labor force from the previous month brought the unemployment rate in June down from 5.5% to 5.3%. In July the decrease in the number of unemployed was approximately the same size as the increase in the labor force, which includes people who are working as well as people not working, but actively (in the four weeks prior to the survey) looking for work.

The July jobs report again showed weaker payroll job growth compared to both May and June. The 215,000 jobs added to payrolls in July puts the average growth in monthly payrolls for 2015 at 211,000. The average monthly gains thus far in 2015 are a deceleration from the average monthly gains of 240,000 per month in the first seven months of 2014. For the entire five-year span from 2010 through 2014, average monthly payroll jobs gains have been 182,000.

Given the historic weakness of this recovery, the difficulty of trying to scrutinize often-contradictory data, particularly when it comes to jobs data, the U.S. labor market simply cannot be sufficiently assessed by a single metric, such as the headline unemployment rate (U-3). This is particularly true because, as of July 2015, the labor force participation rate of 62.6% has again fallen, and now is at its lowest point since October 1977. Since the end of the recession the labor force participation rate has declined by 3.1 percentage points. This decline has exaggerated the decline in U-3, putting the labor market in a better light than it may appear when looking only at headline unemployment.

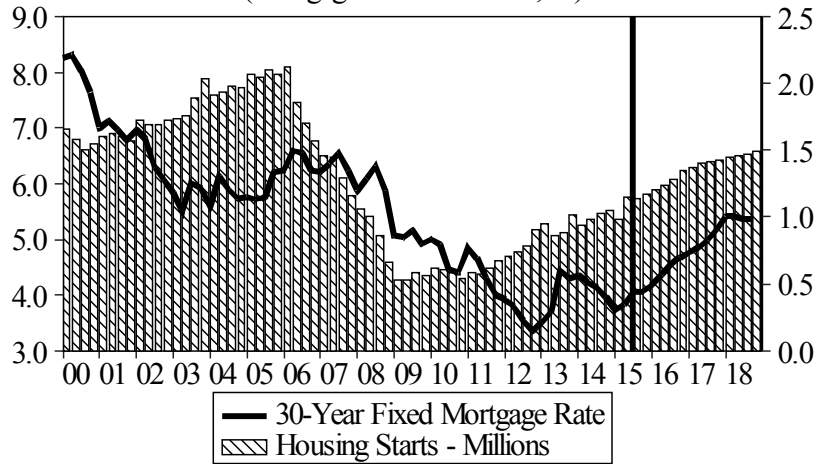
Some of the decline in the overall labor force participation rate is due to retiring Baby Boomers, although these demographics do not fully explain the decline. If we limit ourselves to prime-age workers from 24 to 54, we still see a decline in labor force participation rates. In June this prime-age participation rate was 80.8%, down from 83.3% at the start of the recession. We can thus conclude that there exists a greater slack in the labor market than the headline unemployment rate suggests.

The Bureau of Labor Statistics (BLS) produces alternative measures of labor market weakness, including the broadest measure of unemployment (U-6). U-6 takes into account discouraged workers (currently 669,000 workers) as well as those classified as underemployed (currently 6.3 million workers) — working part-time but not by choice—and workers who are marginally attached to the labor force and have looked for work in the past 12 months but are not currently looking, yet indicate a willingness to work (1.9 million workers).

U-6 remains disturbingly high at 10.4% in July 2015, down 0.9 points from the January 2015 level of 11.3%, and down 6.8 points from its peak of 17.2% in April 2010. U-6 has been in double digits for 86 straight months, more than seven years.

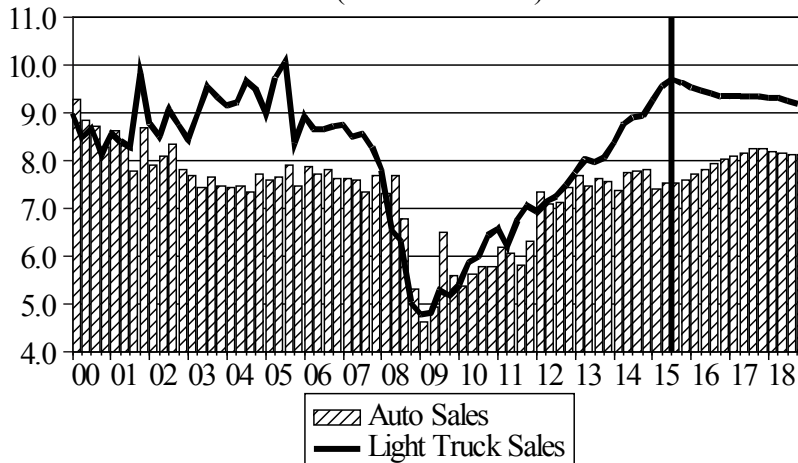
30-Year Mortgage Rates and Housing Starts

(Mortgage rates - Left axis, %)



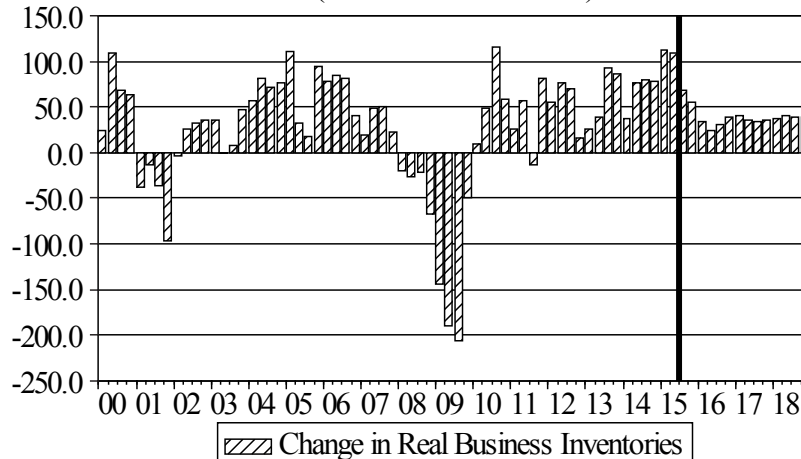
Automobile and Light Truck Sales

(Millions Vehicles)

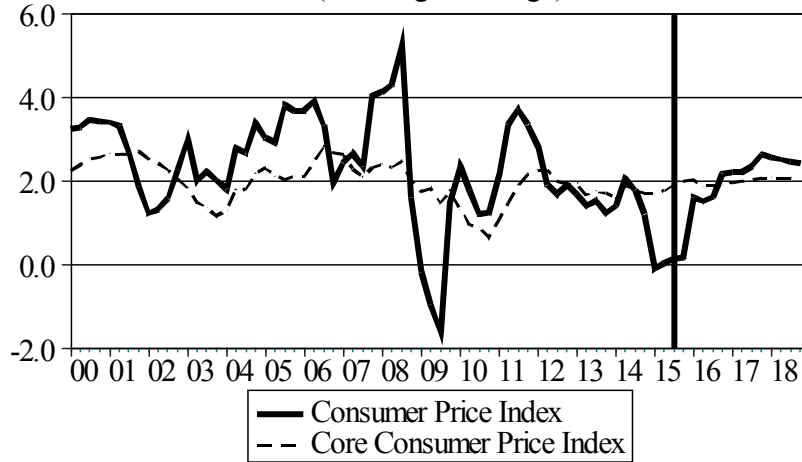


Change in Real Business Inventories

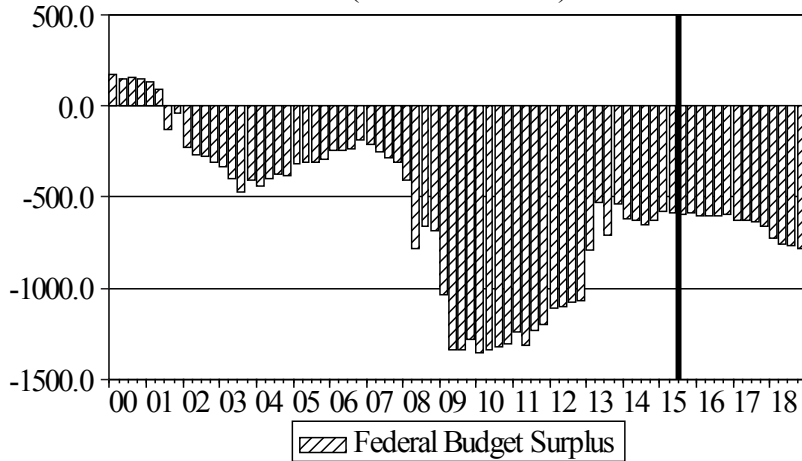
(Billions of 2000 Dollars)



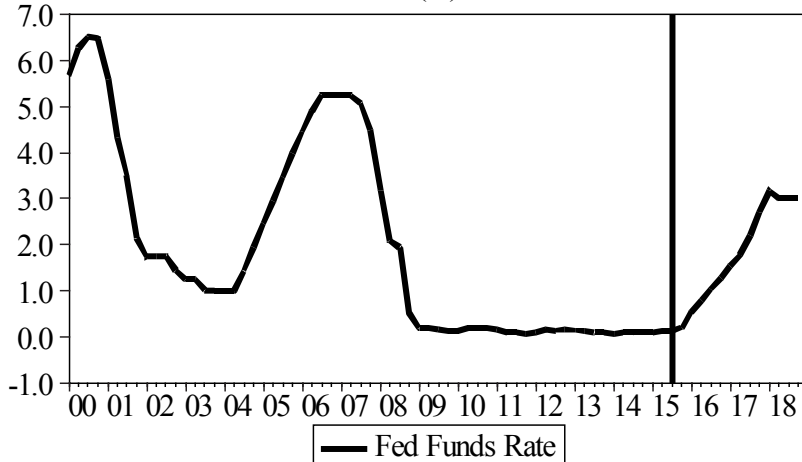
Consumer Prices (% Change Year Ago)



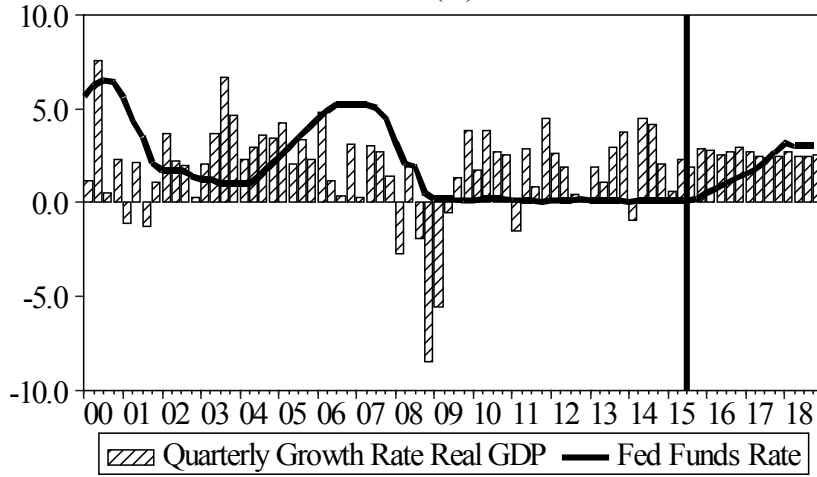
Federal Budget Surplus (Billions of Dollars)



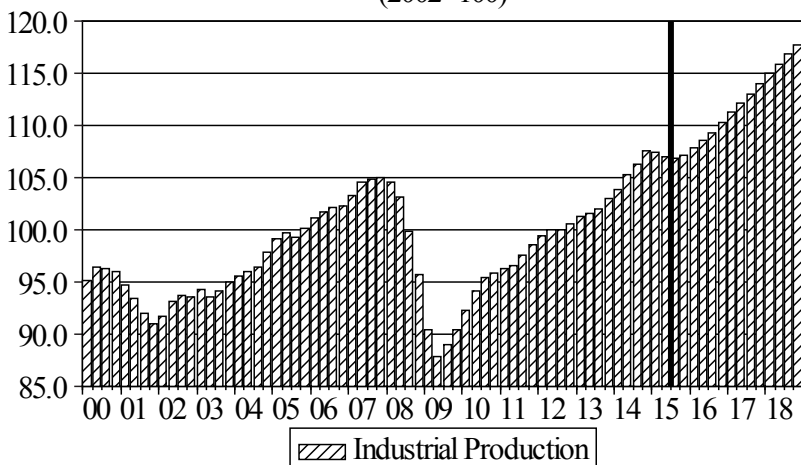
Federal Funds Rate (%)



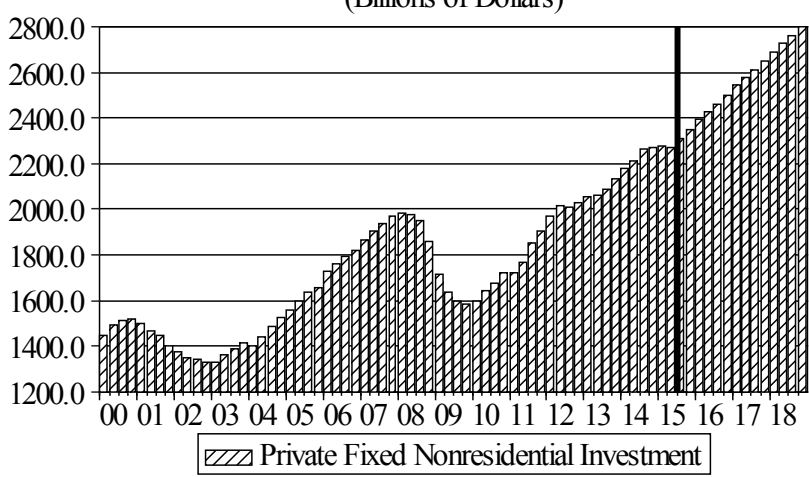
Real GDP Growth and Federal Funds Rate (%)



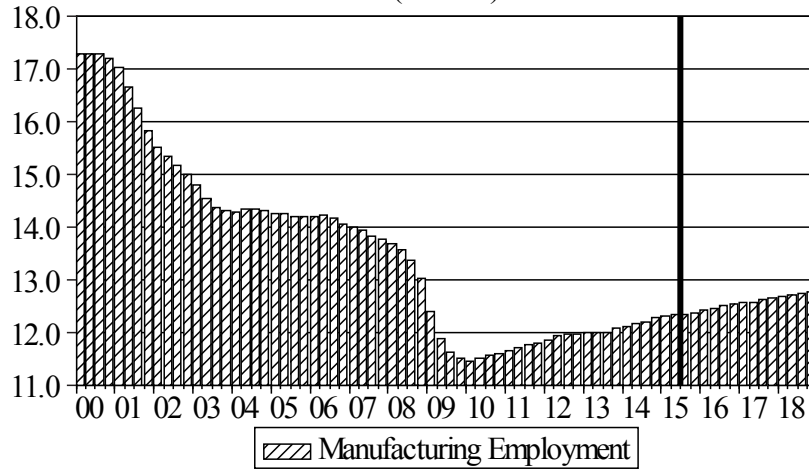
Industrial Production (2002=100)



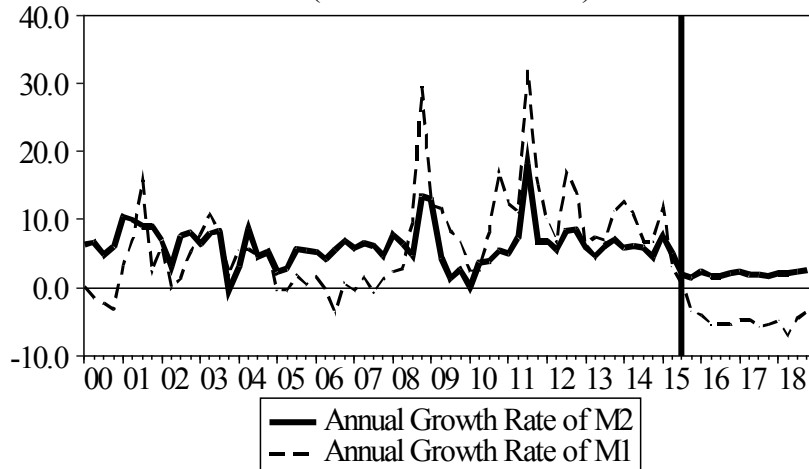
Private Fixed Nonresidential Investment (Billions of Dollars)



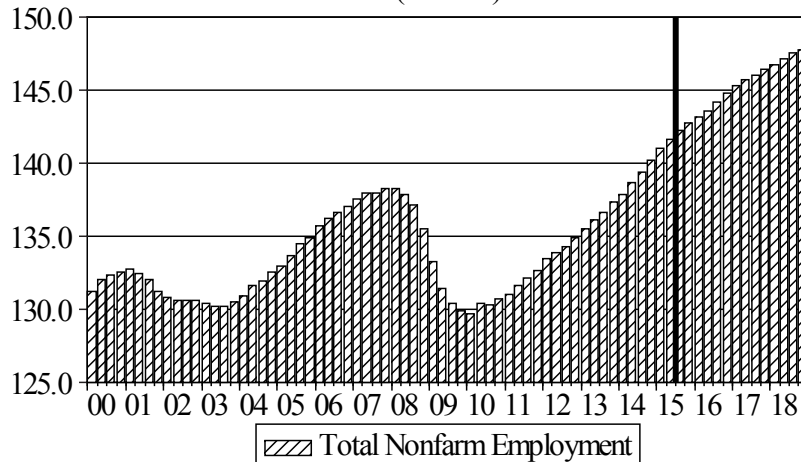
Manufacturing Employment (Millions)



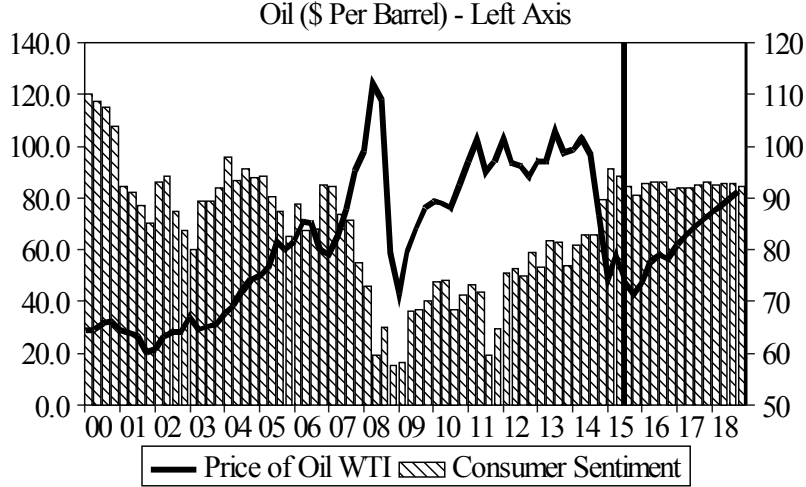
Money Supply (Annual Growth Rate %)



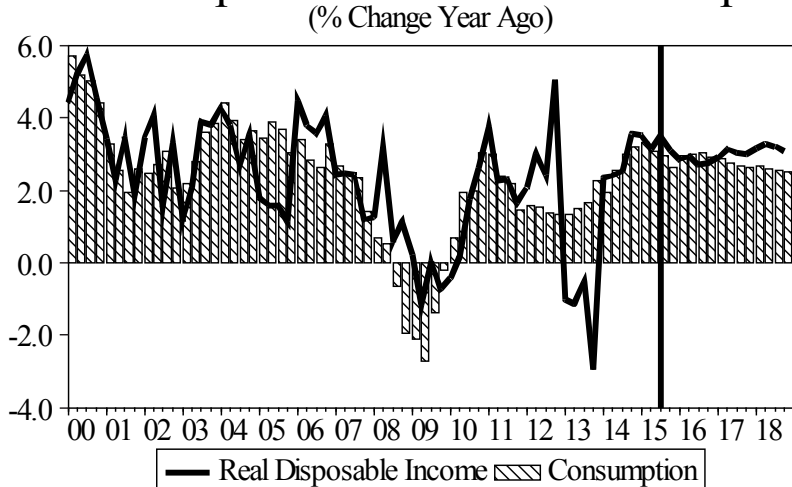
Total Nonfarm Payroll Employment (Millions)



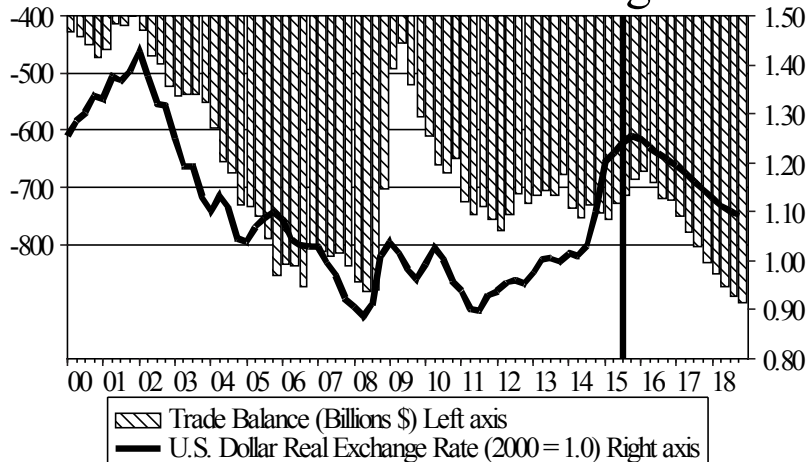
Oil and Consumer Confidence



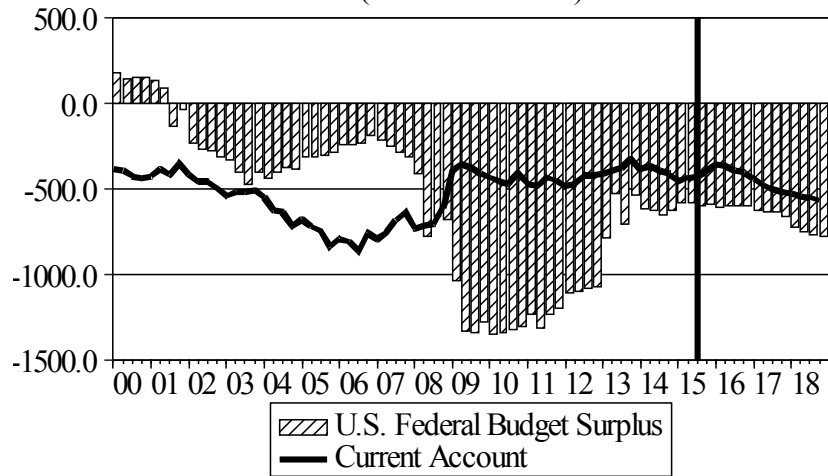
Real Disposable Income and Consumption



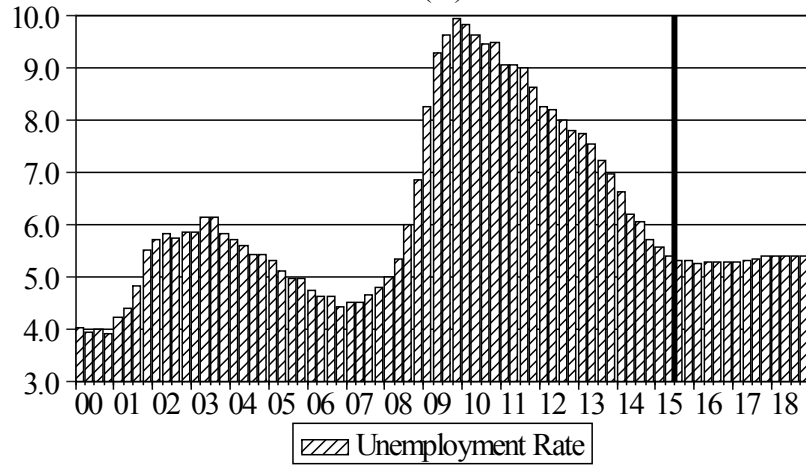
Trade Balance and Real Exchange Rate



Twin Deficits (Billions of Dollars)



Civilian Unemployment Rate (%)



Yield Curve (%)

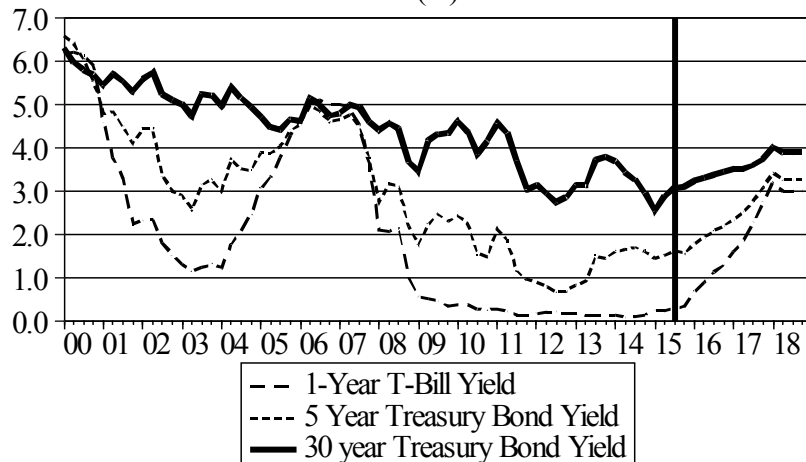


Table 2. Real Gross Domestic Product

	<i>History</i>							<i>Forecast</i>			
	2008	2009	2010	2011	2012	2013	2014 #	2015	2016	2017	2018
Real GDP Billions 2005 \$											
Gross Domestic Product	14830.4	14418.8	14783.8	15020.6	15354.6	15583.3	15961.7	16314.7	16745.6	17191.7	17629.6
Final Sales of Domestic Product	14865.8	14566.3	14722.2	14979.0	15292.3	15511.4	15881.7	16218.5	16704.6	17146.0	17581.6
Total Consumption	10007.2	9847.0	10036.3	10263.5	10413.2	10590.4	10875.7	11202.0	11535.7	11851.8	12158.3
Durables	1083.2	1023.3	1085.7	1151.5	1236.2	1307.6	1384.1	1459.0	1548.6	1645.8	1736.9
Nondurables	2214.7	2175.1	2223.5	2263.2	2277.5	2319.8	2367.8	2428.8	2500.0	2558.5	2615.5
Services	6708.6	6648.5	6727.6	6851.4	6908.1	6977.0	7144.6	7341.5	7524.9	7698.8	7871.0
Nonresidential Fixed Investment	1934.5	1633.5	1673.8	1802.3	1964.2	2023.8	2148.3	2215.0	2341.8	2449.7	2549.0
Equipment & Software	836.1	644.3	746.7	847.9	939.2	969.5	1026.2	1054.5	1122.0	1183.5	1234.1
Information Processing Equipment	281.0	256.1	281.4	285.9	303.1	314.4	326.4	331.0	361.9	393.1	417.7
Computers & Peripherals	77.1	76.8	84.7	83.0	88.4	92.0	89.0	87.5	97.4	104.2	109.6
Communications Equipment	91.5	79.4	90.2	91.8	96.3	105.2	108.1	106.9	118.7	130.9	139.3
Industrial Equipment	195.5	152.1	151.3	183.3	199.8	194.8	208.9	220.7	242.0	263.3	276.9
Transportation Equipment	146.2	70.6	127.5	173.9	213.1	240.6	272.4	292.7	291.2	289.2	292.4
Aircraft	30.0	17.7	22.1	27.9	29.2	33.0	37.4	44.2	41.6	43.1	45.1
Other Equipment	42.6	30.8	36.2	48.1	58.1	60.3	69.8	70.2	70.8	71.1	72.9
Structures	540.2	438.2	366.3	374.7	423.1	429.7	464.6	460.4	479.7	496.9	518.4
Commercial & Health	182.8	126.7	95.2	94.7	102.8	106.4	120.3	135.6	150.6	163.3	175.8
Manufacturing	53.8	56.3	40.8	39.1	44.9	46.8	52.0	78.2	79.0	68.5	65.0
Power & Communication	94.5	95.8	80.4	74.1	89.7	85.6	90.9	78.4	79.0	80.6	81.2
Mining & Petroleum	105.0	75.0	87.8	110.9	123.8	126.7	135.0	94.9	91.2	94.8	102.2
Other	103.4	84.5	62.0	56.2	61.5	64.3	66.9	72.4	79.0	90.0	95.9
Residential Fixed Investment	497.7	392.3	382.4	384.5	436.5	478.0	486.4	525.6	568.2	613.1	631.2
Exports	1740.8	1587.7	1776.6	1898.3	1963.2	2018.1	2086.4	2120.9	2204.2	2294.2	2403.3
Imports	2298.6	1983.2	2235.4	2357.7	2410.2	2435.6	2528.9	2668.6	2787.8	2929.9	3044.6
Federal Government	1152.3	1217.7	1270.7	1236.4	1213.5	1144.1	1116.3	1110.6	1110.2	1111.6	1110.5
State & Local Government	1842.5	1871.4	1820.8	1761.0	1728.1	1710.2	1720.8	1737.7	1758.8	1780.8	1802.1

Table 4. Quarterly Gross Domestic Product

	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
Real GDP Billions 2005 \$																
Gross Domestic Product	16177.3	16270.4	16346.4	16464.6	16577.9	16684.6	16798.6	16921.1	17036.4	17141.2	17241.8	17347.4	17465.9	17575.0	17682.5	17794.7
Final Sales of Domestic Product	16053.8	16150.2	16269.9	16400.3	16535.6	16651.5	16758.4	16873.1	16986.6	17096.6	17198.5	17302.3	17420.0	17525.3	17634.0	17747.1
Total Consumption	11081.2	11161.7	11240.9	11324.0	11409.0	11495.8	11581.9	11656.3	11737.3	11813.5	11890.2	11966.0	12050.2	12121.7	12193.6	12267.6
Durables	1430.4	1455.9	1465.6	1484.0	1511.0	1536.1	1563.3	1584.2	1608.4	1632.0	1659.6	1683.2	1704.6	1726.7	1747.9	1768.4
Nondurables	2397.8	2418.8	2439.9	2458.6	2475.6	2491.4	2508.7	2524.4	2538.1	2551.8	2564.9	2579.3	2595.7	2608.8	2622.0	2635.5
Services	7277.4	7314.5	7363.1	7410.9	7455.4	7504.4	7549.6	7590.1	7636.5	7678.9	7719.2	7760.7	7809.8	7849.7	7890.6	7933.6
Nonresidential Fixed Investment	2188.6	2185.3	2223.9	2262.2	2299.8	2328.3	2354.0	2385.3	2414.7	2438.7	2459.3	2486.2	2512.0	2538.2	2560.8	2584.9
Equipment & Software	1046.0	1035.2	1057.9	1079.1	1098.5	1115.7	1129.4	1144.5	1162.8	1177.4	1189.2	1204.5	1215.4	1229.1	1240.3	1251.8
Information Processing Equipment	334.2	322.1	329.1	338.5	348.6	358.9	366.3	374.0	382.3	390.5	396.8	402.9	408.4	415.3	420.7	426.3
Computers & Peripherals	84.3	88.2	87.7	89.9	93.4	97.4	98.7	100.1	101.9	103.9	104.9	106.1	106.9	109.4	110.4	111.8
Communications Equipment	114.2	99.5	104.6	109.2	113.5	117.3	120.4	123.7	127.1	130.0	132.0	134.4	136.3	138.4	140.3	142.0
Industrial Equipment	210.0	219.6	224.0	229.4	233.7	239.2	244.5	250.7	256.7	260.8	265.1	270.4	273.4	275.9	278.3	280.1
Transportation Equipment	292.2	287.9	295.0	295.7	295.9	293.0	289.4	286.3	287.8	289.3	290.0	289.8	290.0	292.1	292.8	294.5
Aircraft	43.7	45.2	44.5	43.3	42.1	40.9	41.4	42.0	42.5	42.8	43.5	43.8	44.2	44.7	45.4	45.9
Other Equipment	73.1	67.9	70.0	70.0	71.7	71.1	70.7	69.6	70.1	71.0	71.7	71.6	72.1	73.0	73.0	73.3
Structures	458.2	456.4	460.1	466.8	474.0	476.4	480.1	488.5	492.5	495.2	497.4	502.4	510.0	515.8	520.8	527.0
Commercial & Health	128.9	134.2	138.2	141.1	143.5	149.0	153.2	156.8	159.5	162.0	164.3	167.2	170.2	173.5	177.8	181.7
Manufacturing	69.6	78.8	81.0	83.2	85.2	81.0	76.2	73.7	71.3	69.2	67.4	65.9	65.3	65.1	64.7	64.7
Power & Communication	74.6	80.4	79.7	79.0	78.3	78.6	79.5	79.8	79.9	80.7	80.9	80.7	80.6	81.0	81.3	82.0
Mining & Petroleum	118.4	89.0	85.4	86.9	89.7	90.2	91.2	93.6	94.5	94.1	93.8	96.7	100.6	102.3	102.4	103.3
Other	68.0	72.6	73.9	75.0	75.9	76.6	79.4	84.2	87.2	89.2	91.0	92.4	94.5	95.5	96.3	97.3
Residential Fixed Investment	512.4	520.7	529.1	540.3	553.8	562.4	571.3	585.1	599.1	611.1	619.0	623.1	625.3	629.0	633.4	636.8
Exports	2091.4	2118.7	2126.0	2147.4	2171.5	2193.5	2215.3	2236.4	2258.6	2281.8	2305.3	2331.1	2359.8	2387.3	2417.2	2449.0
Imports	2632.5	2655.0	2680.4	2706.5	2733.0	2768.0	2809.2	2841.2	2881.6	2913.0	2945.8	2979.3	3006.1	3034.5	3057.6	3080.2
Federal Government	1111.3	1108.3	1112.4	1110.3	1109.9	1109.6	1110.3	1110.9	1111.9	1111.7	1111.5	1111.4	1111.2	1111.2	1110.3	1109.3
State & Local Government	1725.9	1734.3	1742.5	1748.2	1751.3	1756.7	1760.9	1766.3	1772.0	1778.0	1783.9	1789.3	1794.1	1799.9	1804.9	1809.6

Table 5. Annual Employment

	<i>History</i>							<i>Forecast</i>			
	2008	2009	2010	2011	2012	2013	2014 #	2015	2016	2017	2018
	Millions										
Total Nonfarm Employment	137.169	131.220	130.269	131.843	134.098	136.394	139.023	141.89	143.923	145.881	147.35
Private Nonfarm	114.666	108.668	107.779	109.751	112.181	114.545	117.166	119.96	121.859	123.589	124.85
Mining	0.709	0.643	0.655	0.739	0.797	0.811	0.843	0.79	0.744	0.766	0.80
Construction	7.162	6.017	5.518	5.531	5.645	5.857	6.138	6.38	6.689	7.043	7.30
Manufacturing	13.403	11.848	11.529	11.725	11.926	12.018	12.188	12.34	12.478	12.598	12.72
Trade, Transportation and Utilities	26.294	24.905	24.641	25.067	25.471	25.856	26.376	26.93	27.143	27.308	27.43
Transportation & Warehousing	4.508	4.237	4.192	4.303	4.415	4.497	4.635	4.78	4.915	5.062	5.18
Financial Activities	8.204	7.838	7.695	7.697	7.783	7.886	7.978	8.13	8.110	8.015	7.90
Education & Health	19.157	19.548	19.888	20.231	20.697	21.096	21.473	22.02	22.497	22.843	23.12
Professional & Business Services	17.741	16.574	16.723	17.328	17.934	18.522	19.095	19.73	20.457	21.149	21.52
Information	2.983	2.804	2.707	2.673	2.675	2.706	2.740	2.79	2.763	2.853	2.83
Leisure & Hospitality	13.441	13.074	13.042	13.351	13.773	14.259	14.709	15.14	15.300	15.390	15.63
Government	22.503	22.553	22.490	22.092	21.918	21.849	21.857	21.93	22.064	22.292	22.50
Federal	2.761	2.831	2.976	2.860	2.822	2.770	2.727	2.73	2.714	2.672	2.63
State & Local	19.742	19.722	19.513	19.233	19.096	19.079	19.130	19.19	19.350	19.620	19.87
	Growth Rates										
Total Nonfarm Employment	-0.55	-4.34	-0.71	1.21	1.71	1.71	1.93	2.06	1.43	1.36	1.01
Private Nonfarm	-0.91	-5.23	-0.80	1.83	2.22	2.11	2.29	2.39	1.58	1.42	1.02
Mining	6.77	-14.61	11.68	13.57	2.32	3.07	5.09	-11.89	-0.88	3.90	3.85
Construction	-9.21	-16.57	-3.35	1.88	1.75	4.30	5.05	3.24	6.14	4.70	3.22
Manufacturing	-5.37	-11.38	0.65	1.75	1.45	0.95	1.72	0.77	1.40	0.80	1.09
Trade, Transportation and Utilities	-3.31	-4.83	0.76	1.95	1.48	1.85	2.02	1.89	0.42	0.44	0.39
Transportation & Warehousing	-2.70	-6.16	2.14	2.38	2.66	1.93	3.55	2.66	3.01	2.72	1.68
Financial Activities	-2.28	-4.32	-0.90	0.50	1.25	1.22	1.56	1.86	-1.30	-1.36	-1.32
Education & Health	2.72	1.83	1.70	1.85	2.35	1.68	2.12	2.42	2.28	1.09	1.14
Professional & Business Services	-3.60	-5.15	2.96	3.56	3.32	3.23	3.45	2.87	4.49	2.24	1.61
Information	-3.14	-6.02	-2.35	-0.37	-0.19	1.95	1.34	1.80	-2.31	3.78	-0.59
Leisure & Hospitality	-1.66	-2.46	1.26	2.79	3.14	3.65	3.20	2.50	0.19	1.19	1.59
Government	0.98	-0.18	-0.94	-1.39	-0.39	-0.25	0.27	0.34	0.80	1.06	0.86
Federal	1.11	2.46	4.80	-0.84	-1.03	-2.52	-0.57	0.27	-1.39	-1.48	-1.40
State & Local	0.97	-0.53	-1.31	-1.47	-0.29	0.09	0.39	0.35	1.11	1.41	1.16

Table 6. Quarterly Employment

	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
Employment (Millions)																
Total Nonfarm Employment	141.0	141.6	142.2	142.7	143.2	143.6	144.1	144.8	145.3	145.7	146.1	146.4	146.8	147.2	147.6	147.8
Private Nonfarm	119.1	119.7	120.3	120.7	121.2	121.6	122.1	122.6	123.1	123.5	123.7	124.0	124.4	124.7	125.1	125.2
Mining	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Construction	6.3	6.4	6.4	6.4	6.5	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.2	7.3	7.3	7.4
Manufacturing	12.3	12.3	12.4	12.4	12.4	12.4	12.5	12.5	12.6	12.6	12.6	12.6	12.7	12.7	12.7	12.8
Trade, Transportation and Utilities	26.7	26.9	27.0	27.1	27.1	27.1	27.2	27.2	27.3	27.3	27.3	27.3	27.4	27.4	27.5	27.4
Transportation & Warehousing	4.7	4.8	4.8	4.8	4.9	4.9	4.9	5.0	5.0	5.0	5.1	5.1	5.1	5.2	5.2	5.2
Financial Activities	8.1	8.1	8.2	8.2	8.2	8.1	8.1	8.1	8.1	8.0	8.0	8.0	7.9	7.9	7.9	7.9
Education & Health	21.8	22.0	22.1	22.2	22.3	22.4	22.6	22.7	22.7	22.8	22.9	22.9	23.0	23.1	23.2	23.2
Professional & Business Services	19.5	19.7	19.8	19.9	20.2	20.3	20.5	20.8	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.6
Information	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.7	2.8	2.9	2.9	2.8	2.8	2.8	2.8	2.8
Leisure & Hospitality	15.0	15.1	15.2	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.4	15.5	15.5	15.6	15.7	15.7
Government	21.9	21.9	21.9	22.0	22.0	22.0	22.1	22.1	22.2	22.3	22.3	22.4	22.4	22.5	22.5	22.6
Federal	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6
State & Local	19.2	19.2	19.2	19.2	19.3	19.3	19.4	19.4	19.5	19.6	19.7	19.7	19.8	19.8	19.9	20.0
Growth Rates																
Total Nonfarm Employment	2.22	1.72	1.75	1.33	1.26	1.30	1.45	1.71	1.55	1.15	0.89	0.91	1.06	1.11	1.11	0.54
Private Nonfarm	2.59	2.01	2.03	1.43	1.44	1.34	1.56	1.85	1.62	1.16	0.86	0.91	1.09	1.16	1.15	0.50
Mining	-9.92	-20.27	-10.96	-9.02	-6.45	-1.78	1.93	2.59	3.29	3.27	4.40	4.43	3.94	4.35	4.39	2.51
Construction	6.22	2.55	1.27	2.71	6.66	6.15	5.57	5.64	5.34	5.06	4.37	3.72	3.49	3.47	3.13	2.65
Manufacturing	1.59	0.31	0.65	0.52	1.42	1.06	2.18	0.89	0.56	0.62	1.15	0.87	0.97	1.06	1.23	1.07
Trade, Transportation and Utilities	2.20	1.74	2.19	1.39	-0.19	0.28	0.63	0.97	0.78	0.43	0.34	0.20	0.56	0.74	0.62	-0.37
Transportation & Warehousing	2.41	2.50	3.53	2.20	2.50	2.95	3.04	3.55	3.13	2.75	2.53	2.48	2.58	2.67	1.17	0.29
Financial Activities	2.17	1.51	2.25	1.49	-1.13	-1.83	-2.08	-0.15	-0.96	-1.30	-1.42	-1.76	-1.24	-1.46	-1.08	-1.51
Education & Health	2.79	2.96	2.41	1.53	1.59	2.88	2.57	2.09	0.76	1.50	0.77	1.33	1.43	1.12	1.21	0.80
Professional & Business Services	3.04	3.67	2.92	1.84	4.94	3.58	3.97	5.49	4.16	1.80	1.33	1.69	2.17	1.81	1.69	0.76
Information	2.39	1.69	1.17	1.93	-5.02	0.07	-2.53	-1.76	13.41	6.75	-3.03	-2.03	-0.92	-0.15	0.29	-1.60
Leisure & Hospitality	3.21	2.09	2.63	2.07	1.37	-0.73	-0.03	0.12	0.51	0.85	1.82	1.59	0.93	2.13	1.94	1.37
Government	0.23	0.14	0.23	0.76	0.28	1.07	0.89	0.94	1.14	1.07	1.07	0.96	0.95	0.87	0.86	0.77
Federal	0.54	0.54	0.33	-0.32	-0.80	-1.24	-1.66	-1.87	-1.34	-1.39	-1.55	-1.66	-1.43	-1.47	-1.30	-1.41
State & Local	0.19	0.08	0.21	0.92	0.44	1.40	1.26	1.34	1.49	1.42	1.43	1.32	1.27	1.19	1.15	1.06

Table 7. Quarterly Implicit Price Deflators (2005=100)

	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
GDP	109.1	109.7	110.2	110.4	111.0	111.5	112.0	112.4	113.0	113.4	114.0	114.5	115.0	115.4	115.9	116.4
Consumption	108.8	109.4	109.8	109.7	110.2	110.8	111.3	111.7	112.2	112.8	113.4	114.0	114.5	115.1	115.7	116.3
Durables	91.0	91.0	90.7	90.4	90.0	89.6	89.3	89.0	88.7	88.4	88.2	87.9	87.6	87.4	87.1	86.9
Motor Vehicles	110.8	111.4	111.5	111.6	111.6	111.7	111.8	111.9	112.1	112.4	112.6	112.8	112.9	113.1	113.3	113.5
Furniture	87.2	87.5	87.3	87.3	87.2	87.0	86.9	86.6	86.4	86.2	86.1	85.9	85.8	85.6	85.5	85.3
Other Durables	100.9	100.1	99.8	99.8	99.8	99.9	100.1	100.3	100.6	100.8	101.0	101.3	101.5	101.7	101.9	102.2
Nondurables	108.4	109.4	109.3	108.0	109.1	110.0	110.4	110.4	111.5	112.3	113.1	113.8	114.6	115.4	116.1	116.9
Food	110.9	110.6	111.0	111.3	112.1	112.9	113.5	113.9	114.4	115.0	115.5	116.0	116.5	117.0	117.5	118.0
Clothing & Shoes	104.9	104.7	104.4	104.4	104.4	104.4	104.4	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5	104.5
Gasoline & Oil	102.1	111.6	109.6	95.5	101.5	105.5	105.4	102.5	107.7	111.2	114.2	117.4	120.5	123.4	126.2	129.4
Fuel	116.7	112.5	103.5	98.7	104.5	111.4	113.8	113.2	117.8	121.1	123.9	126.8	129.5	132.0	134.7	137.4
Services	112.1	112.6	113.3	113.7	114.2	114.9	115.5	116.2	116.8	117.5	118.2	118.9	119.5	120.2	120.9	121.6
Housing	110.9	111.8	112.9	113.5	114.0	114.6	115.2	115.8	116.5	117.1	117.8	118.5	119.1	119.8	120.5	121.1
Electricity	109.7	108.2	108.3	107.0	106.2	106.1	106.8	107.6	108.0	108.7	110.0	111.2	111.9	112.5	113.3	114.2
Natural Gas	88.7	84.3	84.5	81.6	79.6	81.1	83.5	83.2	81.9	82.0	84.4	85.1	85.0	84.6	86.0	85.5
Water & Sewer	131.6	132.9	134.3	135.4	136.5	137.5	138.7	139.8	140.8	141.9	143.0	144.2	145.5	146.7	148.0	149.3
Telephone	94.2	93.5	93.4	93.2	93.3	93.1	93.0	93.0	92.9	92.8	92.6	92.6	92.5	92.4	92.3	92.2
Transportation	109.6	110.0	110.0	110.3	111.0	111.7	112.3	112.8	113.5	114.1	114.7	115.3	115.9	116.5	117.0	117.6
Other Services	115.0	115.3	116.0	116.7	117.4	118.2	118.8	119.6	120.3	121.1	121.8	122.6	123.4	124.2	125.0	125.8

Table 8. Percent Change in Implicit Price Deflators

	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
GDP	0.1	2.0	1.9	0.9	2.2	1.8	1.6	1.6	2.0	1.7	1.8	1.8	1.8	1.6	1.7	1.7
Consumption	-1.9	2.2	1.4	-0.2	1.8	2.1	1.7	1.4	2.1	2.1	2.1	2.1	2.0	1.9	2.0	2.0
Durables	-2.4	-0.1	-1.1	-1.4	-1.8	-1.6	-1.5	-1.5	-1.3	-1.1	-1.1	-1.2	-1.3	-1.2	-1.1	-1.2
Motor Vehicles	0.2	2.2	0.2	0.3	0.1	0.3	0.4	0.5	0.7	0.8	1.0	0.6	0.5	0.6	0.6	0.7
Furniture	-2.9	1.3	-0.9	0.0	-0.7	-0.8	-0.8	-1.0	-1.0	-0.9	-0.7	-0.7	-0.7	-0.7	-0.7	-0.8
Other Durables	-2.3	-2.8	-1.4	0.1	0.0	0.5	0.8	0.9	0.9	1.0	0.9	0.8	0.9	0.9	0.9	0.9
Nondurables	-11.6	3.8	-0.4	-4.8	4.1	3.6	1.4	0.0	3.7	3.1	2.7	2.8	2.8	2.6	2.6	2.7
Food	-0.2	-1.1	1.4	1.4	2.6	3.0	2.0	1.6	1.8	1.8	1.8	1.9	1.7	1.8	1.7	1.6
Clothing & Shoes	-0.7	-0.8	-1.3	0.1	-0.1	0.2	0.1	0.1	0.1	0.1	0.0	-0.1	0.1	0.0	-0.1	-0.1
Gasoline & Oil	-64.4	42.7	-6.9	-42.4	27.9	16.6	-0.3	-10.7	22.0	13.9	11.2	11.5	10.9	9.9	9.7	10.5
Fuel	-41.9	-13.9	-28.4	-17.2	25.6	29.3	9.0	-2.0	17.1	11.8	9.6	9.5	8.8	8.2	8.1	8.6
Services	1.6	2.0	2.4	1.6	1.7	2.3	2.4	2.3	2.2	2.3	2.4	2.4	2.2	2.2	2.3	2.3
Housing	2.8	3.4	3.8	2.1	2.1	2.0	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.2	2.3
Electricity	4.6	-5.5	0.1	-4.5	-3.0	-0.2	2.6	2.8	1.6	2.5	4.7	4.6	2.6	1.9	2.9	3.2
Natural Gas	-18.6	-18.5	0.8	-12.9	-9.2	7.7	12.3	-1.8	-5.9	0.7	12.2	3.1	-0.3	-1.7	6.4	-2.2
Water & Sewer	4.1	4.0	4.1	3.4	3.2	3.2	3.3	3.2	3.0	3.1	3.2	3.4	3.5	3.6	3.6	3.5
Telephone	-3.0	-3.0	-0.8	-0.5	0.2	-0.7	-0.8	0.0	-0.3	-0.4	-0.7	-0.2	-0.3	-0.4	-0.6	-0.4
Transportation	-1.0	1.2	0.2	1.1	2.4	2.6	2.2	1.8	2.3	2.3	2.2	2.2	2.0	1.9	2.0	2.0
Other Services	1.9	1.0	2.2	2.5	2.6	2.6	2.1	2.6	2.6	2.5	2.5	2.7	2.7	2.6	2.6	2.6

Table 9. Annual Implicit Price Deflators (2005=100)

	<i>History</i>							<i>Forecast</i>			
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP	99.2	100.0	101.2	103.3	105.2	106.9	108.7	109.8	111.7	113.7	115.7
Consumption	100.1	100.0	101.7	104.1	106.1	107.6	109.1	109.4	111.0	113.1	115.4
Durables	101.8	100.0	98.6	97.7	96.4	94.7	92.5	90.8	89.5	88.3	87.2
Motor Vehicles	99.7	100.0	105.7	108.9	110.2	110.9	111.0	111.3	111.8	112.5	113.2
Furniture	100.4	100.0	95.8	94.2	94.0	92.1	88.9	87.4	86.9	86.2	85.6
Other Durables	98.9	100.0	100.4	103.6	104.2	104.0	102.4	100.1	100.1	100.9	101.8
Nondurables	102.7	100.0	103.1	109.2	111.8	112.0	112.7	108.8	110.0	112.7	115.7
Food	98.9	100.0	100.3	104.3	106.7	107.8	109.8	110.9	113.1	115.2	117.2
Clothing & Shoes	99.1	100.0	99.3	101.1	104.6	105.5	105.9	104.6	104.4	104.5	104.5
Gasoline & Oil	136.6	100.0	118.2	149.3	154.7	150.4	144.7	104.7	103.7	112.6	124.9
Fuel	146.0	100.0	117.0	148.8	150.7	149.0	148.9	107.8	110.7	122.4	133.4
Services	98.9	100.0	101.7	103.5	105.8	108.3	110.8	112.9	115.2	117.8	120.5
Housing	98.3	100.0	100.1	101.4	103.5	106.1	109.0	112.3	114.9	117.5	120.1
Electricity	97.1	100.0	100.2	101.8	101.8	103.9	107.7	108.3	106.7	109.5	113.0
Natural Gas	128.2	100.1	98.1	95.1	85.7	89.7	96.1	84.8	81.9	83.4	85.3
Water & Sewer	94.2	100.0	106.3	111.8	118.0	123.3	127.8	133.5	138.1	142.5	147.4
Telephone	98.7	100.0	99.3	97.5	97.7	97.2	96.4	93.6	93.1	92.7	92.4
Transportation	97.0	100.0	102.0	104.8	106.8	108.1	109.5	110.0	111.9	114.4	116.8
Other Services	97.3	100.0	103.0	105.6	108.3	111.1	113.6	115.7	118.5	121.5	124.6

Table 10. Percent Change in Implicit Price Deflators

	<i>History</i>							<i>Forecast</i>			
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP	1.9	0.4	1.8	1.9	1.9	1.6	1.4	1.2	1.8	1.8	1.7
Consumption	1.6	1.2	1.3	2.7	1.8	1.2	1.1	0.4	1.8	2.1	2.0
Durables	-2.1	-0.9	-2.1	-0.5	-1.6	-2.0	-2.4	-1.3	-1.6	-1.2	-1.2
Motor Vehicles	-4.1	5.6	2.9	3.3	0.7	0.5	-0.3	0.7	0.3	0.8	0.6
Furniture	0.3	-2.0	-4.4	-0.2	-0.4	-3.0	-3.1	-0.6	-0.8	-0.8	-0.7
Other Durables	3.2	1.3	0.6	3.2	-0.5	-0.6	-1.9	-1.6	0.5	0.9	0.9
Nondurables	1.2	2.8	2.2	5.9	1.9	-0.4	-0.2	-3.2	2.3	3.1	2.7
Food	6.9	-1.8	1.3	5.1	1.2	0.8	2.8	0.4	2.3	1.8	1.7
Clothing & Shoes	-0.9	1.5	-1.4	4.4	2.3	0.2	-0.4	-0.7	0.1	0.0	0.0
Gasoline & Oil	4.8	26.8	13.4	20.4	4.9	-4.8	-10.1	-17.8	8.4	14.7	10.2
Fuel	22.4	-0.8	15.7	26.2	3.1	-1.1	-7.5	-25.4	15.5	12.0	8.4
Services	2.5	1.1	1.5	2.1	2.3	2.4	2.2	1.9	2.2	2.3	2.3
Housing	2.5	0.9	0.3	1.9	2.2	2.6	2.8	3.0	2.1	2.3	2.3
Electricity	8.2	-0.4	0.5	2.4	-0.6	3.1	3.1	-1.3	0.6	3.4	2.7
Natural Gas	19.1	-18.3	-1.2	-1.6	-4.1	2.6	5.8	-12.3	2.2	2.5	0.6
Water & Sewer	6.8	6.0	5.7	4.9	6.0	3.7	4.4	3.9	3.2	3.2	3.5
Telephone	2.0	0.6	-1.1	-1.5	0.1	-0.5	-2.1	-1.8	-0.3	-0.4	-0.4
Transportation	5.9	2.2	1.5	3.1	1.3	1.6	1.0	0.4	2.3	2.2	2.0
Other Services	4.7	2.4	2.7	2.8	2.2	2.8	2.1	1.9	2.5	2.6	2.6

Table 11. Personal Income and its Components

	<i>History</i>							<i>Forecast</i>			
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Personal Income Billions Current Dollars											
Personal Income	12502.2	12094.8	12477.1	13254.5	13915.1	14068.4	14694.2	15316.6	15980.2	16764.8	17587.3
Wages & Salaries	8078.2	7787.0	7961.5	8269.0	8609.9	8839.7	9249.0	9605.9	10058.3	10520.3	10990.1
Other Labor Income	1075.1	1077.5	1114.6	1142.0	1165.3	1197.8	1224.0	1262.9	1311.3	1371.2	1425.9
Nonfarm Income	979.5	937.6	986.7	1068.1	1179.8	1196.3	1268.5	1330.2	1411.0	1474.7	1523.5
Farm Income	47.0	35.5	46.0	75.6	61.6	88.8	78.1	63.3	60.9	60.4	61.7
Rental Income	262.1	333.7	402.8	485.3	525.3	563.4	610.8	658.2	690.1	714.7	731.0
Dividends	805.5	553.8	544.6	682.3	835.0	789.1	815.5	879.7	888.8	926.9	945.1
Interest Income	1361.6	1264.3	1195.1	1231.6	1288.8	1271.4	1302.0	1308.3	1332.9	1459.3	1662.7
Transfer Payments	1956.6	2147.5	2324.7	2360.5	2366.4	2426.7	2529.2	2667.9	2793.2	2923.5	3052.9
Personal Social Insurance Tax	516.9	506.3	514.7	423.9	437.2	579.4	611.8	633.4	664.2	696.0	730.2
Percent Change, Annual Rate											
Personal Income	4.2	-3.2	3.2	6.2	5.0	1.1	4.4	4.2	4.3	4.9	4.9
Wages & Salaries	2.3	-3.6	2.2	3.9	4.1	2.7	4.6	3.9	4.7	4.6	4.5
Other Labor Income	3.2	0.2	3.4	2.5	2.0	2.8	2.2	3.2	3.8	4.6	4.0
Nonfarm Income	4.1	-4.2	5.3	8.2	10.5	1.4	6.0	4.9	6.1	4.5	3.3
Farm Income	24.9	-21.8	30.4	66.2	-18.5	44.7	-11.5	-18.3	-3.6	-0.7	2.1
Rental Income	52.4	18.4	20.1	20.8	4.4	8.5	8.5	7.2	4.2	2.9	1.9
Dividends	-11.0	-33.4	23.8	23.5	46.4	-13.7	7.2	5.3	2.9	3.9	1.8
Interest Income	-2.2	-9.2	-1.8	3.3	5.1	-1.4	0.9	2.2	3.1	13.2	12.1
Transfer Payments	18.7	14.4	7.5	0.4	1.2	2.4	5.1	5.2	4.8	4.6	4.4
Personal Social Insurance Tax	2.6	-1.8	2.4	-13.5	5.2	44.4	5.7	3.4	5.3	4.4	5.0

Table 12. Personal Consumption Expenditures (Current Dollars)

	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3	2018Q4
Consumer Expenditures by Type Billions Current Dollars																
<i>Consumer spending on...</i>																
all goods & services	12055.5	12207.8	12337.9	12424.3	12575.0	12737.3	12888.2	13015.3	13174.5	13328.5	13484.7	13640.4	13803.3	13952.4	14105.2	14261.2
durable goods	1301.8	1324.7	1329.5	1341.3	1359.6	1376.8	1396.1	1409.4	1426.3	1443.0	1463.4	1479.6	1493.7	1508.4	1522.5	1535.9
furniture and appliances	293.8	297.0	299.4	302.5	307.0	310.9	313.2	315.0	317.6	320.6	323.3	325.8	328.3	330.9	333.5	336.3
information processing equipment	104.1	104.9	104.9	105.9	107.2	108.3	109.3	110.0	111.1	112.1	113.1	114.0	114.8	115.9	116.9	117.8
motor vehicles and parts	447.8	461.6	463.3	471.4	477.6	483.7	493.7	501.1	508.3	515.2	525.8	532.7	537.8	542.8	547.2	550.7
other durable goods	132.6	134.4	134.2	134.9	136.4	137.5	138.5	139.0	140.2	141.3	142.3	143.3	144.1	145.0	145.8	146.8
nondurables	2599.7	2647.3	2667.8	2655.2	2700.3	2741.5	2770.1	2787.8	2828.8	2865.7	2899.8	2935.9	2975.0	3009.3	3044.0	3080.1
clothing & shoes	372.3	376.5	378.4	382.0	383.7	387.1	389.7	394.7	396.3	398.3	400.5	403.0	408.3	411.4	413.5	415.6
fuel oil & coal	24.3	21.5	19.7	18.9	20.4	21.9	22.6	22.6	23.5	24.0	24.4	24.7	25.0	25.3	25.7	26.0
gasoline & motor oil	269.4	296.4	295.2	259.9	279.0	290.5	290.5	283.1	297.6	307.4	315.3	323.9	333.2	342.8	352.0	362.1
food	891.5	895.3	903.0	909.8	919.9	930.9	938.6	945.4	953.0	960.0	966.9	974.2	980.7	988.0	995.2	1002.4
other nondurable goods	1042.2	1057.5	1071.5	1084.6	1097.3	1111.0	1128.7	1142.0	1158.4	1176.0	1192.7	1210.0	1227.8	1241.8	1257.6	1274.1
Consumer Expenditures by Type Billions 2005 Dollars																
<i>Consumer spending on...</i>																
all goods & services	11081.2	11161.7	11240.9	11324.0	11409.0	11495.8	11581.9	11656.3	11737.3	11813.5	11890.2	11966.0	12050.2	12121.7	12193.6	12267.6
durable goods	1430.4	1455.9	1465.6	1484.0	1511.0	1536.1	1563.3	1584.2	1608.4	1632.0	1659.6	1683.2	1704.6	1726.7	1747.9	1768.4
furniture and appliances	336.7	339.3	342.9	346.4	352.1	357.2	360.6	363.6	367.5	371.7	375.5	379.1	382.7	386.4	390.2	394.2
information processing equipment	158.2	159.9	161.5	165.1	170.1	174.9	179.7	184.3	189.5	194.6	200.0	205.4	210.7	216.6	222.5	228.4
motor vehicles and parts	404.1	414.3	415.5	422.5	428.0	433.1	441.6	447.7	453.3	458.5	466.9	472.3	476.2	479.9	483.1	485.4
other durable goods	131.9	135.4	136.0	136.7	138.2	139.3	140.1	140.3	141.3	142.1	143.0	143.8	144.4	145.2	145.9	146.7
nondurables	2397.8	2418.8	2439.9	2458.6	2475.6	2491.4	2508.7	2524.4	2538.1	2551.8	2564.9	2579.3	2595.7	2608.8	2622.0	2635.5
clothing & shoes	354.8	359.6	362.6	365.9	367.7	370.7	373.1	377.8	379.4	381.1	383.3	385.8	390.7	393.6	395.8	397.9
fuel oil & coal	20.9	19.2	19.0	19.1	19.5	19.7	19.8	19.9	19.9	19.8	19.7	19.5	19.3	19.2	19.1	18.9
gasoline & motor oil	263.7	265.6	269.4	272.2	274.8	275.4	275.6	276.3	276.3	276.3	276.0	275.9	276.5	277.9	278.8	279.7
food	804.1	809.7	813.8	817.2	821.0	824.6	827.2	829.9	832.9	835.1	837.4	839.8	841.8	844.4	847.0	849.6
other nondurable goods	964.1	974.9	985.2	994.5	1003.2	1011.6	1023.5	1031.4	1040.5	1050.3	1059.7	1069.6	1079.1	1085.7	1093.5	1101.7
Real Consumer Expenditures Annual Growth Rate																
<i>Consumer spending on...</i>																
all goods & services	1.7	2.9	2.8	3.0	3.0	3.0	3.0	2.6	2.8	2.6	2.6	2.5	2.8	2.4	2.4	2.4
durable goods	2.0	7.1	2.7	5.0	7.3	6.6	7.1	5.3	6.1	5.9	6.8	5.7	5.1	5.2	4.9	4.7
furniture and appliances	5.1	3.1	4.2	4.1	6.6	5.8	3.8	3.2	4.4	4.6	4.1	3.8	3.8	3.8	3.9	4.1
information processing equipment	8.4	4.4	4.1	8.9	12.1	11.2	11.1	10.1	11.5	10.8	10.9	10.9	10.3	11.3	10.9	10.5
motor vehicles and parts	-3.5	10.0	1.2	6.7	5.2	4.7	7.9	5.5	5.0	4.6	7.3	4.6	3.3	3.1	2.6	1.9
other durable goods	0.6	10.6	1.7	2.0	4.5	3.0	2.3	0.7	2.9	2.2	2.5	2.4	1.7	2.1	2.0	2.1
nondurables	0.7	3.5	3.5	3.1	2.8	2.6	2.8	2.5	2.2	2.2	2.1	2.2	2.6	2.0	2.0	2.1
clothing & shoes	-1.1	5.4	3.4	3.6	1.9	3.3	2.6	5.0	1.6	1.9	2.3	2.6	5.2	3.0	2.2	2.1
fuel oil & coal	46.7	-32.9	-3.4	2.5	7.0	3.9	3.0	2.4	-0.2	-1.7	-3.3	-4.2	-3.4	-2.5	-2.6	-3.1
gasoline & motor oil	2.6	2.8	5.8	4.2	3.8	0.9	0.3	0.9	0.1	0.0	-0.5	-0.1	0.9	1.9	1.4	1.3
food	-0.8	2.8	2.0	1.7	1.9	1.8	1.3	1.3	1.5	1.1	1.1	1.2	1.0	1.2	1.3	1.3
other nondurable goods	1.0	4.6	4.3	3.8	3.5	3.4	4.8	3.1	3.6	3.8	3.6	3.8	3.6	2.5	2.9	3.0

Table 13. Personal Consumption Expenditures (2005 Dollars)

	History							Forecast			
	2008	2009	2010	2011	2012	2013	2014 #	2015	2016	2017	2018
Consumer Expenditures by Type Billions Current Dollars											
<i>Consumer spending on...</i>											
all goods & services	10013.6	9847.0	10202.2	10689.3	11050.6	11392.3	11865.9	12256.4	12804.0	13407.0	14030.5
durable goods	1102.3	1023.3	1070.7	1125.3	1191.9	1237.8	1280.2	1324.3	1385.5	1453.1	1515.1
furniture and appliances	268.7	244.3	250.4	260.7	271.4	280.2	287.9	298.2	311.5	321.8	332.2
information processing equipment	83.4	81.2	90.3	91.9	98.6	101.2	102.6	105.0	108.7	112.6	116.4
motor vehicles and parts	339.6	317.1	342.0	363.5	395.8	416.7	440.2	461.0	489.0	520.5	544.6
other durable goods	112.1	105.5	110.0	121.4	127.3	131.5	132.9	134.0	137.8	141.8	145.4
nondurables	2273.4	2175.1	2292.1	2471.1	2547.2	2598.9	2668.2	2642.5	2749.9	2882.5	3027.1
clothing & shoes	319.5	306.5	320.6	338.9	354.3	362.5	368.9	377.3	388.8	399.5	412.2
fuel oil & coal	30.8	24.3	26.2	29.2	26.4	27.4	28.4	21.1	21.9	24.2	25.5
gasoline & motor oil	358.3	260.2	307.3	380.4	390.5	385.6	372.8	280.2	285.8	311.0	347.5
food	772.9	770.0	788.9	829.1	848.8	866.0	886.5	899.9	933.7	963.5	991.6
other nondurable goods	791.9	814.2	849.2	893.5	927.3	957.5	1011.7	1064.0	1119.8	1184.3	1250.3

Consumer Expenditures by Type Billions 2005 Dollars											
<i>Consumer spending on...</i>											
all goods & services	10007.2	9847.0	10036.3	10263.5	10413.2	10590.4	10875.7	11202.0	11535.7	11851.8	12158.3
durable goods	1083.2	1023.3	1085.7	1151.5	1236.2	1307.6	1384.1	1459.0	1548.6	1645.8	1736.9
furniture and appliances	267.7	244.3	261.5	276.6	288.7	304.3	323.9	341.3	358.4	373.5	388.4
information processing equipment	76.9	81.2	97.2	108.0	125.2	138.8	149.4	161.2	177.2	197.4	219.6
motor vehicles and parts	340.8	317.1	323.4	333.8	359.1	375.8	396.7	414.1	437.6	462.7	481.1
other durable goods	113.4	105.5	108.9	115.1	120.2	124.9	129.7	135.0	139.5	142.6	145.6
nondurables	2214.7	2175.1	2223.5	2263.2	2277.5	2319.8	2367.8	2428.8	2500.0	2558.5	2615.5
clothing & shoes	322.3	306.5	322.7	335.3	338.9	343.5	348.4	360.7	372.3	382.4	394.5
fuel oil & coal	21.1	24.3	22.4	19.6	17.5	18.4	19.1	19.6	19.7	19.7	19.1
gasoline & motor oil	262.4	260.2	259.9	254.7	252.5	256.3	257.7	267.7	275.5	276.1	278.2
food	781.9	770.0	786.5	795.1	795.7	803.4	807.5	811.2	825.7	836.3	845.7
other nondurable goods	828.3	814.2	833.0	863.2	880.7	906.3	945.0	979.7	1017.4	1055.0	1090.0

Real Consumer Expenditures Annual Growth Rate											
<i>Consumer spending on...</i>											
all goods & services	-1.9	-0.2	3.1	1.5	1.3	2.3	3.2	2.6	2.9	2.7	2.5
durable goods	-12.4	3.0	9.3	4.9	7.3	4.6	7.5	4.3	6.8	6.3	5.1
furniture and appliances	-9.1	-2.0	8.3	5.8	3.1	6.7	6.9	4.2	5.0	4.3	4.0
information processing equipment	0.4	12.9	16.8	13.9	16.7	6.3	9.6	6.6	11.6	11.5	11.2
motor vehicles and parts	-23.0	7.9	11.0	1.5	7.4	2.3	8.5	3.8	6.0	5.5	2.8
other durable goods	-12.3	0.6	5.5	3.2	8.1	1.9	4.0	3.8	2.7	2.5	2.0
nondurables	-2.6	0.2	3.3	0.4	0.8	2.6	2.4	2.7	2.7	2.2	2.2
clothing & shoes	-3.2	-1.0	7.6	1.1	0.9	1.8	3.6	2.9	3.3	2.1	3.1
fuel oil & coal	7.9	7.5	-7.6	-12.6	5.5	16.4	-3.3	6.4	4.2	-2.3	-2.9
gasoline & motor oil	-3.9	-1.1	2.2	-3.1	-0.9	2.7	2.2	3.9	1.5	-0.1	1.4
food	-3.7	2.1	2.1	-0.4	0.6	1.4	-0.3	1.4	1.6	1.2	1.2
other nondurable goods	-0.6	-0.6	3.6	2.8	1.9	3.8	4.7	3.4	3.7	3.7	3.0

Table 14. Business Fixed Investment

	<i>History</i>							<i>Forecast</i>			
	2008	2009	2010	2011	2012	2013	2014 #	2015	2016	2017	2018
	Billions Current Dollars										
Business Fixed Investment	1941.0	1633.4	1658.2	1812.1	2007.7	2084.3	2233.7	2304.2	2446.6	2595.5	2743.7
Producers Dur. Equipment	825.1	644.3	731.8	838.2	937.9	972.3	1036.7	1070.5	1136.9	1209.7	1276.1
Nonresidential Structures	552.4	438.2	362.0	381.6	448.0	462.1	507.0	499.3	527.7	565.2	610.6
Non-Farm Buildings	317.5	249.1	173.7	170.2	191.6	203.8	232.5	287.3	318.6	340.7	370.7
Commercial	148.9	95.4	64.7	66.8	75.6	84.2	103.1	118.8	133.7	146.2	161.3
Industrial	52.8	56.3	39.8	39.0	45.8	48.8	56.1	86.4	92.2	84.3	83.9
Other Buildings	115.8	97.4	69.2	64.5	70.2	70.7	73.3	82.1	92.8	110.2	125.4
Utilities	104.6	104.3	93.3	90.7	112.2	108.9	117.1	105.6	109.8	115.8	120.9
Mines & Wells	117.0	75.0	86.2	112.3	134.1	137.7	144.4	94.0	86.0	91.7	102.0
	Billions 2005 Dollars										
Business Fixed Investment	1934.5	1633.5	1673.8	1802.3	1964.2	2023.8	2148.3	2215.0	2341.8	2449.7	2549.0
Producers Dur. Equipment	836.1	644.3	746.7	847.9	939.2	969.5	1026.2	1054.5	1122.0	1183.5	1234.1
Nonresidential Structures	540.2	438.2	366.3	374.7	423.1	429.7	464.6	460.4	479.7	496.9	518.4
Non-Farm Buildings	317.9	249.1	179.3	172.3	188.8	196.1	216.5	262.9	284.6	295.0	310.3
Commercial	151.7	95.4	66.6	67.3	73.9	80.6	96.1	109.0	121.3	129.7	139.0
Industrial	53.8	56.3	40.8	39.1	44.9	46.8	52.0	78.2	79.0	68.5	65.0
Other Buildings	112.8	97.4	71.9	65.9	70.0	68.6	68.2	75.4	84.3	97.9	108.3
Utilities	103.6	104.3	89.8	82.8	99.1	95.1	101.0	89.9	90.9	91.7	92.2
Mines & Wells	105.0	75.0	87.8	110.9	123.8	126.7	135.0	94.9	91.2	94.8	102.2
	Annual Growth Rate										
Business Fixed Investment	-5.6	-14.2	8.6	10.9	6.9	5.1	6.6	3.5	6.4	5.9	5.6
Producers Dur. Equipment	-15.9	-11.4	20.2	14.4	8.4	4.2	6.5	3.7	6.3	6.4	5.1
Nonresidential Structures	4.7	-32.2	-0.6	15.3	7.8	9.0	6.6	-1.0	7.4	6.7	8.5
Non-Farm Buildings	-0.4	-34.0	-21.1	14.7	7.3	9.8	19.9	19.2	8.1	6.5	10.2
Commercial	-11.8	-44.7	-16.8	14.7	9.9	18.7	24.4	10.1	11.5	8.6	11.8
Industrial	22.5	-11.9	-28.8	37.4	8.1	9.1	27.6	50.3	-5.1	-5.8	2.7
Other Buildings	6.7	-29.7	-19.5	3.6	4.5	1.7	9.3	10.3	19.1	14.3	13.4
Utilities	2.5	-4.1	19.0	2.4	18.4	17.8	-12.2	11.6	4.5	5.0	4.9
Mines & Wells	24.4	-42.8	53.6	36.6	1.9	5.9	9.4	-36.5	6.6	7.5	9.9

Table 15. Government Receipts and Expenditures

	History							Forecast			
	2008	2009	2010	2011	2012	2013	2014 #	2015	2016	2017	2018
Federal Government Receipts and Expenditures											
Receipts	2579.5	2238.4	2443.3	2574.1	2699.1	3141.3	3265.2	3425.8	3575.7	3709.9	3804.8
Personal Tax and Nontax Receipts	1174.3	864.5	941.6	1129.1	1164.7	1300.6	1396.9	1527.0	1596.1	1664.1	1696.4
Corp. Profits Tax Accruals	233.6	200.4	298.7	299.4	363.1	379.3	417.9	445.1	462.1	452.2	432.5
Indirect Business Tax and Nontax Accruals	94.0	91.4	96.8	108.6	115.1	125.8	137.8	143.1	150.3	160.9	171.9
Contributions for Social Insurance	974.4	950.8	970.9	904.0	938.2	1093.4	1145.2	1183.4	1241.1	1300.5	1364.6
Expenditures	3213.5	3487.2	3772.0	3818.2	3789.1	3782.2	3896.7	4013.5	4177.0	4347.9	4561.0
Purchases Goods & Services	1155.6	1217.7	1303.9	1303.5	1292.5	1230.7	1219.9	1219.6	1233.0	1255.5	1276.7
National Defense	754.1	788.3	832.8	837.0	817.8	767.7	748.2	739.6	750.2	768.2	784.8
Other	401.5	429.4	471.1	466.5	474.7	463.0	471.6	479.9	482.8	487.2	491.9
Transfer Payments	1896.1	2142.9	2333.2	2327.0	2300.8	2346.0	2444.0	2565.6	2687.5	2816.0	2945.9
To Persons	1464.6	1616.2	1757.9	1779.9	1783.6	1823.2	1877.3	1965.0	2056.8	2153.2	2254.9
To Foreigners	45.1	52.7	53.5	57.6	55.3	53.9	52.3	51.9	52.7	53.9	54.9
Grants in Aid to State & Local Gov't	371.0	458.1	505.3	472.5	444.0	450.1	494.8	528.7	557.5	587.6	614.3
Net Interest	368.4	330.8	351.0	398.0	401.6	393.3	416.6	405.5	427.7	444.6	503.9
Subsidies less Surplus of Gov't Entities	48.7	56.2	57.4	66.7	66.5	70.2	67.1	65.7	66.2	65.9	65.6
Surplus (+) or Deficit (-)	-634.0	-1248.8	-1328.7	-1244.2	-1090.1	-641.0	-631.5	-587.7	-601.3	-638.1	-756.1
State and Local Government Receipts and Expenditures											
Receipts	1909.1	1919.2	1998.5	2030.5	2057.2	2136.5	2225.0	2313.9	2416.0	2528.4	2641.5
Personal Tax/Nontax Receipts	1328.9	1268.1	1305.7	1368.3	1416.1	1479.8	1517.5	1571.6	1636.4	1709.1	1785.6
Corporate Profits	333.5	287.8	297.6	324.1	346.7	372.2	383.3	409.5	428.4	446.4	465.1
Indirect Business Tax and Nontax Accruals	47.4	45.6	47.7	50.2	52.5	55.5	58.3	64.9	66.5	64.4	62.2
Contributions for Social Insurance	18.7	18.6	18.2	18.2	18.1	18.6	18.9	18.7	19.2	20.1	21.0
Federal Grants-In-Aid	371.0	458.1	505.3	472.5	444.0	450.1	494.8	528.7	557.5	587.6	614.3
Expenditures	2074.15	2191.15	2235.85	2246.40	2277.93	2323.60	2392.73	2459.85	2536.34	2628.77	2723.58
Purchases Goods & Services	1847.6	1871.4	1870.2	1865.3	1866.0	1883.6	1932.3	1953.5	2014.2	2088.6	2167.3
Transfer Payments	477.8	566.1	612.0	582.2	558.0	571.2	621.5	653.6	686.0	719.8	750.0
Interest Received	36.0	114.3	123.0	125.9	141.4	142.1	122.6	127.6	122.9	116.8	116.6
Net Subsidies	25.0	22.8	21.4	17.9	10.8	7.9	9.1	8.5	6.7	4.7	2.7
Dividends Received	2.6	2.2	2.3	2.7	3.3	3.7	3.8	4.3	4.2	4.2	4.2
Surplus (+) or Deficit (-)	-165.1	-271.9	-237.3	-215.9	-220.8	-187.1	-167.7	-145.9	-120.3	-100.4	-82.1

Table 16. U.S. Exports and Imports of Goods and Services

	<i>History</i>							<i>Forecast</i>			
	2008	2009	2010	2011	2012	2013	2014 #	2015	2016	2017	2018
Billions of Dollars											
Net Exports Goods & Services	-723.1	-395.5	-512.7	-580.0	-565.7	-508.4	-530.0	-513.5	-485.2	-569.4	-642.9
Current Account	-690.8	-384.0	-442.0	-460.4	-449.7	-376.8	-389.5	-427.8	-380.7	-486.9	-546.4
Exports -Goods & Services	1841.9	1587.7	1852.3	2106.4	2198.2	2263.3	2341.9	2278.4	2389.4	2529.0	2689.7
Merchandise Balance	-832.5	-509.7	-648.7	-740.6	-741.2	-702.6	-741.5	-720.7	-701.5	-791.0	-879.5
Food, Feed & Beverage	108.35	93.91	107.72	126.25	133.05	136.16	143.75	127.34	132.87	138.86	145.75
Industrial Supplies Excl Petroleum	386.9	293.5	388.6	485.3	483.2	492.3	500.0	440.0	481.5	535.1	585.2
Motor Vehicles & Parts	121.5	81.7	112.0	133.0	146.2	152.7	159.7	152.7	169.4	183.8	199.4
Capital Goods, Excl. MVP	457.7	391.5	447.8	494.2	527.5	534.5	551.3	540.2	543.2	557.8	579.2
Computer Equipment	43.9	37.7	43.8	48.5	49.2	48.1	48.8	46.2	48.2	51.8	56.2
Other	339.8	279.0	332.1	365.4	383.9	381.4	389.5	376.0	376.4	386.9	400.0
Consumer Goods, Excl. MVP	161.2	149.3	164.9	174.7	181.0	188.4	198.3	197.7	198.8	194.3	190.4
Other Consumer	63.3	55.2	58.6	53.4	55.1	56.9	64.9	70.6	70.2	69.1	74.1
Services	543.1	522.6	572.7	639.5	672.2	702.3	723.9	749.9	793.5	850.0	915.6
Billions of Dollars											
Imports -Goods & Services	2565.0	1983.2	2365.0	2686.4	2763.8	2771.7	2871.9	2791.9	2874.6	3098.4	3332.6
Merchandise	2149.4	1590.3	1949.8	2244.7	2305.8	2301.9	2388.5	2288.1	2336.8	2509.1	2692.6
Food, Feed & Beverage	90.4	82.9	92.5	108.3	111.1	116.0	126.7	129.0	125.1	130.0	137.1
Petroleum & Products	476.1	267.7	353.6	462.1	434.3	387.8	350.9	184.6	204.0	245.3	278.3
Industrial Supplies Excl Petroleum	318.7	196.6	249.4	292.7	288.9	291.2	314.2	298.5	299.7	313.9	332.8
Motor Vehicles & Parts	233.2	159.2	225.6	255.2	298.5	309.6	328.5	348.7	350.2	366.5	387.3
Capital Goods, Excl. MVP	458.7	374.1	450.4	513.4	551.8	557.9	595.7	608.2	626.0	668.2	712.6
Computer Equipment	101.2	94.2	117.3	119.7	122.3	121.2	121.7	119.0	120.8	124.9	129.5
Other	322.0	249.2	301.9	358.2	389.4	389.7	420.9	435.0	451.3	488.2	525.8
Consumer Goods, Excl. MVP	485.7	429.9	485.1	515.9	518.8	534.0	559.4	599.1	607.6	651.2	704.9
Other Consumer	86.5	80.0	93.1	97.1	102.4	105.5	111.3	119.7	124.1	133.9	139.6
Services	415.6	392.9	415.2	441.6	458.0	469.8	483.4	503.7	537.8	589.4	640.0
Billions 2005 Dollars											
Net Exports Goods & Services	-557.8	-395.4	-458.8	-459.4	-447.1	-417.5	-442.5	-547.7	-583.7	-635.7	-641.3
Exports G & S	1740.8	1587.7	1776.6	1898.3	1963.2	2018.1	2086.4	2120.9	2204.2	2294.2	2403.3
Imports G & S	2298.6	1983.2	2235.4	2357.7	2410.2	2435.6	2528.9	2668.6	2787.8	2929.9	3044.6
Exports & Imports % Change											
Exports G & S	0.0	4.1	15.3	8.7	3.4	5.1	1.2	-1.9	6.1	6.1	6.6
Imports G & S	-1.8	0.9	15.0	10.9	0.3	1.6	3.9	-4.2	6.1	8.5	7.0
Real Exports G & S	-2.0	3.0	10.1	4.2	2.2	5.3	2.6	1.2	4.1	4.2	5.1
Real Imports G & S	-5.7	-3.6	12.2	3.5	0.3	2.4	5.5	4.6	5.0	4.9	3.4

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Sean Snaith, Ph.D., is the director of the University of Central Florida's Institute for Economic Competitiveness and a nationally recognized economist in the field of business and economic forecasting.

An award-winning forecaster, researcher and professor, Snaith has served as a consultant for governments and multi-national corporations such as Compaq, Dell and IBM. Before joining UCF's College of Business Administration, he held teaching positions at Pennsylvania State University, American University in Cairo, the University of North Dakota and the University of the Pacific.

Snaith is frequently interviewed in national and regional media and is a sought-after speaker. He has been quoted in *The Wall Street Journal*, *USA Today*, *The New York Times*, *The Economist* and CNNMoney.com and has appeared on CNBC, Fox Business Network and Business News Network, based in Toronto.

Known for his engaging presentations, Snaith earned praise from one business editor for having an "uncanny knack for making economics not only understandable but interesting."

Snaith is a member of several national economic forecasting panels, including *The Wall Street Journal's* Economic Forecasting Survey, the Associated Press' Economy Survey, CNNMoney.com's Survey of Leading Economists, *USA Today's* Survey of Top Economists, Federal Reserve Bank of Philadelphia's Survey of Professional Forecasters, Bloomberg and Reuters.

Snaith was named by Bloomberg News as one of the nation's most accurate forecasters in 2008. In 2007, he was named California's most accurate forecaster by the Western Blue Chip Consensus Forecast.

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