

# U.S. Forecast

September 2013













Institute for Economic Competitiveness

College of Business Administration

University of Central Florida



# ABOUT UNIVERSITY OF CENTRAL FLORIDA (UCF)

The University of Central Florida is a public, multi-campus, metropolitan research university, dedicated to serving its surrounding communities with their diverse and expanding populations, technological corridors, and international partners. The mission of the university is to offer highquality undergraduate and graduate education, student development, and continuing education; to conduct research and creative activities; and to provide services that enhance the intellectual, cultural, environmental, and economic development of the metropolitan region, address national and international issues in key areas, establish UCF as a major presence, and contribute to the global community.

# ABOUT THE COLLEGE OF BUSINESS ADMINISTRATION

The College of Business Administration advances the university's mission and goals in providing intellectual leadership through research, teaching, and service. The college is striving to enhance graduate programs, while maintaining the strong undergraduate base. The college delivers research and quality business education programs at the undergraduate, masters, doctoral, and executive levels to citizens of the state of Florida and to select clientele nationally and internationally.

# FORECAST FOR THE NATION



# Forecast 2013 - 2016

September 2013 Report

Published quarterly by the Institute for Economic Competitiveness, College of Business Administration, University of Central Florida

### Copyright © 2013 Institute for Economic Competitiveness. All rights reserved.

Publications of the Institute for Economic Competitiveness are made possible by the following staff:

Dr. Sean Snaith, Director

Angela Ayala, Administrative Assistant

Alexandra Betrone-Harpst, Researcher

Melissa Hedtke, Researcher

Ashley Miller, Researcher

Casey Moore, Researcher

Sangitha Palaniappa, Researcher

This forecast was prepared based upon assumptions reflecting the Institute for Economic Competitiveness' judgments as of the date it bears. Actual results could vary materially from the forecast. Neither the Institute for Economic Competitiveness nor the University of Central Florida shall be held responsible as a consequence of any such variance. Unless approved by the Institute for Economic Competitiveness, the publication or distribution of this forecast and the preparation, publication or distribution of any excerpts from this forecast are prohibited.



# HIGHLIGHTS OF THE 3Q 2013 U.S. FORECAST

In this Issue of the U.S. Forecast:

- Will the Federal Reserve's exit be more Ginger Rogers or Miley Cyrus?
- The biggest scandal in the U.S. is our phony labor market recovery.
- The sequestration was not the opening of the seventh seal and did not unleash the biblical consequences predicted during the political claptrap prior to its implementation. Instead, it has helped to modestly lower the federal budget deficit below \$1 trillion for the first time in four years. Unfortunately, our larger fiscal problems remain unaddressed.
- Real GDP growth in the 1<sup>st</sup> quarter of 2013 was just 1.1%, a dramatic slowdown from the 1<sup>st</sup> quarter of 2012 when growth was 3.7%. This lost momentum, policy uncertainty, and sequestration will slow growth for 2013 to 1.6%. Growth will gradually rise to 2.3% in 2014 and 2.8% in 2015 before Fed tightening will slow growth to 2.6% in 2016.
- The Affordable Care Act is already impacting the labor market, and as the law is implemented in a piecemeal fashion, expect that impact to grow. The specific question is how the law will manifest itself in labor market statistics. Raising the cost of full-time labor will reduce the amount of full-time labor being employed.
- GDP growth in 2013 should average 1.6% before growth accelerates to 2.3% in 2014 and 2.8% in 2015. Growth will then ease back to 2.6% in 2016 as the unwinding of monetary stimulus slows the economy growth.
- Real consumer spending is expected to grow an average of 2.4% during 2013-2016, steadily accelerating over this period. Consumer's balance sheets are healing thanks to a housing market rebound, and this will help push up spending.
- A housing market recovery is underway. The housing market should steadily improve through 2016. During 2013-2016, housing starts will rise from 935,611 in 2013 to 1,582,981 in 2016.
- Payroll employment growth remains sluggish. Economic and policy uncertainty weigh on the private sector and firms are still hesitant to hire new workers. Consequently, payrolls will only expand 1.7% in 2013 and 1.6% in 2014. Growth slows in 2015 to 1.4% and settles there for 2016. From 2013 to 2016 payrolls will rise by 1.5% on average. This translates into an average monthly gain in payrolls of roughly 170,000 through the end of 2016.
- Unemployment rates (U-3) are expected to gradually fall to 6.3% in the 4<sup>th</sup> quarter of 2016. Underemployment (U-6) remains a serious problem and currently stands at 13.7%.



# When you absolutely, positively have to drain nearly three trillion dollars in liquidity and raise interest rates from historic lows - overnight

# (or over the next 3 to 5 years)

It would be nice to think that the Federal Reserve Bank's exit from historic policy, taken to counter the Great Recession, financial crisis and housing crisis, would go as smoothly as Ginger Rogers gliding across the dance floor. Given the market's paroxysms after the mere mention in May of the possibility of tapering starting in the near future, it will likely be more akin to Miley Cyrus twerking than Ginger waltzing.

Interest rates jumped in anticipation of a taper that still has no definitive starting date. Treasury yields have already increased from 2.03% on May 22<sup>nd</sup> when Ben Bernanke stated during testimony, "If we see continued improvement and we have confidence that that's going to be sustained then we could in the next few meetings ... take a step down in our pace of purchases" to 2.98% as of September 5, 2013.

Mortgage rates jumped from 3.59% to 4.57% over the same period.

Just the mere suggestion that a slowing in the pace of bond purchases, currently \$85 billion of U.S. Treasury bonds and mortgage-backed securities (MBS) each month, was in the offing led to a reaction of markets that was, to me, a bit troubling. Surely no one believed the Fed would indefinitely continue to purchase treasuries and mortgage-backed bonds or that the Fed's policy of targeting the federal funds rate at near-zero levels was a permanent stance for interest rate policy.

The Fed's balance sheet as of September 5th is just under \$3.7 trillion compared to \$905 billion on September 3<sup>rd</sup> 2008.

Although the majority of economists polled in the August Economic Forecasts survey conducted by the Wall Street Journal predicted that the Fed would begin to taper bond purchases in September, myself and 4 other economists predicted that the taper would not begin until 2014. After holding steady in the September FOMC meeting, the likelihood of a 2014 start to tapering will be more broadly projected in the next forecasting survey. The Fed is highly unlikely to start the taper in October's meeting, and while there is a chance that it could happen in December, the additional data available between now and then will probably not justify commencing with the taper.

However I do expect the Fed will, over the course of the rest of this year, begin to prepare markets for the inevitable by talking more about the taper and how it may be implemented. Communicating with markets about the path forward may help to smooth some of the inevitable volatility that will accompany this historic process.

How and when the FedExit will unfold is as yet to be determined, but given the upcoming change in leadership at the Fed, the non-monetary policy uncertainty discussed below, and the magnitude of the task at hand, we should expect the unexpected.

One potential fly in the FedExit ointment is the real possibility that the U.S. economy could experience another recession before the "punchbowl" is fully removed. The average length of recoveries in the post-war era is 58.4 months. We are currently in the 51st month or 4 years and 1 quarter into this recovery.

The most recent three recoveries preceding our current one lasted 92, 120, and 73 months respectively. Should we expect the current recovery to also be as long? Average real GDP growth in the first 51 months of the most recent previous recovery following the 2001 recession was 3.24%. Average real GDP growth in the first 51 months of recovery following the 1990-91 recession was 3.18%. Average real GDP growth in the first 51 months of recovery following the 1981-82 recession was a robust 5.04%.

Average real GDP growth so far in our current recovery: 2.24%.

The foundation of our current recovery is significantly weaker than those of the previous three recoveries and as a result it is reasonable to conclude that this recovery may not last as long as its recent predecessors. Furthermore, given the length of time it may take for FedExit to be completed, the likelihood that the Federal Reserve may face another recession before it has completely unwound the stimulus implemented to battle the prior recession is significant.

# Economic Policy Uncertainty Index Declining

But does it Capture the Full Uncertainty of our Situation?

Economic policy uncertainty has hampered our economic recovery, and as a result the recovery is the weakest one since the Great Depression. Current levels of the Economic Policy Uncertainty Index have fallen well below the elevated average level of policy uncertainty of the economic recovery that began in June of 2009. The August 2013 level of the policy

uncertainty index is just a fraction above 112. This reading jumped from the lowest level of the entire recovery to date in July when the index fell to 100. Even with this recent decline, the average level of uncertainty during the recovery remains above the uncertainty level that prevailed during the Great Recession.

In the wake of the Great Recession, policy uncertainty increased from the already elevated levels during the recession; the average level of the economic policy uncertainty index during the recovery to date is still 20 points higher than the average level during the recession. Existing levels of uncertainty were already significantly higher during the Great Recession than during the prior two recessions. This fact, perhaps as much as anything else, can explain why the economic recovery remains as weak as it has been.

Figure 1, below, plots the updated monthly Economic Policy Uncertainty Index along with the average level of the index during the phases of recent business cycles. This index has been discussed and tracked in our previous forecasts, and the role of policy uncertainty in constraining the economic recovery has been addressed as well. This updated chart reflects the unfortunate fact that current levels of uncertainty have fallen below the average level of policy uncertainty this recovery has struggled under since its start in June of 2009.

The past two month's values of the index not only are below the average level of uncertainty during the recovery, but also have fallen below the average level during the Great Recession. To put this in a historical perspective, the August index value of 112 is still above the average index value across

all recoveries that preceded the Great Recession, which stands at 97.

If this recent trend of lower levels of policy uncertainty continues, it should help reduce the drag on economic growth. However, realistically we should resign ourselves to the fact that elevated levels of policy uncertainty are likely to stick around for at least another year or two, though much of the uncertainty that prevails might not be reflected in this index.

Uncertainty that the Economic Policy Index does not fully reflect may now be the greatest source of uncertainty facing the economy right now. The passage of the Dodd-Frank financial regulatory reform law placed a cloud of uncertainty over the financial sector. While some elements of the law are already being implemented and are affecting how the financial sector is performing, much of the law and how it will be implemented is still in the offing. If the unknown elements of the law are not being discussed in media articles such that the news search component of the uncertainty index can capture it, then the index itself will not reflect the ongoing uncertainty this policy imparts on the economy.

The delays in the implementation of the Affordable Care Act coupled with congressional efforts to defund the entire law both interject a high degree of uncertainty into the economy. The potential of a government shutdown is also another source of uncertainty the authors of the uncertainty index note that historically is not captured in their index.

Regardless of whether or not the Economic Policy Uncertainty Index is accurately gauging all sources of policy

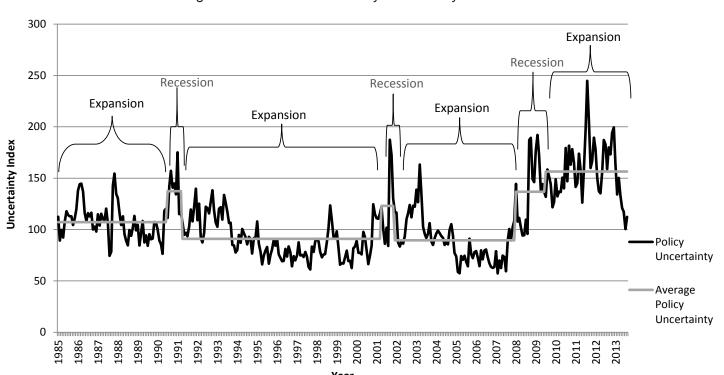


Figure 1: The Economic Policy Uncertainty Index

Source: Scott R. Baker, Nicholas Bloom, and Steven J. Davis, Measuring Economic Policy Uncertainty

uncertainty, one thing is certain, Washington, D.C. continues to be one of the largest impediments to our economy's

# **Anxious Index**

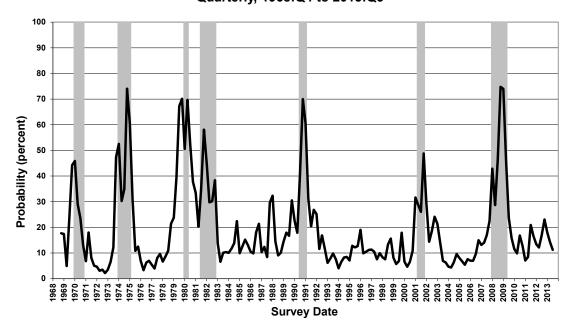
The most recent release (3rd quarter of 2013) of the Survey of Professional Forecasters by the Federal Reserve Bank of Philadelphia suggests that the 37 forecasters surveyed (including yours truly) for the publication are 11.21% convinced that a decline in real GDP will occur in the 4th quarter of 2013. This quarter's release reflects forecasters' receding anxiety, despite a recovery that has lost momentum and is the lowest reading since the 2<sup>nd</sup> quarter of 2011. The avoidance of the full impact of the fiscal cliff, sequester notwithstanding, has caused the index to drop significantly from 23.04% in the 4th quarter of 2012.

The survey asks panelists 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 3<sup>rd</sup> quarter of 2013, the index stands at 11.21%, which means that forecasters believe there is an 11.21% chance that real GDP will decline in the 4th quarter of 2013, down from last quarter's anxious index of 14.32%.

The forecasters also report a 10.49% chance that we are currently (as of the 3<sup>rd</sup> quarter of 2013) in a recession. According to the panel, the probability that we will fall

Figure 2: The Anxious Index

The Anxious Index Probability of Decline in Real GDP in the Following Quarter Quarterly, 1968:Q4 to 2013:Q3



back into recession is averaging around 11.7% through the end of the 3<sup>rd</sup> quarter of 2014, which implies the possibility of a recession in the upcoming year has decreased since last quarter's survey. This is the lowest one-year outlook since the survey taken in the 1st quarter of 2011.

The decline in anxiety over the future of this economic recovery comes in the wake of a weak 1st quarter GDP report (1.1%), followed by a 2<sup>nd</sup> quarter GDP growth of 2.5%, both following a very weak report on real GDP growth in the 4th quarter of 2012 (0.1%).

The graph below plots the historical values of the anxious index, where the gray bars indicate periods of recession in the U.S. economy. The current levels of the anxious index are below their average level during the economic recovery, and they are more than 3.1 points lower than last quarter.

### **GDP Outlook**

As 2012 came to an end, real GDP growth was near zero at just 0.1%. Growth at the start of 2013 picked up, but was still subpar at 1.1%. Consumer spending grew 2.3%, partly shrugging off smaller take home pay due to the expiration of payroll tax cuts. This burden on the consumer is in addition to the ongoing struggles in the labor market and the lost wealth that has plagued many consumers when housing prices plunged in many areas of the country. Consumers slipped back in the 2<sup>nd</sup> quarter as growth eased to 1.8% and will be slightly slower in the 3<sup>rd</sup> quarter. Consumers should start to emerge as continued recovery, albeit still weak, in the labor market coupled with the progress being made in the housing market will help alleviate the damage the recession and housing

> market inflicted upon this important sector of the U.S. economy.

In this recovery, the weakest in the post-war era, GDP growth is a fraction of the growth we have experienced in the wake of previous recessions, and is less than half the growth in the first four and a quarter years of the recovery following the 1981-82 recession.

Real GDP is only 9% higher than it was at the start of the recession. Averages for recoveries since World War II put real GDP 17% higher at this same point in the recovery.

As we have discussed in this and previous forecast publications, policy uncertainty has played a big role in the underwhelming performance of the economic recovery this time around. Looking forward

through the rest of 2013, the pace of economic recovery is not likely to show an improvement and is expected to be 1.9% for the second half of the year. We are anticipating growth of just 1.6% for the full year-the weakness coming from a combination of the sequestration cuts, rising payroll taxes, uncertainty, the threat of a government shutdown and/or a battle over raising the debt ceiling, and a sluggish first half of the year.

In 2014 as uncertainty continues to abate and a recovery from the housing crisis continues to heal consumer's balance sheets, real GDP growth will accelerate to 2.3%. Growth will continue to rise in 2015, reaching 2.8% before easing to 2.6% in 2016 as stimulus continues to be drained by the Federal Reserve. This quarter's forecast for the path of GDP growth has been revised downward from the June forecast.

The continuing risk to our recovery is the ongoing sovereign debt crisis in Europe. I have written about this crisis in previous forecast releases, and I described it there and elsewhere as a train wreck in slow motion. The heightened financial anxiety has been soothed by the European Central bank, but as the banking crisis in Greek Cyprus revealed, the potential for a flare-up continues to be a threat.

Germany's Angela Merkel is facing an increasing political threat as anti-Euro sentiment continues to build in her country. A new political party, Alternative for Germany (AfD), has played on voter fears about the cost of Eurozone bailouts, for which Germany has shouldered the largest share.

AfD, led by a group of academics, lawyers, and journalists, is calling for an "orderly dismantling" of the euro and says Germans should consider returning to the Deutsche Mark. If it gets the votes needed to enter the German parliament, it will be the first new party in decades and the only party to call for a breakup of the Euro.

Unemployment in the Eurozone stands at 12.1% and while mild real GDP growth has returned to the region as a whole (0.3%) the "recovery" is tenuous at best. In Greece unemployment stands at 27.6%. In Spain the rate is 26.3% and in Portugal it is 16.5%. In Germany unemployment is just 5.3%.

Youth unemployment rates are even more horrific. In Spain it is 56.1%, in Greece it is 62.9%, and in Portugal 37.4%. Germany's youth unemployment rate is 7.7%.

The high rates of unemployment in Southern Europe and the low rates in northern Europe undermine stability of the common currency, and if they persist will lead to political instability and a growing sense of resentment between north and south.

The divergent patterns of fiscal policy in Northern and Southern Europe cannot persist if the Euro is to survive in the long run. The ECB provided liquidity to ease the financial crisis but is only treating the symptoms of the problem. Fiscal and financial reform in the Eurozone will be as difficult politically as any of the agreements that led to the formation of the EU and Euro, but it will ultimately be needed if the Euro is to survive. The pain of austerity however may simply

be too much for some countries to continue to stomach.

The Euro crisis is far from over even if, for the moment, the situation appears to have improved. And even if Germany resists the Euroskeptic movement, the Euro's problems may have been addressed, but they have not been solved.

### CONSUMER SPENDING

U.S. consumers are still feeling the effects of the weak labor market recovery. Consumption has been suppressed in this recovery relative to those that have preceded it, and U.S. consumers are just not leading the way in this recovery. We have historically been big consumers, borrowing money to finance this spending when our current incomes could not support it. Lost home equity wealth may be part of the problem as this has historically been an easy and low cost way of tapping into wealth that consumers built up over time.

U.S. consumers, who now account for nearly 69% of GDP, were and are simply not in a position to lead a robust recovery. Lost wealth in the housing market coupled with a labor market recovery that has shown little oomph have both forced consumers to continue to be cautious with spending. They continue to try to repair their balance sheets by saving, or at least not borrowing, to try and fill in the gap once occupied by trillions of dollars of housing wealth.

Financial asset values have fully recovered and surpassed pre-recession and pre-financial crisis highs. These gains are concentrated in a smaller share of households than home equity wealth and are more difficult in many cases to tap into. Consumers are much more willing to borrow against their home's equity than to take a disbursement from their retirement account because of the relative advantage of the first action. Borrowing against home equity allows consumers to enjoy a tax write-off for the interest expense from a home equity line of credit loan, whereas taking a disbursement from their retirement account may include an IRS penalty.

Consequently the recovery in the housing market may be the single most important driver of consumer spending going forward. The wealth effect of home equity gains on consumption spending is much stronger than those from stock market wealth. The labor market is not likely to shift into high growth mode in the quarters ahead, so it will be up to the housing recovery to help support U.S. consumer spending growth over the next few years.

In the 70's and 80's, average real consumption growth of 4%-plus characterized the recoveries. In the 90's the growth was on average greater than 3.8%. Consumption growth starting in 2010 and forecast through the end of 2016 is expected to average just 2.4%, well below the consumer spending growth of previous recoveries.

Quarterly patterns of consumer spending show a staccato pattern in this recovery that has persisted over the past several years: consumers will spend at a higher pace for a quarter (this was the case in the 1st quarter of 2013 with 2.2% growth), only to pull back in subsequent quarters to continue repairing their balance sheet, which is what we are forecasting for the remainder of 2013. As the recovery progresses, the labor

market and housing market continue to improve. We expect that the pace of spending will begin to stabilize at levels of consumption higher than the first four years of the current recovery, but still much lower than in previous recoveries. Average consumption growth in 2014-2016 is expected to reach 2.6% annually and the quarterly pattern of consumer spending should become more stable, staying within a range of 2.4% to 3.0% over those 12 quarters.

### INVESTMENT

Nonresidential fixed investment spending grew at 7.6% in 2011 and 7.3% in 2012. Businesses have been very profitable for several years, thanks to cost cutting during the Great Recession, and have amassed significant retained earnings, approaching and forecasted to exceed \$1 trillion, that could be used to fund investment. Interest rates are still historically low for those who would seek to borrow or as a measure of the opportunity cost of using these retained earnings, but uncertainty has many firms moving forward on investment with great caution. Policy uncertainty, as we have discussed, weighs on these forward looking investment decisions. As the horizon remains partially obscured by uncertainty, businesses will be hesitant to rush forward into that fog. Consequently, investment growth will be just 2.5% in 2013. As the fog of uncertainty starts to lift, spending will accelerate in 2014 with investment growing at 5.7%, and expanding at 5.7% in 2015 before rising further to 6.2% in 2016.

The interest rate will remain low historically speaking over the near term, but will rise over the course of the forecast horizon. The Federal Reserve's stated commitment to low interest rates may come to a conclusion sooner than most are expecting. We think the Fed will begin to creep up the federal funds rate mid-2015, but longer run rates will begin to rise as the tapering of QEIII gets underway in 2014. We expect the 10-year Treasury yield to remain below 4.5% through the end of 2016.

Business spending on equipment and software will grow at an annual average rate of 6.1% in 2013 through 2016. Investment in computers and peripherals will continue to be strong after retreating a bit in 2013. Companies still wary from the recession will continue to focus on costs and on making investments that can lower their cost structure. As a result many will continue implementing productivity improving IT plans and will spend at a double digit average annual growth rate of 15.3% from 2014 to 2016.

Investment in commercial real estate experienced a burst of activity in 2012. Investment growth in nonresidential structures plunged to -25.7% in the 1st quarter of 2013 but will accelerate for the remainder of 2013. Year-over-year investment in structures, however, will grow just 0.2% in 2013. Investment in non-residential structures will slowly accelerate in 2014 and 2015 with growths of 3.3% and 3.8% respectively, before growth jumps to 10.7% in 2016.

Investment in transportation equipment grew robustly

in 2012 (25.8%), but growth will decelerate sharply in 2013 (1.3%), before accelerating to a 4.7% growth rate in 2014 only to decelerate from that point. This type of investment will have an average growth rate of 2.2% during the four years from 2013 through 2016, and in that final year growth will be just 0.6% as higher interest rates and fading stimulus turn the environment into a less conducive one.

Ongoing demand driven by replacement need and lower interest rates will bolster light vehicle sales that will grow from 2012 levels of 14.4 million to a level slightly over 16.3 million in 2016. The automotive sector will remain one of the more solid sectors in the U.S. economy over the next 4 years as consumers' balance sheets and the labor market continue to heal. Rising interest rates will be a headwind to the sector, but the aerodynamics of demand will reduce the drag of higher borrowing costs.

Residential fixed investment growth spent six years in negative territory, but there are clearly signs of a sustained recovery in a sector that contracted all those years. In 2012, residential fixed investment growth not only turned positive, but grew by 12.8%. It will average 12.7% growth through 2013-2016 with a peak growth rate in 2014 of 16.3%. In the final year of our forecast, 2016, real residential fixed investment will be dampened by higher interest rates and growth is expected to slow to 5.3%. In that year real residential fixed investment will be nearly \$697 billion, more than \$170 billion lower than the 2005 peak during the housing boom.

Inventories of new homes have fallen significantly. Existing home inventories are being absorbed; private equity and hedge fund investors are buying properties, rehabbing, and renting them out. The holding periods for this new crop of investors are measured in years rather than months as was the case during the housing bubble when house and condo flippers, enabled by recklessly easy financing, artificially drove prices sky high and led to extreme overbuilding in many markets.

Housing prices are on the rise again and while the pace of these increases may be a function of temporary inventory constraints and investor purchases, most indicators are moving in the right direction and the recovery should be sustainable. Housing finance however must become more available if the market is to make a smooth transition from investor led purchases to more traditional mortgage financed consumer purchases.

Rising prices and shrinking inventories are sending the signal to builders to get back to housing production. We expect housing starts to continue to accelerate over the next several years reaching more than 1.58 million in 2016.

# **GOVERNMENT SPENDING**

The sequester is underway and contrary to the warnings that this slowing of the growth in government spending would unleash upon the economy a host of ills that could have been taken out of the book of Revelations, the economic impact has

been modest. The apocalyptic predictions were of course just more political hyperbole as these trillion dollars plus cuts are spread over a decade, but they will be a drag on the pace of recovery.

The combination of higher revenues and somewhat smaller expenditures will combine to lower the federal budget deficit to "just" \$700 billion for 2013. This is the first time in four years that the deficit did not exceed \$1 trillion. In this day and age I suppose this is what passes for austerity in Washington, DC.

The national debt is over \$16.9 trillion and rising. This represents a debt of nearly \$148,182 per taxpayer and over \$53,514 per citizen. Trillion-dollar federal budget deficits were de rigueur during the first term of the Obama administration. Unfunded liabilities of the U.S. are even more frightening. Social Security, Medicare part D, and Medicare represent over \$125 trillion in liabilities and that boils down to nearly \$1.1 million per taxpayer. Something has to change.

The Simpson-Bowles bipartisan deficit reduction commission report laid out a set of policies that are going to be politically painful and difficult to implement, but these are the type of changes that must take place. As a nation we need to resurrect that study and work to enact these proposed policies or some reasonable facsimile of them. It will not be easy, but it is an absolute necessity.

In 2013, we are forecasting the federal budget deficit to shrink to \$700 billion, which will rise to \$758 billion in 2014, \$720 billion in 2015, and \$741 billion in 2016. Though we are projecting deficits that are smaller this year, the additional debt added to the national debt over these four years will exceed \$2.9 trillion, thus pushing the national debt total to over \$19.9 trillion. This is assuming interest rates do not rise faster than anticipated, thereby raising the burden of servicing all this debt. All told, President Obama's administrations will have added over \$8 trillion to our national debt, nearly doubling the total debt accumulated by all previous administrations.

### **NET EXPORTS**

Most of the United States' major trading partners are experiencing economic deceleration just as the U.S. is itself. In Europe, the Euro zone has slipped just back into positive growth but the pace is so weak that slipping back into contraction in the quarters ahead remains a real possibility. This does not suggest all countries are growing; in fact many European economies are still contracting. Japan, with extraordinary policies now in place, has recently shown stronger economic growth, but many experts are forecasting weaker growth, as is the case for Canada. This will dampen the volume of trade in both directions. Real exports are expected to grow by 3.7% in 2013, while real imports will grow at 3.8%. In 2014 real export growth is expected to slip to 2.8% while real import growth will jump to 5.9%, providing a drag to overall GDP growth.

Overall trade growth continues through the end of our 2016 forecast period. However, real export growth from 2014-2016 is expected to accelerate somewhat, while real import growth will decelerate over the same time frame.

Real export growth is expected to be 3.6% on average through 2013-2016, even with the slowdown in 2013 as the debt crisis that brought recession to Europe has depressed Europeans' incomes and the value of the Euro from \$1.60 in 2008 to \$1.34 recently, which made U.S. exports more expensive to European consumers. Real imports will expand over the same period with an average growth of 4.0%. The near term deceleration of import growth is a function of the continuing wealth effects of lost home equity faced by consumers, the still weak labor market, the expiration of the payroll tax cut, and the deceleration in the pace of the U.S. economic recovery that occurred as real GDP in 2013 is expected to only be 1.6%.

The U.S. dollar will appreciate vis-à-vis our major trading partners through 2015. The strengthening is due to the recession and uncertainty stemming from the sovereign debt crisis in the E.U. that will continue to weigh on the value of the Euro, and the continued slowing of the global economic recovery will also support the value of the dollar. Once this wave of global uncertainty abates, and the safe haven demand for U.S. dollars wanes, we expect the dollar will begin to depreciate again in 2016 (and beyond) in the face of large and persistent imbalances in the U.S. economy.

The current account deficit will improve through the end of 2013 before the dollar continues to appreciate through that year. The improvement of the current account balance in 2012 and 2013 are likely the lagged response of the depreciation of the dollar in 2010-2011. Current account balances will average -\$466 billion during 2014-2016, with a worsening of the deficit in 2014-2016 in the wake of a four year appreciation of the dollar.

# UNEMPLOYMENT AND OUR PHONY JOB RECOVERY

How long will it be before the unemployment rate hits 6.5%? We are forecasting it will not be until the fourth quarter of 2015. How long until unemployment falls to 5.5%? Don't expect to see this level until 2018 – 11 years from the onset of the Great Recession and 9 years from the peak level of unemployment.

Job creation remains weak, and the pace of payroll job growth is insufficient given that we are still 1.9 million jobs short of payroll employment returning to prerecession levels. The labor market is still suffering through the worst pace of job recovery following a recession since 1945. As we will discuss shortly, the focus on getting payroll employment back to prerecession levels as somehow signaling recovery is misleading.

The national unemployment rate ticked down in August to 7.3%. The August jobs report again showed a slight improvement of the labor market with 169,000 new workers on business payrolls, after downwardly revised increases of 172,000 in June and 104,000 in July.

The mixed message in recent jobs and labor market reports reinforces the need to look at more than a single metric of how the labor market is performing. Because it is sufficiently complex and difficult to measure, the U.S. labor market cannot be adequately gauged by a single metric such as the headline unemployment rate during this recovery. This is particularly true because as of August 2013 the labor force participation rate is at its lowest point since 1978. The headline unemployment rate falls as workers leave the labor force giving a downward bias to the unemployment rate in this

If labor force participation rates were at their prerecession levels, the current unemployment rate would be approximately 11.4%.

The Bureau of Labor Statistics (BLS) does have alternative measures of labor market weakness. The broadest measure of unemployment (U-6) takes into account discouraged workers as well as those who are underemployed—working parttime 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.

U-6 remains painfully high at 13.7% in August, down just a percentage point since August of 2012, but down from its peak of 17.1% in April 2010. U-6 has been in double digits for over five years.

As the Affordable Care Act is rolled out over the next couple years, we must pay close attention to U-6. If companies shift from full-time workers to part-time workers in response to the act in order to avoid either having to provide healthcare insurance for full-time workers or paying fines for not providing it. Headline unemployment could go down if full time jobs are split into two part-time jobs, and payroll employment will go up (full-time and part-time jobs are treated equally in the payroll employment data). However U-6 would rise in this scenario by its inclusion of underemployed workers.

### OUR PHONY JOB RECOVERY

Each month the Bureau of Labor Statistics issues its Employment Situation Report and contained therein are two numbers that receive most of the attention upon release of the report. They are the number of jobs added to business payrolls during that month and the headline unemployment rate (U-3).

These numbers are eagerly awaited each month and the spectacle of the media coverage of their release has taken on the appearance of the lustful coverage of a hurricane on the Weather Channel. Take June of this year for example. Consensus expectations according to a Bloomberg survey were for 165,000 jobs to be added. When the report came out that 195,000 jobs were estimated to have been added to payrolls, Glory Be!

The Bloomberg article about the jobs report opened with the line, "Employment roared [emphasis mine] ahead in June, indicating the U.S. economy is poised for faster growth as it shakes off the impact of tax increases and budget cuts." One analyst gushed, "Job growth is starting to hum along... All of it is laying the groundwork for more spending and more jobs. This virtuous cycle is really taking hold for the second half of the year."

That June job growth figure has subsequently been revised down to 172,000. Virtue is a fleeting thing I suppose.

What if job growth was actually 195,000 jobs that month? Should we be smiling like a Weather Channel Reporter in gale force wind and rain?

Consider the figure below. This is a modification of similar analysis done by the Economic Policy Institute. It compares payroll jobs to the Congressional Budget Office estimates of the potential labor force in the U.S. economy. The comparison is instructive. It shows that we are currently 8.6 million jobs short of what the U.S. economy's potential workforce should be. Contrary to the 1.9 million job gap between current payroll employment and pre-recession levels of employment, the CBO estimates include not just the jobs we lost, but the jobs we should have created all along to keep up with potential growth in the labor force. The current state of the labor market is far worse when viewed through this lens than when just merely comparing pre-recession payroll employment levels to current levels.

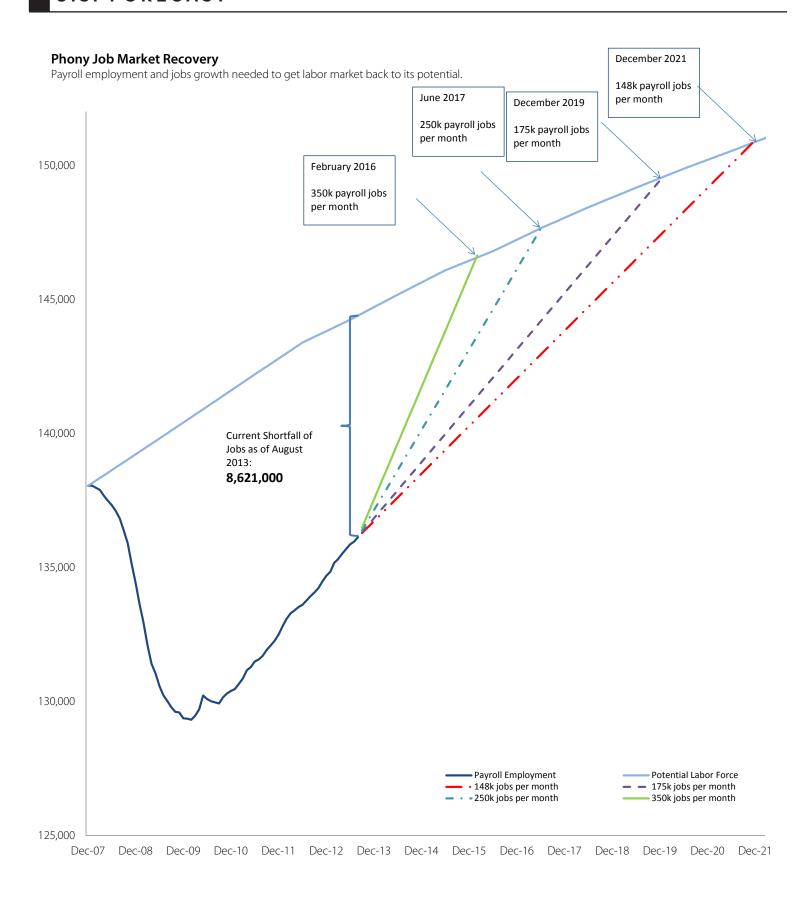
The chart also includes projections of how long it will take for payroll employment to rise to equal the potential labor force in the U.S. under different assumptions about the size of monthly payroll job gains each month.

There are four scenarios depicted in the graph, each with a different assumption about average monthly payroll job growth. Shown under each assumption is how long it will be until the labor market has reached its CBO-estimated potential. If job growth were to average 350,000 jobs per month going forward, the labor market would be back at its potential by February 2016. In only one of the past thirtyone months has job creation exceeded this level, so we can most likely rule out this scenario. If job growth were to average 250,000 jobs per month, the U.S. labor market would be at it potential in June 2017. This level of job growth has occurred in only five months of this recovery. If job growth were to average 175,000 jobs per month, the economy would be back at its potential in December of 2019. If however, job growth were to persist at the average level of the past three jobs reports and increase at just 148,000 jobs per month, it would take until December 2021 for employment to reach its potential.

Why every speech, every politician, every talking head on TV is not focusing on this failure is perplexing.

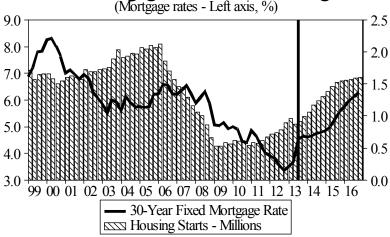
The primary obligation of government should be to get the economy back to its potential in the labor market. Everything else should be on the backburner.

# U.S. FORECAST

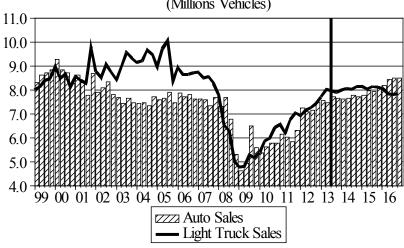


Sources: Economic Policy Institute, Congressional Budget Office, Institute for Economic Competitiveness

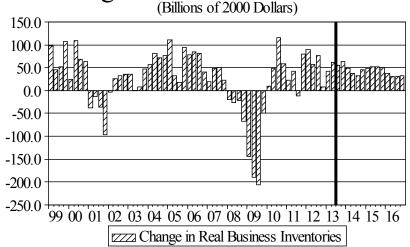
# 30-Year Mortgage Rates and Housing Starts (Mortgage rates - Left axis, %)

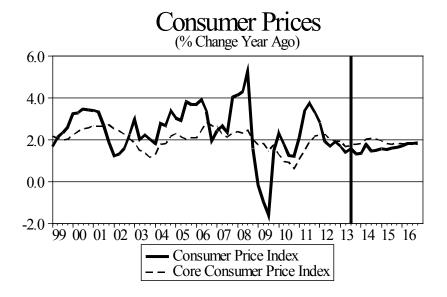


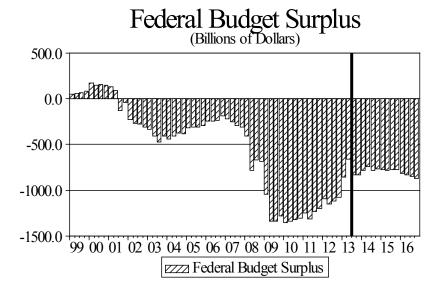
# Automobile and Light Truck Sales (Millions Vehicles)

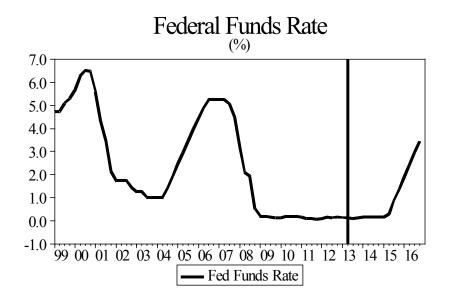


# Change in Real Business Inventories

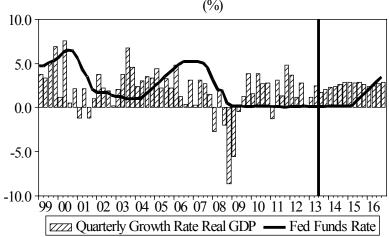




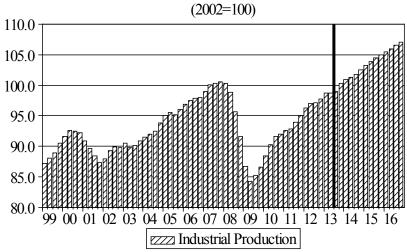




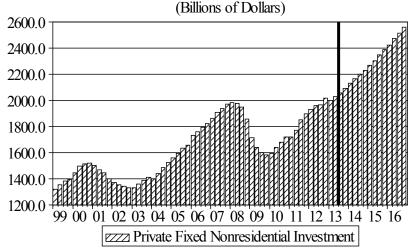


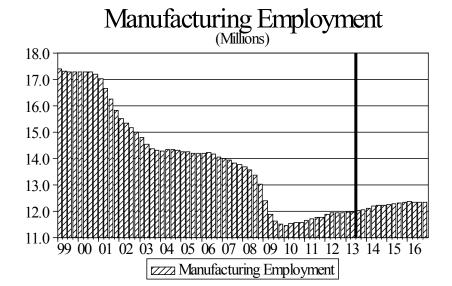


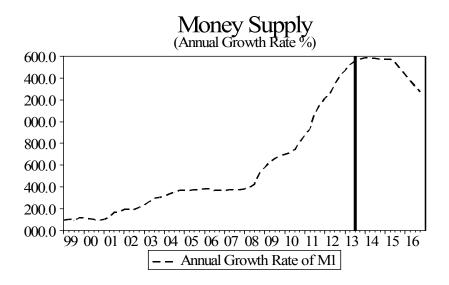
# Industrial Production (2002=100)

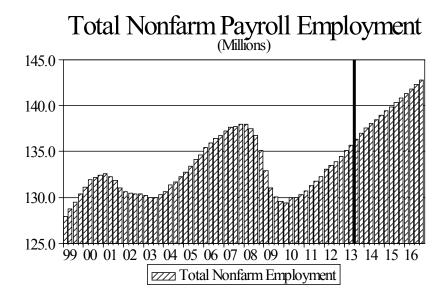


# Private Fixed Nonresidential Investment (Billions of Dollars)

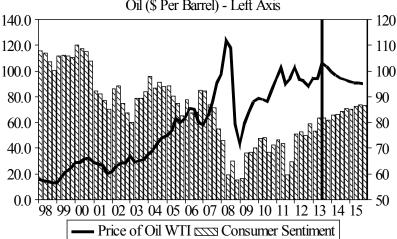




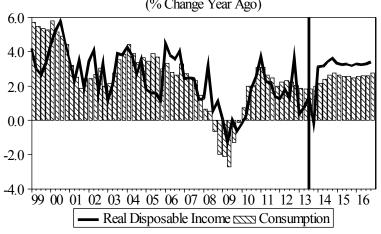


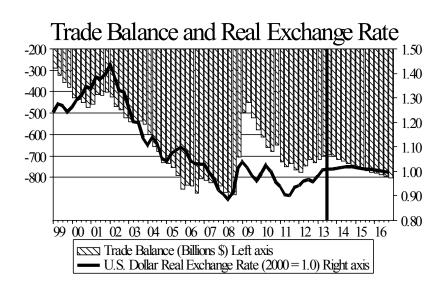


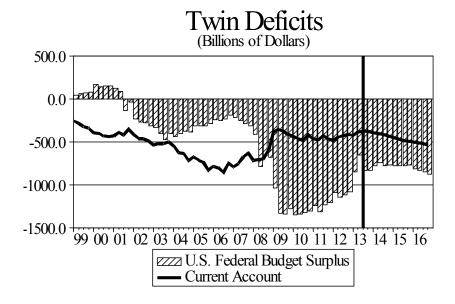
# Oil and Consumer Confidence Oil (\$ Per Barrel) - Left Axis

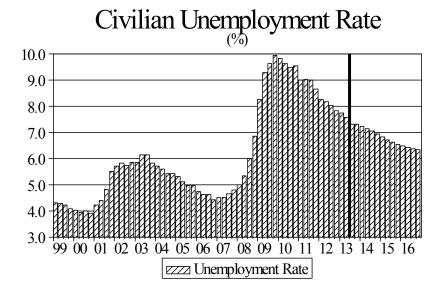


# Real Disposable Income and Consumption (% Change Year Ago)









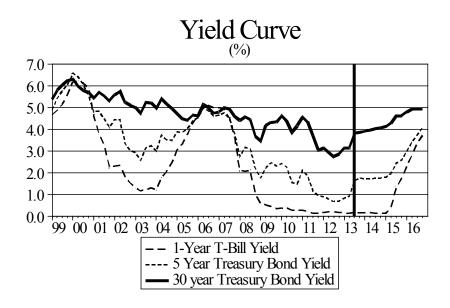


Table 1. Summary of the Long-Term Forecast of the U.S.

Table 1.	Juilli	iliai y	01 6	iie L	Jiig		1 01	ccast	OI til	ie 0.	<b>J</b> .	
				His	-				1	Fore		
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
				C	ompositio	on of Rea	I GDP. Pe	ercent Cha	inge			
Gross Domestic Product	3.4	2.7	1.8	-0.3	-2.8	2.5	1.8		1.6	2.3	2.8	2.6
Final Sales of Domestic Product	3.4	2.6	2.0	0.2	-2.0	1.0	2.0	2.6	1.6	2.4	2.8	2.8
Total Consumption	3.5		2.3	-0.4	-1.6	2.0	2.5		1.9	2.5	2.6	2.6
Durables	5.5		4.6	-5.1	-5.3	6.1	6.6	7.7	6.7	5.7	5.2	4.9
Nondurables	3.3	3.3	1.7	-1.1	-1.8	2.2	1.9	1.4	2.2	2.6	1.9	2.1
Services Nonresidential Fixed Investment	3.2 7.0	2.7 7.1	2.0 5.9	0.8 -0.6	-0.8 -15.5	1.2 2.6	2.1 7.5	1.6 7.4	1.0 2.5	1.9 5.3	2.4 5.7	2.5 6.2
Equipment & Software	9.7	8.7	3.2	-0.6 -6.9	-15.5	15.9	12.8	7. <del>4</del> 7.7	3.4	5.3 7.6	7.8	5.8
Information Processing Equipment	8.6	13.0	11.5	0.7	-8.3	10.0	2.3	2.7	3.8	10.9	12.0	10.4
Computers & Peripherals	11.3	23.5	13.2	6.3	0.7	11.2	-1.3	5.6	-2.1	9.6	19.3	17.1
Communications Equipment	4.0	14.2	13.1	-4.5	-12.7	13.6	2.6	9.0	11.1	11.4	7.7	8.4
Industrial Equipment	8.6	8.5	3.1	-4.7	-22.2	-0.2	15.7	5.7	2.7	9.4	8.7	4.1
Transportation Equipment	13.4	8.3	-2.8	-22.9	-49.0	80.2	36.0	25.8	1.3	4.7	2.1	0.6
Aircraft	-5.8	-7.9	28.3	-0.8	-40.0	26.9	14.4	31.5	-9.4	2.0	4.1	5.7
Other Equipment	17.0	6.7	-15.6	-11.0	-27.4	17.4	35.9	16.5	-7.6	-0.6	-0.2	-3.4
Structures	1.7	7.2	12.7	6.4	-18.9	-15.7	2.1	13.0	0.2	3.3	3.8	10.7
Commercial & Health Care Manufacturing	-0.8 14.2	6.1 6.7	10.0 18.1	-3.6 25.9	-30.9 5.2	-24.1 -27.7	-0.2 -1.5	8.0 16.4	-0.3 0.0	9.6 2.4	18.7 3.4	21.8 12.7
Power & Communication	3.9	6.1	39.0	11.8	1.6	-15.9	-7.7	18.9	-6.5	4.8	-6.2	-3.5
Mining & Petroleum	9.5	8.0	-1.6	7.3	-27.7	21.7	24.3	14.5	4.9	-1.5	-5.3	7.8
Other	-5.2		15.0	13.2	-18.3	-26.3	-7.3		2.9	2.6	11.2	11.0
Residential Fixed Investment	6.6	-7.5	-18.9	-24.0	-20.7	-2.4	0.6	12.8	13.4	16.3	15.8	5.3
Exports	6.0	8.9	8.9	5.9	-8.9	11.5	7.1	3.6	2.4	3.5	3.6	4.9
Imports	6.1	6.2	2.3	-2.7	-13.5	12.8	4.9	2.2	1.6	5.8	4.7	4.1
Federal Government	1.7	2.5	1.7	6.8	5.7	4.4	-2.6	-1.4	-4.7	0.2	-0.6	-1.2
State & Local Government	0.0	0.9	1.5	0.3	1.6	-2.7	-3.6	-0.7	-0.6	0.1	0.4	0.5
						Dilliono	of Dollo					
Real GDP	14235 6	14615.2	14876 8	14833 6	14417 0		of Dolla		15711 3	16072 7	16525.0	16961.0
Nominal GDP		13857.9									18212.1	
	.0000.1			20.0			.0000.0	.020	1.0		.02.2	.0000.0
				Pric	es & Wag	jes, Perce	ent Chan	ge, Annua	Rate			
GDP Deflator	3.2	3.1	2.7	1.9	0.8	1.2	2.0	1.7	1.4	1.8	1.6	1.6
Consumer Prices	3.4	3.2	2.9	3.8	-0.3	1.6	3.1	2.1	1.5	1.5	1.6	1.8
Excl. Food & Energy	2.1	2.5	2.3	2.3	1.7	1.0	1.7	2.1	1.8	2.0	1.8	1.8
Producer Prices, Finished Goods	4.9	3.0	3.9	6.4	-2.5	4.2	6.0		1.2	0.6	0.8	1.5
Employment Cost Index - Total Comp.	3.1	2.9	3.1	2.9	1.5	1.9	2.2	1.9	1.9	2.5	2.6	2.8
						Other N	/leasures					
Oil - WTI (\$ per barrel)	56.5	66.1	72.3	99.6	61.7	79.4	95.1	94.2	99.6	95.9	91.0	92.3
Productivity (% change)	2.0	0.7	1.4	1.0	3.2	3.3	0.5		-0.2	0.7	1.3	1.4
Industrial Production (% change)	3.2	2.2	2.5	-3.4	-11.2	5.7	3.4	3.6	2.2	2.4	2.5	2.0
Factory Operating Rate	78.1	78.4	78.6	74.5	65.7	71.3	74.0	75.8	76.1	76.2	76.4	75.4
Nonfarm Inven. Chg. (Bil. of 2005 \$)	63.9	75.4	36.5	-35.0	-146.0	65.9	39.7	68.7	41.0	40.3	51.3	32.6
Consumer Sentiment Index	88.6	87.3	85.6	63.8	66.3	71.8	67.4	76.5	80.2	83.9	86.2	85.9
Light Vehicle Sales (Million units)	16.9	16.5	16.1	13.2 0.9	10.4 0.6	11.6 0.6	12.7 0.6	14.4 0.8	15.5 0.9	15.8	16.1	16.3 1.6
Housing Starts (Million units) Existing House Sales (Million units)	2.1 6.2	1.8 5.7	1.3 4.4	3.7	3.9	3.7	3.8	0.6 4.1	4.5	1.2 4.9	1.5 5.1	4.9
Unemployment Rate (%)	5.1	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.5	7.1	6.7	6.4
Payroll Employment (% change)	1.7	1.8	1.1	-0.6	-4.4	-0.7	1.2	1.7	1.7	1.6	1.4	1.4
Federal Surplus (Unified, FY, bil. \$)	-318.7	-248.2	-161.5	-454.8	-1415.7		-1296.8	-1089.2	-699.5	-757.8	-719.7	-740.7
Current Account Balance (Bil. \$)	-739.8	-798.5	-713.4	-681.3	-381.6	-449.5	-457.7	-440.4	-389.4	-412.1	-471.1	-515.0
5 1 15 1 5 1 (0)				4.0		inancial I	-		1			
Federal Funds Rate (%) 3-Month Treasury Bill Rate (%)	3.2	5.0 4.7	5.0	1.9	0.2 0.2	0.2 0.1	0.1	0.1 0.1	0.1	0.2	0.4 0.7	2.2 2.6
1-Year Treasury Note Yield (%)	3.1 3.6	4.7	4.4 4.5	1.4 1.8	0.2	0.1	0.1 0.2	0.1	0.1	0.1 0.1	0.7	3.0
5-Year Treasury Note Yield (%)	4.0	4.7	4.4	2.8	2.2	1.9	1.5	0.2	1.3	1.7	2.2	3.6
10-Year Treasury Note Yield (%)	4.3	4.8	4.6	3.7	3.3	3.2	2.8	1.8	2.4	3.0	3.5	4.1
30-Year Treasury Note Yield (%)	4.6	4.9	4.8	4.3	4.1	4.3	3.9	2.9	3.5	4.0	4.4	4.9
30-Year Fixed Mortgage Rate (%)	5.9	6.4	6.3	6.0	5.0	4.7	4.5	3.7	4.1	4.7	5.2	6.0
S&P 500 Stock Index	1207.1	1310.7	1476.7	1220.9	946.7	1139.3	1268.9	1379.6	1606.7	1627.9	1561.6	1489.5
(% change)	6.8	8.6	12.8	-17.2	-18.9	21.6	11.5	8.9	16.4	1.5	-4.1	-4.6
Exchange Rate, Major Trading Partners	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9	1.0	1.0	1.0	1.0
(% change (negative = depreciation))	-1.8	-1.4	-5.6	-4.1	4.8	-2.8	-5.8	3.7	3.6	1.7	0.3	-0.5
						Inc	omes					
Personal Income (Bil. of \$)	10610.3	11389.9	11005 8	12430.6	12082 1			13743.8	14122 7	14772 7	15440.7	16163.5
(% change)	5.6	7.4	5.3	3.6	-2.8	2.9	6.1	4.2	2.8	4.6	4.5	4.7
Disposable Income (Bil. of \$)		10037.7		10995.4							13680.8	
(% change)	4.4	6.8	4.7	4.6	-0.5	2.8	4.8	3.9	1.8	4.8	4.8	5.0
Real Disposable Income (Bil. Of 2005 \$)	10190.5	10596.5	10821.9	10988.5	10937.4	11060.8	11325.0	11551.5	11617.8	12005.0	12395.8	12807.0
(% change)	1.5	4.0	2.1	1.5	-0.5	1.1	2.4	2.0	0.6	3.3	3.3	3.3
Saving Rate (%)	2.6	3.4	3.0	5.0	6.1	5.6	5.7	5.6	4.4	5.1	5.7	6.2
After-Tax Profits (Billions of \$)	1240.9	1378.1	1302.9	1073.3	1198.7	1464.3	1473.1	1755.3	1787.8	1901.3	1856.5	1811.7
(% change)	30.8	11.2	-5.4	-17.5	22.2	23.4	0.6	19.2	1.9	6.4	-2.4	-2.4

# U.S. FORECAST TABLES

**Table 2. Real Gross Domestic Product** 

				Hist	fory				ı	Fore	cast	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
					R	eal GDP E	Billions 20	005 \$				
Gross Domestic Product	14235.6	14615.2	14876.8	14833.6	14417.9	14779.4	15052.4	15470.7	15711.3	16072.7	16525.0	16961.0
Final Sales of Domestic Product	14170.1	14543.6	14839.3	14868.9	14565.5	14717.7	15014.4	15403.2	15648.1	16026.0	16467.6	16922.8
Total Consumption	9527.8	9814.9	10035.5	9999.2	9842.9	10035.9	10291.3	10517.6	10716.1	10982.1	11263.9	11561.2
Durables	1046.9	1091.5	1141.7	1083.2	1023.3	1085.7	1157.1	1246.7	1330.1	1405.7	1478.5	1551.5
Nondurables	2132.3	2202.2	2239.3	2214.7	2175.1	2223.5	2266.0	2296.8	2346.9	2408.1	2452.8	2503.2
Services	6349.4	6519.8	6650.4	6700.6	6644.5	6727.2	6871.1	6982.7	7053.7	7188.8	7359.9	7540.8
Nonresidential Fixed Investment	1717.4	1839.6	1948.4	1934.5	1633.5	1673.8	1800.4	1931.8	1981.0	2085.5	2205.3	2342.7
Equipment & Software	801.6	870.8	898.3	836.1	644.3	746.7	841.7	905.9	936.5	1007.5	1086.2	1149.4
Information Processing Equipment	222.2	250.9	279.9	281.0	256.1	281.4	287.9	295.7	306.9	340.5	381.2	420.8
Computers & Peripherals	52.1	64.3	72.8	77.1	76.8	84.7	83.4	87.9	85.8	94.0	112.1	131.3
Communications Equipment	74.6	85.2	96.2	91.5	79.4	90.2	92.3	100.6	111.6	124.1	133.7	144.9
Industrial Equipment	183.6	199.1	205.3	195.5	152.1	151.3	175.0	184.6	189.5	207.4	225.4	234.7
Transportation Equipment	179.6	194.3	188.8	146.2	70.6	127.5	171.8	214.4	217.1	227.2	232.0	233.3
Aircraft	25.9	23.6	30.2	30.0	17.7	22.1	24.5	32.0	28.6	29.2	30.3	32.1
Other Equipment	53.5	57.1	48.1	42.6	30.8	36.2	49.2	56.6	52.1	51.8	51.7	49.9
Structures	421.2	451.5	509.0	540.2	438.2	366.3	374.1	421.6	422.3	436.1	452.8	501.5
Commercial & Health	162.8	172.6	189.9	182.8	126.7	95.2	94.8	102.3	102.0	111.8	132.7	161.5
Manufacturing	34.2	36.5	43.1	53.8	56.3	40.8	39.1	45.0	45.0	46.0	47.6	53.6
Power & Communication	58.1	61.7	85.9	94.5	95.8	80.4	74.1	88.0	81.9	85.6	80.3	77.5
Mining & Petroleum	92.1	99.5	97.9	105.0	75.0	87.8	109.0	124.1	130.2	128.0	121.1	130.5
Other	72.7	79.7	91.8	103.4	84.5	62.0	57.3	61.9	63.7	65.3	72.7	80.6
Residential Fixed Investment	872.6	806.6	654.8	497.7	392.3	382.4	384.3	433.8	491.8	572.3	662.0	696.6
Exports	1388.4	1512.4	1647.3	1741.8	1583.8	1765.6	1890.6	1957.5	2004.8	2073.9	2149.5	2253.9
Imports	2165.5	2298.6	2350.9	2288.7	1976.0	2228.1	2336.4	2388.2	2426.5	2566.4	2687.8	2797.7
Federal Government	1034.8	1060.9	1078.7	1152.3	1217.7	1270.7	1237.9	1220.3	1162.3	1164.0	1157.2	1143.8
State & Local Government	1792.3	1808.9	1836.2	1842.5	1871.4	1820.8	1754.5	1742.8	1732.7	1734.9	1741.9	1751.0

Table 3. Quarterly Summary of the Forecast of the U.S.

	2013Q1	2013Q2	2013Q3	2013Q4	2014Q1	2014Q2	2014Q3	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4
						Composi	ition of Re	eal GDP, F	ercent Cl	nange, An	nual Rate					
Gross Domestic Product	1.1	2.5	1.7	2.1	2.3	2.4	2.6	2.9	2.9	2.8	2.9	2.7	2.4	2.5	2.7	2.9
Final Sales of Domestic Product Total Consumption	0.2 2.3	1.9 1.8	1.9 1.6	1.9 2.3	2.7 2.9	2.7 2.8	2.8 2.6	2.6 2.7	2.8 2.4	2.8 2.5	2.9 2.6	2.7 2.4	2.8 2.8	2.7 2.6	2.7 2.7	2.9 3.0
Durables	5.8	6.1	4.9	5.0	5.6	6.8	5.4	5.9	4.0	4.9	5.8	5.1	5.3	4.3	4.2	5.1
Nondurables	2.7	1.8	4.6	2.5	2.7	2.1	2.1	2.1	1.8	1.6	1.8	1.8	2.2	2.1	2.3	2.4
Services	1.5	1.1	0.1	1.8	2.5	2.3	2.3	2.5	2.4	2.4	2.3	2.2	2.5	2.5	2.6	2.9
Nonresidential Fixed Investment	-4.6	4.4	3.9	5.4	6.2	5.5	4.9	4.9	6.2	6.1	6.2	6.3	5.6	7.1	6.3	5.9
Equipment & Software	1.6	2.9	3.6	8.5	9.4	8.4	8.2	6.8	9.0	8.0	6.7	6.7	4.4	5.7	5.8	5.4
Information Processing Equipment Computers & Peripherals	-2.7 -15.9	9.2 -14.2	-2.1 -2.4	14.5 8.8	13.3 9.8	13.2 16.3	12.1 19.9	11.4 22.5	12.8 19.6	11.9 19.2	10.8 15.5	11.4 17.8	9.9 16.2	10.3 18.0	9.6 16.9	8.8 16.8
Communications Equipment	-8.1	52.9	-9.2	17.4	13.6	10.8	6.8	5.5	7.7	8.8	8.4	8.9	9.0	8.5	7.4	5.7
Industrial Equipment	0.3	-0.5	2.7	9.5	13.1	12.5	10.2	8.3	10.3	7.5	6.1	5.8	3.5	2.4	2.2	3.5
Transportation Equipment	-7.7	4.7	11.7	6.1	5.0	0.9	3.9	-1.7	4.1	3.4	0.9	2.2	-4.1	2.7	3.2	0.6
Aircraft	-50.6	-25.6	5.7	7.3	3.0	1.3	5.7	1.2	4.7	4.1	5.0	7.5	4.2	6.6	6.2	5.3
Other Equipment Structures	4.0 -25.7	17.9 16.1	-8.3 3.8	-3.8 2.8	-2.7 2.9	3.1 2.4	5.7 0.3	-6.4 1.6	-4.1 3.1	3.6 4.8	5.8 8.7	-3.0 9.7	-19.8 10.5	9.1 15.5	4.8 11.4	-7.4 9.1
Commercial & Health Care	-23.7	-8.6	3.6	-0.5	7.8	24.5	20.0	17.1	14.2	18.1	25.1	22.1	21.4	23.5	19.7	18.5
Manufacturing	-5.4	-15.8	-1.5	4.9	2.9	9.1	4.4	-3.9	-2.4	9.3	9.8	13.3	12.5	18.5	9.9	10.1
Power & Communication	-68.3	34.3	9.4	7.0	9.8	-4.9	-4.8	-7.5	-7.0	-6.1	-4.5	-5.8	-5.9	0.1	-1.0	2.2
Mining & Petroleum	-1.6	30.3	6.3	3.0	-3.9	-8.6	-12.3	-4.5	-6.0	-5.3	-0.4	3.0	9.2	20.4	12.0	2.3
Other	-15.2	39.3	-4.4	0.6	1.2	0.7	1.7	5.3	20.8	12.8	12.7	15.8	10.6	7.9	8.7	8.0
Residential Fixed Investment	12.5 -1.3	12.9 8.6	9.3 3.5	14.5 4.1	19.5 2.5	16.3 3.2	21.2 2.6	17.4 2.9	15.3 3.4	15.7 4.2	12.7 5.0	7.9 5.0	4.2 4.9	1.0	0.4 4.8	0.7 4.9
Exports Imports	0.6	7.0	1.1	6.8	7.2	6.2	5.3	4.8	4.0	5.0	4.5	4.5	3.7	4.7 4.1	3.6	3.8
Federal Government	-8.4	-1.6	-3.2	-3.0	3.1	1.9	1.8	-1.6	-0.4	-1.4	-1.4	-1.1	-1.5	-0.9	-0.8	-0.8
State & Local Government	-1.3	-0.5	0.1	-0.2	0.1	0.4	0.5	0.4	0.3	0.5	0.4	0.5	0.4	0.6	0.6	0.7
								Billions	of Dollars							
Real GDP	15583.9	15681.0	15749 1	15831.1	15920 8	16014.8	16119.5	Billions of	16353.0	16467.8	16585.1	16694.2	16794.5	16899.3	17013.2	17136 9
Nominal GDP	16535.3	16667.9	16801.0			17340.2					18313.0	18500.5	18701.8	18893.1	19090.1	19296.4
						Price	ne W. S. ac	s Parcar	nt Change	, Annual F	Pato.					
GDP Deflator	1.3	0.8	1.8	2.0	2.2	1.9	1.6	1.5	1.8	1.4	1.6	1.5	2.0	1.6	1.5	1.4
Consumer Prices	1.4	0.0	2.7	1.2	1.5	1.6	1.5	1.4	1.8	1.6	1.8	1.5	2.1	2.0	1.8	1.6
Excl. Food & Energy	2.1	1.4	1.9	1.8	2.2	2.3	1.9	1.7	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.7
Producer Prices, Finished Goods	0.7	-1.1	2.8	8.0	0.2	0.2	0.3	0.3	1.3	0.6	1.3	1.1	2.7	1.3	0.9	0.6
Employment Cost Index - Total Comp.	1.7	2.4	1.9	2.2	2.9	2.5	2.6	2.4	2.8	2.6	2.7	2.8	3.0	2.8	2.7	2.7
							C	Other Key	Measures	5						
Oil - WTI (\$ per barrel)	94.3	94.2	106.2	103.4	99.6	96.6	94.4	93.2	92.0	90.9	90.8	90.3	91.0	91.9	92.8	93.7
Productivity (% change)	-1.7	0.9	-0.2	0.1	0.9	0.8	1.0	1.4	1.3	1.3	1.4	1.3	1.3	1.5	1.8	2.0
Industrial Production (% change) Factory Operating Rate	4.1 76.3	0.3 75.9	1.1 75.8	5.5 76.3	2.4 76.4	1.2 76.1	2.1 76.1	2.8 76.4	3.0 76.5	2.5 76.5	2.4 76.4	2.0 76.2	1.9 75.8	1.9 75.4	2.2 75.3	1.9 75.2
Nonfarm Inven. Chg. (Bil. of 2005 \$)	22.2	38.1	44.4	59.3	46.2	36.8	33.3	45.0	49.9	53.1	51.6	50.5	37.4	30.7	30.3	31.9
Consumer Sentiment Index	76.7	81.7	81.7	80.8	82.7	83.2	84.4	85.3	85.1	86.2	86.8	86.6	86.2	85.7	85.4	86.1
Light Vehicle Sales (Million units)	15.253	15.472	15.688	15.564	15.614	15.716	15.808	15.872	15.943	16.017	16.077	16.200	16.269	16.297	16.305	16.342
Housing Starts (Million units)	0.957	0.872	0.921	0.991	1.065	1.167	1.243	1.308	1.387	1.457	1.527	1.545	1.563	1.576	1.593	1.601
Existing House Sales (Million units)	4.343 7.7	4.470 7.6	4.650 7.3	4.667 7.3	4.740 7.2	4.835 7.1	4.938 7.1	5.007 6.9	5.007 6.8	5.071 6.7	5.104 6.6	5.067 6.5	5.084 6.5	4.944 6.4	4.842 6.4	4.853 6.3
Unemployment Rate (%) Payroll Employment (% change)	1.9	1.7	1.9	2.0	1.6	1.4	1.4	1.3	1.4	1.2	1.4	1.5	1.3	1.4	1.4	0.3 1.4
Federal Surplus (NIPA Bil. \$)	-853	-656	-833	-828	-779	-742	-779	-770	-778	-780	-776	-772	-816	-836	-850	-875
Current Account Balance (Bil. \$)	-425	-382	-373	-378	-397	-405	-415	-432	-449	-465	-480	-491	-498	-509	-521	-533
							Fi	nancial M	arkets, N	SA						
Federal Funds Rate (%)	0.14	0.12	0.09	0.12	0.16	0.16	0.16	0.16	0.16	0.29	0.89	1.36	1.88	2.42	2.96	3.46
3-Month Treasury Bill Rate (%)	0.09	0.05	0.07	0.08	0.09	0.09	0.08	0.08	0.08	0.23	0.95	1.36	1.88	2.40	2.91	3.35
1-Year Treasury Note Yield (%)	0.15	0.13	0.18	0.17	0.16	0.15	0.14	0.14	0.14	0.40	1.35	1.72	2.28	2.81	3.32	3.72
5-Year Treasury Note Yield (%)	0.83	0.92	1.63	1.74	1.73	1.72	1.74	1.76	1.80	1.97	2.44	2.57	2.99	3.41	3.75	4.07
10-Year Treasury Note Yield (%) 30-Year Treasury Note Yield (%)	1.95 3.14	2.00 3.15	2.83 3.82	2.89 3.87	2.91 3.91	2.96 3.97	3.05 4.02	3.08 4.07	3.15 4.13	3.35 4.28	3.73 4.62	3.77 4.63	3.99 4.80	4.12 4.93	4.16 4.92	4.28 4.93
30-Year Fixed Mortgage Rate (%)	3.50	3.69	4.52	4.63	4.63	4.65	4.76	4.79	4.13	5.01	5.31	5.58	5.77	5.98	6.11	6.29
S&P 500 Stock Index	1515	1610	1655	1648	1642	1634	1623	1613	1602	1586	1548	1510	1491	1488	1485	1494
(% change)	30.1	27.6	11.6	-1.7	-1.4	-1.9	-2.8	-2.5	-2.6	-3.8	-9.4	-9.3	-4.9	-0.9	-0.8	2.3
Exchange Rate, Major Trading Partners	0.963	0.984	0.988	0.986	0.989	0.994	0.999	1.003	1.001	0.999	0.998	0.998	0.997	0.995	0.994	0.992
(%change (negative = depreciation))	9.2	9.2	1.6	-0.7	1.3	2.0	2.0	1.3	-0.5	-0.9	-0.6	0.3	-0.6	-0.9	-0.5	-0.6
B	4000-	4,000	44.00	44000	4	44000	440=6	Inco		45050	4=	4500	45000	400=0	400.00	40.00
Personal Income (Bil. of \$) (% change)	13926 -4.1	14060 3.9	14183 3.5	14322 4.0	14537 6.1	14693 4.4	14852 4.4	15008 4.3	15204 5.3	15359 4.1	15518 4.2	15681 4.3	15900 5.7	16072 4.4	16246 4.4	16436 4.7
Disposable Income (Bil. of \$)	12297	12396	3.5 12517	12642	12837	12990	13131	13282	13451	13599	13759	13913	14113	14272	14446	4.7 14626
(% change)	-7.0	3.2	4.0	4.1	6.3	4.8	4.4	4.7	5.2	4.5	4.8	4.6	5.9	4.6	5.0	5.1
Real Disposable Income (Bil. of 2005 \$)	11502	11594	11649	11725	11862	11959	12049	12150	12256	12347	12443	12538	12661	12749	12853	12965
(% change)	-7.9	3.2	1.9	2.6	4.7	3.3	3.1	3.4	3.5	3.0	3.2	3.1	4.0	2.8	3.3	3.5
Saving Rate (%)	4.1	4.5	4.6	4.6	4.9	5.1	5.1	5.3	5.5	5.6	5.7	5.8	6.1	6.1	6.2	6.3
After-Tax Profits (Billions of \$) (% change)	1785 -2.6	1830 10.6	1773 -11.9	1763 -2.3	1880 29.4	1899 4.1	1907 1.8	1919 2.4	1849 -13.8	1857 1.7	1862 1.1	1859 -0.5	1797 -12.7	1806 2.1	1812 1.3	1831 4.2
(70 Shange)	-2.0	10.0	-11.3	-2.3	23.4	7.1	1.0	2.4	-13.0	1.7	1.1	-0.5	-12.1	۷.۱	1.3	7.2

# U.S. FORECAST TABLES

**Table 4. Quarterly Gross Domestic Product** 

2013Q1 2013Q2 2013Q3 2013Q4 2014Q1 2014Q2 2014Q3 2014Q4 2015Q1 2015Q2 2015Q3 2015Q4 2016Q4 2016Q1 2016Q2 2016Q3 2016Q4

### Real GDP Billions 2005 \$

										•						
Gross Domestic Product	15583.9	15681.0	15749.1	15831.1	15920.8	16014.8	16119.5	16235.8	16353.0	16467.8	16585.1	16694.2	16794.5	16899.3	17013.2	17136.9
Final Sales of Domestic Product	15536.4	15610.8	15686.2	15759.2	15865.6	15972.1	16081.2	16185.1	16297.1	16408.6	16527.4	16637.6	16751.4	16863.1	16977.4	17099.5
Total Consumption	10644.0	10690.6	10734.1	10795.6	10872.5	10946.9	11017.0	11091.9	11159.0	11228.1	11300.4	11368.2	11446.2	11519.9	11596.2	11682.4
Durables	1303.5	1322.9	1338.9	1355.3	1374.1	1397.0	1415.6	1436.0	1450.2	1467.8	1488.7	1507.1	1526.5	1542.6	1558.6	1578.2
Nondurables	2322.2	2332.4	2359.1	2373.9	2389.7	2401.9	2414.3	2426.6	2437.2	2447.0	2458.0	2468.8	2482.5	2495.7	2509.8	2524.9
Services	7031.1	7049.7	7051.3	7082.7	7126.3	7167.8	7208.6	7252.6	7295.9	7339.3	7382.0	7422.5	7469.3	7515.1	7562.8	7616.1
Nonresidential Fixed Investment	1949.0	1970.1	1989.2	2015.6	2046.0	2073.6	2098.8	2123.8	2156.0	2188.1	2221.4	2255.8	2286.5	2326.2	2362.1	2396.2
Equipment & Software	922.5	929.2	937.5	956.7	978.5	998.4	1018.2	1035.0	1057.5	1078.1	1095.8	1113.6	1125.7	1141.5	1157.6	1172.9
Information Processing Equipment	300.0	306.7	305.1	315.6	325.6	335.9	345.6	355.0	365.9	376.3	386.1	396.6	406.1	416.2	425.8	434.9
Computers & Peripherals	88.1	84.8	84.3	86.1	88.1	91.5	95.8	100.7	105.4	110.1	114.1	118.9	123.5	128.7	133.8	139.1
Communications Equipment	103.1	114.7	111.9	116.5	120.3	123.4	125.5	127.2	129.5	132.3	135.0	137.9	140.9	143.8	146.4	148.4
Industrial Equipment	188.0	187.7	189.0	193.3	199.4	205.3	210.3	214.6	219.9	223.9	227.3	230.5	232.5	233.9	235.2	237.2
Transportation Equipment	211.5	213.9	219.9	223.2	225.9	226.4	228.6	227.7	230.0	231.9	232.4	233.6	231.2	232.7	234.6	234.9
Aircraft	29.9	27.8	28.1	28.6	28.9	28.9	29.4	29.4	29.8	30.1	30.5	31.0	31.3	31.8	32.3	32.7
Other Equipment	51.2	53.3	52.2	51.7	51.3	51.7	52.4	51.6	51.0	51.5	52.2	51.8	49.1	50.1	50.7	49.7
Structures	407.9	423.5	427.5	430.5	433.6	436.2	436.5	438.2	441.5	446.7	456.1	466.9	478.7	496.2	509.8	521.1
Commercial & Health	103.3	101.0	101.9	101.8	103.7	109.6	114.7	119.3	123.3	128.6	136.0	142.9	150.0	158.2	165.4	172.6
Manufacturing	46.4	44.4	44.3	44.8	45.1	46.1	46.6	46.2	45.9	46.9	48.0	49.5	51.0	53.2	54.5	55.8
Power & Communication	76.2	82.1	83.9	85.4	87.4	86.3	85.2	83.6	82.1	80.8	79.8	78.7	77.5	77.5	77.3	77.7
Mining & Petroleum	122.6	131.0	133.0	134.0	132.7	129.7	125.5	124.1	122.2	120.6	120.4	121.3	124.0	129.9	133.7	134.4
Other	60.1	65.3	64.6	64.7	64.9	65.0	65.3	66.1	69.3	71.4	73.6	76.3	78.3	79.8	81.5	83.1
Residential Fixed Investment	471.2	485.7	496.6	513.7	537.1	557.7	585.2	609.2	631.3	654.7	674.6	687.6	694.6	696.4	697.1	698.3
Exports	1960.5	2001.2	2018.7	2038.9	2051.3	2067.5	2080.9	2095.7	2113.2	2135.3	2161.5	2188.1	2214.5	2240.4	2266.9	2294.0
Imports	2382.7	2423.2	2430.0	2470.2	2513.7	2551.6	2584.9	2615.5	2641.4	2673.6	2703.3	2733.0	2757.9	2786.0	2810.4	2836.5
Federal Government	1172.8	1168.0	1158.6	1149.7	1158.4	1163.9	1169.1	1164.5	1163.2	1159.0	1154.9	1151.8	1147.4	1144.9	1142.6	1140.4
State & Local Government	1734.3	1732.1	1732.7	1731.7	1732.2	1733.8	1735.9	1737.5	1738.8	1741.0	1742.8	1744.9	1746.8	1749.6	1752.3	1755.5

Table 5. Annual Employment

				Histo	ory					Fore	cast	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
						Mill	lions					
Total Nonfarm Employment	133.74	136.13	137.64	136.85	130.86	129.91	131.50	133.74	136.03	138.26	140.14	142.05
Private Nonfarm	111.93	114.15	115.42	114.35	108.31	107.42	109.41	111.82	114.18	116.33	118.18	120.05
Mining	0.56	0.62	0.66	0.71	0.64	0.65	0.74	0.80	0.82	0.84	0.84	0.87
Construction	7.33	7.69	7.63	7.16	6.02	5.52	5.53	5.64	5.81	6.08	6.67	7.24
Manufacturing	14.23	14.16	13.88	13.40	11.85	11.53	11.73	11.92	12.01	12.18	12.29	12.35
Trade, Transportation and Utilities	25.96	26.28	26.63	26.29	24.90	24.64	25.07	25.51	26.00	26.35	26.55	26.82
Transportation & Warehousing	4.36	4.47	4.54	4.51	4.24	4.19	4.30	4.41	4.47	4.56	4.70	4.86
Financial Activities	8.20	8.37	8.35	8.20	7.84	7.70	7.70	7.79	7.89	7.92	7.85	7.76
Education & Health	17.37	17.82	18.32	18.84	19.19	19.53	19.89	20.32	20.67	21.02	21.24	21.67
Professional & Business Services	16.95	17.57	17.95	17.74	16.58	16.72	17.33	17.93	18.56	19.20	19.80	20.23
Information	3.06	3.04	3.03	2.98	2.80	2.71	2.67	2.68	2.70	2.71	2.72	2.77
Leisure & Hospitality	12.81	13.11	13.43	13.44	13.07	13.04	13.35	13.75	14.19	14.48	14.67	14.81
Government	21.80	21.98	22.22	22.50	22.55	22.49	22.09	21.91	21.85	21.92	21.96	22.01
Federal	2.73	2.73	2.74	2.76	2.83	2.98	2.86	2.82	2.75	2.76	2.74	2.69
State & Local	19.07	19.24	19.48	19.74	19.72	19.51	19.23	19.10	19.10	19.16	19.22	19.32
						Growt	h Rates		ı			
Total Nonfarm Employment	1.71	1.79	1.11	-0.57	-4.38	-0.71	1.22	1.70	1.71	1.64	1.36	1.37
Private Nonfarm	1.87	1.99	1.11	-0.93	-5.28	-0.80	1.85	2.21	2.11	1.89	1.58	1.58
Mining	9.36	10.03	5.74	6.77	-14.53	11.65	13.45	3.27	4.89	0.21	0.85	3.19
Construction	5.81	2.36	-1.95	-9.21	-16.57	-3.46	1.84	1.62	3.16	6.94	10.53	7.18
Manufacturing	-0.83	-1.03	-2.05	-5.36	-11.40	0.60	1.77	1.38	1.03	1.25	1.05	-0.03
Trade, Transportation and Utilities	1.65	1.14	1.17	-3.31	-4.74	0.70	1.98	1.83	2.11	0.75	0.74	1.11
Transportation & Warehousing	2.48	2.60	0.89	-2.70	-5.70	1.56	2.44	2.86	0.58	2.68	3.28	3.19
Financial Activities	1.89	1.37	-1.16	-2.31	-4.30	-0.89	0.50	1.34	1.41	-0.34	-1.13	-1.08
Education & Health	2.51	2.62	2.88	2.57	1.72	1.77	2.00	2.06	1.46	1.60	1.21	2.26
Professional & Business Services	3.74	3.08	1.64	-3.60	-5.16	2.92	3.54	3.29	4.01	3.02	3.04	2.09
Information	-1.07	-0.93	-0.04	-3.14	-6.04	-2.27	-0.38	-0.05	0.58	0.86	0.49	2.49
Leisure & Hospitality	2.15	2.85	2.15	-1.66	-2.44	1.27	2.77	2.69	3.83	1.24	1.06	1.03
Government	0.81	1.03	1.16	0.98	-0.19	-0.93	-1.40	-0.41	-0.20	0.53	0.14	0.23
Federal	0.34	-0.21	0.54	1.11	2.41	4.82	-0.84	-1.45	-2.48	0.98	-1.15	-1.82
State & Local	0.88	1.20	1.25	0.97	-0.54	-1.31	-1.48	-0.25	0.13	0.46	0.32	0.52

**Table 6. Quarterly Employment** 

2013Q1 2013Q2 2013Q3 2013Q4 2014Q1 2014Q2 2014Q3 2014Q4 2015Q1 2015Q2 2015Q3 2015Q4 2016Q1 2016Q2 2016Q3 2016Q4

																_
							Emp	loyme	nt (Milli	ons)						
Total Nonfarm Employment	135.1	135.7	136.3	137.0	137.5	138.0	138.5	139.0	139.4	139.9	140.4	140.9	141.3	141.8	142.3	142.8
Private Nonfarm	113.2	113.8	114.5	115.2	115.7	116.1	116.5	117.0	117.5	117.9	118.4	118.9	119.3	119.8	120.3	120.7
Mining	8.0	0.8	0.8	8.0	0.8	0.8	8.0	0.8	8.0	8.0	8.0	0.8	0.9	0.9	0.9	0.9
Construction	5.8	5.8	5.8	5.9	5.9	6.0	6.1	6.3	6.4	6.6	6.8	6.9	7.1	7.2	7.3	7.4
Manufacturing	12.0	12.0	12.0	12.1	12.1	12.2	12.2	12.2	12.2	12.3	12.3	12.3	12.4	12.3	12.3	12.3
Trade, Transportation and Utilities	25.8	25.9	26.1	26.2	26.3	26.3	26.4	26.4	26.5	26.5	26.6	26.6	26.7	26.8	26.9	26.9
Transportation & Warehousing	4.5	4.5	4.5	4.5	4.5	4.5	4.6	4.6	4.6	4.7	4.7	4.8	4.8	4.8	4.9	4.9
Financial Activities	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.8	7.8	7.8	7.8	7.7
Education & Health	20.5	20.6	20.7	20.8	20.9	21.0	21.0	21.1	21.2	21.2	21.3	21.4	21.5	21.6	21.7	21.8
Professional & Business Services	18.3	18.5	18.7	18.8	19.0	19.1	19.2	19.4	19.6	19.7	19.9	20.0	20.1	20.2	20.3	20.4
Information	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.8	2.8	2.8
Leisure & Hospitality	14.0	14.1	14.3	14.4	14.4	14.4	14.5	14.6	14.6	14.7	14.7	14.7	14.7	14.8	14.8	14.9
Government	21.9	21.9	21.8	21.8	21.9	21.9	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Federal	2.8	2.8	2.7	2.7	2.7	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7	2.7	2.7	2.7
State & Local	19.1	19.1	19.1	19.1	19.1	19.2	19.2	19.2	19.2	19.2	19.2	19.3	19.3	19.3	19.3	19.4
								Growth	Rates							
Total Nonfarm Employment	1.92	1.73	1.87	1.96	1.62	1.39	1.36	1.32	1.42	1.24	1.37	1.50	1.28	1.37	1.35	1.36
Private Nonfarm	2.35	2.07	2.31	2.34	1.80	1.50	1.48	1.58	1.67	1.47	1.59	1.72	1.51	1.57	1.55	1.55
Mining	7.91	0.23	4.85	6.12	2.26	0.80	-1.14	-1.13	0.41	0.82	0.48	1.67	3.11	3.48	3.33	2.70
Construction	6.67	1.50	0.66	3.59	4.46	5.37	8.25	8.93	9.78	10.58	10.73	9.44	8.04	7.44	6.67	5.84
Manufacturing	1.31	-0.21	1.29	1.69	1.93	2.20	0.88	-0.05	0.86	0.91	1.31	1.11	0.57	-0.27	-0.03	-0.41
Trade, Transportation and Utilities	1.47	1.22	3.18	2.49	0.37	0.69	1.07	0.85	0.56	0.53	0.84	1.03	0.90	1.22	1.19	1.09
Transportation & Warehousing	0.25	-0.14	0.57	1.65	2.30	2.79	2.81	2.83	3.42	3.05	3.15	3.51	3.35	3.24	3.15	3.04
Financial Activities	1.37	1.64	1.47	1.14	-0.40	-0.29	-0.05	-0.64	-0.70	-1.28	-1.33	-1.20	-1.01	-0.99	-1.29	-1.04
Education & Health	1.58	1.90	1.10	1.26	3.16	1.65	0.68	0.90	1.02	0.92	1.04	1.86	2.41	2.73	1.78	2.10
Professional & Business Services	3.79	4.59	3.75	3.90	3.93	2.31	2.31	3.53	4.17	2.93	2.52	2.56	1.71	1.52	2.40	2.72
Information	2.36	-0.05	1.37	-1.36	5.43	-2.52	-2.19	2.71	-1.53	0.39	2.84	0.28	1.90	2.98	3.16	1.92
Leisure & Hospitality	3.42	4.34	3.72	3.83	-0.24	1.64	1.87	1.68	1.30	0.97	0.79	1.18	0.49	0.95	1.24	1.42
Government	-0.32	-0.05	-0.37	-0.07	0.66	0.79	0.71	-0.06	0.04	0.01	0.19	0.31	0.07	0.29	0.24	0.32
Federal	-2.08	-3.73	-3.12	-1.01	1.39	3.07	1.96	-2.49	0.50	-1.71	-1.76	-1.64	-3.01	-1.49	-1.39	-1.40
State & Local	-0.06	0.50	0.03	0.06	0.56	0.47	0.54	0.29	-0.02	0.26	0.47	0.59	0.51	0.54	0.47	0.56

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

	2013Q1	2013Q2	2013Q3	2013Q4	2014Q1	2014Q2	2014Q3	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4
GDP	106.0	106.2	106.7	107.2	107.8	108.3	108.7	109.1	109.6	110.0	110.4	110.8	111.4	111.8	112.2	112.6
Consumption	106.9	106.9	107.4	107.8	108.2	108.6	109.0	109.3	109.8	110.1	110.6	111.0	111.5	111.9	112.4	112.8
Durables	95.5	95.0	94.6	94.4	94.2	93.9	93.6	93.3	93.0	92.8	92.6	92.4	92.1	91.9	91.6	91.3
Motor Vehicles	110.7	111.0	111.1	111.3	111.4	111.5	111.5	111.6	111.7	111.9	112.1	112.3	112.5	112.7	112.8	113.0
Furniture	93.4	92.8	91.9	91.6	91.4	91.2	91.0	90.8	90.7	90.6	90.5	90.4	90.3	90.1	90.0	89.8
Other Durables	104.0	104.0	104.5	104.9	105.3	105.6	105.8	106.1	106.4	106.7	107.0	107.3	107.6	107.9	108.1	108.3
Nondurables	112.3	111.1	112.3	112.2	112.1	112.1	112.1	112.2	112.7	112.9	113.3	113.5	114.0	114.5	114.9	115.3
Food	107.5	107.6	107.8	108.4	108.5	108.6	108.7	108.8	109.2	109.6	109.9	110.3	110.7	111.1	111.4	111.7
Clothing & Shoes	105.7	105.0	106.2	106.6	106.7	106.9	106.9	106.8	106.9	106.9	106.8	106.8	106.8	106.7	106.6	106.5
Gasoline & Oil	154.0	144.5	152.2	148.0	144.5	142.0	140.4	139.3	139.5	138.8	138.9	136.9	137.8	138.7	139.7	140.6
Fuel	153.9	144.9	146.1	145.4	144.1	143.1	142.4	141.8	142.2	141.9	142.1	141.2	142.1	143.0	144.0	144.9
Services	107.1	107.5	108.0	108.7	109.4	110.0	110.6	111.2	111.7	112.3	112.9	113.5	114.1	114.7	115.3	115.9
Housing	105.2	105.8	106.3	106.9	107.8	108.5	109.2	109.8	110.3	110.8	111.3	111.9	112.4	112.9	113.4	113.9
Electricity	103.2	104.1	104.3	105.6	106.7	107.4	107.7	107.8	108.1	108.5	109.0	109.4	109.9	110.8	111.7	112.1
Natural Gas	87.7	93.7	91.4	92.4	93.0	94.2	95.2	95.8	96.3	96.0	96.7	99.3	104.6	106.8	106.1	104.2
Water & Sewer	121.7	122.8	124.0	125.1	126.2	127.4	128.5	129.5	130.6	131.7	132.7	133.8	134.8	135.8	136.8	137.8
Telephone	97.8	97.1	97.2	97.0	96.7	96.7	96.4	96.1	95.8	95.5	95.4	95.1	94.9	94.7	94.6	94.4
Transportation	107.8	107.3	108.1	108.7	109.1	109.5	109.9	110.2	110.7	111.1	111.6	112.1	112.6	113.1	113.6	114.1
Other Services	110.3	111.1	111.5	112.1	112.6	113.2	113.9	114.6	115.3	115.9	116.6	117.3	118.0	118.8	119.6	120.3

# U.S. FORECAST TABLES

**Table 8. Percent Change in Implicit Price Deflators** 

	2013Q1	2013Q2	2013Q3	2013Q4	2014Q1	2014Q2	2014Q3	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4
GDP	1.3	8.0	1.8	2.0	2.2	1.9	1.6	1.5	1.8	1.4	1.6	1.5	2.0	1.6	1.5	1.4
Consumption	1.1	0.0	2.0	1.4	1.5	1.5	1.3	1.3	1.6	1.4	1.6	1.4	1.8	1.7	1.6	1.5
Durables	-1.1	-2.0	-1.6	-1.0	-1.0	-1.2	-1.3	-1.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.1	-1.2	-1.3
Motor Vehicles	0.9	1.2	0.1	0.6	0.5	0.3	0.2	0.1	0.5	0.7	0.8	0.8	0.7	0.6	0.5	0.4
Furniture	-0.1	-2.8	-3.6	-1.4	-1.0	-1.0	-0.8	-0.6	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.7	-0.7
Other Durables	0.1	0.0	2.1	1.2	1.5	1.1	1.0	1.0	1.3	1.2	1.1	1.1	1.1	1.1	0.9	0.8
Nondurables	-0.9	-4.0	4.4	-0.3	-0.5	-0.2	0.1	0.5	1.5	1.1	1.3	0.6	1.7	1.7	1.6	1.5
Food	1.3	0.5	0.6	2.2	0.4	0.2	0.3	0.7	1.3	1.3	1.4	1.4	1.4	1.3	1.1	1.0
Clothing & Shoes	1.2	-2.7	4.6	1.5	0.5	0.7	-0.2	-0.1	0.1	-0.1	-0.1	-0.2	-0.1	-0.2	-0.3	-0.4
Gasoline & Oil	-8.0	-22.5	23.2	-10.7	-9.2	-6.7	-4.3	-3.0	0.6	-2.0	0.1	-5.5	2.6	2.8	2.8	2.7
Fuel	4.6	-21.3	3.3	-1.8	-3.6	-2.7	-2.0	-1.5	1.0	-0.8	0.5	-2.5	2.6	2.7	2.6	2.6
Services	2.1	1.8	1.8	2.4	2.7	2.5	2.2	1.9	2.1	1.9	2.1	2.1	2.3	2.2	2.1	2.0
Housing	2.2	2.3	2.0	2.2	3.2	2.9	2.5	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.8	1.8
Electricity	5.4	3.3	0.8	5.2	4.0	2.6	1.2	0.4	1.0	1.7	2.0	1.4	1.9	3.3	3.1	1.7
Natural Gas	1.9	30.3	-9.6	4.5	2.5	5.3	4.2	2.6	2.2	-1.4	3.0	11.3	23.3	8.7	-2.7	-7.1
Water & Sewer	4.4	3.7	4.0	3.6	3.7	3.6	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.0	3.0	3.0
Telephone	0.7	-2.9	0.4	-0.7	-1.0	0.0	-1.1	-1.4	-1.1	-1.2	-0.8	-1.1	-0.8	-0.8	-0.5	-0.8
Transportation	2.6	-1.8	2.9	2.2	1.7	1.3	1.4	1.3	1.8	1.5	1.8	1.7	2.0	1.8	1.7	1.7
Other Services	4.8	3.0	1.5	2.1	1.8	2.0	2.6	2.4	2.4	2.2	2.5	2.4	2.5	2.6	2.7	2.6

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

				Hist	ory					Fore	cast	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP	92.0	94.8	97.3	99.2	100.0	101.2	103.2	105.0	106.5	108.5	110.2	112.0
Consumption	92.3	94.7	97.1	100.1	100.0	101.7	104.1	106.0	107.3	108.8	110.4	112.2
Durables	107.7	105.9	103.8	101.8	100.0	98.6	97.6	96.5	94.9	93.7	92.7	91.7
Motor Vehicles	102.5	102.5	102.0	99.7	100.0	105.7	108.6	110.4	111.0	111.5	112.0	112.8
Furniture	102.4	101.9	101.1	100.4	100.0	95.8	94.2	94.0	92.4	91.1	90.6	90.1
Other Durables	91.9	93.3	95.7	98.9	100.0	100.4	103.6	104.2	104.4	105.7	106.9	108.0
Nondurables	91.6	94.4	97.2	102.7	100.0	103.1	109.1	111.8	112.0	112.1	113.1	114.7
Food	88.2	89.7	93.2	98.9	100.0	100.3	104.3	106.7	107.8	108.6	109.8	111.2
Clothing & Shoes	101.3	100.9	99.9	99.1	100.0	99.3	101.0	104.7	105.9	106.8	106.8	106.7
Gasoline & Oil	95.8	108.0	117.1	136.6	100.0	118.2	148.6	153.9	149.7	141.5	138.5	139.2
Fuel	88.6	100.7	107.7	146.0	100.0	117.0	148.7	150.6	147.6	142.8	141.8	143.5
Services	89.9	93.0	96.0	98.9	100.0	101.7	103.5	105.7	107.8	110.3	112.6	115.0
Housing	89.2	92.3	95.7	98.3	100.0	100.1	101.4	103.7	106.1	108.8	111.1	113.2
Electricity	78.3	87.8	91.2	97.1	100.0	100.2	102.1	102.0	104.3	107.4	108.8	111.1
Natural Gas	111.3	114.0	112.7	128.2	100.1	98.1	95.4	86.1	91.3	94.5	97.1	105.4
Water & Sewer	80.7	84.7	89.0	94.2	100.0	106.3	111.8	118.0	123.4	127.9	132.2	136.3
Telephone	95.1	95.6	97.2	98.7	100.0	99.3	97.5	97.7	97.2	96.5	95.5	94.7
Transportation	86.5	90.0	92.1	97.0	100.0	102.0	104.7	106.8	108.0	109.7	111.4	113.4
Other Services	86.7	90.2	93.0	97.3	100.0	103.1	105.7	108.3	111.3	113.6	116.3	119.2

Table 10. Percent Change in Implicit Price Deflators

				Histo	ory				_	Fore	cast	
_	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
									-			
GDP	3.4	2.7	2.5	1.9	0.4	1.8	1.8	1.8	1.5	1.8	1.6	1.6
Consumption	3.1	1.8	3.3	1.6	1.2	1.3	2.6	1.7	1.1	1.4	1.5	1.7
Durables	-1.2	-1.9	-2.0	-2.1	-0.9	-2.1	-0.6	-1.5	-1.4	-1.2	-1.0	-1.1
Motor Vehicles	0.9	-0.6	0.1	-4.1	5.6	2.9	3.1	0.9	0.7	0.3	0.7	0.5
Furniture	-0.4	-0.1	-1.6	0.3	-2.0	-4.4	-0.2	-0.5	-2.0	-0.8	-0.5	-0.6
Other Durables	0.1	2.1	2.2	3.2	1.3	0.6	3.2	-0.5	0.8	1.2	1.1	1.0
Nondurables	4.0	0.5	6.3	1.2	2.8	2.2	5.8	1.9	-0.2	0.0	1.1	1.6
Food	1.5	1.6	4.9	6.9	-1.8	1.3	5.1	1.2	1.2	0.4	1.4	1.2
Clothing & Shoes	-1.3	0.3	-1.2	-0.9	1.5	-1.4	4.3	2.5	1.2	0.2	0.0	-0.2
Gasoline & Oil	30.9	0.9	30.9	4.8	26.8	13.4	19.5	4.9	-4.5	-5.8	-1.7	2.7
Fuel	31.3	-0.5	27.7	22.4	-0.8	15.7	26.2	2.9	-3.8	-2.5	-0.5	2.6
Services	3.7	3.0	3.3	2.5	1.1	1.5	2.0	2.1	2.0	2.3	2.1	2.1
Housing	2.6	4.2	3.1	2.5	0.9	0.3	1.9	2.3	2.2	2.7	1.9	1.8
Electricity	10.1	8.7	5.0	8.2	-0.4	0.5	2.5	-0.8	3.7	2.1	1.5	2.5
Natural Gas	42.5	-18.4	3.4	19.1	-18.3	-1.2	-2.0	-4.8	6.8	3.7	3.8	5.6
Water & Sewer	5.0	4.9	5.2	6.8	6.0	5.7	4.9	6.0	3.9	3.5	3.3	3.0
Telephone	0.0	1.2	1.3	2.0	0.6	-1.1	-1.5	0.1	-0.6	-0.9	-1.0	-0.7
Transportation	4.9	2.5	3.3	5.9	2.2	1.5	3.1	1.3	1.5	1.4	1.7	1.8
Other Services	4.2	4.1	3.2	4.8	2.4	2.7	2.8	2.1	2.9	2.2	2.4	2.6

Table 11. Personal Income and its Components

				Hist	ory					Fore	cast	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
				P	ersonal I	ncome B	llions Cu	rrent Dolla	rs			
Personal Income	10610.3	11389.9	11995.8	12430.6	12082.1	12435.2	13191.3	13743.8	14122.7	14772.7	15440.7	16163.5
Wages & Salaries	7087.7	7503.2	7899.1	8079.2	7787.8	7967.3	8278.5	8611.6	8839.3	9208.3	9635.2	10070.3
Other Labor Income	966.8	997.6	1041.4	1075.1	1077.5	1120.4	1145.4	1170.6	1190.1	1232.6	1292.9	1360.9
Nonfarm Income	932.6	1017.7	941.1	979.5	937.6	986.7	1082.6	1149.6	1219.6	1282.2	1345.9	1404.9
Farm Income	46.4	36.0	38.1	47.0	35.5	46.0	72.6	75.4	116.3	99.5	98.4	93.5
Rental Income	238.4	207.5	189.4	262.1	333.7	402.8	484.4	541.2	595.6	623.4	615.8	603.0
Dividends	578.3	723.7	816.6	805.5	547.9	544.6	680.5	746.9	786.2	873.8	897.1	922.6
Interest Income	1088.2	1214.8	1350.1	1361.6	1263.9	1195.0	1204.1	1211.6	1226.2	1273.3	1393.6	1551.2
Transfer Payments	1512.0	1609.7	1722.8	1884.0	2140.2	2276.9	2306.9	2358.3	2443.8	2576.7	2688.7	2822.9
Personal Social Insurance Tax	445.3	475.2	499.7	516.9	506.3	514.7	423.8	436.4	573.8	606.4	645.9	685.3
					Perc	ent Chan	ge, Annu	al Rate				
Personal Income	5.6	7.4	5.3	3.6	-2.8	2.9	6.1	4.2	2.8	4.6	4.5	4.7
Wages & Salaries	5.2	5.9	5.3	2.3	-3.6	2.3	3.9	4.0	2.6	4.2	4.6	4.5
Other Labor Income	6.4	3.2	4.4	3.2	0.2	4.0	2.2	2.2	1.7	3.6	4.9	5.3
Nonfarm Income	2.3	9.2	-7.5	4.1	-4.2	5.3	9.7	6.2	6.1	5.1	5.0	4.4
Farm Income	-7.5	-22.1	5.9	24.9	-21.8	30.4	59.2	4.2	54.3	-13.3	-1.1	-5.0
Rental Income	-7.9	-18.1	5.3	52.4	18.4	20.1	21.1	8.2	10.6	1.7	-2.2	-1.5
Dividends	0.1	24.8	10.0	-11.0	-32.5	22.8	19.4	24.0	6.0	4.8	2.5	2.8
Interest Income	19.0	9.8	9.9	-2.2	-8.9	-2.7	0.6	1.7	0.5	7.9	9.2	13.2
Transfer Payments	6.4	6.5	8.1	10.3	14.8	5.5	0.2	3.4	3.5	5.4	4.4	5.2
Personal Social Insurance Tax	5.8	6.6	4.9	2.6	-1.8	2.4	-13.3	4.6	44.3	6.1	6.5	6.0

Table 12. Personal Consumption Expenditures (Current Dollars)

	2013Q1	2013Q2	2013Q3	2013Q4	2014Q1	2014Q2	2014Q3	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4
Consumer spending on					Co	nsumer	Expendi	tures by	Type Bill	lions Cu	rrent Dol	lars				
all goods & services	11379.2	11429.9	11533.5	11639.6	11766.9	11890.4	12005.9	12125.1	12247.7	12367.1	12495.7	12615.7	12759.1	12896.1	13033.3	13179.5
durable goods	1244.8	1257.2	1266.9	1279.4	1293.7	1311.2	1324.4	1339.2	1349.3	1362.3	1378.3	1391.9	1406.3	1417.2	1427.6	1441.0
furniture and appliances	280.7	284.5	287.3	291.4	294.2	296.0	297.3	298.6	299.8	302.7	304.2	305.8	308.7	311.2	312.2	313.7
information processing equipment	98.7	98.8	99.2	100.3	101.3	102.5	103.7	105.0	106.0	107.4	108.7	109.9	110.9	111.9	113.1	114.3
motor vehicles and parts	421.3	421.7	425.2	426.5	431.0	441.1	446.9	454.0	457.2	460.8	468.8	475.4	481.0	483.9	487.5	492.8
other durable goods	137.8	140.2	140.2	143.8	144.9	145.7	146.6	147.6	148.5	149.5	150.6	151.4	152.2	153.0	153.8	154.8
nondurables	2607.0	2591.9	2649.9	2664.3	2679.0	2691.5	2706.3	2723.9	2745.7	2763.9	2785.6	2801.7	2829.5	2856.5	2883.9	2912.0
clothing & shoes	360.0	362.6	366.5	373.7	378.1	381.4	383.8	386.8	390.0	393.2	396.5	399.4	402.1	405.1	408.5	411.3
fuel oil & coal	27.7	24.3	23.7	24.7	24.8	24.7	24.6	24.6	24.8	24.7	24.8	24.7	24.8	25.0	25.2	25.3
gasoline & motor oil	390.6	369.1	397.7	392.1	384.6	377.9	373.9	370.8	370.8	368.3	367.7	362.3	364.5	367.1	370.2	373.6
food	878.9	877.1	886.3	889.9	895.1	899.9	904.7	910.5	916.1	921.9	928.7	935.6	942.9	950.0	956.8	963.5
other nondurable goods	949.7	958.8	975.6	983.9	996.4	1007.6	1019.2	1031.1	1044.0	1055.8	1068.0	1079.8	1095.3	1109.4	1123.2	1138.3
					С	onsume	r Expend	litures b	y Type Bi	illions 20	005 Dolla	rs				
Consumer spending on							•									
all goods & services	10644.0	10690.6	10734.1	10795.6	10872.5	10946.9	11017.0	11091.9	11159.0	11228.1	11300.4	11368.2	11446.2	11519.9	11596.2	11682.4
durable goods	1303.5	1322.9	1338.9	1355.3	1374.1	1397.0	1415.6	1436.0	1450.2	1467.8	1488.7	1507.1	1526.5	1542.6	1558.6	1578.2
furniture and appliances	300.3	306.7	312.6	318.1	322.0	324.7	326.8	328.8	330.4	334.0	336.1	338.3	342.0	345.3	346.9	349.2
information processing equipment	131.5	134.9	137.7	141.7	145.9	150.4	155.3	160.4	165.3	170.7	176.1	181.4	186.6	192.0	197.7	203.7
motor vehicles and parts	380.6	379.8	382.8	383.3	386.9	395.7	400.7	407.0	409.3	411.8	418.1	423.1	427.4	429.4	432.1	436.3
other durable goods	130.8	133.3	132.1	135.2	135.8	136.3	136.9	137.6	138.1	138.8	139.5	140.1	140.6	141.1	141.7	142.4
nondurables	2322.2	2332.4	2359.1	2373.9	2389.7	2401.9	2414.3	2426.6	2437.2	2447.0	2458.0	2468.8	2482.5	2495.7	2509.8	2524.9
clothing & shoes	340.5	345.3	345.1	350.6	354.2	356.7	359.2	362.0	364.9	368.0	371.1	374.0	376.6	379.6	383.1	386.1
fuel oil & coal	18.0	16.7	16.2	17.0	17.2	17.3	17.3	17.4	17.4	17.4	17.4	17.5	17.5	17.5	17.5	17.5
gasoline & motor oil	253.7	255.5	261.3	265.0	266.2	266.2	266.3	266.2	265.7	265.3	264.8	264.6	264.5	264.6	265.0	265.6
food	817.6	814.8	822.0	820.9	824.8	828.8	832.7	836.6	839.0	841.4	844.8	848.0	851.6	855.3	859.0	862.8
other nondurable goods	901.8	909.9	923.4	928.5	935.6	941.8	948.1	954.4	960.6	965.9	971.4	976.5	984.7	991.6	998.4	1006.5
cuisi nonadiasio goddo	001.0	000.0	020	020.0	000.0	010	0.0		000.0	000.0	· · · · ·	0.00		001.0		.000.0
						Real Co	nsumer	Expendi	ures Anı	nual Gro	wth Rate	•				
Consumer spending on																
all goods & services	2.2	1.8	1.6	2.3	2.8	2.7	2.6	2.7	2.4	2.5	2.6	2.4	2.7	2.6	2.6	3.0
durable goods	5.7	6.0	4.8	4.9	5.5	6.7	5.3	5.8	4.0	4.8	5.7	5.0	5.2	4.2	4.1	5.0
furniture and appliances	4.1	8.4	7.7	7.0	5.0	3.4	2.6	2.4	2.0	4.4	2.5	2.6	4.4	3.9	1.9	2.6
information processing equipment	7.6	10.3	8.3	11.7	11.7	12.5	13.0	13.2	12.2	13.0	12.7	12.1	11.5	11.5	11.9	12.2
motor vehicles and parts	5.1	-0.8	3.2	0.6	3.8	9.1	5.1	6.3	2.2	2.5	6.2	4.8	4.0	1.8	2.5	3.9
other durable goods	10.0	7.4	-3.5	9.2	1.9	1.4	1.8	2.1	1.4	2.0	2.1	1.6	1.5	1.3	1.7	2.2
nondurables	2.7	1.8	4.6	2.5	2.7	2.0	2.1	2.0	1.8	1.6	1.8	1.7	2.2	2.1	2.3	2.4
clothing & shoes	1.7	5.6	-0.1	6.3	4.1	2.8	2.8	3.2	3.2	3.4	3.4	3.1	2.8	3.2	3.7	3.1
fuel oil & coal	11.3	-27.7	-11.7	18.9	4.9	1.5	0.8	1.2	1.5	0.1	0.5	0.6	0.4	-0.2	-0.2	-0.2
gasoline & motor oil	3.9	2.8	9.1	5.6	1.9	-0.1	0.2	-0.2	-0.7	-0.7	-0.7	-0.2	-0.2	0.1	0.7	1.0
food	2.0	-1.3	3.6	-0.5	1.9	2.0	1.9	1.9	1.2	1.2	1.6	1.6	1.7	1.7	1.8	1.8
other nondurable goods	3.0	3.7	6.1	2.2	3.1	2.7	2.7	2.6	2.6	2.2	2.3	2.2	3.4	2.9	2.8	3.3

Table 13. Personal Consumption Expenditures (2005 Dollars)

lable 13. Personal Consumption Expenditures (2005 Dollars)													
	History								Forecast I				
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
	Consumer Expenditures by Type Billions Current Dollars												
Consumer spending on									_				
all goods & services	8790.3	9297.5	9744.4	10005.5	9842.9	10201.9	10711.8	11149.6	11495.5	11947.1	12431.5	12967.0	
durable goods	1127.2	1156.1	1184.6	1102.3	1023.3	1070.7	1129.9	1202.7	1262.1	1317.1	1370.5	1423.0	
furniture and appliances	271.3	283.6	283.5	268.7	244.3	250.4	260.1	275.1	286.0	296.5	303.1	311.5	
information processing equipment	67.0	74.9	84.8	83.4	81.2	90.3	92.0	96.1	99.3	103.1	108.0	112.6	
motor vehicles and parts	410.0	394.9	400.6	339.6	317.1	342.0	368.7	401.7	423.7	443.3	465.5	486.3	
other durable goods	97.8	106.6	113.2	112.1	105.5	110.0	121.2	129.3	140.5	146.2	150.0	153.5	
nondurables	1953.0	2079.7	2176.9	2273.4	2175.1	2292.1	2472.8	2567.0	2628.3	2700.2	2774.2	2870.5	
clothing & shoes	310.7	320.2	323.7	319.5	306.5	320.6	338.3	354.6	365.7	382.5	394.8	406.7	
fuel oil & coal	22.3	23.7	25.6	30.8	24.3	26.2	29.4	26.7	25.1	24.7	24.7	25.1	
gasoline & motor oil	261.4	295.9	319.9	358.3	260.2	307.3	379.5	390.4	387.4	376.8	367.3	368.8	
food	668.2	700.3	737.3	772.9	770.0	788.9	833.0	863.3	883.0	902.5	925.6	953.3	
other nondurable goods	690.4	739.6	770.4	791.9	814.2	849.2	892.6	932.1	967.0	1013.6	1061.9	1116.5	
	Consumer Expenditures by Type Billions 2005 Dollars												
Consumer spending on									1				
all goods & services	9527.8	9814.9	10035.5	9999.2	9842.9	10035.9	10291.3	10517.6	10716.1	10982.1	11263.9	11561.2	
durable goods	1046.9	1091.5	1141.7	1083.2	1023.3	1085.7	1157.1	1246.7	1330.1	1405.7	1478.5	1551.5	
furniture and appliances	264.8	278.3	280.4	267.7	244.3	261.5	276.0	292.8	309.4	325.6	334.7	345.8	
information processing equipment	46.3	58.4	71.9	76.9	81.2	97.2	108.2	122.0	136.4	153.0	173.4	195.0	
motor vehicles and parts	400.0	385.1	392.8	340.8	317.1	323.4	339.4	364.0	381.6	397.6	415.6	431.3	
other durable goods	107.6	115.9	119.5	113.4	105.5	108.9	114.9	122.2	132.8	136.6	139.1	141.4	
nondurables	2132.3	2202.2	2239.3	2214.7	2175.1	2223.5	2266.0	2296.8	2346.9	2408.1	2452.8	2503.2	
clothing & shoes	306.8	317.4	323.9	322.3	306.5	322.7	334.9	338.9	345.4	358.0	369.5	381.3	
fuel oil & coal	25.2	23.6	23.8	21.1	24.3	22.4	19.8	17.7	17.0	17.3	17.4	17.5	
gasoline & motor oil	273.0	274.0	273.2	262.4	260.2	259.9	255.4	253.7	258.9	266.2	265.1	264.9	
food	757.6	780.8	791.3	781.9	770.0	786.5	798.8	809.4	818.8	830.7	843.3	857.2	
other nondurable goods	765.9	803.3	825.2	828.3	814.2	833.0	861.6	885.1	915.9	945.0	968.6	995.3	
				Real C	Consume	r Expend	litures Ar	nual Grow	th Rate				
Consumer spending on									ı				
all goods & services	3.0	3.3	1.5		-0.1	3.1	2.0		2.0	2.7		2.8	
durable goods	2.6	7.0	4.1	-12.4	3.0	9.3	5.8		5.5	6.0	5.0	4.7	
furniture and appliances	7.3	1.9	0.9	-9.1	-2.0	8.3	6.0		7.0	3.4	2.9	3.2	
information processing equipment	26.3	27.8	20.4	0.4	12.9	16.8	14.5		9.9	13.2	13.1	12.3	
motor vehicles and parts	-8.0	5.7	0.9	-23.0	7.9	11.0	3.8		2.0	6.2		3.1	
other durable goods	8.9	5.9	3.3	-12.3	0.6	5.5	2.8		6.0	1.8	1.8	1.7	
nondurables	3.7	3.4	0.1	-2.6	0.2		0.7		2.9	2.2		2.3	
clothing & shoes	6.4	2.0	1.0	-3.2	-1.0	7.6	1.2		3.4	3.3		3.2	
fuel oil & coal	-14.3	7.1	-5.3	7.9	7.5	-7.6	-11.0	-4.9	-1.0	2.1	0.7		
gasoline & motor oil	1.7	1.5	-3.3	-3.9	-1.1	2.2	-2.6		5.5	0.5		0.4	
food	4.0	3.1	0.2		2.1	2.1	0.3		0.9	1.9	1.4	1.7	
other nondurable goods	3.7	5.2	1.2	-0.6	-0.6	3.6	2.9	2.9	3.7	2.8	2.3	3.1	

**Table 14. Business Fixed Investment** 

	History									Forecast				
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
	Billions Current Dollars													
Business Fixed Investment	1611.5	1776.3	1920.6	1941.0	1633.4	1658.2	1809.9	1970.0	2044.6	2180.2	2326.7	2493.3		
Producers Dur. Equipment	790.7	856.1	885.8	825.1	644.3	731.8	832.7	907.6	941.4	1011.0	1086.9	1148.0		
Nonresidential Structures	345.6	415.6	496.9	552.4	438.2	362.0	380.6	437.3	453.6	490.9	526.0	598.6		
Non-Farm Buildings	211.5	244.8	293.9	317.5	249.1	173.7	170.2	190.9	197.6	221.4	266.1	328.5		
Commercial	112.8	128.4	150.7	148.9	95.4	64.7	66.8	75.6	79.5	93.5	117.7	153.1		
Industrial	28.4	32.3	40.2	52.8	56.3	39.8	38.9	45.8	46.8	50.0	54.0	63.6		
Other Buildings	70.3	84.2	103.0	115.8	97.4	69.2	64.5	69.5	71.3	77.9	94.3	111.8		
Utilities	54.3	63.6	89.6	104.6	104.3	93.3	90.8	110.9	105.3	111.9	107.6	106.5		
Mines & Wells	69.4	96.0	102.2	117.0	75.0	86.2	110.2	125.5	139.4	146.3	140.6	150.9		
	Billione 2005 Dellers													
Dusiness Fixed Investment	Billions 2005 Dollars													
Business Fixed Investment	1717.4	1839.6	1948.4	1934.5	1633.5	1673.8	1800.4 841.7	1931.8	1981.0	2085.5	2205.3	2342.7 1149.4		
Producers Dur. Equipment	801.6	870.8	898.3	836.1	644.3	746.7		905.9	936.5	1007.5	1086.2			
Nonresidential Structures	421.2	451.5	509.0	540.2	438.2	366.3	374.1	421.6	422.3	436.1	452.8	501.5		
Non-Farm Buildings	250.8	268.7	305.2	317.9	249.1	179.3	172.4	188.4	189.3	202.3	232.5	275.1		
Commercial	137.6	144.3	159.9	151.7	95.4	66.6	67.4	74.0	75.7	84.9	102.1	127.3		
Industrial	34.2	36.5	43.1	53.8	56.3	40.8	39.1	45.0	45.0	46.0	47.6	53.6		
Other Buildings	79.7	88.5	102.6	112.8	97.4	71.9	65.9	69.3	68.6	71.3	82.5	93.8		
Utilities	64.9	70.0	94.3	103.6	104.3	89.8	82.8	97.9	91.6	95.4	89.9	86.9		
Mines & Wells	92.1	99.5	97.9	105.0	75.0	87.8	109.0	124.1	130.2	128.0	121.1	130.5		
					A	Annual G	rowth R	ate						
Business Fixed Investment	8.5	10.1	8.3	-5.6	-14.2	8.6	10.4	6.5	3.7	6.5	7.2	7.1		
Producers Dur. Equipment	7.4	6.9	3.1	-15.9	-11.4	20.2	12.9	6.1	4.0	7.8	7.4	5.1		
Nonresidential Structures	15.4	19.6	21.8	4.7	-32.2	-0.6	15.4	10.7	4.6	5.8	9.7	14.7		
Non-Farm Buildings	6.7	18.2	22.5	-0.4	-34.0	-21.1	15.2	7.4	2.9	16.4	23.2	21.7		
Commercial	9.9	15.2	17.3	-11.8	-44.7	-16.8	14.6	11.2	2.9	27.5	25.7	30.1		
Industrial	9.6	12.5	48.0	22.5	-11.9	-28.8	41.2	7.6	-0.8	7.5	12.4	17.6		
Other Buildings	1.8	26.1	22.6	6.7	-29.7	-19.5	3.6	3.8	6.3	10.2	26.9	13.6		
Utilities	12.7	19.9	51.4	2.5	-4.1	19.0	7.6	32.0	-3.3	0.3	-3.5	1.3		
Mines & Wells	51.0	29.2	1.8	24.4	-42.8	53.6	31.2	1.6	20.2	-3.3	-2.0	10.7		

# U.S. FORECAST TABLES

Table 15. Government Receipts and Expenditures

	History									Forecast				
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		
	Federal Government Receipts and Expenditures													
Receipts	2298.1	2531.7	2660.8	2505.7	2230.1	2391.8	2516.7	2663.0	3023.0	3226.7	3356.5	3484.0		
Personal Tax and Nontax Receipts	932.1	1049.6	1164.4	1101.7	857.2	893.8	1077.0	1149.2	1275.0	1333.7	1372.9	1405.9		
Corp. Profits Tax Accruals	341.0	395.0	362.8	233.6	200.4	298.7	294.3	351.1	354.9	470.2	493.9	508.1		
Indirect Business Tax and Nontax Accruals	99.4	99.2	94.6	94.0	91.4	96.8	108.6	118.0	121.9	137.7	144.8	152.0		
Contributions for Social Insurance	853.4	905.7	947.3	974.4	950.8	970.9	904.4	937.8	1092.3	1152.0	1221.0	1291.4		
Expenditures	2603.5	2759.8	2927.5	3140.9	3479.9	3721.3	3764.9	3772.7	3815.6	3993.9	4132.9	4328.5		
Purchases Goods & Services	946.3	1002.0	1049.8	1155.6	1217.7	1303.9	1304.1	1295.7	1248.6	1266.8	1272.9	1273.3		
National Defense	608.3	642.4	678.7	754.1	788.3	832.8	835.9	817.2	775.0	788.9	791.0	791.8		
Other	338.1	359.6	371.1	401.5	429.4	471.1	468.2	478.6	473.6	477.9	481.9	481.4		
Transfer Payments	1475.1	1572.4	1673.5	1823.5	2135.6	2282.5	2274.3	2283.6	2355.7	2483.1	2590.1	2724.2		
To Persons	1079.7	1184.2	1258.9	1391.9	1608.9	1710.1	1728.2	1772.5	1840.0	1918.9	1989.3	2079.8		
To Foreigners	40.9	35.0	42.3	45.1	52.7	50.6	56.5	49.9	51.2	56.9	59.0	59.7		
Grants in Aid to State & Local Gov't	343.4	340.8	359.0	371.0	458.1	505.3	472.5	443.2	446.0	488.3	522.5	565.0		
Net Interest	327.1	353.7	386.1	368.4	330.8	351.0	394.1	398.3	404.4	443.6	469.6	526.5		
Subsidies less Surplus of Gov't Entities	59.6	49.3	45.4	48.7	56.2	57.4	66.7	70.3	78.8	72.5	68.2	64.5		
Surplus (+) or Deficit (-)	-305.5	-228.1	-266.7	-635.1	-1249.8	-1329.5	-1248.3	-1109.7	-792.6	-767.2	-776.4	-844.5		
				State an	d Local G	overnme	nt Receip	ts and Exp	enditures					
Receipts	1708.8	1810.9	1900.6	1909.1	1919.2	1998.5	2029.9	2039.5	2112.3	2201.2	2297.3	2405.3		
Personal Tax/Nontax Receipts	1166.5	1254.5	1321.3	1328.9	1268.1	1305.7	1366.3	1405.2	1468.9	1502.7	1550.4	1601.0		
Corporate Profits	276.4	302.5	323.5	333.5	287.8	297.6	327.0	348.8	384.8	379.0	387.0	393.3		
Indirect Business Tax and Nontax Accruals	55.0	59.2	57.9	47.4	45.6	47.7	50.8	51.4	55.5	61.7	62.1	61.2		
Contributions for Social Insurance	24.6	21.5	18.9	18.7	18.6	18.2	18.3	17.5	17.4	18.0	18.8	19.7		
Federal Grants-In-Aid	343.4	340.8	359.0	371.0	458.1	505.3	472.5	443.2	446.0	488.3	522.5	565.0		
									ı					
Expenditures	1775.40	1850.28	1973.33	2074.15	2191.15	2235.85	2242.98	2292.10	2319.26	2401.74	2478.59	2568.46		
Purchases Goods & Services	1547.4	1640.2	1752.2	1847.6	1871.4	1870.2	1854.7	1871.3	1873.6	1913.0	1962.9	2020.8		
Transfer Payments	436.4	438.9	460.9	477.8	566.1	612.0	581.8	552.5	559.7	611.1	655.5	708.7		
Interest Received	35.0	25.4	17.3	36.0	114.3	123.0	126.7	146.8	144.5	142.7	143.1	145.9		
Net Subsidies	7.7	11.5	25.6	25.0	22.8	21.4	17.0	14.7	15.6	15.1	14.3	13.5		
Dividends Received	2.0	2.1	2.2	2.6	2.2	2.3	2.3	2.4	2.3	2.4	2.4	2.5		
Surplus (+) or Deficit (-)	-66.6	-39.4	-72.7	-165.1	-271.9	-237.3	-213.1	-252.7	-207.0	-200.5	-181.3	-163.1		

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

	History								Forecast				
_	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
	Billions of Dollars												
Net Exports Goods & Services	-715.7	-762.4	-709.8	-713.2	-392.2	-518.5	-568.8	-547.2	-509.0	-540.9	-577.1	-591.4	
Current Account	-739.8	-798.5	-713.4	-681.3	-381.6	-449.5	-457.7	-440.4	-389.4	-412.1	-471.1	-515.0	
Exports -Goods & Services	1310.4	1478.5	1665.7	1843.2	1583.8	1843.5	2101.2	2195.9	2253.9	2344.6	2450.4	2591.8	
Merchandise Balance	-784.1	-838.8	-822.7	-834.0	-510.6	-650.2	-744.1	-741.5	-702.1	-729.2	-764.5	-791.3	
Food, Feed & Beverage	58.95	65.98	84.28	108.33	93.93	107.70	126.20	132.83	125.58	126.57	131.47	137.48	
Industrial Supplies Excl Petroleum	236.8	279.1	316.3	386.9	293.5	388.6	484.7	482.3	486.4	507.1	531.9	564.7	
Motor Vehicles & Parts	98.4	107.3	121.3	121.5	81.7	112.0	132.9	146.2	152.0	157.2	167.3	182.1	
Capital Goods, Excl. MVP	358.4	404.1	433.0	457.7	391.5	447.9	493.3	527.7	541.8	566.0	585.7	614.9	
Computer Equipment	45.5	47.6	45.6	43.9	37.7	43.8	48.4	49.3	48.4	47.8	51.2	57.2	
Other	257.0	291.9	314.5	339.8	279.0	332.1	364.7	384.0	386.7	400.1	413.6	434.4	
Consumer Goods, Excl. MVP	115.3	129.1	146.0	161.3	149.4	165.3	174.9	181.8	190.7	201.6	207.3	210.9	
Other Consumer	57.4	62.7	64.5	62.0	54.6	57.1	61.7	65.3	64.3	65.5	68.8	72.5	
Services	385.1	430.4	500.4	545.5	519.1	565.1	627.6	659.9	693.0	720.6	757.9	809.3	
	Billions of Dollars												
Imports -Goods & Services	2026.1	2241.0	2375.6	2556.4	1976.0	2362.0	2669.9	2743.1	2762.8	2885.4	3027.4	3183.2	
Merchandise	1716.2	1896.5	2000.3	2146.4	1587.3	1951.2	2234.6	2295.4	2299.4	2390.9	2495.0	2612.2	
Food, Feed & Beverage	69.1	76.1	83.0	90.4	82.9	92.5	108.3	111.1	116.1	116.0	120.5	125.3	
Petroleum & Products	263.2	316.7	346.7	476.1	267.7	353.7	462.2	433.9	390.3	359.9	320.3	303.9	
Industrial Supplies Excl Petroleum	268.0	293.5	297.9	318.7	196.6	249.4	293.0	290.0	292.3	299.4	316.4	331.8	
Motor Vehicles & Parts	238.7	256.0	258.5	233.2	159.2	225.7	255.3	298.6	306.4	317.6	334.0	353.1	
Capital Goods, Excl. MVP	382.8	422.6	449.1	458.7	374.1	450.4	513.5	551.7	551.7	593.0	648.3	701.6	
Computer Equipment	93.5	101.6	105.5	101.2	94.2	117.3	119.7	122.2	116.7	118.4	126.8	135.8	
Other	263.5	292.6	309.2	322.0	249.2	301.9	358.2	389.3	389.8	425.3	470.6	513.4	
Consumer Goods, Excl. MVP	412.9	447.9	480.0	486.7	431.4	486.5	517.5	519.7	539.7	592.2	632.6	665.5	
Other Consumer	81.5	83.8	85.1	82.5	75.5	93.1	85.1	90.6	102.9	112.8	122.9	131.0	
Services	309.9	344.5	375.3	410.0	388.7	410.8	435.3	447.7	463.4	494.6	532.4	571.0	
									,				
					ı	Billions 20	005 Dollai	's					
Net Exports Goods & Services	-777.1	-786.2	-703.6	-546.9	-392.2	-462.6	-445.9	-430.8	-421.7	-492.6	-538.3	-543.8	
Exports G & S	1388.4	1512.4	1647.3	1741.8	1583.8	1765.6	1890.6	1957.5	2004.8	2073.9	2149.5	2253.9	
Imports G & S	2165.5	2298.6	2350.9	2288.7	1976.0	2228.1	2336.4	2388.2	2426.5	2566.4	2687.8	2797.7	
					Expo	orts & Imp	orts % C	hange	ı				
Exports G & S	10.6	13.8	14.5	0.0	3.5	15.2	9.2	3.7	3.7	3.5	5.4	5.7	
Imports G & S	12.1	5.5	9.0	-1.6	0.9	15.0	10.9	0.0	2.6	4.7	5.3	5.0	
Real Exports G & S	6.2	10.1	9.9	-2.0	2.5	9.8	4.6	2.4	3.7	2.8	4.4	4.8	
Real Imports G & S	5.4	4.1	8.0	-5.6	-3.6	11.9	3.6	0.1	3.9	5.9	4.5	3.8	

# In Intervious on the second of the second of

The UCF College of Business Administration would like to thank Alan C. Charron, '84, for his generous gift to the Institute for Economic Competitiveness. His support enables the Institute to publish this forecast and will help fund future activities and research. Charron graduated in 1984 with a degree in finance. He is president of Real Property Specialists, Inc., located in Orlando, Florida.



Founded in 1992, Real Property Specialists, Inc., is a full-service brokerage company that has built a reputation of providing highly personalized service while being responsive and flexible to its clients' individual needs. They offer a range of commercial real estate services in the Central Florida area including brokerage, appraisal, development, property management and tenant representation.

Real Property Specialists, Inc., has set a new standard of excellence in client service by providing these key advantages over the competition:

**Responsiveness**. You work directly with a decision maker who has the flexibility to immediately attend to your needs.

Consistency. We are a unified firm employing team-

members who are committed to the success of our clients. We pride ourselves on our ability to maintain a dedicated, professional staff that is able to build long-term, comfortable and prosperous relationships with our clients.

**Accountability.** At Real Property Specialists, our client is the real "Boss." We are accountable to no one other than the client. No company policy interferes with our ability to serve the individual needs of each client.

**Experience**. The staff at Real Property Specialists is highly qualified, with most associates having more than a decade of experience in the industry. Our personal portfolio of shopping centers gives us first-hand knowledge of what is important when leasing, managing or selling a property.

# REAL PROPERTY SPECIALISTS, INC

Appraisers • Brokers • Consultants 6700 Conroy-Windermere Road, Suite 230 | Orlando, FL 32835 407.291.9000 | www.realpropertyspecialists.com We would like to recognize the following organizations for their support of the Institute for Economic Competitiveness:



Appraisers • Brokers • Consultants







Director, Institute
for Economic
Competitiveness.
Ph.D., Pennsylvania
State University 1996;
M.A., Pennsylvania State
University 1994; B.S.,
Allegheny College 1989.

# SEAN M. SNAITH, PH.D.

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.

Snaith holds a B.S. in Economics from Allegheny College and an M.A. and Ph.D. in Economics from Pennsylvania State University.

## FOR MORE INFORMATION

Sean Snaith, Director Institute for Economic Competitiveness College of Business Administration University of Central Florida P.O. Box 161400 Orlando, FL 32816

PH: 407.823.1451 FAX: 407.823.1454

E-MAIL: ssnaith@bus.ucf.edu

www.iec.ucf.edu



# UNIVERSITY OF CENTRAL FLORIDA

College of Business Administration

Institute for Economic Competitiveness
P.O. Box 161400, Orlando, Florida 32816
PH 407.823.1453 FAX 407.823.1454 www.iec.ucf.edu