

# Current Conditions and Outlook for the U.S. and Connecticut Economies: 2010-2012



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# **Current Conditions and Outlook for the U.S. and Connecticut Economies: 2010-2012**

**July 2011**

**Economic Analysis and Forecasting Group  
Office of Research, Connecticut Department of Labor**

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## **Thank You to the Economists' Panel**

To critique and advise in setting the assumptions for the economic outlook and Connecticut's Short-Term Industry Employment forecasts, a panel of economists from the Office of Research, and from outside the agency, from business, academia, and the non-profit sector, convenes every year in the Spring to assess the current and near future conditions and prospects for the U.S. and Connecticut economies. The Office of Research thanks them for their time and effort in participating in this process. As always, any errors are the responsibility of the author of this outlook.

### **Economists Panel (April 2011 Participants)**

MEMBERS-Office of Research: Andrew Condon, Ph.D., Director; Lincoln Dyer, Senior Economist; Charles Joo, Senior Research Analyst; Patrick Flaherty, Economist; Sarah York, CCT Economist; Matthew Krzyzek, CCT Economist; Manisha Srivastava, CCT Economist; and Daniel W. Kennedy, Ph.D, Senior Economist.

MEMBERS-Outside Panelists: Susan Coleman, Ph.D., Professor of Finance, University of Hartford, and former member of the Governor's Economic Council; Steven Lanza, Ph.D., J.D., Executive Editor, *The Connecticut Economy*, University of Connecticut, and former member of the Governor's Economic Council; and Stanley McMillan, Ph.D., Managing Economist, CT. Department of Economic and Community Development, and former member of the Governor's Economic Council.

## FOREWORD

What follows is the outlook for the U.S. and Connecticut economies for 2011 and 2012, which is prepared by the Office of Research, Connecticut Labor Department (CTDOL). After review by a panel of economists from academia, business, non-profits, and government, the U.S. and Connecticut outlooks are revised, updated, and then used as the basis for setting the assumptions for the next round of Short-Term Connecticut, Industry-Employment Forecasts, and is posted on the CTDOL Website. In addition, every year the U.S. and Connecticut outlooks are forwarded, as required, to the U.S. Labor Department.

As this is written, in June 2011, it has been two years since the National Bureau of Economic Research (NBER)-declared end of the 2007-09 Recession in June 2009. This has been followed by yet another jobless recovery in the post-Cold War era. However, the recent downturn was no “ordinary” recession, and we are currently in anything but a “normal” recovery. This recovery has followed the first U.S. systemic banking panic since the 1930’s, the first collapse of a shadow banking system since 1907, and the first succession of collapses in asset bubbles in housing and the stock market, in conjunction with unsustainable levels of household debt since the 1920’s. This resulted in what has been called a *Balance Sheet Recession*. The Great Depression was a balance-sheet recession, as was the recession that followed the collapse of Japan’s real estate bubble in 1989. Balance sheet recessions are steeper and last longer than non-balance-sheet recessions, and they are followed by weaker recoveries.

At the time of writing, there are still significant drags hampering the current recovery, two years after the NBER-declared end of the recession. A major impediment to a self-sustaining recovery is the continued distress in the housing market. Though consumers are repairing the liabilities side of their balance sheets by paying down debt and reducing credit demand, housing prices, effected by continued foreclosures, are still declining, which means that the asset side, especially for median and lower income households, is still deteriorating and thus presenting a major impediment to rebuilding their net worth.

But, in addition to housing's continued drag on the economy, proposed spending cuts at the Federal level (not to mention playing chicken with the US. debt limit), and with the expiration at the end of the year of the payroll-tax holiday and temporary Unemployment Insurance extension, portend a possible, significant slowdown of the economy going into 2012. In addition, to balance their budgets, states are raising taxes, cutting spending, and laying off workers, all of which, withdraws spending from the economy.

The housing bubble and bust did not impact Connecticut to the extent it did other areas of the country, particularly the epicenter regions, such as Phoenix, Miami, and Las Vegas. Nevertheless, certain regions of the State were still affected by the sub-prime mortgage mess. In addition, Connecticut is still significantly exposed to the current crisis due to the large presence of the financial services industry in the state, particularly in Fairfield County. Further, Connecticut has not been immune from the states' budget crises that have intensified going into 2011, as Federal support to the states, particularly for education, public safety, and Medicaid wind down. At the time of writing, the agreement between the Governor and State union leaders was defeated because four bargaining units voted against it (despite getting 57% approval). This has resulted in the Governor's implementing his Plan B, which includes the layoff over 6,500 State workers, and possibly some cuts in aid to local governments forcing spending cuts, tax increases, and layoffs at the local level as well.

If all this weren't enough to short-circuit the fledging recovery, before the ink was even dry on a deal in April to avert a government shutdown, the game of political brinksmanship with the U.S. debt ceiling was already under way. A U.S. default, technical or otherwise, or even an 11<sup>th</sup> hour deal, would be nothing short of a disaster for the U.S. and World economies. Maybe even more than the previous two years (the base period for the current forecast), the next two years, which coincide with this outlook's forecast horizon, are going to be very critical in determining the fate of the Connecticut, U.S., and World economies for decades to come.

Both, the U.S. and Connecticut economic outlooks, which follow, and the critique and recommendations formulated in the Economists' Panel process set the assumptions for the Connecticut Short-Term Employment Forecasts.

## Table of Contents

### VOLUME 1: CURRENT CONDITIONS AND OUTLOOK FOR THE U.S. ECONOMY: 2010-2012

EXECUTIVE SUMMARY .....	1
I. INTRODUCTION: The Rollercoaster Ride of the Current Recovery.....	10
II. CURRENT CONDITIONS: U.S. Economy .....	13
III. READING THE SIGNALS: What is the Economy Telling Us?.....	30
A. GROWTH AND OUTPUT .....	32
B. RESOURCE UTILIZATION.....	46
C. LABOR MARKETS: Current Conditions, Context, and Implications.....	51
D. HOUSEHOLDS: Consumer Spending Support .....	60
E. BUSINESS CONDITIONS .....	72
IV. DRAGS ON THE FLEDGING RECOVERY .....	87
A. BACK TO THE FUTURE: Rising Food and Energy Prices.....	87
B. HOUSING AND THE BUSINESS CYCLE .....	96
C. THE STATES' FISCAL CRISES AND FISCAL DRAG .....	102
V. RECOVERING FROM A BALANCE-SHEET RECESSION .....	109
A. WHY BALANCE-SHEET RECESSIONS ARE DIFFERENT.....	110
B. HOUSING AND THE PROCESS OF BALANCE-SHEET REPAIR: A Long Slog? .....	122
VI. WILL HISTORY RHYME? The U.S. in 1937, and Japan in 1997 .....	123
A. FDR and HASHIMOTO .....	126
B. THE PARADOX OF THRIFT.....	130
C. REPEATING THE SAME MISTAKES? The Deficit, The Debt, and the Debt Ceiling .....	132
VII. WHERE DO WE GO FROM HERE? The Outlook for 2010-2012 and Beyond ....	151
APPENDIX.....	165

### VOLUME 2: CURRENT CONDITIONS AND OUTLOOK FOR THE CT ECONOMY: 2010-2012

EXECUTIVE SUMMARY .....	169
I. INTRODUCTION: State Workers' Bargaining Agreement Goes Down.....	177
II. CURRENT CT ECONOMIC CONDITIONS: Spring 2011 .....	178
A. READING THE SIGNALS: What is the Economy Telling Us?.....	182
B. GROWTH AND OUTPUT .....	183
C. LABOR MARKETS: Current Conditions, Context, and Implications . .....	191
D. BUSINESS CONDITIONS .....	202
E. HOUSEHOLDS: Consumer Spending Support .....	207
III. THE STATES' FISCAL CRISES AND CONNECTICUT.....	211
A. STATE BUDGETS IN THE FACE OF DWINDLING FEDERAL SUPPORT ...	213
B. CONNECTICUT'S BUDGET SHORTFALL.....	215
C. THE BUDGETARY AND ECONOMIC IMPACT OF THE DEFEAT OF THE COLLECTIVE-BARGAINING AGREEMENT.....	219
IV. HOUSING AND CONNECTICUT'S RECOVERY.....	221
V. WHERE DO WE GO FROM HERE? The Outlook for 2010-2012 and Beyond .....	227
VI. RISKS TO THE FORECAST .....	230
APPENDIX.....	232

**VOLUME 1**  
**Current Conditions and Outlook for**  
**the U.S. Economy:**  
**2010-2012**

**July 2011**



## EXECUTIVE SUMMARY: U.S. ECONOMIC OUTLOOK

Prepared by Matthew Krzyzek, CCT Economist, CT Dept. of Labor

### **INTRODUCTION: The Rollercoaster Ride of the Current Recovery--**

Signs of the economy's fading momentum in this recovery were reflected in the advance U.S. GDP number for the first quarter of 2011, which showed growth had sharply decelerated from 3.1% (on an annualized basis) in 2010Q4 to 1.8% in 2011Q1. But, then, in May, came the jobs report for April. It showed that U.S. Non-Farm payroll employment grew by 244,000 in April, however, the unemployment rate edged up to 9.0%, which may have reflected more jobseekers entering the labor market. Further, 1.8 million new private sector jobs have been created by the U.S. economy since February 2010, when the national jobs recovery began. Then came further good news of the largest one-day decline in oil prices in history, and this was followed by steep declines in the price of silver and other commodities. Why this happened is being debated. On the positive side: the killing of Osama Bin Laden signaled a decline in uncertainty, and it also may be a sign that speculators panicked and bailed out.

### **CURRENT CONDITIONS: U.S. Economy**

OUTPUT AND AGGREGATE SPENDING: As of Spring 2011-- As of Spring 2011, the U.S. Economy has proceeded with fits-and-starts since the NBER-declared trough of the previous recession in June 2009. It has been nearly two years of an up-and-down recovery as the economy struggles to come back from the Nation's first balance-sheet recession since the Great Depression. Signs of the economy's fading momentum in this recovery were reflected in the advance U.S. GDP number for the first quarter of 2011, which showed growth had sharply decelerated from 3.1% (on an annualized basis) in 2010Q4 to 1.8% in 2011Q1. But, then, in May, came the jobs report for April. It showed that U.S. Non-Farm payroll employment grew by 244,000 in April, however, the unemployment rate edged up to 9.0%, which may have reflected more jobseekers entering the labor market. Further, 1.8 million new private sector jobs have been created



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

by the U.S. economy since February 2010, when the national jobs recovery began. Then came further good news of the largest one-day decline in oil prices in history, and this was followed by steep declines in the price of silver and other commodities. Why this happened is being debated. On the positive side: the killing of Osama Bin Laden signaled a decline in uncertainty, and it also may be a sign that speculators panicked and bailed out. On the negative side, though the killing of Bin Laden sparked the sudden drop in commodity prices, the underlying reason may reflect a bearish outlook for the World economy for the rest of 2011, and into 2012. But then, the U.S. Labor Department's June report showed that, as a result of slowing private-sector growth, and cuts in state government jobs, U.S. Non-Farm Employment growth had slowed to 54,000 in May. All this reflects an economy struggling to achieve escape velocity, and finally break free of the popped housing bubble's gravitational pull and 21st Century's first financial panic and subsequent deep recession.

Looking behind the curtain, the following discussion focuses on each of the four major components of Aggregate Demand (AD): Government Spending (G), Investment Demand (I), Export Demand (X), and Consumer Spending (C). The growth in Fixed Investment peaked in 2010Q2. Real Exports, after turning around after the 2009Q2 Trough, have also decelerated in their QTQ growth, beginning in 2009Q4, only two quarters after recovery.

GOVERNMENT SPENDING (G)-- Federal (Defense plus Non-Defense) spending as well as State and Local Government spending were a net stimulus to the economy throughout 2008, though state and local spending contracted in the fourth quarter of 2008. Government spending, at all levels, was a net subtraction from the economy in 2009Q1, but then Federal spending provided a \$35.1 Billion stimulus to the economy in 2009Q2, with state and local governments adding another \$3.1 Billion boost to the economy at a time when it was in a steep contraction. State and local Government spending then subtracted from growth in 2009Q3. With State and Local spending contracting with the on-set of their budget crises, and a significant decline in Federal



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

spending, total government spending contracted and it acted as a drag on growth over the last half of 2009, and into the first quarter of 2010.

**GROSS PRIVATE DOMESTIC INVESTMENT (GPDI)-** GPDI can be separated into its two major components: Fixed Investment and Inventories. Save a small spurt in fixed-investment growth in 2009Q3, Real GPDI lagged the turn-around in Real GDP by two quarters. After declining from its peak of \$121.4 billion in 2010Q3, inventory growth fell to \$7.2 billion in 2010Q4, and recovered somewhat in 2011Q1 to \$43.8 billion.

**EXPORTS (X)--** Export growth has been decelerating since its peak in 2009Q4. Real Export growth recovered in 2009Q3, and then peaked in 2009Q4, growing by \$83.2 billion. From then on, the growth in Real exports have been decelerating from 2009Q4 to 2011Q1, the last quarter of GDP data at the time of writing.

**CONSUMER SPENDING (C)--** Unlike past recoveries over the Post World War II Era, this component of AD has not propelled the economy to the expansionary phase of the cycle. In fact, due to the asset and credit bubbles, U.S. consumers have been consuming more than the U.S. Economy has been producing, which has resulted in three decades of trade deficits.

**LABOR MARKETS: As of Spring 2011--** This section of the Outlook examines the recent and current conditions of the labor market, at the time of writing. It first examines non-farm employment data that indicates a slowdown in a trend of tacit job recovery during 2010Q4 and 2011Q1. To further explore this it isolates private sector job growth over the recession and recovery. Therein it shows the job-loss trough occurring in March 2009. After months of gradual reduction in job-losses, private employment added jobs starting in March 2010, afterward monthly employment change peaked at 261,000 jobs in February 2011. At the time of writing job growth has since declined to a monthly job growth of 83,000 in May 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

U.S. Unemployment Rates are also highlighted in this section. Keynotes include October 2009 as being the second period since World War II where UR breached 10%. Initial and continued claims are also analyzed in this section. Based on the signals sent by the data, this Outlook section postulates that the labor market appears to be softening.

CONSUMER SPENDING: As of Spring 2011-- The quarter-to-quarter (QTQ) growth-rate in Real PCE had been accelerating throughout the four quarters of 2010. This follows the pattern of the QTQ growth-rate in Real GDP, which also decelerated to 1.8% in 2011Q1. Turning to the annualized, QTQ growth-rate in Real PCE, and its two major components, Spending on Goods and Spending on Services, from 2010Q1 to 2011Q1. The first thing to note is the 9.30% growth-spike in real spending on Goods by consumers in the fourth quarter of 2010, the holiday season. This drove the 4.02% growth-rate in total PCE noted above. Upon drilling down to identify the driver of the surge in consumer spending at the end of 2010, it is clear that Durable-Goods spending, which surged by 21.13% in the fourth quarter of 2010, accounted for a significant part of the strong growth in consumer spending in 2010Q4. After breaking out durable-goods spending into its major components, not surprisingly, Motor Vehicles and Parts, which jumped by 49.15%, on a QTQ, annualized basis, largely drove the 2010Q4-spike in real spending on Durable Goods. In addition, Final Sales of Motor Vehicles surged by 72.17% in the fourth quarter of 2010, while Personal Consumption Expenditures (PCE) on Motor Vehicles jumped by 52.23%. Save Output of Motor Vehicles, which grew by 73.16% in the first quarter of 2011, after declining by 11.55% in the fourth quarter, all sales and purchasing activity in Motor Vehicles rapidly decelerated in 2011Q1, which coincided with the Japanese earthquake and tsunami.

**A RECESSION EVEN DEEPER THAN WE THOUGHT?**-- On September 20, 2010, the National Bureau of Economic Research (NBER) declared that the trough of the recent recession occurred in June 2009. On a quarterly basis, this would put the trough of the recession in 2009Q2. But, according to research by Jeremy J. Nalewaik at the Federal Reserve Board, if Gross Domestic Income (GDI) is used to measure U.S. economic activity, rather than GDP, then the recent contraction was steeper, and lasted



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

longer than the official, NBER-designated recession. As can be seen in Graph 14, GDP and GDI follow different tracks over this cycle. According to Nalewaik, the paths of GDP and GDI diverged after 1984, and have been tracking differently ever since. And, in fact, GDI peaked in 2006Q4, not 2007Q4, as GDP did. Further, while GDP does show recovery after 2009Q2, the official end of the recent recession, the trough in GDI occurs in 2009Q3. Further, the QTT growth-rate turned negative for GDI before it turned negative for GDP.

**DRAGS ON THE FELDGING RECOVERY--** The current recovery faces many obstacles on the road towards pre-recession levels of employment and price stability. Three areas of obstacle are examined in this section, starting with Rising Food and Energy prices and its effect on markets. The relevance of home prices in relation to the business cycle is then addressed and followed by state government-level fiscal crisis and its fiscal drag on the recovery.

A few key events contributed to the rise in food and energy prices over the term, both socio-political and environmental. Social upheaval in many African and Middle Eastern countries caused energy prices to jolt. This coincided with rises in oil prices, in addition to other commodity prices, including food, stemming from supply disruption in countries such as Libya as well as suspected speculation in oil futures trading and general uncertainty. The death of Osama Bin Ladin earlier this year accompanied a swift decrease in oil prices. Cited environmental factors that contributed to food price increase include droughts abroad, trade restrictions in some countries and domestic ethanol production.

The housing market has played a pronounced role in the recent crisis/recession, and weak recovery. Few macro-economic sources indicate the relevance and importance of home prices on the business cycle. Authors cited within this section note a pre-Depression bubble that burst in 1926 and how financial innovation and lax regulatory supervision contribute to such upswings. This section further explores in greater detail how housing plays a distinct and critical role in the Asset Market, Property Market and Durable Goods Consumption. Issues effecting home prices include decreased fiscal stimulus and the end



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

of the Home Affordable Modification Program (HAMP), resumption of foreclosures after the Robo-Forclosure moratorium and lack of consumer demand due to less-available credit and underwater mortgages, both of which hinder mobility. Given the obstacles facing the housing market, this Outlook section surmises that the likelihood of a near-term rebound in housing is low.

State-level budget issues are the final subsection explored within this part of the Outlook. The 2007-09 recession is noted to have had the steepest contraction in state revenue since the late 1980s. Future obstacles facing state budgets include low prospects for federal level aid and other federal aid programs that benefit states (such as the ARRA and , Build America Bonds) have expired or soon will.

Local government tax revenue has surprisingly fared better in this recent recession, so far, than during the one in 2001. A Federal Reserve Bank Study (cited on page 107 below) notes two primary conclusions; First, property tax collection has been resilient and un-waivered in spite of market value changes. Second, State and local declines were likely driven by the economic recession, not direct influence of the housing market downturn, as revaluations lagged price declines. Nevertheless, as analysis of past recessions since the 80s and states that as post-recession state fiscal problems lasted for several years during the early 80s, early 90s and early 2000, and, given that the decline in non-property tax revenues to state and local governments has been the steepest of the Post World War II Era, they will likely persist for the upcoming years, especially given the withdrawal of Federal support to the states.

As states cannot run multiyear budget deficits, like the federal government, and there two means of closing deficits: spending cuts or, tax increases as state government's. These two options both have the potential for less than optimal economic impact. States roughly have a \$106 Billion shortfall for fiscal year 2012. This outlook section on Drags On The Fledgling Recovery concludes with an estimate of the potential effect on GDP resulting from this budget shortfall.



**RECOVERING FROM A BALANCE-SHEET RECESSION--** This is the first Balance-Sheet Recession for the U.S. since the Great Depression (Japan also had a Balance Sheet Recession after their Real Estate Bubble Collapsed in 1989). Balance Sheet recessions follow the popping of Asset and Credit Bubbles. In addition, the U.S. had its first Systemic Banking Panic since the 1930's. (And, since, in addition, a shadow banking system collapsed, it also had aspects of the Panic of 1907). Not only are recoveries following balance recessions and financial panics much longer, but they are also much weaker. Why Balance-Sheet recessions are different is discussed next, followed by then the role of housing, in conjunction with heavy debt loads that currently laden households. The process of balance sheet repair is then discussed. This section then closes with a note on the general weakness of the Post Cold War recoveries.

**WILL HISTORY RHYME? The U.S. in 1937, and Japan in 1997--** This section examines possible parallels between contemporary policies and historical events. The examined crises include FDR's attempt to balance the U.S. Federal Budget in 1937, and the World Bank/IMF encouraged policy of Prime Minister Hashimoto to balance Japan's budget in 1997. Both budget-balancing policies were followed by severe recessions. The second part of this section deals with Keynes's challenge to Say's Law/Walra's Law, and how the Paradox of Thrift implies that government belt-tightening policies in the face of spending retrenchments by households and businesses only deepens a recession and exacerbates government budget deficits. This section concludes by framing the current debt/deficit debate within the concepts and historical precedents discussed above.

**WHERE DO WE GO FROM HERE? The Outlook for 2010-2012 and Beyond--** In the Introduction to this outlook, the ups-and-downs, or crosscurrents that have buffeted this recovery were noted. It was also noted these fits-and-starts reflect an economy struggling to achieve escape velocity, and finally break free of the gravitational pull of the aftermath of the popped housing bubble, and the 21st Century's first financial panic and subsequent deep recession. Even given the jobless recoveries characteristic of



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

the Post Cold War Era, this has been a weak and halting recovery. And, as also noted, this recovery has followed no “ordinary” recession, and therefore, we are in anything but an “ordinary” recovery. And, at the time of writing, with the withdrawal of fiscal stimulus, from the winding down of the ARRA, the predicted double-dip in the housing market well underway, the severe spending cuts and tax increases by state governments to balance their budgets with the withdrawal of Federal support, and the uncertainty gripping the economy over the manufactured, and self-inflicted, looming default crisis, the downs seem to be dominating the ups as we move into the second half of 2011, as a double-dip, as opposed to the infamous “soft patch”, appears to be the more likely scenario. Key points addressed in this final section include an overview of macroeconomic forecasts, examination of aggregate demand and its effect on the recession and concludes by discussing the inhibitors of recovery and possible means of mitigating these risks.

The outlook for the U.S. Economy for 2011 and 2012 is based on five, mid-year updated, macroeconomic forecasts. From the historical GDP data, Real U.S. GDP grew by 2.90% in 2010. The average forecast for GDP-growth by the five forecasters in 2011 is 2.67%, and the average growth-rate of Real GDP forecasted for 2012 is 3.20% The average forecast expects a 0.23 percentage-point (23 basis points) deceleration in the growth-rate in Real GDP between 2010 and 2011, and a 0.52 percentage-point (52 basis points) acceleration in the growth-rate in Real GDP between 2011 and 2012.

For 2010, the U.S. Unemployment Rate (UR) averaged 9.60%. The average of the five U.S. forecasts expects the UR to average 8.95% for 2011, and 8.20% for 2012. That is, on average, the five forecasters expect a 0.65-percentage-point (65 basis points) decline in the UR between 2010 and 2011, and another 0.75 percentage-point (75 basis points) decline between 2011 and 2012.

In light of the acceleration in the slowdown of the recovery from late 2010, and into the first half of 2011, how do these five mid-year forecasts compare to their forecasts at the beginning of 2011? First, the 10 percentage-point (10 basis points) increase in the 2010





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

growth-rate in U.S. Real GDP reflects the annual revision to the historical data, which increased the U.S. Real GDP growth-rate from 2.80% to 2.90% in 2010. With regard to the forecasts for 2011 and 2012, on average, the five forecasters have lowered their mid-year forecast for Real GDP for 2011, compared to their early-2011 forecast, by 0.49 percentage points (49 basis points). However, the average mid-2011 forecast for 2012, for Real GDP, is actually higher by 0.12 percentage points (12 basis points), compared to their early-2011 forecasts.

On average, the mid-term forecasts increased, slightly, their expectations about the UR, compared to the early-2011 forecasts. On average, they expect the U.S. UR to be 0.02 percentage points higher than previously forecasted for 2011, and 0.04 percentage points higher in 2012. This raised their forecast for the UR very slightly for 2011 and 2012.



## I. INTRODUCTION: The Rollercoaster Ride of the Current Recovery

Signs of the economy's fading momentum in this recovery were reflected in the advance U.S. GDP number for the first quarter of 2011<sup>1</sup>, which showed growth had sharply decelerated from 3.1% (on an annualized basis) in 2010Q4 to 1.8% in 2011Q1. But, then, in May, came the jobs report for April. It showed that U.S. Non-Farm payroll employment grew by 244,000 in April, however, the unemployment rate edged up to 9.0%, which may have reflected more jobseekers entering the labor market. Further, 1.8 million new private sector jobs have been created by the U.S. economy since February 2010, when the national jobs recovery began<sup>2</sup> Then came further good news of the largest one-day decline in oil prices in history, and this was followed by steep declines in the price of silver and other commodities. Why this happened is being debated. On the positive side: the killing of Osama Bin Laden signaled a decline in uncertainty, and it also may be a sign that speculators panicked and bailed out.

On the negative side, though the killing of Bin Laden sparked the sudden drop in commodity prices, the underlying reason may reflect a bearish outlook for the World economy for the rest of 2011, and into 2012<sup>3</sup>. Further, U.S. housing starts and permits for future home construction fell in April as an overhang of homes on the market, driven by continuing foreclosures, discourages builders from taking on new projects, pointing to prolonged weakness in the housing sector<sup>4</sup>. In addition, overall U.S. industrial production stalled in April, and manufacturing output fell, due to parts shortages in the auto industry because of supply disruptions due to Japan's earthquake and tsunami<sup>5</sup>.

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<sup>1</sup> U.S. BEA, GROSS DOMESTIC PRODUCT: FIRST QUARTER 2011 (ADVANCE ESTIMATE) (April 28, 2011) U.S. Department of Commerce: Washington

<sup>2</sup> U.S. BLS, THE EMPLOYMENT SITUATION – APRIL 2011 (May 6, 2011) U.S. Department of Labor: Washington

<sup>3</sup> Reuters, Special report: What really triggered oil's greatest rout (May 9, 2011) YAHOO NEWS <[http://news.yahoo.com/s/nm/us\\_financial\\_oil\\_rout](http://news.yahoo.com/s/nm/us_financial_oil_rout)> Accessed on May 9, 2011.

<sup>4</sup> Thomson Reuters, *Housing starts, permits fall in April* (May 17, 2011) <<http://www.reuters.com/article/2011/05/17/us-housing-idUSTRE74G3GO20110517>> Accessed on May 18, 2011.

<sup>5</sup> Bloomberg, *U.S. Industrial Production Stalls on Auto Disruption; Housing Starts Drop* (May 17, 2011) <<http://www.bloomberg.com/news/2011-05-17/u-s-april-industrial-production-stalls-on-autos.html>> Accessed on May 18, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

All this reflects an economy struggling to achieve escape velocity, and finally break free of the gravitational pull of the popping of the housing bubble, and the 21st Century's first financial panic and subsequent deep recession. Even given the jobless recoveries characteristic of the Post Cold War Era, this has been a weak and halting recovery. That is because this recovery has followed no "ordinary" recession. Thus, this is no "ordinary" recovery. It has come on the heels of the first U.S. systemic banking panic since the 1930's, in conjunction with the first collapse of a shadow banking system since 1907<sup>6</sup>, and the first succession of collapses in asset bubbles in housing and the stock market, in conjunction with unsustainable levels of household debt since the 1920's<sup>7</sup>. The recent collapse of the housing and credit bubbles, which left households with unsustainable levels of consumer debt, resulted in what has been called a *Balance Sheet Recession*<sup>8</sup>. The Great Depression was a balance-sheet recession, as was the recession that followed the collapse of Japan's real estate bubble in 1989. Balance sheet recessions are steeper and last longer than non-balance-sheet recessions, and they are followed by weaker recoveries. The aspects and implications of a balance-sheet recession are discussed in more detail in Section III.

It is the balance-sheet nature of the recent recession that makes the current recovery so weak, even by Post Cold War standards. The decline in housing has battered the asset side of households' balance sheets, and the accumulation of unsustainable levels of debt has hit the liabilities side. The result: the need for households, and in the current situation, non-incorporated businesses as well, to rebuild their net worth. This increases the savings rate and reduces consumption expenditures, as consumers pay down their debt to address the liabilities side of their balance sheets. With the forecasted arrival of the double-dip in housing, nationally, housing prices have had steep declines in the first quarter of 2011<sup>9</sup>,

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<sup>6</sup> Bruner, ROBERT F. and Sean D. Carr, *THE PANIC OF 1907: Lessons Learned from the Market's Perfect Storm* (2007) John Wiley & Sons: New York

<sup>7</sup> White, Eugene N., *The Great American Real Estate Bubble of the 1920s: Causes and Consequences* (October 2008) National Bureau of Economic Research: Cambridge, Ma.

<sup>8</sup> Koo, Richard C., *THE HOLY GRAIL OF MACROECONOMICS: Lessons from Japan's Great Recession* (2009) John Wiley & Sons: New York

<sup>9</sup> Willis, Bob, *Home Prices in 20 U.S. Cities Decline to Eight-Year Low, Case-Shiller Says* (May 31, 2011) BLOOMBERG NEWS < <http://www.bloomberg.com/news/2011-05-31/home-prices-in-20-u-s-cities-decline-to-eight-year-low-case-shiller-says.html> > Accessed on June 6, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

driven by the re-setting of ARM's originated in 2005 and 2006<sup>10</sup>, and the continuation of foreclosures further weighs down housing prices. In addition, the end of the foreclosure moratorium following the Robo-Foreclosure scandal, and continued, high unemployment, has stalled the asset-side rebuilding process, especially for households at, or below the median income. This is not to mention the many issues still remaining with the financial system, especially with regard to the very largest banks that are "to-big-to-fail" and "to-interconnected-to-fail", or, maybe more to the point, "too-big-to-exist"<sup>11</sup>.

What follows presents the outlook for the economy over the 2010-12 forecast horizon, which coincides with the current forecast round for the short-term employment forecasts. Section II presents an overview of the current state of the economy in the Spring of 2011. Section III, **READING THE SIGNALS: What is the Economy Telling Us?** Takes a look at major economic indicators, which are signals the economy is sending us about its current state, and where it might be going in the near future. The economic indicators are discussed within a macroeconomic framework beginning with the major economic activities of Growth and Output and Resource Utilization. Next the current conditions of the labor markets, and the implications for the near future of the jobs picture. This section closes with an assessment of the current state of two major components of Aggregate Demand: Households and Consumer Spending, and Business Conditions and Investment Demand. Section IV, **DRAGS ON THE FLEDGING RECOVERY** reviews the two major drags on the current recovery: Rising Food and Energy Prices, and the critical role that housing plays over the business cycle, and how its absence from this recovery removes a significant driver of economic recovery and expansion.

Section V, **RECOVERING FROM A BALANCE-SHEET RECESSION** discusses the nature of the current cycle and how it differs from any other recession/recovery cycle in the Post World War II Era. The discussion then turns to the nature of a Balance Sheet Recession, and why it is different from a "normal" recession. The importance of the work of Irving Fisher, Fredrick Mishkin, Richard Koo, and others for understanding the current

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<sup>10</sup> Credit Suisse chart

<sup>11</sup> Boone, Peter and Simon Johnson, *How Big Is Too Big?* **ECONOMIX**, New York Times (November 26, 2009) < <http://economix.blogs.nytimes.com/2009/11/26/how-big-is-too-big/> >



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

situation is briefly reviewed. Next the connection between the housing bust, and double-dip, and households' balance sheets, and how that implies that without another stimulus, the recovery process will be a long slog, assuming the economy doesn't double-dip. This section closes with a note on Post Cold War recoveries.

Section VI, WILL HISTORY RHYME? contrasts the game of chicken being played with the debt ceiling (at the time of writing) in which political demands for massive government spending cuts are being demanded in exchange for not forcing the first U.S. sovereign-debt default in its history, with that of two economically pivotal periods in history, in which government support of the economy was prematurely withdrawn. The episodes examined include the fate of the U.S. economy in 1937 when FDR decided to balance the Federal Budget, sending the U.S. back into depression, and the steep economic contraction in Japan after 1997, when Prime Minister Hashimoto caved into pressure from the Ministry of Finance, the World Bank, and the IMF and withdrew fiscal stimulus from the Japanese economy. This section ends with a brief discussion of the Paradox of Thrift and the perils of repeating the mistakes of the past. The outlook closes with Section VII, WHERE DO WE GO FROM HERE? The Outlook for 2010-2012 and Beyond, where the forecasts for the U.S. economy for the 2010-12 horizon are discussed.

## **II. CURRENT CONDITIONS: U.S. Economy**

### **OUTPUT AND AGGREGATE SPENDING: As of Spring 2011**

As of Spring 2011, the U.S. Economy has proceeded with fits-and-starts since the NBER-declared trough of the previous recession in June 2009. It has been nearly two years of an up-and-down recovery as the economy struggles to come back from the Nation's first balance-sheet recession since the Great Depression. Signs of the economy's fading momentum in this recovery were reflected in the advance U.S. GDP number for the first quarter of 2011<sup>12</sup>, which showed growth had sharply decelerated from 3.1% (on an annualized basis) in 2010Q4 to 1.8% in 2011Q1. But, then, in May, came the jobs report

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<sup>12</sup> U.S. BEA, GROSS DOMESTIC PRODUCT: FIRST QUARTER 2011 (ADVANCE ESTIMATE) (April 28, 2011) U.S. Department of Commerce: Washington



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

for April. It showed that U.S. Non-Farm payroll employment grew by 244,000 in April, however, the unemployment rate edged up to 9.0%, which may have reflected more jobseekers entering the labor market. Further, 1.8 million new private sector jobs have been created by the U.S. economy since February 2010, when the national jobs recovery began<sup>13</sup>. Then came further good news of the largest one-day decline in oil prices in history, and this was followed by steep declines in the price of silver and other commodities. Why this happened is being debated. On the positive side: the killing of Osama Bin Laden signaled a decline in uncertainty, and it also may be a sign that speculators panicked and bailed out. On the negative side, though the killing of Bin Laden sparked the sudden drop in commodity prices, the underlying reason is that it reflects a bearish outlook for the World economy for the rest of 2011, and into 2012<sup>14</sup>. But then, the U.S. Labor Department's June report showed that, as a result of slowing private-sector growth, and cuts in state government jobs, U.S. Non-Farm Employment growth had slowed to 54,000 in May<sup>15</sup>. All this reflects an economy struggling to achieve escape velocity, and finally break free of the popped housing bubble's gravitational pull and 21st Century's first financial panic and subsequent deep recession.

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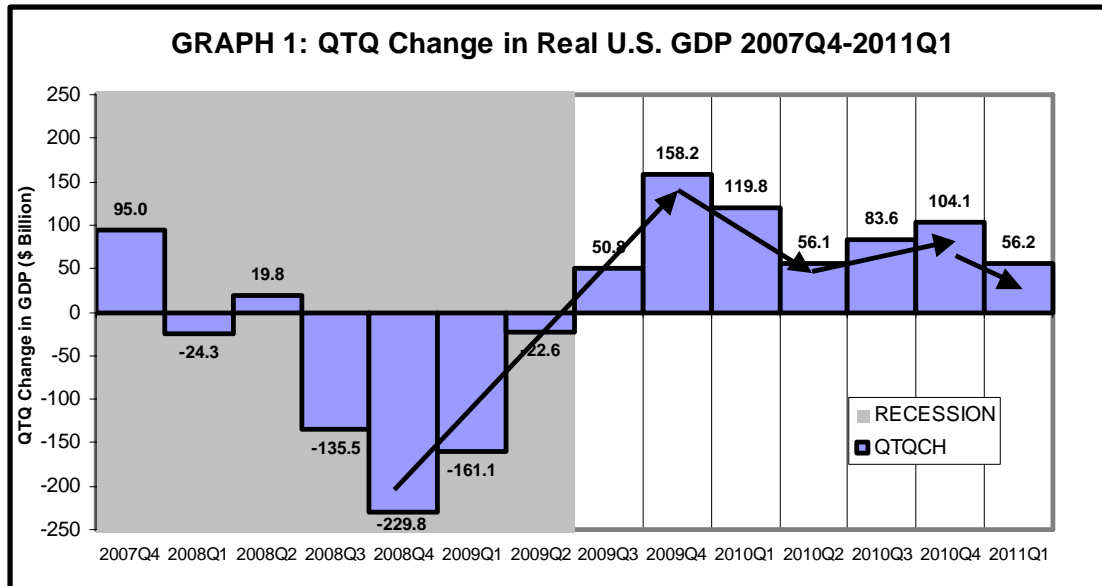
<sup>13</sup> U.S. BLS, THE EMPLOYMENT SITUATION – APRIL 2011 (May 6, 2011) U.S. Department of Labor: Washington

<sup>14</sup> Reuters, Special report: What really triggered oil's greatest rout (May 9, 2011) YAHOO NEWS <[http://news.yahoo.com/s/nm/us\\_financial\\_oil\\_rout](http://news.yahoo.com/s/nm/us_financial_oil_rout)> Accessed on May 9, 2011.

<sup>15</sup> U.S. BLS, THE EMPLOYMENT SITUATION – MAY 2011 (June 3, 2011) U.S. Department of Labor: Washington



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BEA

This up-and-down pattern can be observed in Graph 1, which tracks the quarter-to-quarter (QTQ) growth real GDP from the beginning of the recession in 2007Q4 to 2011Q1, the last quarter of available data at the time of writing. As depicted in Graph 1, after the official end of the recession in 2009Q2, growth in real U.S. GDP accelerated peaking at \$158.5 billion, on a QTQ basis, and then growth began to decelerate until 2010Q2, when it began accelerating again. Growth, then, once again, decelerated in the first quarter of 2011. It is apparent that this is an unusual recovery, even for the Post Cold War Era, which has been characterized by jobless, and otherwise, weaker recoveries.

Looking behind the curtain, the following discussion focuses on each of the four major components of Aggregate Demand (AD): Government Spending (G), Investment Demand (I), Export Demand (X), and Consumer Spending (C). The growth in Fixed Investment peaked in 2010Q2. Real Exports, after turning around after the 2009Q2 Trough, have also decelerated in their QTQ growth, beginning in 2009Q4, only two quarters after recovery.

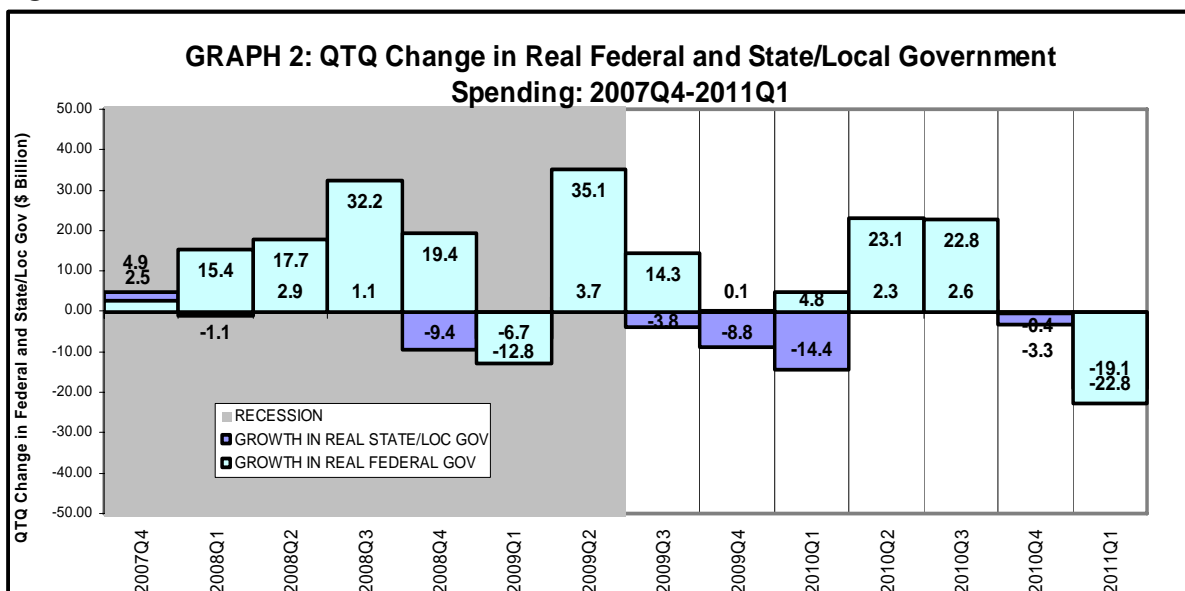
GOVERNMENT SPENDING (G)--Turning to Government Spending, as shown in Graph 2 both Federal (Defense plus Non-Defense) spending and State and Local Government



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

spending were a net stimulus to the economy throughout 2008, though state and local spending contracted in the fourth quarter of 2008. Government spending, at all levels, was a net subtraction from the economy in 2009Q1, but then Federal spending provided a \$35.1 Billion stimulus to the economy in 2009Q2, with state and local governments adding another \$3.1 Billion boost to the economy at a time when it was in a steep contraction. State and local Government spending then subtracted from growth in 2009Q3. With State and Local spending contracting with the on-set of their budget crises, and a significant decline in Federal spending, total government spending contracted and it acted as a drag on growth over the last half of 2009, and into the first quarter of 2010.

There was a temporary reprieve for the states, which passed by Congress and signed into law by the President, that provided critical support to the states, especially in the areas of education, Medicaid, and public safety, which allowed Federal and State and Local spending to act as a stimulus to the economy over the middle of 2010. But with the end of Federal help to the states, and steep reductions in Federal spending, spending, at the Federal level, contracted by \$22.8 Billion in 2011Q1, while spending by the states contracted by \$19.1 Billion. This withdrawal of \$41.9 Billion of spending from the economy in the first quarter of 2011 was a contributing factor to the deceleration of GDP growth from 3.1% in 2010Q4 to 1.8%, on an annualized basis, in 2011Q1.



SOURCE: U.S. BEA

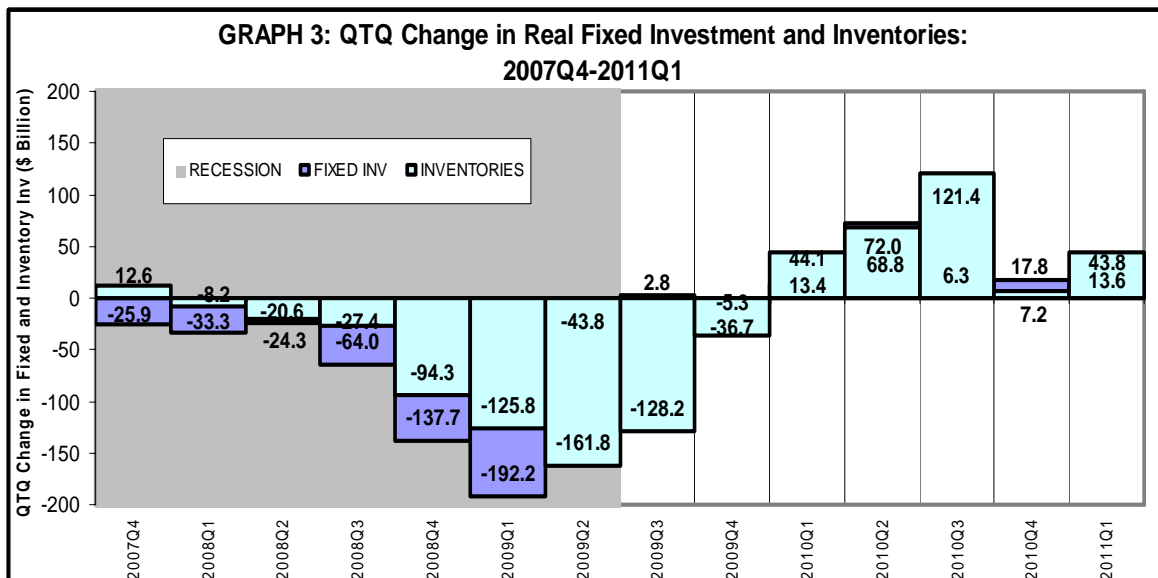




**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

GROSS PRIVATE DOMESTIC INVESTMENT (GPDI)-- Graph 3 moves to the private sector, and, in particular focuses on the Real Gross Private Domestic Investment (GPDI) component of Aggregate Demand (AD). Graph 3 divides Real GPDI into its two major components: Fixed Investment and Inventories. Save a small spurt in fixed-investment growth in 2009Q3, Real GPDI lagged the turn-around in Real GDP by two quarters. Further, while inventory rebuilding accelerated over the first three quarters of 2010, fixed investment surged by \$72.0 billion in 2010Q2, but then dropped to one-tenth that growth for the remainder of 2010, and into the first quarter of 2011. After declining from its peak of \$121.4 billion in 2010Q3, inventory growth fell to \$7.2 billion in 2010Q4, and recovered somewhat in 2011Q1 to \$43.8 billion.

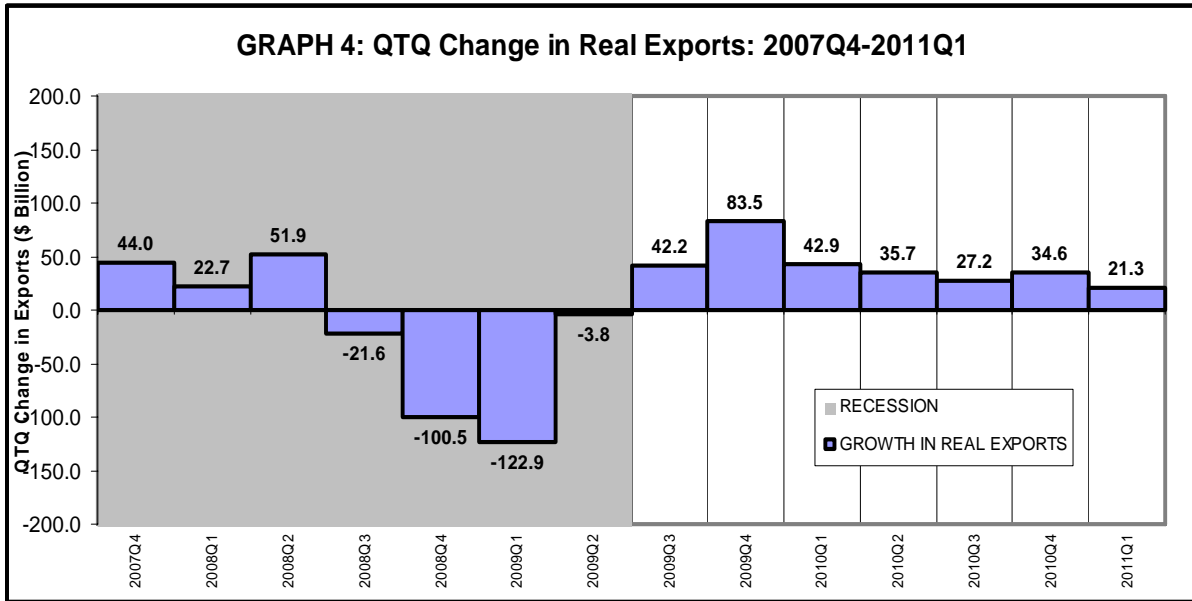
In other words, though fixed investment also declined, by far the largest subtraction from growth was the accelerating decline in Inventories. The declines subsided with the end of the recession (2009Q2), then inventory re-building accelerated throughout the first three quarters of 2010. However, this inventory re-building period was followed by a significant inventory decline over the fourth quarter of 2010, and into the first quarter of 2011.



SOURCE: U.S. BEA



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

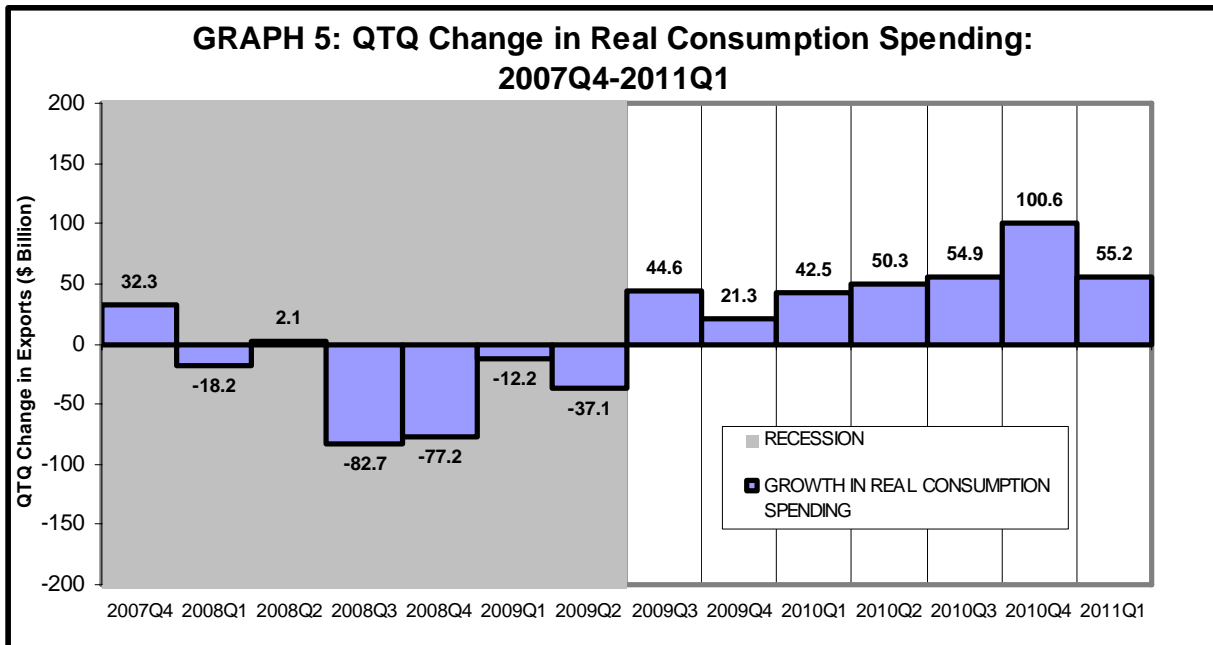


SOURCE: U.S. BEA

EXPORTS (X)-- Graph 4 shows the QTQ growth in Real Exports over the recession and current recovery. Export growth has been decelerating since its peak in 2009Q4. As depicted on Graph 4, Real Export growth recovered in 2009Q3, and then peaked in 2009Q4, growing by \$83.2 billion. From then on, the growth in Real exports have been decelerating from 2009Q4 to 2011Q1, the last quarter of GDP data at the time of writing.

CONSUMER SPENDING (C)--Graph 5 turns to the largest component of AD: Real Consumer Spending. Unlike past recoveries over the Post World War II Era, this component of AD has not propelled the economy to the expansionary phase of the cycle. In fact, due to the asset and credit bubbles, U.S. consumers have been consuming more than the U.S. Economy has been producing, which has resulted in three decades of trade deficits.





SOURCE: U.S. BEA

As depicted in Graph 5, like investment and exports, Consumer Spending recovered in 2009Q3, one quarter after the National Bureau of Economic Research’s (NBER) declared trough in 2009Q2. After consumer spending increased by \$44.6 billion in 2009Q3, it then decelerated to less than half that in the fourth quarter. Consumer spending then slowly accelerated in growth over the first three quarters of 2010, with a \$100.6 billion spurt in spending in 2010Q4. Spending growth then decelerated to \$55.2 billion in the first quarter of 2011.

**LABOR MARKETS: As of Spring 2011**

Clearly, one month’s data does not make a trend, but the decline in U.S. Non-Farm employment in May, within the context of the other indicators released around the same time, certainly reinforce the notion that the economy may be slowing down, if not heading for a double-dip recession. The June report from the U.S. Bureau of Labor Statistics (BLS)<sup>16</sup> showed that Non-Farm, payroll employment had only added 54,000 jobs in May. This followed an increase of 232,000 in April. Further, the Unemployment Rate (UR) actually increased by one-tenth of a percentage point to 9.1%.

<sup>16</sup> U.S. BLS, THE EMPLOYMENT SITUATION – MAY 2011 (June 3, 2011)



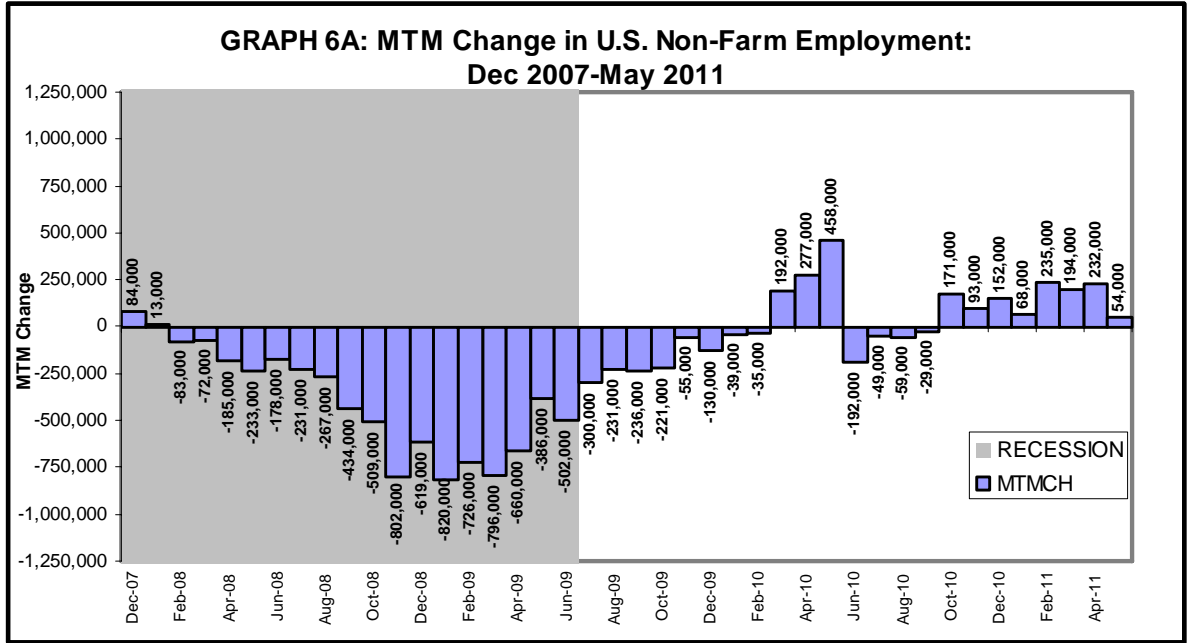
**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Graph 6-A shows the month-to-month (MTM) change in non-farm jobs from the on-set of recession in December 2007 to the most current month of data, May 2011 (at the time of writing, June 2011) Graph 6-B presents the MTM change in U.S. Private-Sector employment over the same period, and Graph 6-C depicts the MTM change in total government employment.

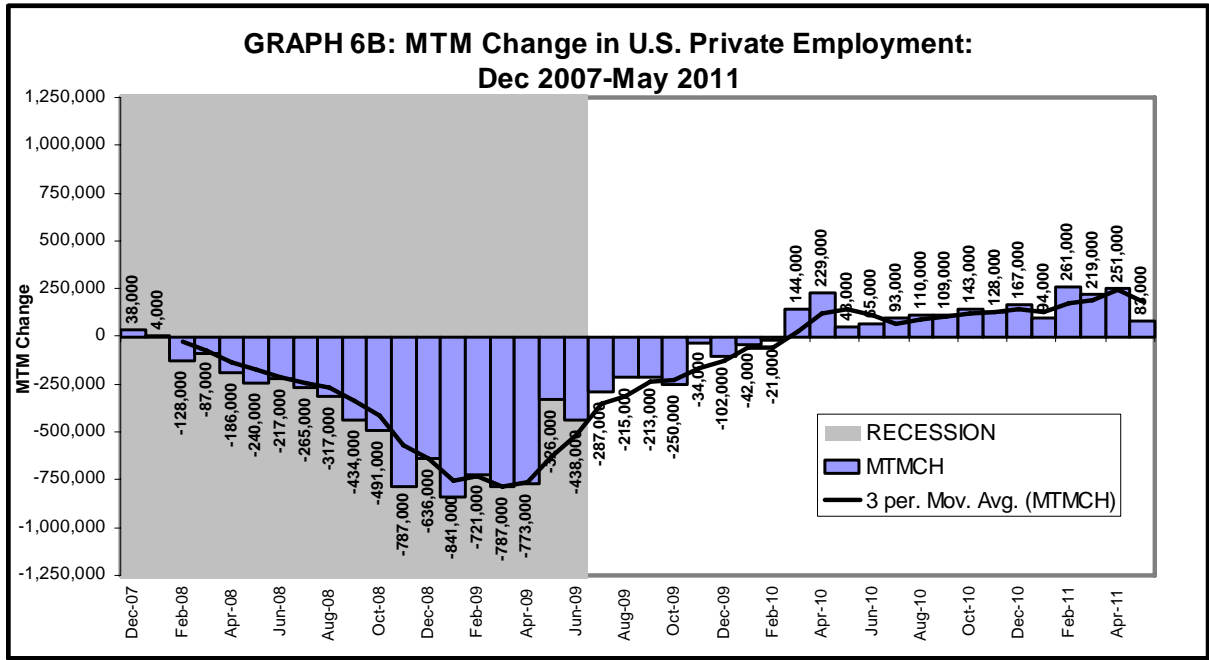
As depicted in Graph 6-A, the U.S. economy had a spurt of accelerating job-growth in March, April, and peaking with 458,000 net new jobs added in May 2010. This was then followed by an abrupt contraction of 192,000 jobs in June, followed by decelerating job-losses through September, with growth returning again when 171,000 jobs were added in October. An accelerating-decelerating job-growth pattern continued until the significant deceleration in job-growth in May 2011, when only 54,000 jobs were added to the economy. Graph 6-C provides an explanation for a significant part of the volatility in job-growth in 2010. Being a Census year, the Federal Government hires temporary Census workers to conduct the Decennial Census, this results in a spurt of Federal temporary job-growth in the first half of a Census year, followed by large job-reductions in temporary Census workers as the Census is completed. From Graph 6-C, the spike in Government job-growth of 410,000 net, new jobs, in May 2010, was followed by a 257,000-job decline in June. This reflects the Census-driven hiring pattern at the Federal level. Note also on Graph 6-C that, mostly driven by cuts at the state and local level, there were successive job-losses in Government from October 2010 to April 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



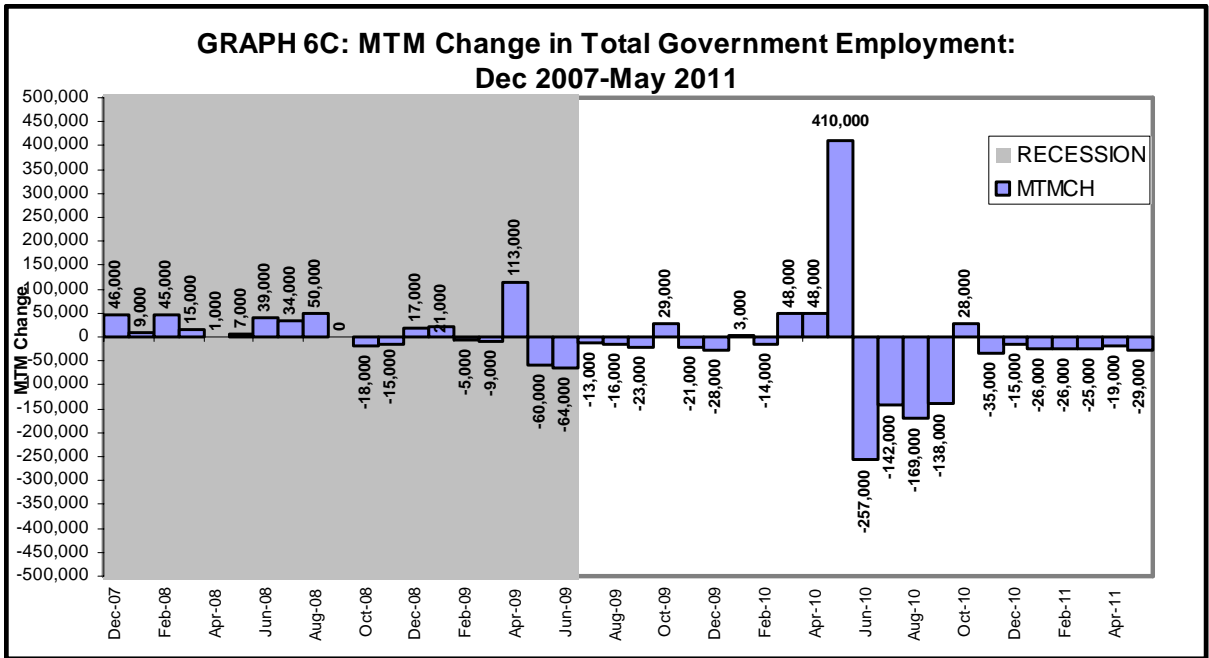
SOURCE: U.S. BLS



SOURCE: U.S. BLS



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BLS

To get a better sense about the trajectory of job-growth since the NBER-declared end of the recession in June 2009, Graph 6-B tracks the MTM job-growth in U.S. Private Employment from December 2007, the peak of the last expansion, to the latest available data (at the time of writing) for May 2011 (released by BLS on June 3, 2011). Also, superimposed on Graph 6-B is a 3-month moving MTM change trend in private job-growth. Looking at just private-sector job-growth nets out the highly volatile Public Sector, where job-growth has been distorted by the hiring of temporary workers at the Federal level to conduct the Decennial Census, and job-cuts at the state and local level to address their budget crises.

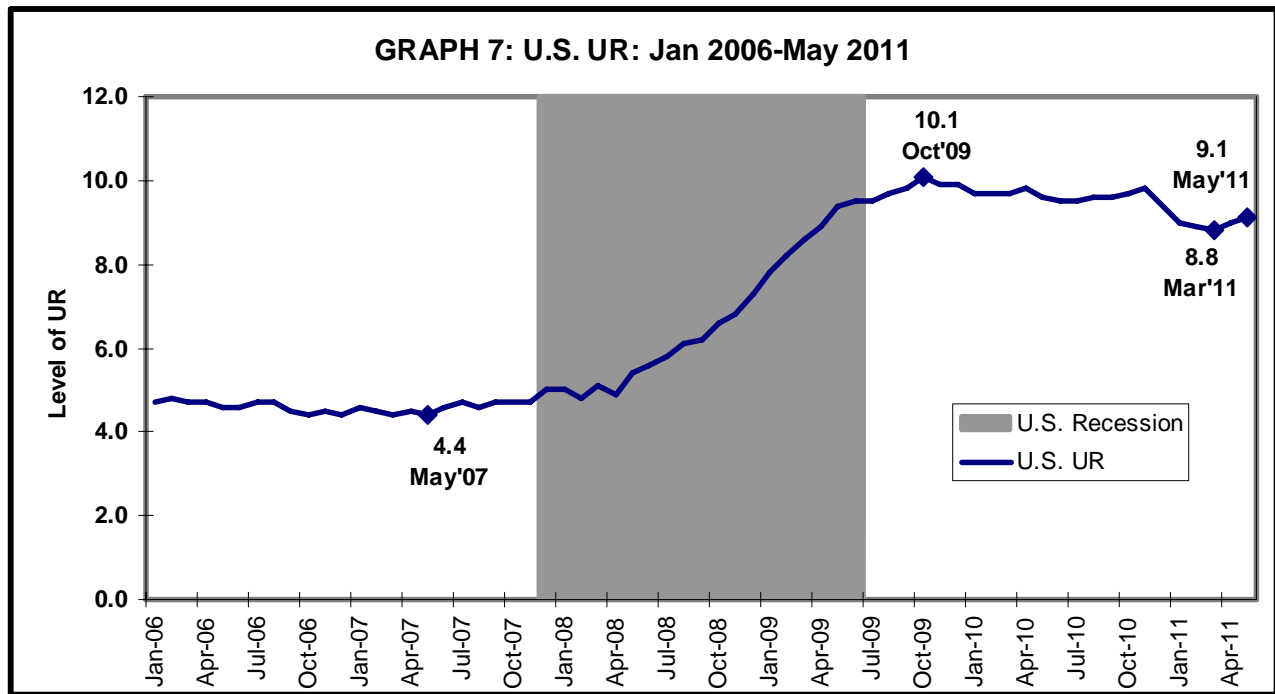
As depicted in Graph 6-B, after private-sector job-losses bottomed out in March 2009, job-losses decelerated until private-sector job-growth returned one year later. In March 2010, the Private Sector added 144,000 jobs to the economy. In April, private jobs increased by 229,000. There was then an abrupt deceleration in private-sector job-growth in May, which was followed by a moderate acceleration in private-sector job-growth culminating in three straight months (February, March, and April) in which the Private



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Sector added more than 200,000 net, new jobs to the economy each month, until the rapid deceleration in private-sector job-growth in May 2011.

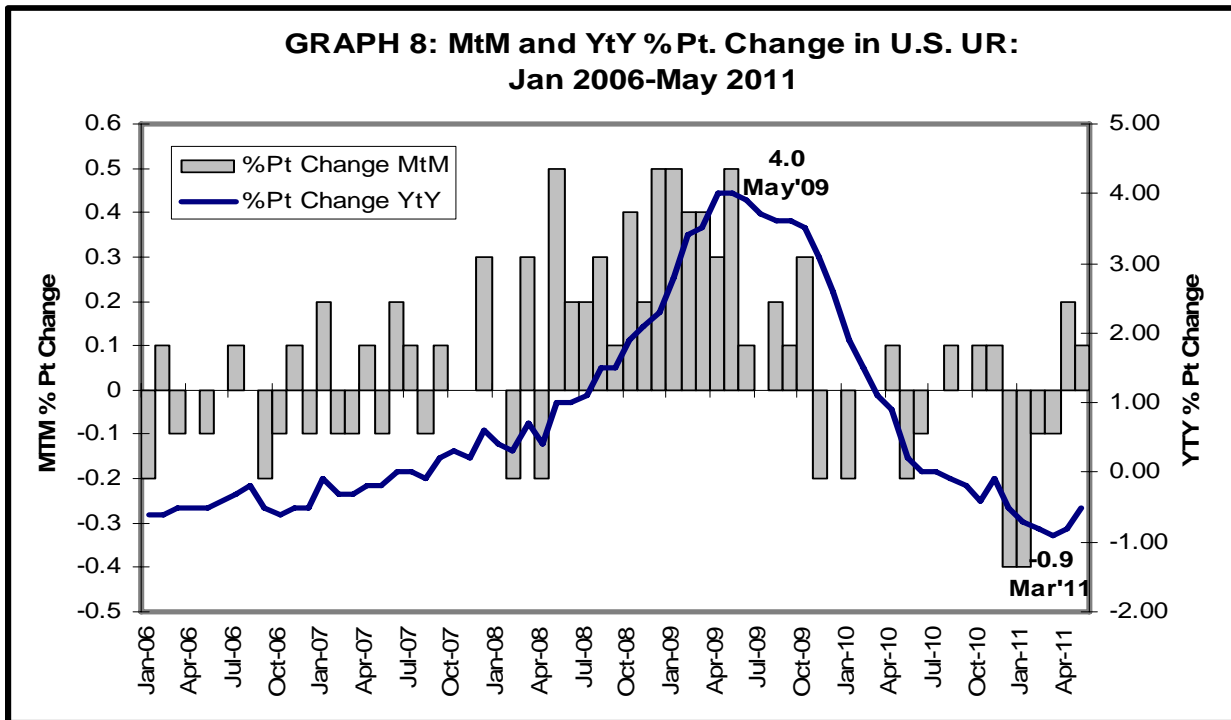
The next most-watched indicator of labor market activity is the Unemployment Rate (UR). Graph 7 tracks the U.S. UR from January 2006 through May 2011.



SOURCE: U.S. BLS

The U.S. UR peaked over the current cycle at 10.10% in October 2009 (see Graph 7). It was only the second time that the monthly UR rate averaged above 10% in the Post World War II Era. In December 1982, the UR peaked at 10.80%. Though the UR fell below 10% in January 2010, it was stuck above 9.50% until November 2010, when it was still 9.80%. From December 2010 to March 2011, the UR began falling until March when it was at 8.80%. From March to May 2011, the UR rate started inching back up again, and was back up above 9% again in May. Graph 8 presents the month-to-month (MTM) and year-to-year (YTY) percentage-point change in the UR over the December 2006-May 2011 period.





SOURCE: U.S. BLS

The MtM percentage-point change in the UR jumped by 0.50 percentage points in May 2008, with further 0.50 percentage-point (50 basis points) jumps in December 2008 and January 2009. The monthly, YtY percentage-point change in the UR continued to climb from January 2006 until the acceleration in the growth in the UR peaked with the back-to-back 4-percentage-point (400 basis points) increases in April and May 2009. From then on the monthly YtY percentage-point increase in the UR began to rapidly decelerate until June 2010 when the monthly, YtY percentage-point change turned negative and the UR, on a YtY basis, began falling. MtM there were steep 40-basis-point drops in the UR in December 2010 and January 2011. April and May 2011 have had two consecutive percentage-point increases in the UR, and YtY, after declining by 90 basis points in March 2011, the decline in the UR has been decelerating, with a YtY 50-basis-point decline in May 2011.

From the behavior of the level of the UR in presented Graph 7 and the MYM and YtY percentage-point change depicted in Graph 8, it appears that the momentum in the trend

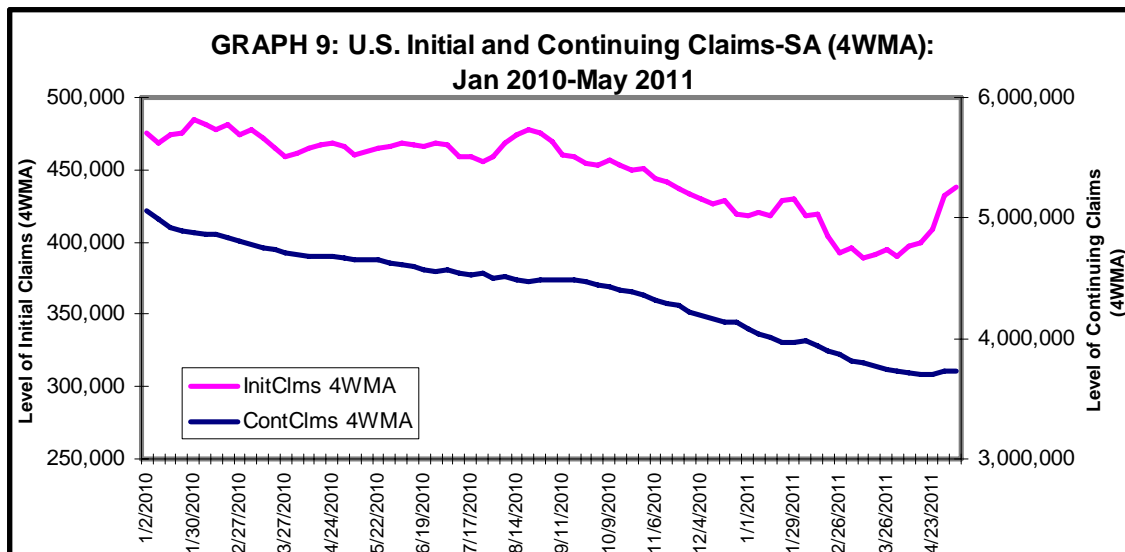




**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

of the UR may be in the direction of increasing once again after falling, though slowly, over 2010.

Another important indicator of where labor markets may be heading is Initial and Continuing Claims. Rising Initial Claims could be a signal that labor markets are starting to weaken, whereas falling Initial Claims could be signaling that the labor market is tightening. On the other hand, persistently high Continuing Claims could be a sign that those laid off are not finding new jobs, and even if Initial Claims are falling, indicating that layoffs are abating, if Continuing Claims are not also falling, then, though layoffs may be subsiding, new jobs are not being created to absorb those currently looking for work.



SOURCE: U.S. ETA

The four-week moving-average (4WMA) of seasonally adjusted, U.S. Initial Claims, from Jan 2010 to May 2011 (latest available period at the time of writing) is measured on the left-hand vertical scale in Graph 9, and the 4WMA of seasonally adjusted, Continuing Claims is measured on the right-hand vertical scale. Looking at 2010 and 2011, the 4WMA of Initial Claims peaked at 485,000 in the week of January 30, 2010. After bottoming out at 388,500 the week of March 12, 2011, the 4WMA of Initial Claims began increasing again, and by the week of May 7, 2011 (the most recent period of



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

available data at the time of writing), had increased by 49,000 to 437,750. The 4WMA of Continuing Claims are also tracking back up, after bottoming out in 2011. The peak for the 4WMA over the 2010-11 period was 5,056,000, the week of January 2, 2010. The 4WMA of Continuing Claims then continued to fall until the week of April 16, 2011, when they bottomed out at 3,702,000. The 4WMA of Continuing Claims then began increasing again, growing by 32,500 to 3,734,500 the week of May 7<sup>th</sup>.

The signals being sent by the initial and continuing claims data indicates that the labor market may be softening. Though the increase in continuing claims is slight, the increase in initial claims is quite sharp from March and April through the first week of May 2011.

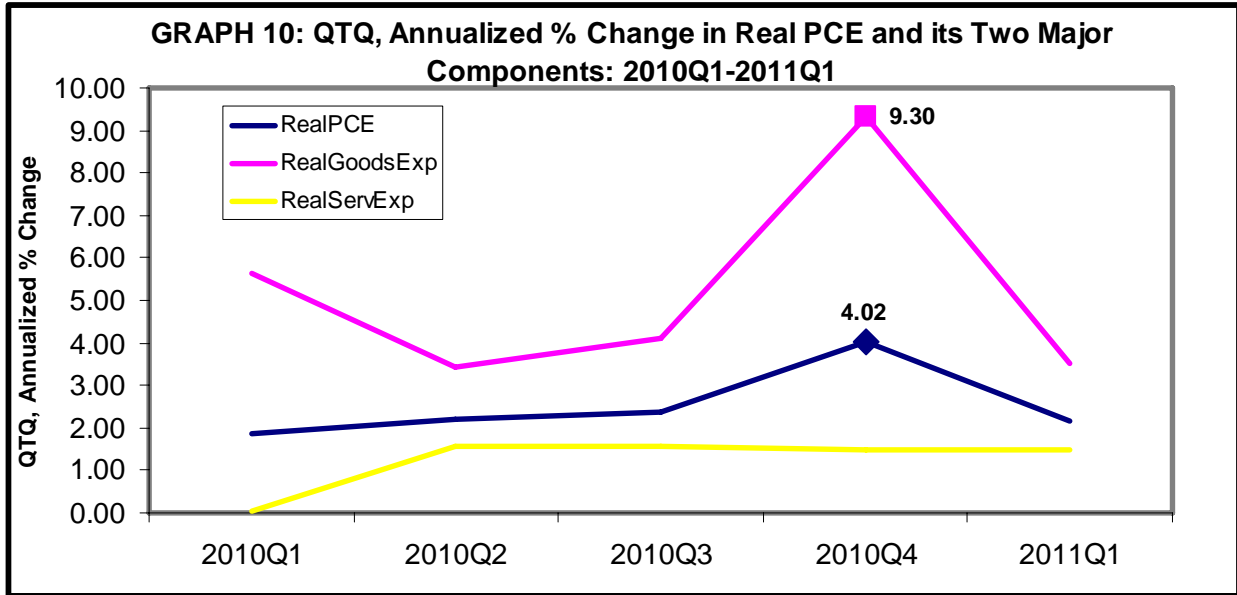
**CONSUMER SPENDING: As of Spring 2011**

Turning now to a detailed look at consumer spending and income in the Spring of 2011. From first quarter GDP data from the U.S. BEA the growth-rate in quarterly Real, Personal Consumption Expenditures (PCE) decelerated to 2.17%, on an annualized basis, from 4.02% in 2010Q4. The quarter-to-quarter (QTQ) growth-rate in Real PCE had been accelerating throughout the four quarters of 2010. This follows the pattern of QTQ growth-rate in Real GDP, which also decelerated to 1.8% in 2011Q1 (see above). Graph 10 tracks the annualized, QTQ growth-rate in Real PCE, and its two major components, Spending on Goods and Spending on Services, from 2010Q1 to 2011Q1. The first thing to note is the 9.30% growth-spike in real spending on Goods by consumers in the fourth quarter of 2010, the holiday season. This drove the 4.02% growth-rate in total PCE noted above. Graphs 11 and 12 drill down to identify the driver of the surge in consumer spending at the end of 2010. From Graph 11, it is clear that Durable-Goods spending, which surged by 21.13% in the fourth quarter of 2010, and thus accounted for a significant part of the strong growth in consumer spending in 2010Q4. Graph 12 breaks out durable-goods spending into its major components. Not surprisingly, Motor Vehicles and Parts, which jumped by 49.15%, on a QTQ, annualized basis, largely drove the 2010Q4-spike in real spending on Durable Goods. As indicated in Graph 13, Final Sales of Motor Vehicles surged by 72.17% in the fourth quarter of 2010, while Personal Consumption Expenditures (PCE) on Motor Vehicles jumped by 52.23%. Save Output of

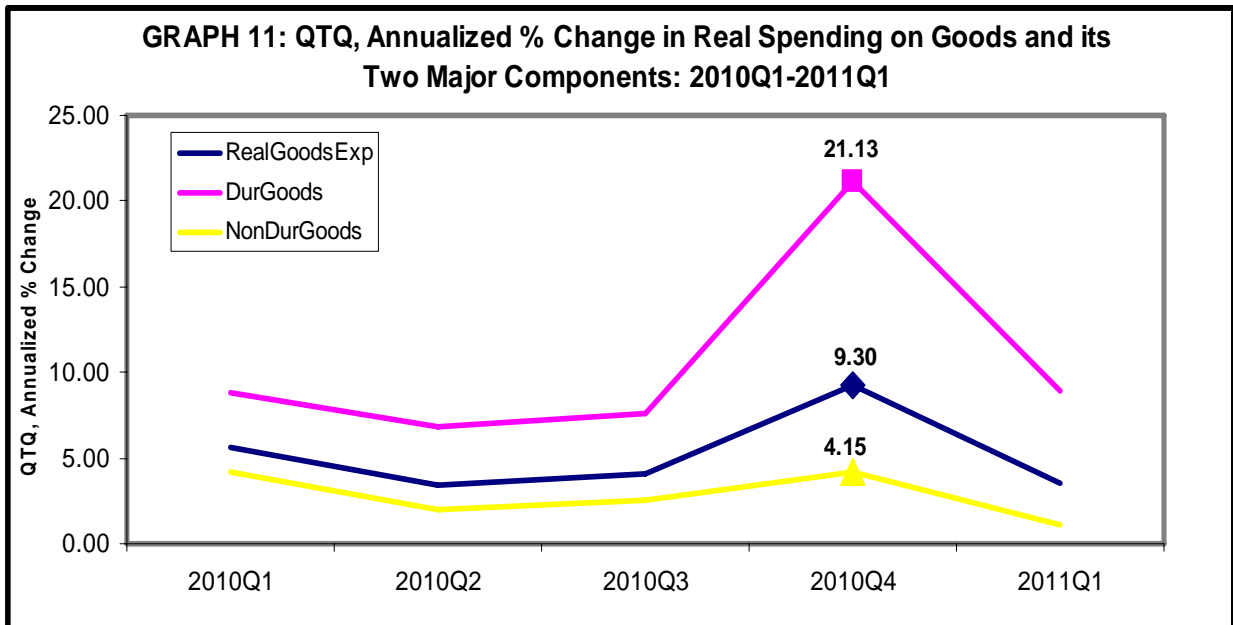


**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Motor Vehicles, which grew by 73.16% in the first quarter of 2011, after declining by 11.55% in the fourth quarter, all sales and purchasing activity in Motor Vehicles rapidly decelerated in 2011Q1.



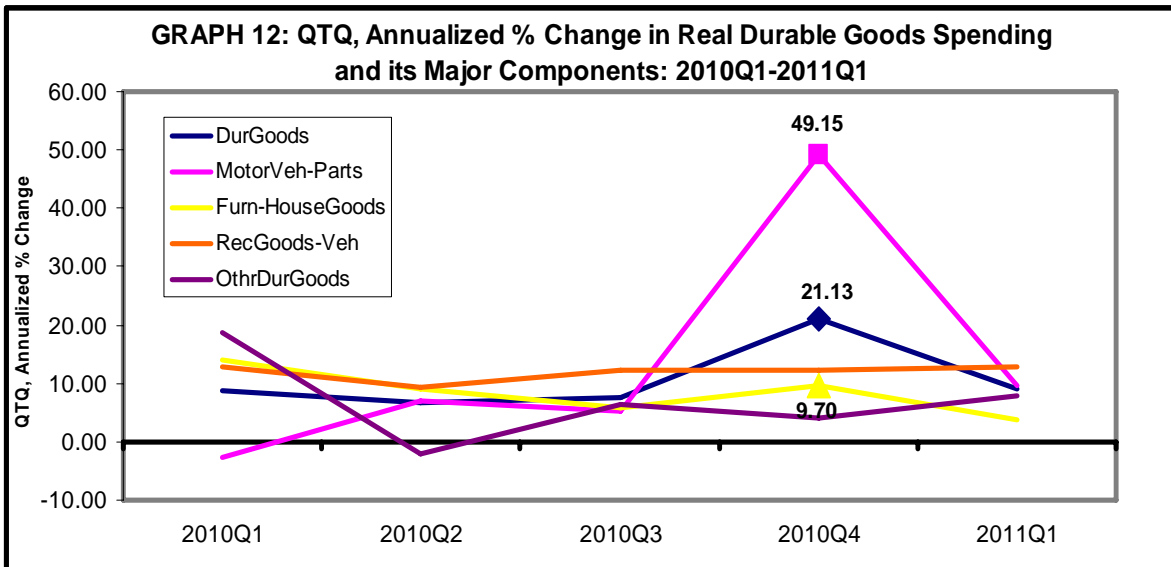
SOURCE: U.S. BEA.



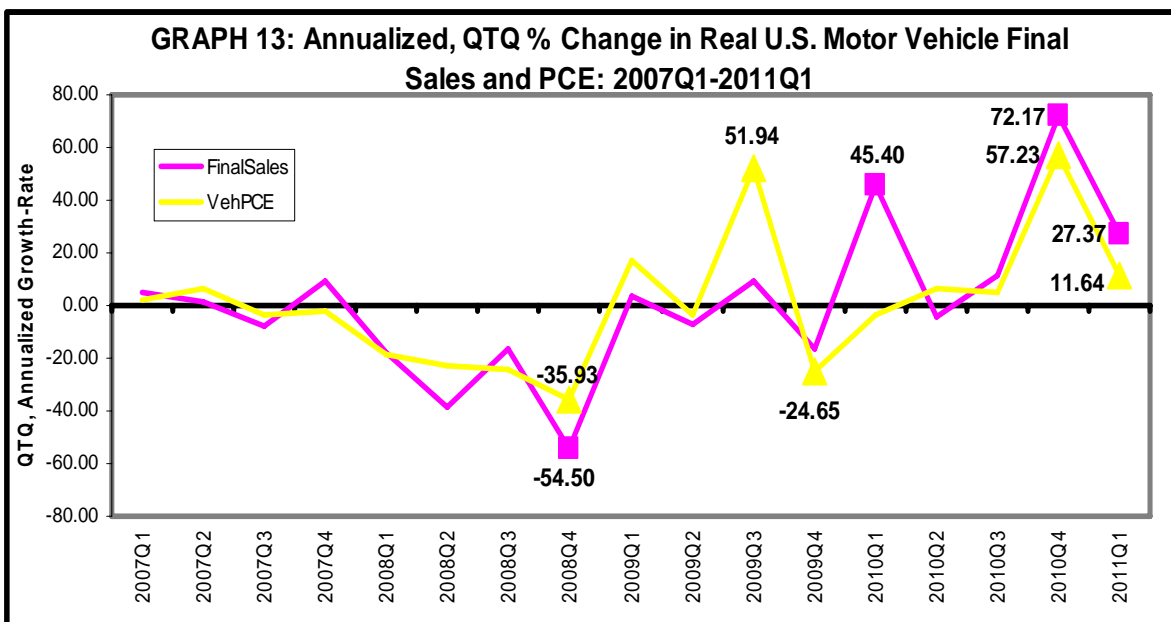
SOURCE: U.S. BEA



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BEA



SOURCE: U.S. BEA

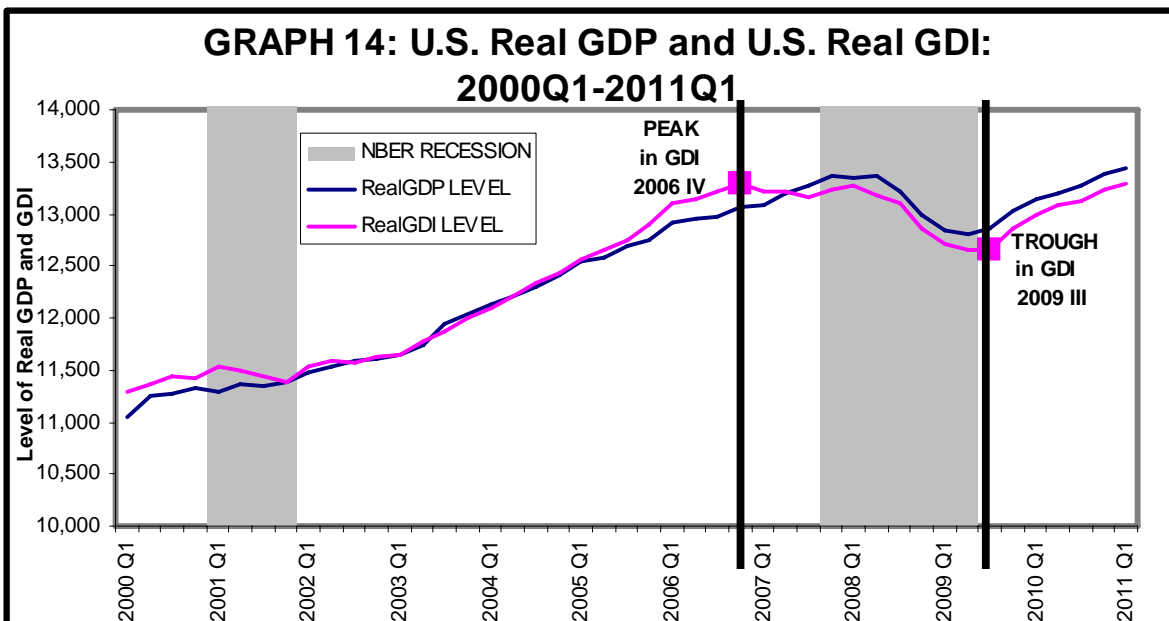
**A RECESSION EVEN DEEPER THAN WE THOUGHT?**

On September 20, 2010, the National Bureau of Economic Research (NBER) declared that the trough of the recent recession occurred in June 2009. On a quarterly basis, this would put the trough of the recession in 2009Q2. But, according to research by Jeremy J.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

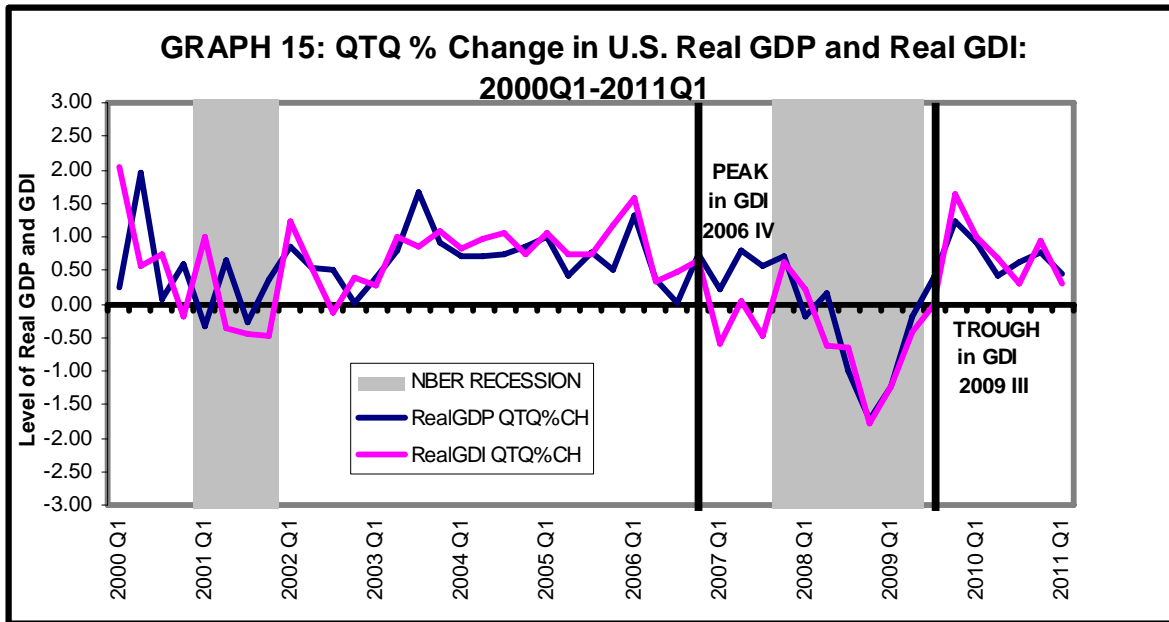
Nalewaik<sup>17</sup> at the Federal Reserve Board, if Gross Domestic Income (GDI) is used to measure U.S. economic activity, rather than GDP, then the recent contraction was steeper, and lasted longer than the official, NBER-designated recession. As can be seen in Graph 14, GDP and GDI follow different tracks over this cycle. According to Nalewaik, the paths of GDP and GDI diverged after 1984, and have been tracking differently ever since. From Graph 14, it is clear that GDI peaked in 2006Q4, not 2007Q4, a year later, as GDP did. Further, while GDP does show recovery after 2009Q2, the official end of the recent recession, the trough in GDI occurs in 2009Q3. This can also be observed in Graph 15, which tracks the QTQ percent-change in GDP and GDI. The QTQ growth-rate turned negative for GDI before it turned negative for GDP.



SOURCE: U.S. BEA and Federal Reserve Board.

<sup>17</sup>. Nalewaik, Jeremy J, *The Income- and Expenditure-Side Estimates of U.S. Output Growth* (April 15, 2010) Federal Reserve Board: Washington





SOURCE: U.S. BEA, the Federal Reserve Board, and calculations by CTDOL-Research.

### III. READING THE SIGNALS: What is the Economy Telling Us?

In order to organize our thoughts about assessing where the economy is in the spring of 2011 and where it might be going, the signals sent by the economy are categorized by major macroeconomic functions and activities in the form of macroeconomic indicators. At all levels of economic activity, from the single household, business establishment, and government agency up to the major aggregations in the economy such as the Household Sector, Business Sector, and Government Sector, there are two major perspectives in which quantitative variables can be viewed: Stocks and Flows. *Stocks* measure the *Assets* owned, and *Liabilities*, or claims against those Assets. Subtracting liabilities from assets yields *Net Worth*. This is reflected in a *Balance Sheet*. Balance Sheets are recorded at a point in time (e.g., December 31, 2010). Section V will address the stock perspective in more detail when the characteristics and implications of a balance-sheet recession are discussed. The remainder of this section will focus on the *Flow-Concepts*. *Income-and-Expenditures* Statements measure resources flowing into an organization (e.g., household, business, government), known as *Income*, and the outflow of resources known

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

as *Expenditures*. Income minus Expenditures yields *Net Income*. Income and Expenditures are measured over time (e.g., per month, per quarter, etc.). To assess the state of the economy it is critical to know the state of the economy's balance sheet (Section V) and its aggregate output, which generates its aggregate income, and its aggregate spending (expenditures). The remainder of this section focuses on reading and interpreting the flow concepts introduced above.

In order to assess the economy's state from the flow perspective, we must read the signals the economy is sending us about its ability to produce output, generate income, and support spending. These signals, known as *Economic Indicators*, can be organized within the categories of major economic activities, and within the Aggregate Demand framework. Major categories of economic activity include Growth and Output, Resource Utilization (in the physical sense), and Labor-Market activity, which gauge the use of human resources by the economy.

In addition, we can read the signals being sent by the economy that conveys information about the major sectors of the economy and the indicators of activity in each sector. Aggregate Demand (AD), introduced in Section II, is composed of four major sectors, and can be expressed more precisely as follows:

$$AD = C + I + G + (X-M) \quad (1.)$$

In Equation (1), Consumer-Spending activity (C) is the component of AD from the Household Sector, Business-Sector demand is denoted by "I" and "G" represents the demand for goods and services by the Government Sector, and finally, Exports (X) minus Imports (M) equals Net Exports (X-M), the net demand in the Foreign, or Trade Sector.

First, the current readings on the indicators of growth and output are introduced. Next, the macroeconomy's use of physical resources is examined, followed by an analysis of the economy's use of its human resources (Labor Markets), followed by the two, major



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

private-sector, domestic components of Aggregate Demand (AD) beginning with current business conditions, then turning to households and consumer spending.

## **A. GROWTH AND OUTPUT**

This section focuses on the indicators of U.S. growth and output. The first indicator tracked is the U.S. *Gross Domestic Product* (GDP), which is defined as the dollar-value of all current-period production of goods and services. And, in this case, those goods and services produced within the territorial boundaries of the U.S., regardless of the country of ownership. However, GDP is not the only measure of growth and output. *Industrial Production* is another measure of growth and output of the economy. But, GDP and Industrial Production are based on different methodologies. GDP is calculated on a net output basis (i.e.; Value Added). It excludes the double-counting of the intermediate inputs of purchased goods and services that are used to produce final output. Whereas, Industrial Production is calculated on a gross output basis that includes the intermediate inputs of purchased goods and services used in the production of final output. In this analysis, the *Manufacturing Industrial Production Index* (IPI) is used rather than the Total IPI. In addition to leaving out utilities that can be influenced by the weather rather than the underlying forces driving the economy, Manufacturing, despite its decline in importance in the U.S. Economy, still has a significant direct effect, and wide secondary and tertiary ripples throughout the economy. Further, while GDP, published by the U.S. Bureau of Economic Analysis, is a quarterly measure of output, Industrial Production, published the Federal Reserve Board, is a, higher frequency, monthly measure of output.

### **REAL GDP: Gauging Its Performance Over the Current Cycle**

In Section II, “Current Conditions”, Graph 1 tracks the QTQ growth in Real GDP (\$Billion) over the current cycle. In order to gauge the performance of GDP-growth over this recovery, it will be helpful to compare it to previous recoveries. Though recoveries have been weak in the Post Cold War Era, following the fall of the Berlin Wall, this one has also been preceded by the collapse of a bubble in housing and the first systemic

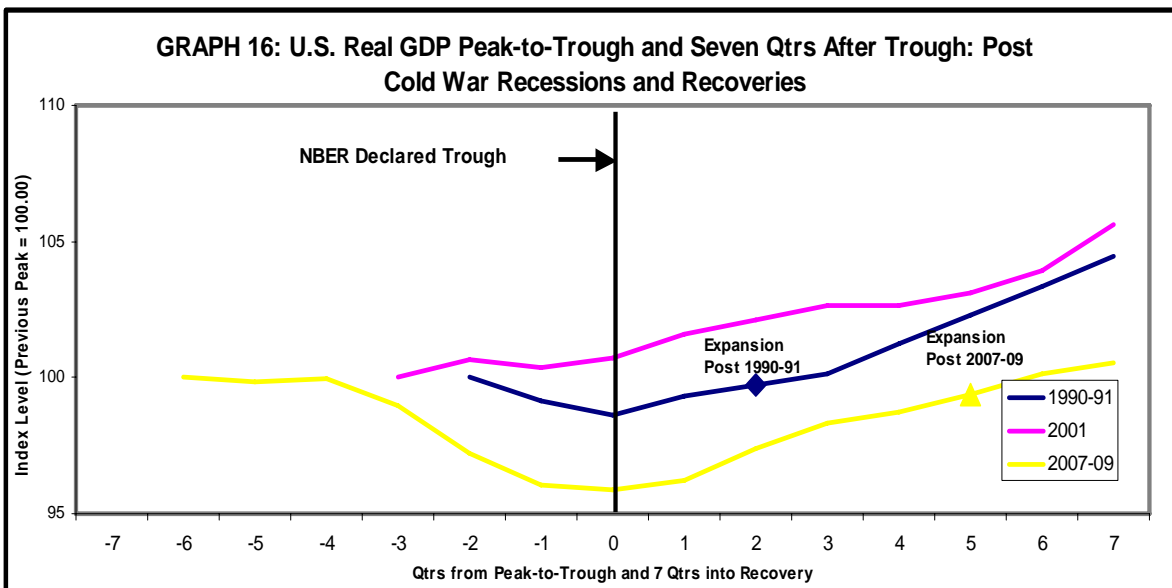




**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

banking panic since the Great Depression. This raises the question: How has this recovery performed compared to other Post World War II recoveries? Graph 16 tracks an index of Real GDP growth from the previous expansion's peak to the trough (as designated by NBER), and seven quarters out from the trough, for the three Post Cold War recessions and recoveries. The index is a simple ratio of a given quarter's Real GDP level to the Real GDP level at the peak of the previous expansion, where the index value equals 100.00.

As is clear from Graph 16, the recent crisis/recession lasted longer, and was much steeper than the previous two Post Cold War recession/recovery cycles. Further, it took five quarters for Real GDP to return to its previous-peak level over this recovery, but only two quarters for the recovery after the 1990-91 Recession. What is also of note in Graph 16 is the unusual behavior of Real GDP throughout the 2001 recession/recovery cycle.



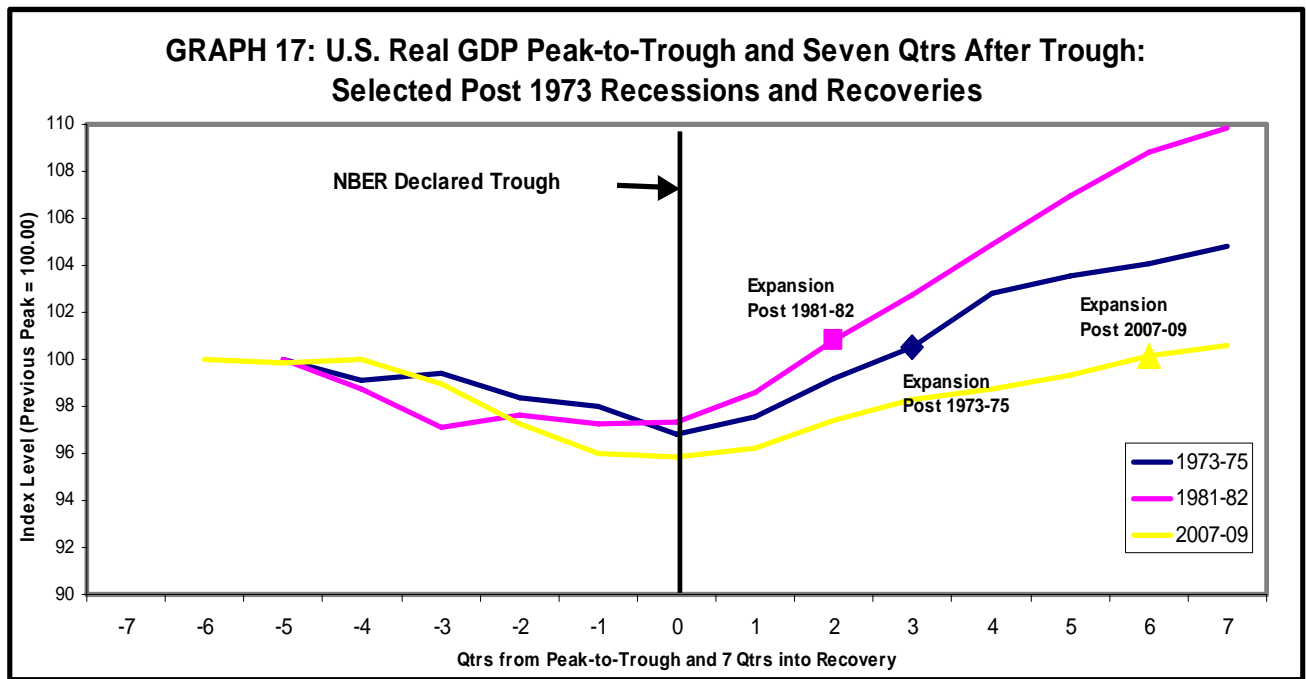
SOURCE: U.S. BEA and calculations by CTDOL-Research.

Graph 17 takes a longer-view perspective in comparing the current recovery's GDP recovery by looking at the most severe recessions since the Oil Embargo and the official Collapse of Bretton Woods in 1973, which also happens to encompass the most severe recessions since World War II. The recent, 2007-09 crisis and recession had the steepest



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

decline of the three steepest recessions depicted in Graph 17. Over the six quarters of recession from 2007Q4 to 2009Q2, Real U.S. GDP contracted by 4.14%, which translates into a 2.78% annualized, contraction in GDP. This compares to the 1973-75 Recession in which Real GDP contracted by 3.19% over five quarters (1973Q4 to 1975Q1), and represents a 2.56% annualized decline in GDP. Looking at the 1981-82 Recession, between 1981Q3 and 1982Q4, GDP contracted by 2.64%, which translates into a 2.12% annualized decline in GDP over the five quarters of recession. Clearly, the recent crisis and recession is the steepest over the entire Post World War II Period. After the 1981-82 Recession, Real GDP returned to its pre-recession level two quarters after the NBER-declared trough, compared to three quarters after the 1973-75 Recession, and six quarters after the trough of the recent 2007-09 Crisis/Recession. The recent crisis/recession has been the most severe since the Great Depression.



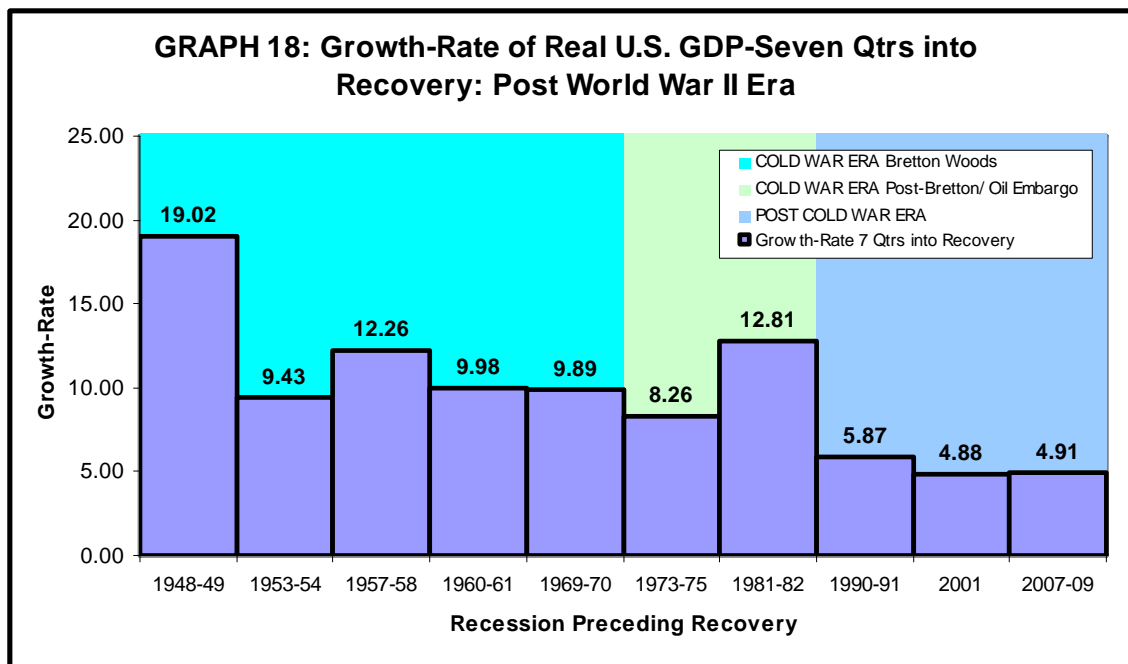
SOURCE: U.S. BEA and calculations by CTDOL-Research.

To get a more complete post-war perspective on the current cycle, Graph 18 shows the percent growth in Real GDP seven quarters into recovery for all the recoveries following the recessions that occurred between 1948 and the most recent. Graph 18 is divided up



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

into three distinct segments: Cold War Period (1948-1971), Cold War/Post Bretton Woods/Oil Embargo Period (1971-1989), and the Post Cold War Period (1989-Present). What stands out is the significant drop in the growth in Real GDP, seven quarters into recovery, over the Post Cold War Era compared to all previous Post World War II segments on the graph. Following the 1957-58 and 1981-82 recessions, Real GDP was up by more than 12% seven quarters into recovery. Seven quarters after the trough of the 1948-49 Recession, GDP was up by 19%, the strongest growth of any recovery since World War II. Conversely, the Post Cold War recoveries have been the weakest since World War II, at least over the first seven quarters.



SOURCE: U.S. BEA and calculations by CTDOL-Research.

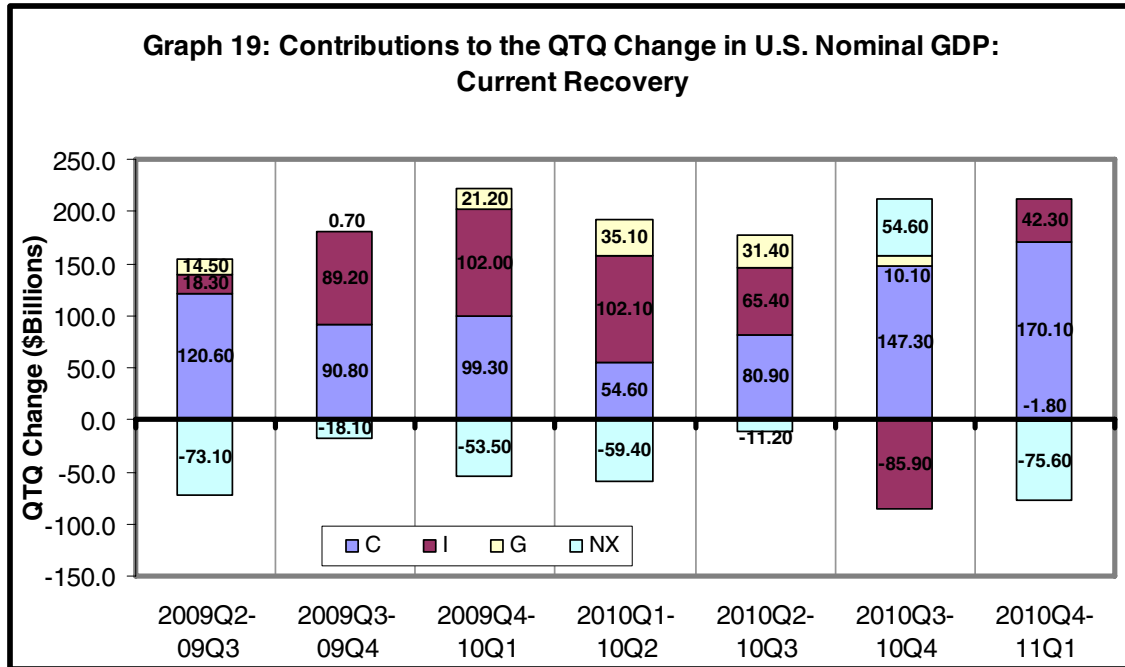
**CONTRIBUTIONS TO THE GROWTH IN NOMINAL GDP**

Since chained-dollar components of GDP will not add to the total, to look at the contributions to the growth of GDP over the first seven quarters of this recovery, the discussion now switches from Real (2005 chained-dollar) to *Nominal*, or current-dollar GDP to avoid the “adding-up” problem. Graph 19 tracks the QTQ change in Nominal GDP (\$ Billion) from the through of the previous recession (2009Q2) to the last available period of data, 2011Q1, seven quarters into recovery. What is striking is how Net Exports



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

have been a subtraction from GDP growth in every quarter of the recovery except the fourth quarter of 2010 when Net Exports added \$54.6 billion to GDP-growth. The two biggest subtractions were in the first quarter of recovery, 2009Q3, (-\$73.1 billion) and the first quarter of 2011 when Net Exports reduced GDP-growth by \$75.6 billion.



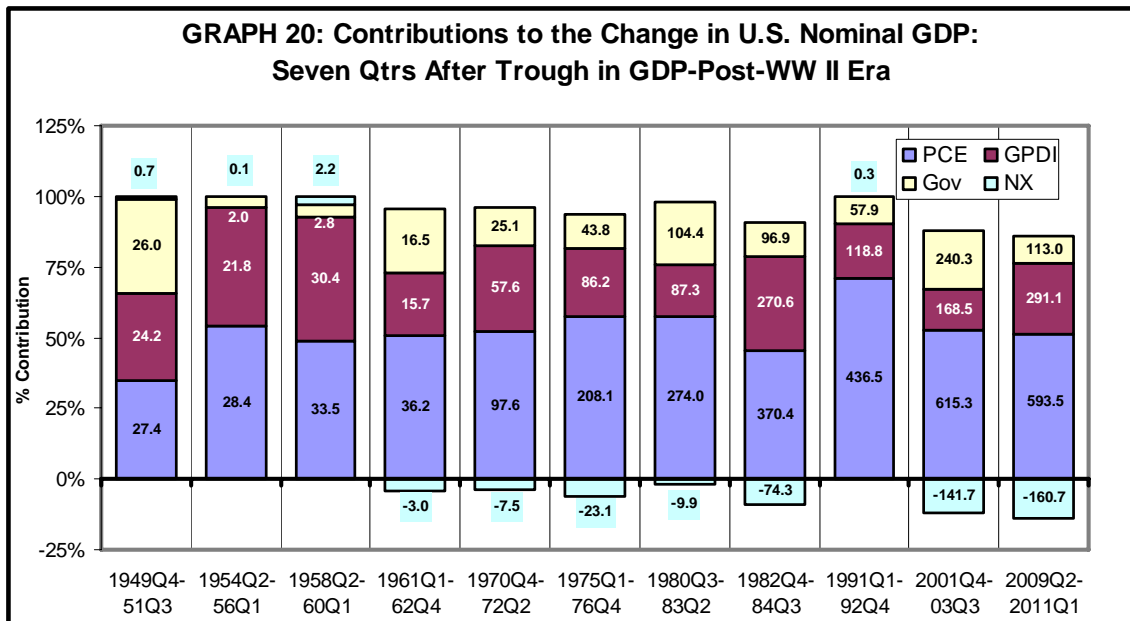
SOURCE: U.S. BEA

What is also notable in Graph 19 is that Government spending, including all levels was a net subtraction of \$1.8 billion from GDP-growth in 2011Q1. Further, Government spending at all levels has only contributed more than \$20 billion to growth in three of the seven quarters over the recovery (2009Q2 to 2011Q1). The contribution of Consumer spending to Nominal GDP growth exceeded \$100 billion in only three quarters: \$120.6 billion in 2009Q3, \$147.3 billion in 2010Q4, and \$170.1 billion in 2011Q4. Investment spending exceeded \$100 billion per quarter over the first half of 2010, but then decelerated in the third quarter, and then subtracted \$ 85.9 billion from GDP-growth in 2010Q4. Investment spending added \$42.3 billion to GDP-growth in the first quarter of 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Graph 20 compares the contributions of the major components of Aggregate Demand (AD) to the growth in GDP seven quarters into recovery over the Post World War II Era.



SOURCE: U.S. BEA

The two smallest contributions to GDP-growth by Consumer Spending, seven quarters into recovery, were over the 1949Q1-51Q3 Recovery and the 1982Q4-84Q3 Recovery. Consumer Spending made the largest contribution to the growth in GDP over the 1991Q1-92Q4 Recovery. Gross Private Domestic Investment (GPD) made the largest contributions to GDP-growth over the 1958Q2-60Q1 and 1954Q2-58Q1 recoveries. GPD made the smallest contribution to the growth in GDP seven quarters into recovery over the 2001Q4-03Q3 Recovery. Government made the largest contribution to the growth in Nominal GDP over the 1949Q4-51Q3 Recovery, and made the smallest contributions to the 1958Q2-60Q1 and 1954Q2-58Q1 recoveries. Before the 1961Q1-62Q4 Recovery, Net Exports had made a positive contribution to GDP-growth over the first seven quarters of recovery. Net Exports made their first major subtraction from GDP over the 1982Q4-84Q3 Recovery, reducing GDP-growth by \$74.3 billion. After remaining flat over the 1991Q1-92Q4 Recovery, NET Exports then made their two biggest subtractions of any recovery's first seven quarters: subtracting \$141.7 billion



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

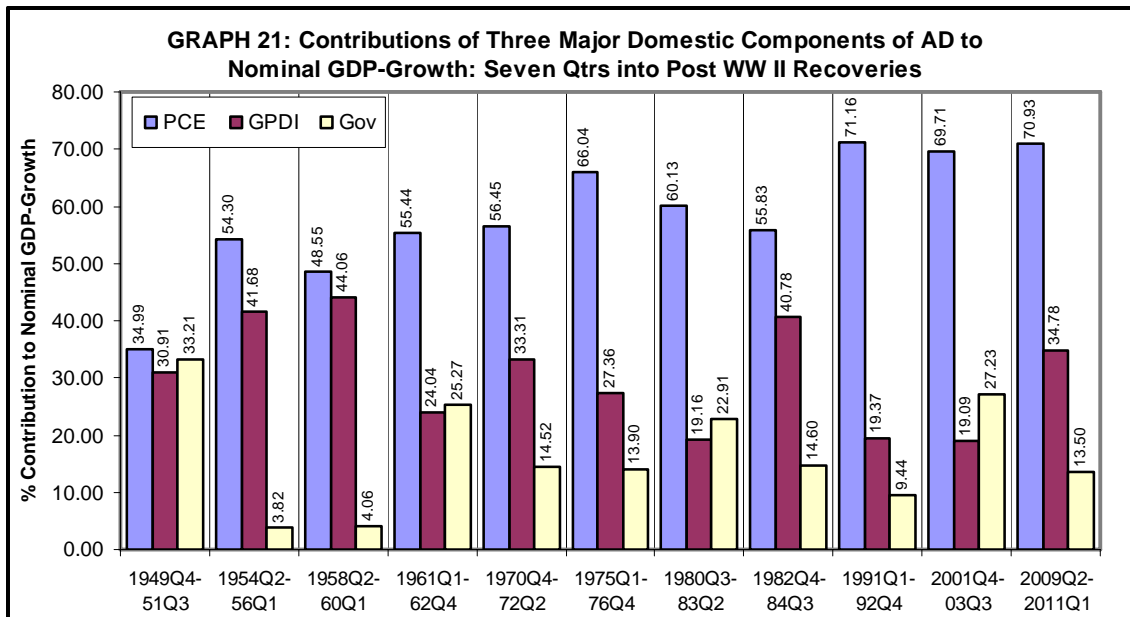
from growth over the 2001Q4-03Q3 Recovery and \$160.7 billion over the 2009Q2-2011Q1 Recovery period.

Interestingly, Consumer Spending made about the same contribution to GDP-growth over the current recovery, 2009Q2-2011Q1, as it did over the 2001Q4-03Q3 Recovery. Further, GDI has made a much larger contribution over the current recovery so far than it did over the first seven quarters of the 2001Q4-03Q3 Recovery. In fact, GDI has made the largest contribution to GDP-growth over this recovery that it has made since the 1982Q4-84Q3 Recovery. Also, Government Spending has made a smaller contribution to the first seven months of this recovery than it did over the first seven months of the 2001Q4-03Q3 Recovery. The explanation behind this lies behind the states' fiscal crisis, which is on a level over this recession/recovery cycle that far exceeds the magnitude of the 2001 Recession. Thus, budget-cuts at the state and local level have neutralized some of the Federal stimulus spending.

Graph 21 focuses on the relative contributions of the three components of domestic AD to the first seven months of recoveries in the Post World War II Era. What is striking about Graph 21 is the jump in the contribution of Consumer Spending to the growth in Nominal GDP, over the first seven quarters of recovery, in the Post Cold War Era. Over the 1991Q1-92Q4 Recovery, for the first time, Consumer Spending accounted for 71.16% of GDP growth over the first seven quarters of recovery. Consumer Spending then accounted for 69.71% of Nominal GDP growth over the first seven quarters of the 2009Q1-03Q3 Recovery, and for 70.93% of GDP-growth from the trough of the last recession (2009Q2) through 2011Q1, the last period of available data. Throughout the Post World War II Era, up to end of the Cold War, Consumer Spending had, for the most part, made the largest contribution to the growth of GDP over the recovery/expansion phase of the business cycle. However, it historically had always accounted for between one-half to two-thirds of the growth in Nominal GDP. The recovery coming out of the 1990-91 Recession was the first time that Consumer Spending had ever accounted for 70%, or more, of the growth in GDP over a recovery.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BEA and calculations by CTDOL-Research.

### INDUSTRIAL OUTPUT: Gauging Its Performance Over the Current Cycle

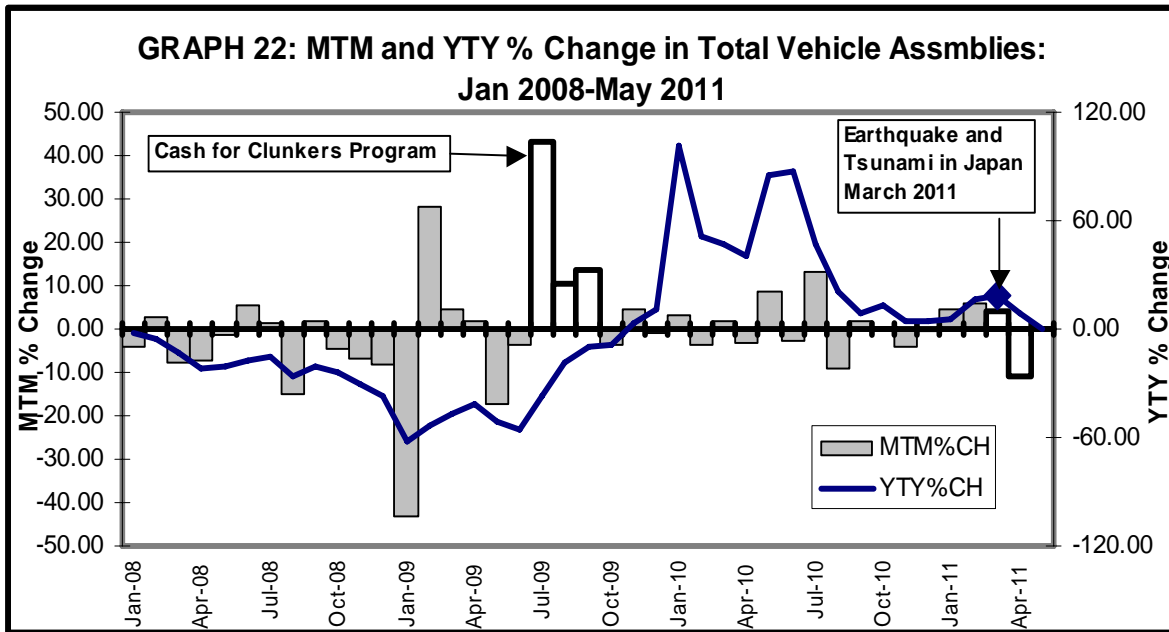
This sub-section turns to looking at the behavior of *Manufacturing Industrial Production Index* (IPI), and the implications, over the current cycle. As noted in the opening remarks to this section, the Manufacturing IPI is used rather than the Total IPI. In addition to leaving out utilities that can be influenced by the weather rather than the underlying forces driving the economy, Manufacturing, despite its decline in importance in the U.S. Economy, still has a significant direct effect, and wide secondary and tertiary ripples throughout the economy.

After contracting by -0.55% in April U.S. Manufacturing output grew by +0.44% in May 2011, on a Month-to-Month (MTM) basis. Many commentators have noted that this may be mostly the effects of the earthquake and tsunami that hit Japan in March<sup>18</sup>. And, in fact, manufacturing output grew by 0.64% in March. Graph 22 tracks the MTM and year-to-year (YTY) change in Total Vehicle Assemblies from January 2008 to May 2011.

<sup>18</sup> Fackler, Martin, *Powerful Quake and Tsunami Devastate Northern Japan* (March 11, 2011) NEW YORK TIMES <http://www.nytimes.com/2011/03/12/world/asia/12japan.ht> Accessed on July 29, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

Though the effects of the disaster in Japan are clearly evident in the 10.70% contraction in Total Vehicle Assemblies in April, on a MTM basis, and the flat, 0.25% growth-rate in May. And, there has been a rapid deceleration in the YTY growth-rate since March, when assemblies grew by 18.36%, and then decelerated to 8.97% in April and 0.39% in May. Total Manufacturing industrial production, after growing by more than 6% per month, on a YTY basis, over the first three months of 2011, manufacturing output growth has decelerated to 4.79% in April and 4.10% in May. Nevertheless, save the November 2010 dip to 6.04%, YTY growth, there had been a steady, slowly declining YTY growth-rate in the Manufacturing IPI from its 8.55% peak in June 2010 to its March 2011 growth-rate of 6.22%. Though clearly the earthquake and tsunami in Japan, which resulted in supply disruptions to North American auto assembly plants, has played a factor, slowing output may also reflect the overall slowing of economic activity.

To compare the performance of manufacturing output over the current cycle, Table 1 and Graph 23 compare it to recession/recovery cycles over the Post-1973 Period, that is, following the collapse of Bretton Woods and the first Oil Embargo.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

**TABLE 1: U.S. Mfg. IPI Peak-to-Trough, 23 Months into Recovery, and Previous Peak-to-23 Months into Recovery for Post 1973 Recessions**

	<b>Nov73-Mar75 (16 Months)</b>	<b>Jan-Jul1980 (6 Months)</b>	<b>Jul81-Nov82 (16 Months)</b>	<b>Jul90-Mar91 (8 Months)</b>	<b>Mar-Nov2001 (8 Months)</b>	<b>Dec07-Jun09 (18 Months)</b>
<b>PEAK-TO-TROUGH</b>	-15.32	-8.43	-8.78	-4.40	-3.86	-20.39
<b>TROUGH-TO-23 MO INTO RECOVERY</b>	17.98	0.53	19.30	9.31	4.57	13.06
<b>PEAK-TO-23 MO INTO RECOVERY</b>	1.67	-7.95	8.83	4.50	0.54	-10.00

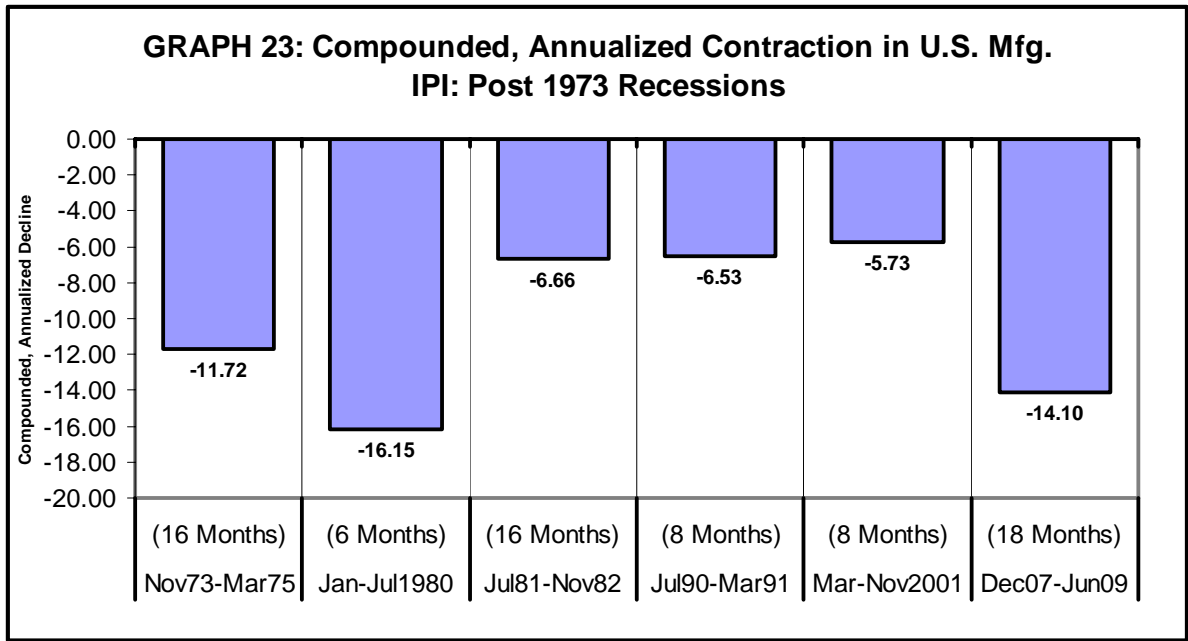
SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

Table 1 shows the contraction in manufacturing output from the peak of the previous expansion to the trough of the recession (top row), the growth in manufacturing output from the trough of the recession to 23 months of recovery (middle row), and change in manufacturing output 23 months into recovery, from the peak of the previous expansion (bottom row) for the Post 1973 recessions and recoveries. In addition, under each recession's heading (column header) is the number of months of recession in parentheses. The 2007-09 Recession was clearly the longest, lasting for 18 months, next came the 1973-75 and 1981-82 recessions, each lasting 16 months. And, the shortest recession was the 1980 Recession, which lasted only six months. The steepest contraction in manufacturing output was the 20.39% decline over the 2007-09 Recession. The next largest decline was the 15.32% contraction over the 1973-75 Recession. The shallowest decline was the 3.86% over the 2001 Recession. However, since the recessions are of different lengths, to get a more accurate indication of their severity, they should be measured on a standardized basis. To do this, each recession's decline in manufacturing output is put on a compounded, annualized basis, which is presented in Graph 23.

The steepest compounded, annualized decline in the Manufacturing IPI in a Post 1973 recession was 16.15% annualized decline over the 1973-75 Recession. This was followed by the 14.10% annualized decline over the 2007-09 Recession. The shallowest decline was the 5.73% over the 2001 Recession.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

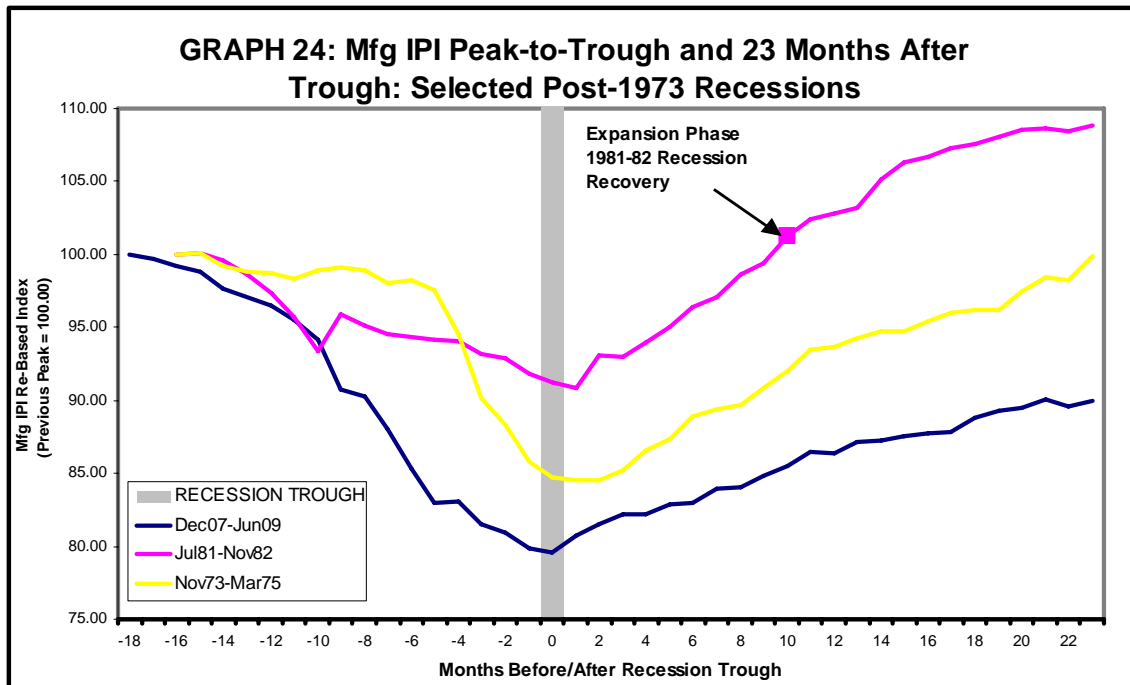


SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

Returning to Table 1, and the middle row, the strongest growth in manufacturing output, 23 months into recovery, was the 19.30% after the 1981-82 Recession, followed by the 18% growth after the 1973-75 Recession. So, far, manufacturing output has grown by 13.06% over the current recovery, as of May 2011 (which is 23 months after the NBER-declared trough of the previous recession in June 2009). The bottom row measures how much of the previous peak’s manufacturing output was recovered after 23 months of recovery. Twenty-three months into the current recovery, output is still 10.00% down from the peak in December 2007. This is the only instance of still being below the peak 23 months out. (It should be noted that although the 1980 Recession shows that there was a decline in manufacturing output, from the previous peak 23 months into “recovery”, the economy was actually back in recession again.).

To get another perspective on the decline in manufacturing output over the recent recession and current recovery, Graph 24 tracks manufacturing output over the Post 1973 recessions, and re-bases the IPI to 100.00 at each peak before each recession.

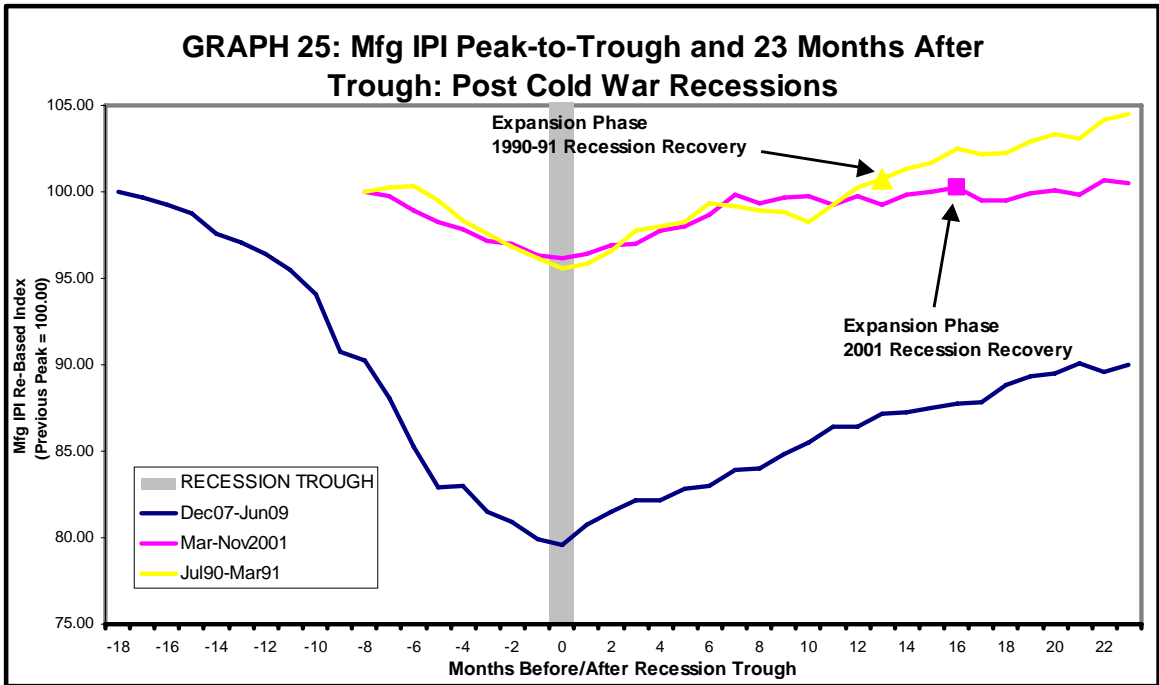




SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

Note the length and steepness of the 2007-09 Recession compared to the two other steep recessions since 1973. The 1973-75 Recession, the next steepest, along the 2007-09 Recession, had not returned to the pre-recession levels of manufacturing output after 23 months of recovery. The 1981-82 Recession, not as steep as the 1973-75 or 2007-09 Recession, returned to pre-recession levels of manufacturing output 11 months into recovery.

Graph 25 reproduces the analysis in Graph 24, by instead compares the 2007-09 Recession to the two other Post Cold War recessions. Clearly, the decline in manufacturing output over the 2007-09 Recession was much steeper than the decline in output over the other two Post Cold War recessions. In both the other recessions, manufacturing output had returned to pre-recession levels by 18 months into recovery.



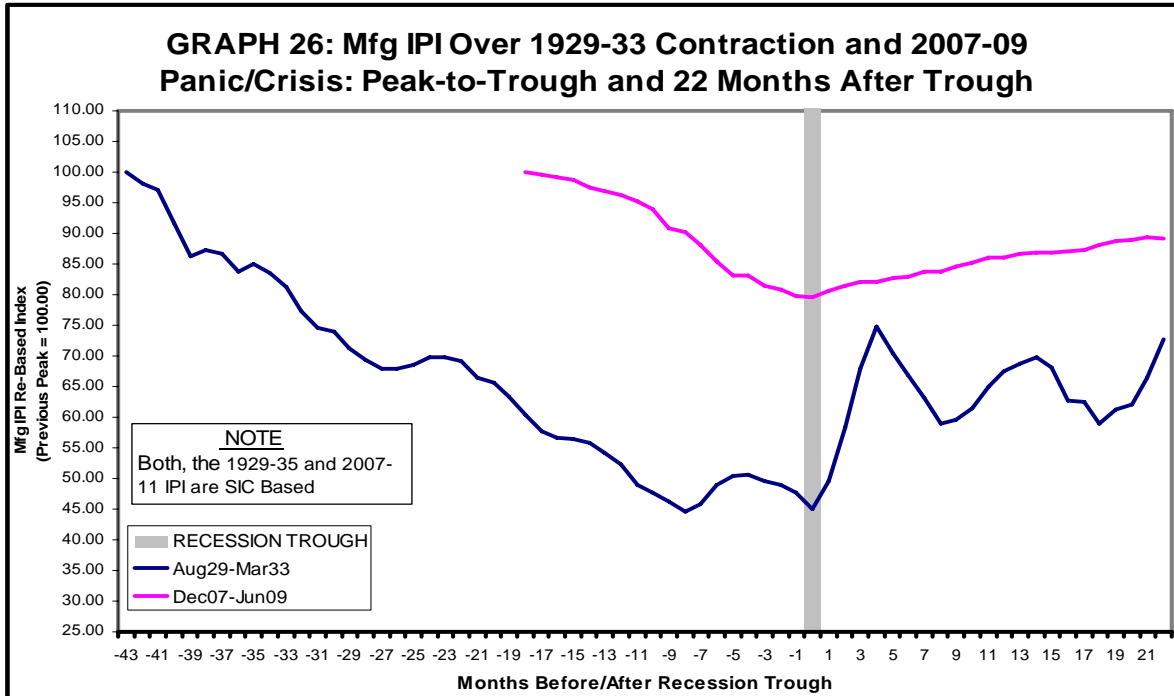
SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

As a final, interesting, assessment of the decline and recovery of manufacturing output over 2007-09 Crisis/Recession, and subsequent, current, recovery, Graph 26 compares the 2007-09 Crisis/Recession to the initial 1929-33 Contraction that ushered in the Great Depression. In order to compare “apples-to-apples”, both Manufacturing IPI series are based on the Standard Industrial Classification (SIC), rather than the North American Industry Classification System (NAICS). As in the previous analysis, the IPI is re-based so that the peak of the previous expansion is equal to 100.00.

What really captures one’s attention right away on Graph 26 is the 43 months of contraction between August 1929 and March 1933, the initial bounce off of the trough, and then the subsequent decline. As steep as the decline over the 2007-09 Crisis/Recession was, it did not come close to the 1929-33 Contraction.



CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012



SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

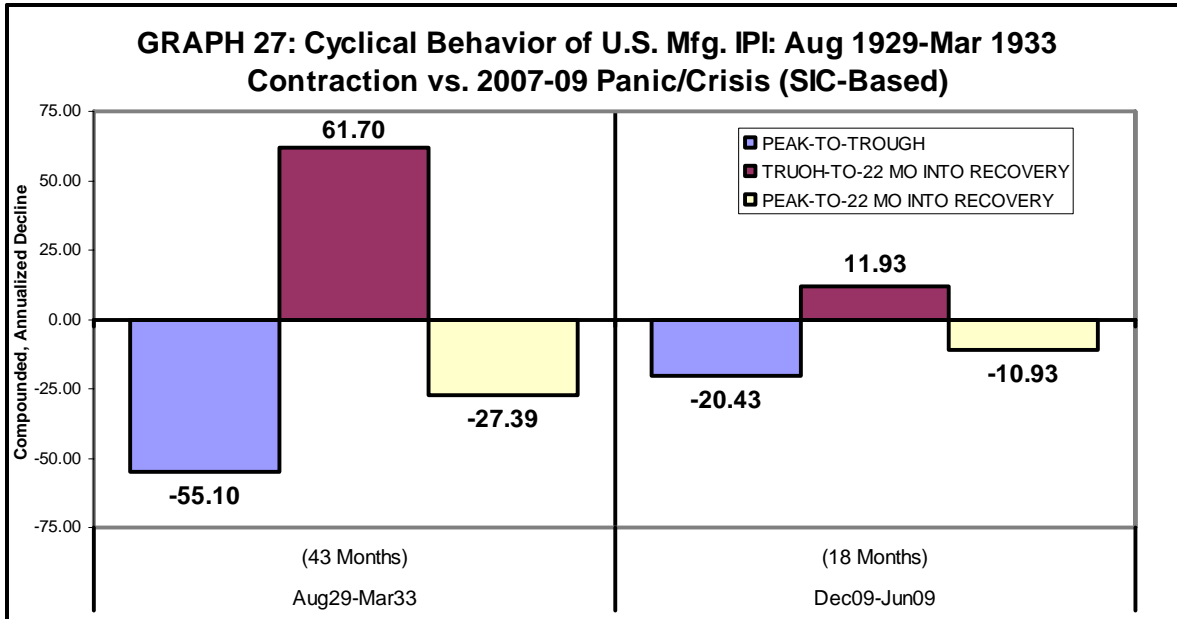
Over the 2007-09 Recession, manufacturing output declined at a 14.13% annualized rate for 18 months. Over the 1929-33 Contraction, manufacturing output declined at an annualized rate of 20.02% for 43 months. Though not big enough, at least there was an economic stimulus enacted in 2009 by Congress and signed by Obama to stem the decline, whereas, over the 1929-33 period, Hoover attempted to balance the Federal budget, which withdrew spending from the economy<sup>19</sup>.

Graph 27 reproduces the analysis in Graph 26, except that Graph 27 compares the initial contraction that ushered in the Great Depression to the 2007-09 Recession.

Manufacturing output contracted by -55.10% over 43 months between August 1929 and March 1933, while it contracted by -20.43% over 18 months between December 2007 and June 2009.

<sup>19</sup> Vickery, William, *Fifteen Fatal Fallacies of Financial Fundamentalism* (October 5, 1996) Columbia University Working Papers Server Project < <http://www.columbia.edu/dlc/wp/econ/vickrey.html> > Accessed on August 31, 2011





SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

Twenty-two months into recovery, from March 1933 to January 1935, manufacturing production increased by 61.70%. Over a comparable period, between June 2009 and May 2011, manufacturing output increased by 11.93%. By January 1935, manufacturing output was still down 27.39% from the previous peak in August 1929. In May 2011, manufacturing production was still down by 10.93% from its December 2007 peak.

## B. RESOURCE UTILIZATION

This sub-section turns to the use of physical resources over the current cycle. The next sub-section *LABOR MARKETS: Current Conditions, Context, and Implications* assesses the use of human resources by the economy over the current cycle. As for the Industrial Production Index, this section focuses on the discussion of Capacity Utilization in the Manufacturing Sector, specifically the *Capacity Utilization Rate (CUR)*. Indicators of resource-use are critical as they indicate whether or not the economy is operating with an *output gap*, which is the difference between what the economy can potentially produce and what it is actually producing. If the economy were operating below its capacity than

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

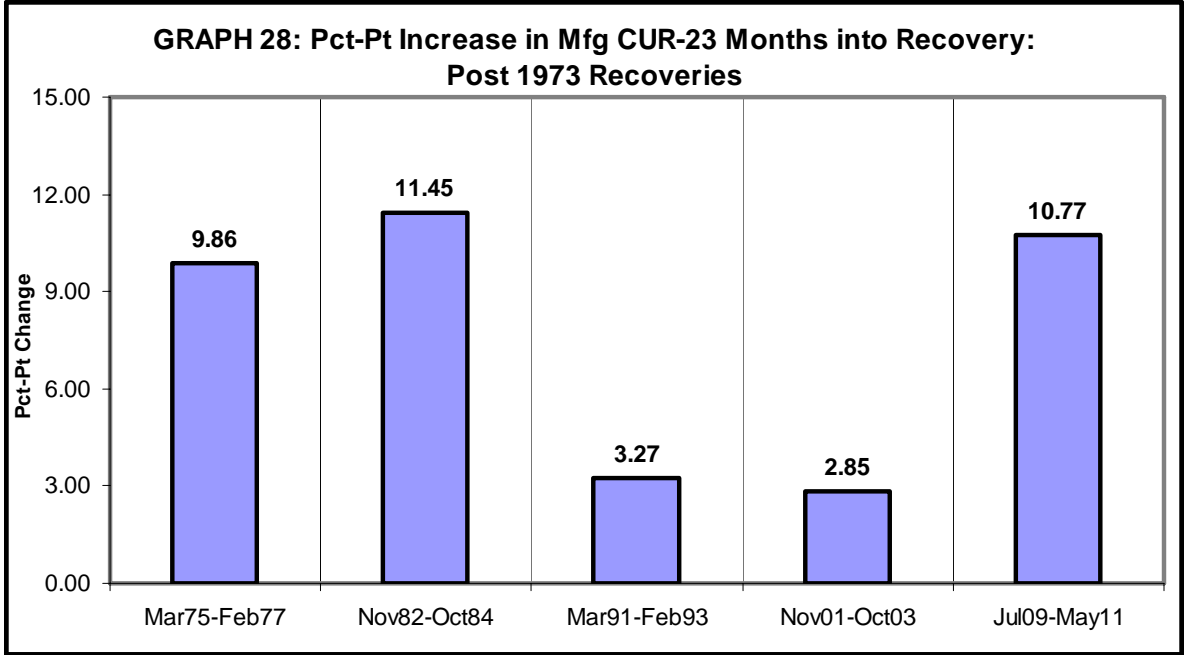
there would be a positive output gap (Potential Output – Actual Output > 0). If the output gap is zero, then the economy is operating on its Production-Possibilities Frontier (PPF) and it is fully utilizing its resources. If demand were to exceed the economy's output potential along the PPF, then the economy would face classic Demand-Pull inflationary pressures. Given the record decline in the Capacity Utilization Rate (CUR) in manufacturing at the trough of the recent recession, when the CUR in manufacturing dropped to 65.19% in June 2009, the lowest in the Post World War II Era, the threat of demand-pull inflation for the foreseeable future is unlikely. By May 2011, 23 months after the NBER-declared recovery began, the CUR in manufacturing had recovered to 74.95%. Although, as indicated in Graph 28, this was a fairly strong 10.77-percentage-point recovery in the CUR, and, in fact, the strongest in the Post Cold War Era, it still left capacity utilization in manufacturing 3.91 percentage-points below the 1972-2010 manufacturing CUR average of 78.86%.

Graph 29 tracks the manufacturing CUR for the steepest recessions and 23 months into their subsequent recoveries for the Post 1973 Era. Until the decline to 65.19% in June 2009, the steepest decline in the manufacturing CUR had been the 68.82% in November 1982. After the November 1982 bottom, the manufacturing CUR then rebounded strongly (see Graph 24) and increased for 19 months, but then began to decline and was at 80.27% by 23 months into recovery. This was down from the 80.95% after 19 months of recovery. The manufacturing CUR decline was not as steep as that over the 1981-82 and 2007-09 recessions, by 23 months into recovery, the CUR had rebounded to 81.88%.

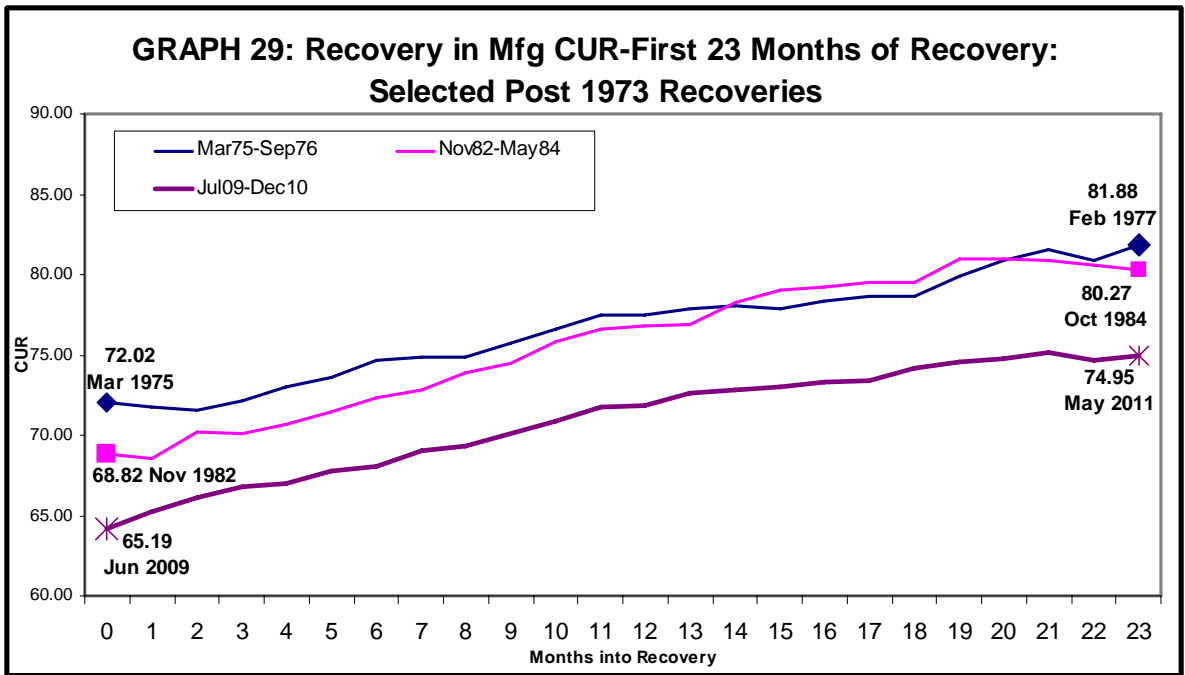
Graph 30 reproduces the analysis in Graph 29 for the Post Cold War recoveries. As is apparent, the decline in manufacturing CUR was not nearly as steep in the 1990-91 and 2001 recessions as it was for the 1973-75, 1981-82, and 2007-09 recessions. Nor, were the recoveries in the CUR, 23 months into recovery, as impressive either, after the 1990-91 and 2001 recessions. They both had very weak rebounds in the percentage-point gain in the CUR.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



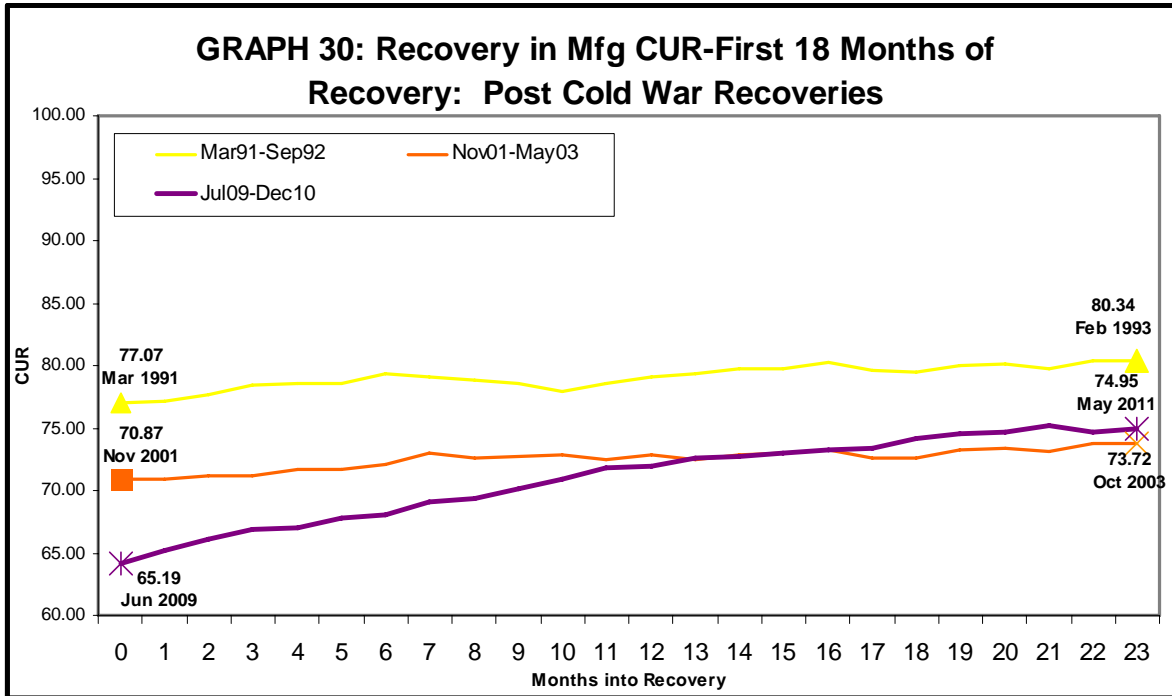
SOURCE: Federal Reserve Board and calculations by CTDOL-Research.



SOURCE: Federal Reserve Board and calculations by CTDOL-Research.



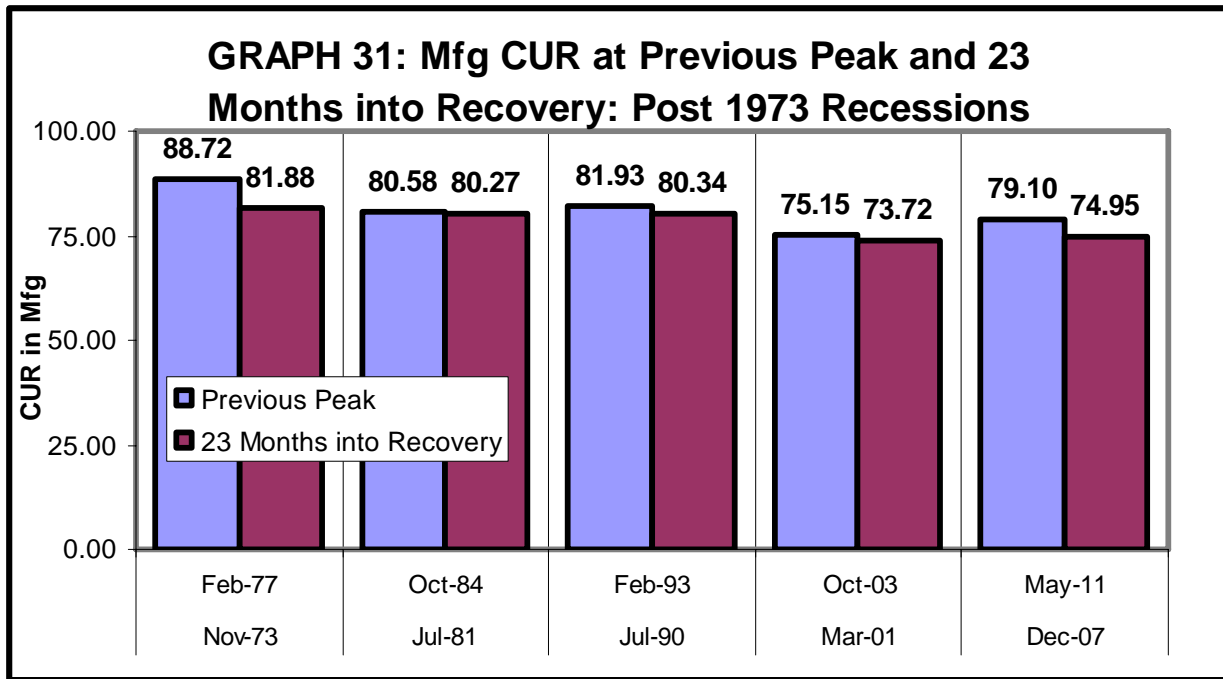




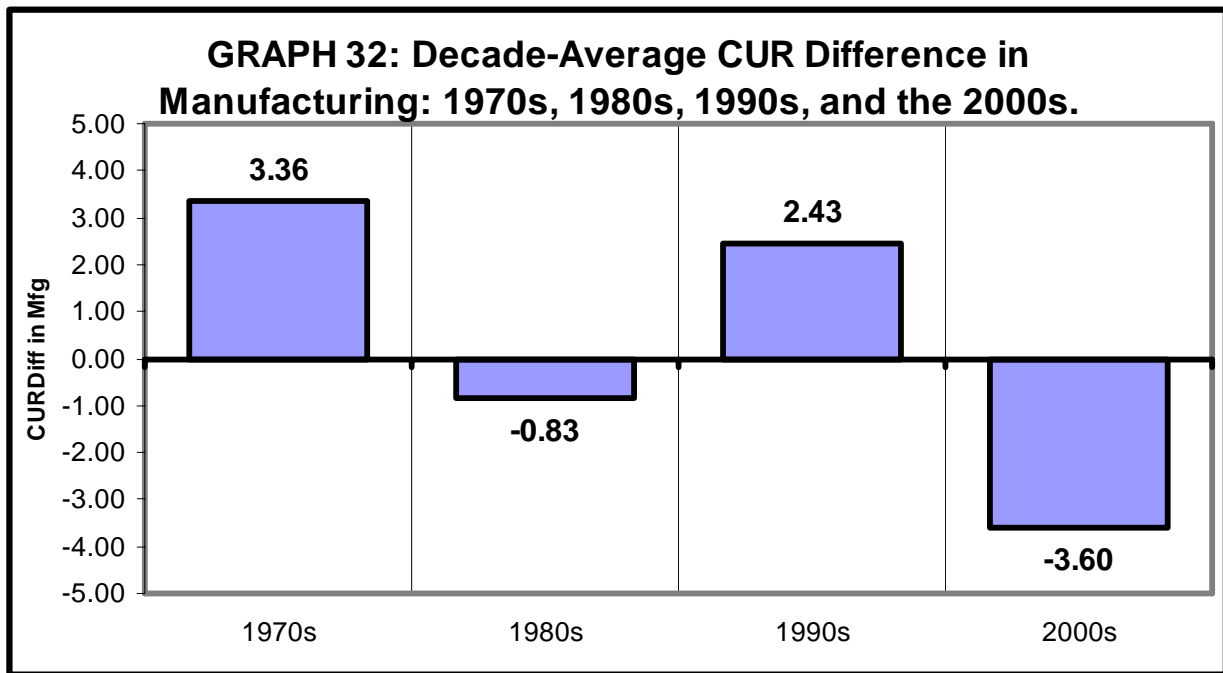
SOURCE: Federal Reserve Board and calculations by CTDOL-Research.

Graph 31 summarizes the CUR in manufacturing at the previous peak, and 23 months into recovery, for the Post 1973 recessions. What Graph 31 suggests is that there could possibly be a declining trend in capacity utilization in manufacturing. Clearly, the CUR for manufacturing is in the 80s for the 1970s and 1980s, but declines to 70s in the 1990s and 2000s. Graph 32 presents the average, annual CUR for manufacturing over the 1970s, 1980s, 1990s, and 2000s. After declining from 82.22% in the 1970s to 78.04% in the 1980s, the manufacturing CUR in the 1990s then went back up to 81.29% in the 1990s. The CUR then dropped significantly over the first decade of this century, averaging only 75.27% between 2000 and 2009, the lowest over the whole 1972-2010 Period. Graph 32 shows the CUR difference for manufacturing, that is the average CUR for the decade minus the 1972-2010 average (78.86%). In both the 1970s and the 1990s, the CUR difference for manufacturing is positive, meaning that capacity utilization was above the average for the 1972-2010 Period. Conversely, the negative CUR Difference value for the 1980s and 2000s indicates that manufacturing utilization was below the long-run average. At -3.60, the 2000s utilization averaged the lowest of the four decades.





SOURCE: Federal Reserve Board and calculations by CTDOL-Research.



SOURCE: Federal Reserve Board and calculations by CTDOL-Research.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

With regard to the current recovery, as of May 2011, the U.S. Manufacturing Sector is operating at a utilization level, which is 3.92 percentage points below the 1972-2010 average. Thus, at least in terms of the Manufacturing Sector, the U.S. economy is still operating under an output gap, where actual output is below potential output after 23 months of recovery.

## **C. LABOR MARKETS: Current Conditions, Context, and Implications**

### **NON-FARM EMPLOYMENT**

The latest *Employment Situation* available at the time of writing is the June 3, 2011 release, which reported that Non-Farm Payroll Employment had only increased by 54,000 in May, which was a disappointment after the April increase of 232,000, and the average gain of 233,000 per month over the previous three months<sup>20</sup>. Equally as disappointing was the unemployment rate that increased by one-tenth of a percentage point to 9.1%. This, in combination with the deceleration of GDP growth in the first quarter of 2011 (see Section I of this outlook), and some other disappointing economic numbers, suggests that the recovery may be losing momentum, or worse. Graphs 33-A, 33B, and 33-C take a look at the performance of U.S. Non-Farm (NF) Employment, Private-Sector employment, and Government employment over the current cycle.

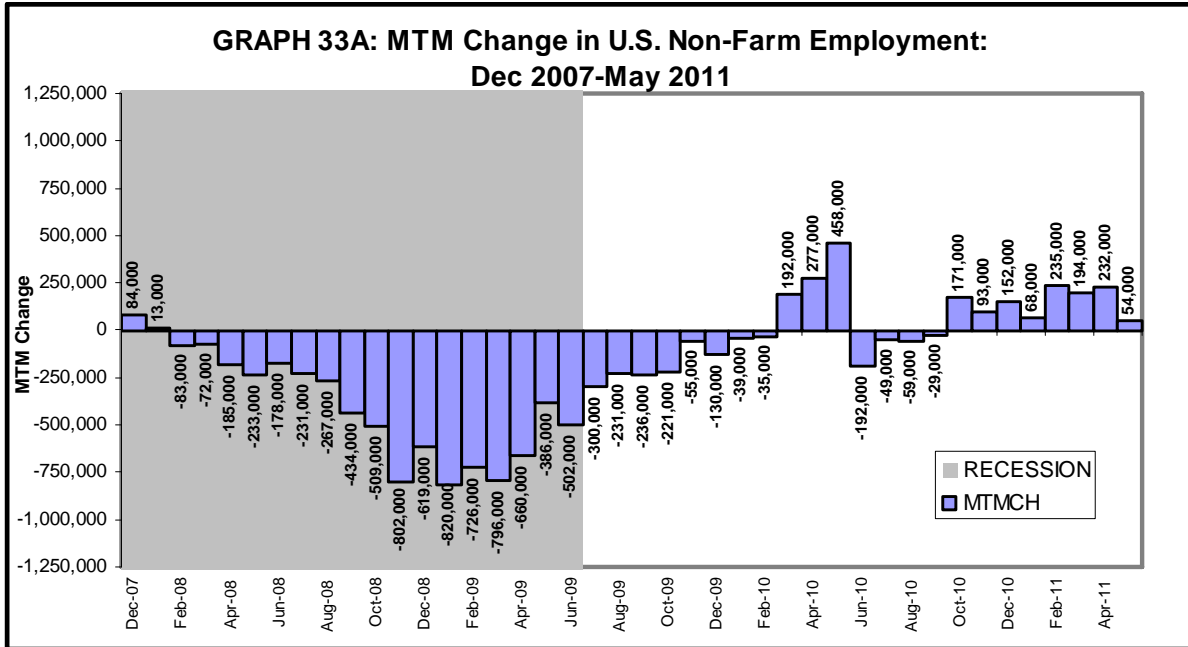
Graph 33-A tracks the month-to-month (MTM) change in U.S. Non-Farm employment from the peak of the last expansion (December 2007) to the latest period of data at the time of writing, May 2011. After the steepest job-losses in January 2009, when the economy shed 820,000 jobs, job-losses began to decelerate and turned positive in March 2010, with a net gain of 192,000 jobs, the first gain since January 2008. This was followed by three straight months of gains, culminating in a gain of 458,000 in May 2010. However, this was followed by four straight months of losses. This was then followed by eight months of job-growth, including the 54,000-job increase in May 2011.

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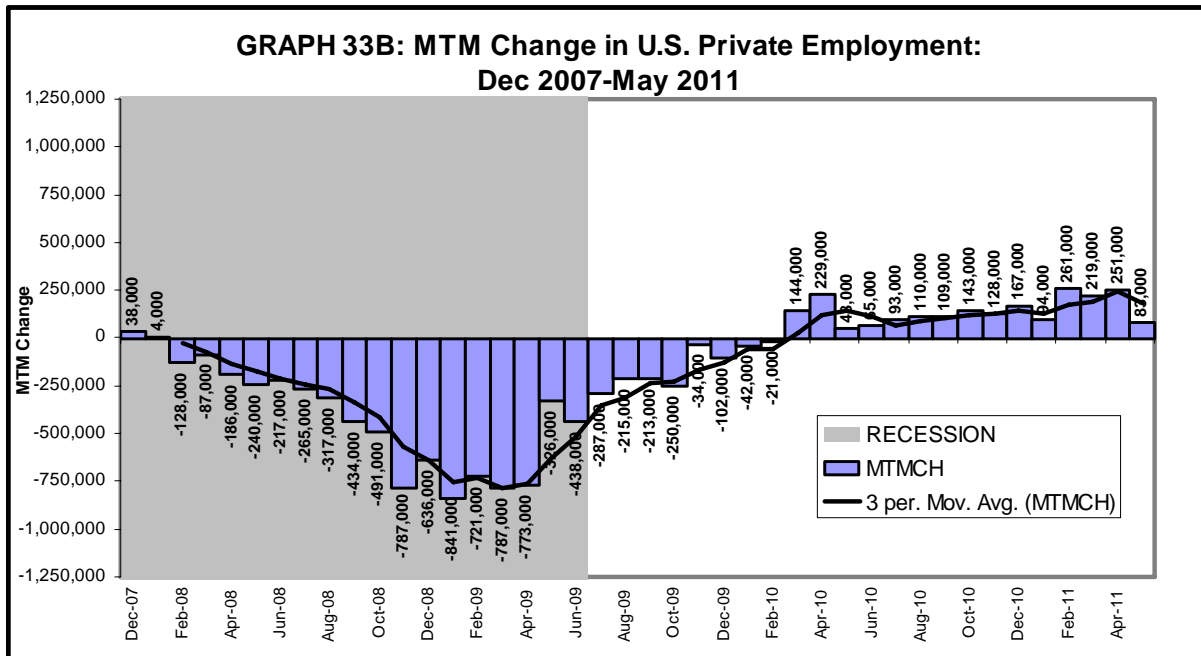
<sup>20</sup> U.S. Bureau of Labor Statistics, THE EMPLOYMENT SITUATION – MAY 2011 (June 3, 2011) U.S. DOL: Washington



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



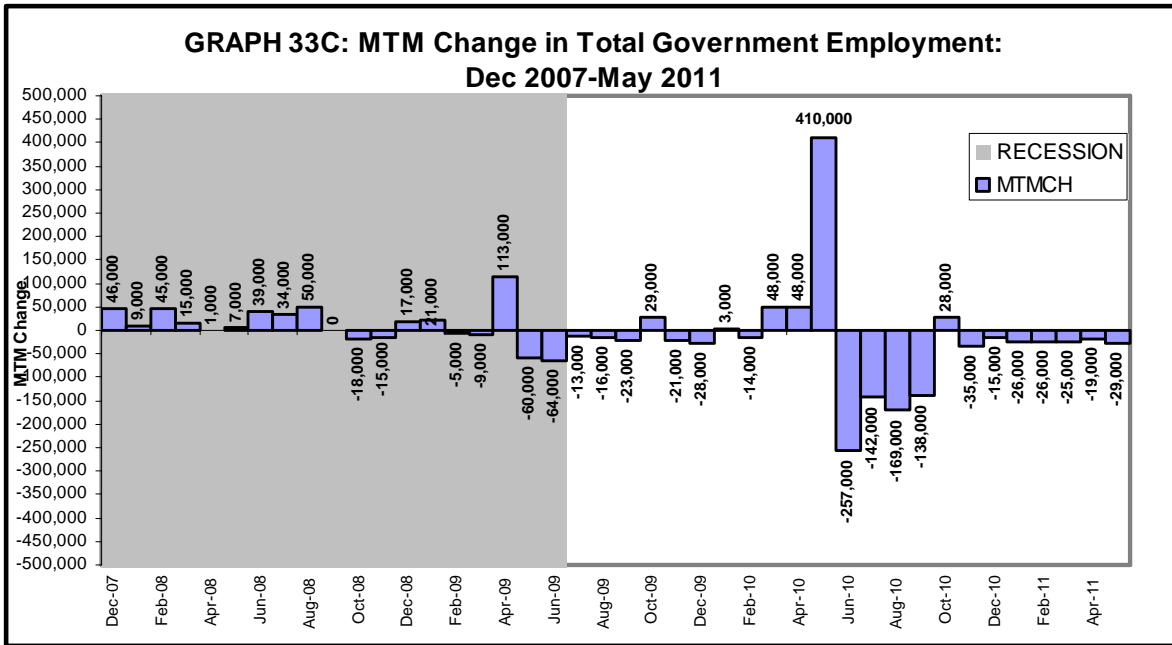
SOURCE: U.S. BLS



SOURCE: U.S. BLS.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



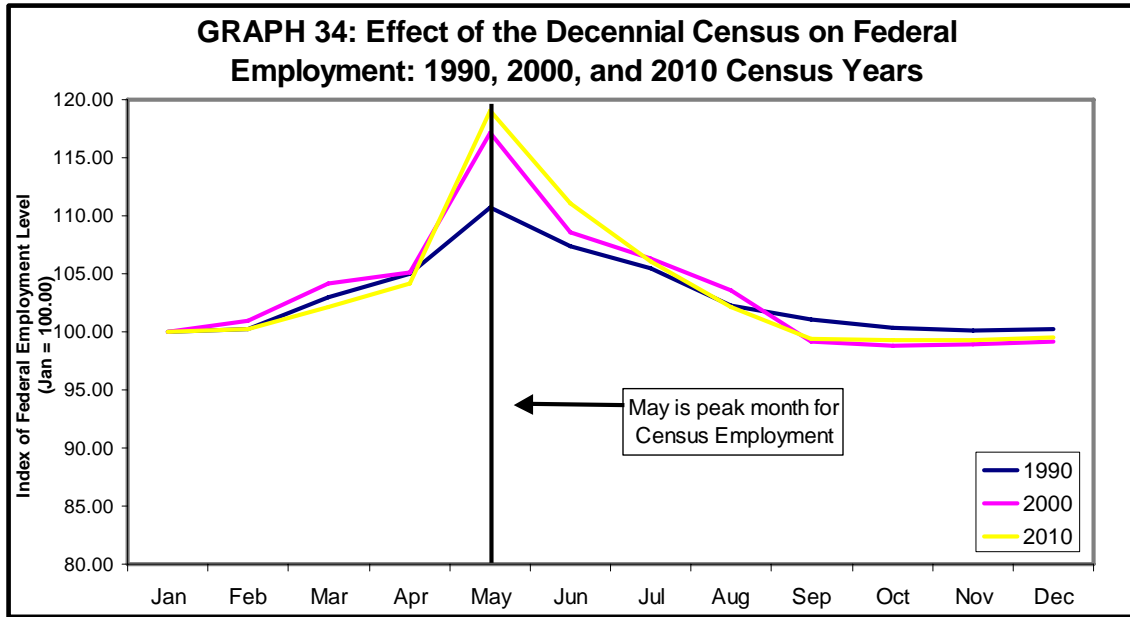
SOURCE: U.S. BLS.

Much of the erratic behavior of Non-Farm employment in Graph 33-A over the current cycle can be explained by the behavior of Government employment in Graph 33-C. In particular, Federal Government employment explains most of the surge of 410,000 in government job gains in May 2010 and is attributable to the hiring of temporary Census workers. This was followed by three months of declines as the Census was completed and those temporary Federal jobs were eliminated. However, the smaller, but persistent job-losses, over the last quarter of 2010 and into 2011 are more the result of cuts at the state and local level due to the states' fiscal crises. Graph 33-C shows the peak and decline of Census workers for the 1990, 2000, and 2010 Census years.

Turning to Graph 33-B, without the Census-worker induced volatility in the Government Sector, there is clearly a more, steady trend in job-growth over the current cycle when looking at Private-Sector job-growth. Private Sector MTM job-growth has been steady and positive, albeit not particularly strong, save the 229,000 jobs gained, in April 2010.



CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012

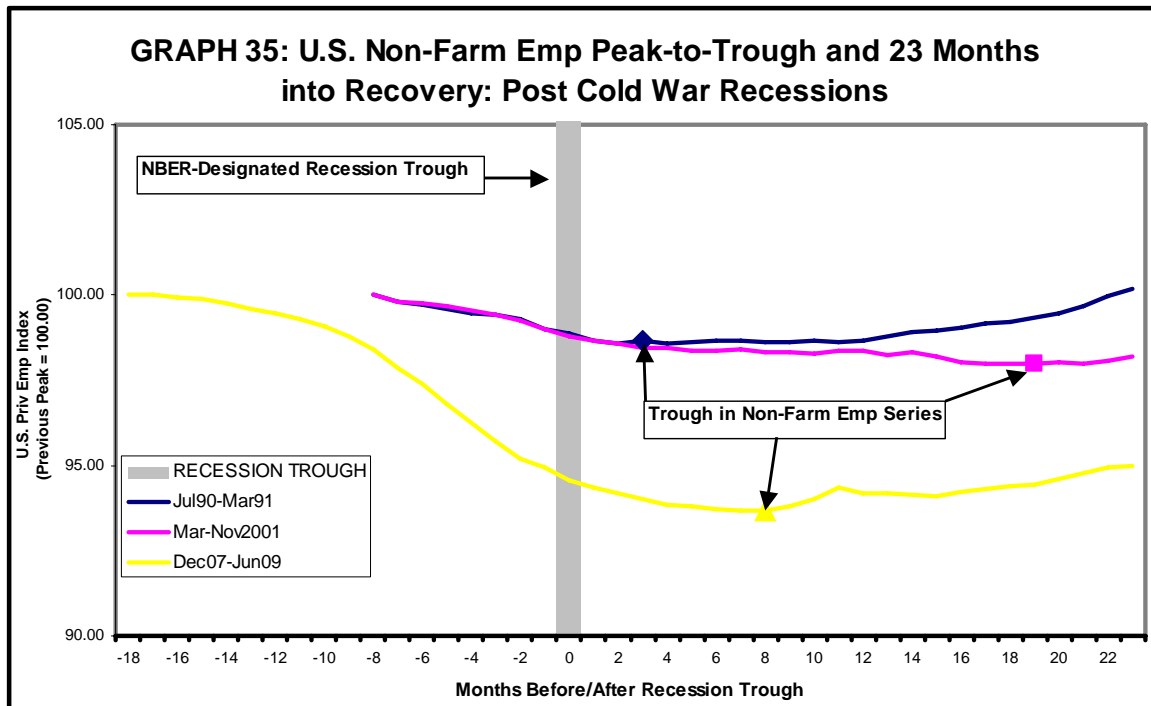


SOURCE: U.S. BLS and calculations by CTDOL-Research.

However, the momentum in Private-Sector job-growth had been steadily building until the disappointing jobs-numbers of May 2011.

Graph 35 uses the same method in tracking GDP in Sub-section A, above, to construct an index of Non-Farm employment from the peak of employment, where the index value is 100.00, through 23 months of recovery for the recessions over the Post Cold War Era. Month zero designates the NBER-declared trough of the recession. The trough in employment is designated for each recession. As has been the case for other indicators in the recent, steepest, contraction since the Great Depression, the employment decline was the steepest over the 2007-09 Recession, compared to the other two Post Cold War recessions. The employment series bottomed seven months after the NBER-declared recession trough following the 2007-09 Recession

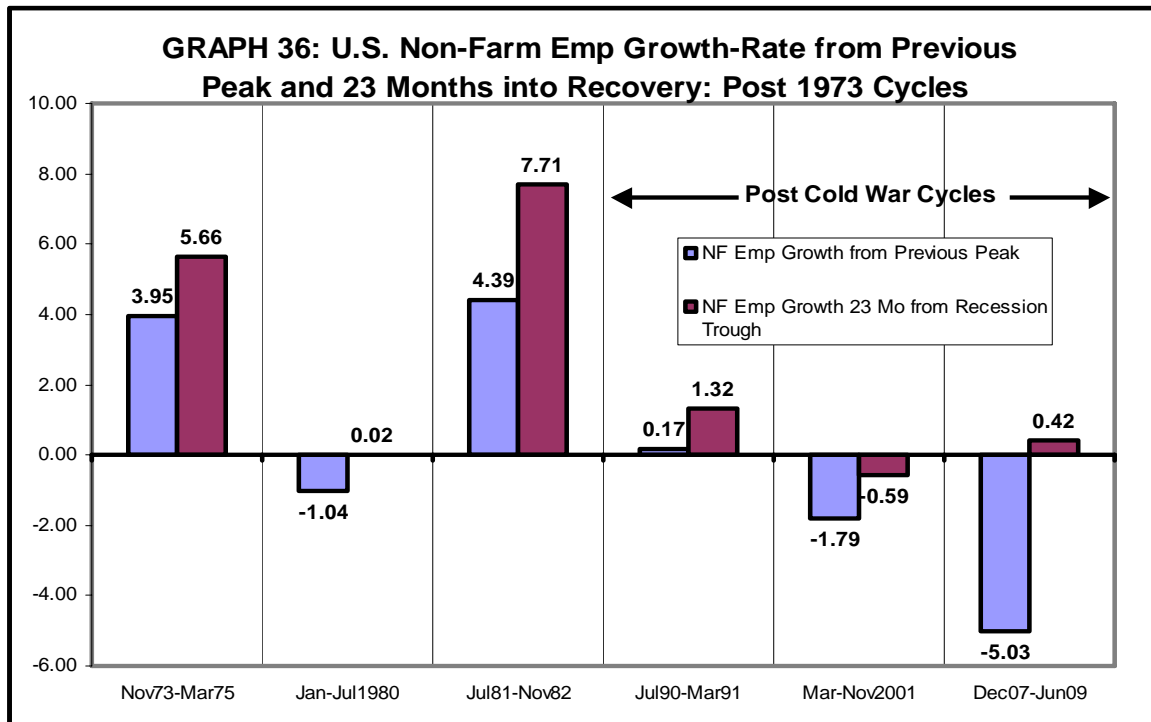




SOURCE: U.S. BLS and calculations by CTDOL-Research.

Graph 36 takes a wider view and looks at the growth in U.S. Non-Farm employment 23 months into recovery from the level of employment at the peak of the previous expansion, and from the trough in employment over the previous recession. The recoveries from the 1973-75 Recession following the collapse of Bretton Woods and the oil embargo during the Yom Kippur War, through the 2007 and 2008 Crisis and subsequent recession are presented. It should be noted right away that 23 months after the 1980 Recession, the economy had gone into recession again. Given that, it is apparent that the recoveries during the Cold War Era were much stronger than those in the Post Cold War Era with regard to job-growth. In fact, save the unique situation of the 1980 Recession, after 23 months of recovery, jobs were up by 3.95% compared to the peak-level of employment before going into the 1973-75 Recession. Jobs were up 4.39% compared to the peak employment level before going into the 1981-82 Recession.

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BLS and calculations by CTDOL-Research.

The Post Cold War job-growth performance, 23 months into recovery, is a different story. Non-Farm employment was up a weak 0.17%, 23 months into recovery, after the 1990-91 Recession. And, following the 2001 Recession, jobs were still down 1.79% compared to the peak of the previous expansion. And, as might be expected, given the severity of the job-losses following the recession and financial panics of 2007 and 2008, and the weakness in aggregate demand, after 23 months of recovery. Employment was still down by 5.03% compared to the previous peak, following the 2007-09 Recession.

Again, save the recovery following the 1980 Recession (as noted above), the job-growth performance 23 months into recovery, compared to the jobs-level at the trough is much weaker for the Post Cold War recoveries. As of May 2011, U.S. Non-Farm Employment is up by a weak 0.42% compared to the trough in employment. And, after 23 months of recovery, employment was still down by 0.59%, compared to the trough of the 2001 Recession. Compare this to 23 months into recovery after the 1980 Recession, when employment was only up by 0.02%, however, the economy was also back in recession again by then. Thus, as noted above, the Post Cold War recoveries, including the current





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

one, have been particularly weak compared to those during the Cold War Era. In addition, the recent recession is the first recession to be accompanied by a systemic banking panic since the 1930s, and the first one to follow the collapse of a nationwide housing bubble since 1926. As also noted previously, recessions followed by financial panics and the popping of asset bubbles are deeper, last longer, and are followed by weaker recoveries. The current cycle seems to be following that pattern.

**LABOR FORCE AND UNEMPLOYMENT RATE**

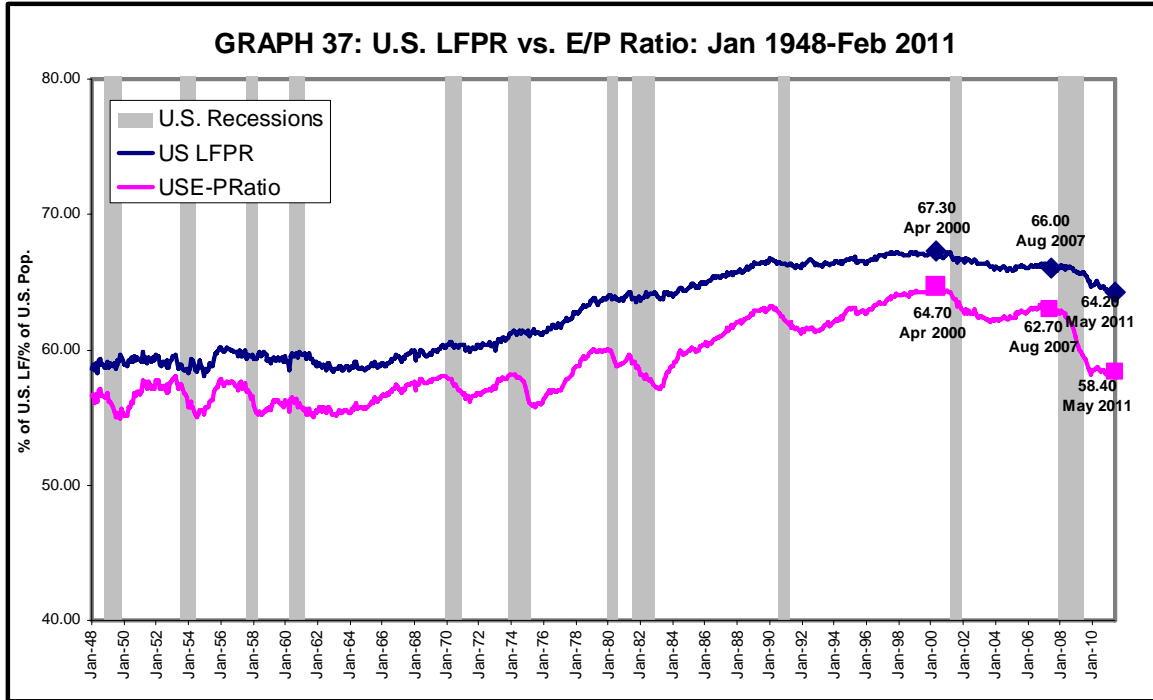
This section turns to the indicators of the utilization of human resources by the economy: the Labor Force, Labor-Force Participation, and the Unemployment Rate (UR). That is, given the pool of human resources in the economy, how much of that stock of human capital is the economy employing in the production of its output at a given time. Graph 37 tracks the Labor-Force Participation Rate (LFPR) and the Employment-to-Population Ratio (EPR) over the Post World War II Era.

What is notable is that both the LFPR and the EPR peaked at the end of the 1990s Boom/Bubble in April 2000. The LFPR of 67.30% and EPR of 64.70% was the highest over the entire 1948-2011 Period tracked in Graph 37. Both declined throughout the 2001 Recession and subsequent recovery/expansion. In August 2007, the LFPR was at 66.00%, and the EPR was at 62.70%. By May 2011, 23 months into recovery, which followed 18 months of crisis and recession, the LFPR was at 64.20% and the EPR was at 58.40%.

What is also notable in Graph 37 is the steep decline in the EPR compared to the LFPR. From August 2007 to May 2011, the EPR contracted by 4.30 percentage points (430 basis points). This, of course, reflects the steep job losses throughout the last half of 2008 and the first half of 2009, and which was followed by a weak recovery in job growth. Conversely, the LFPR declined by 1.8 percentage points (180 basis points). This



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



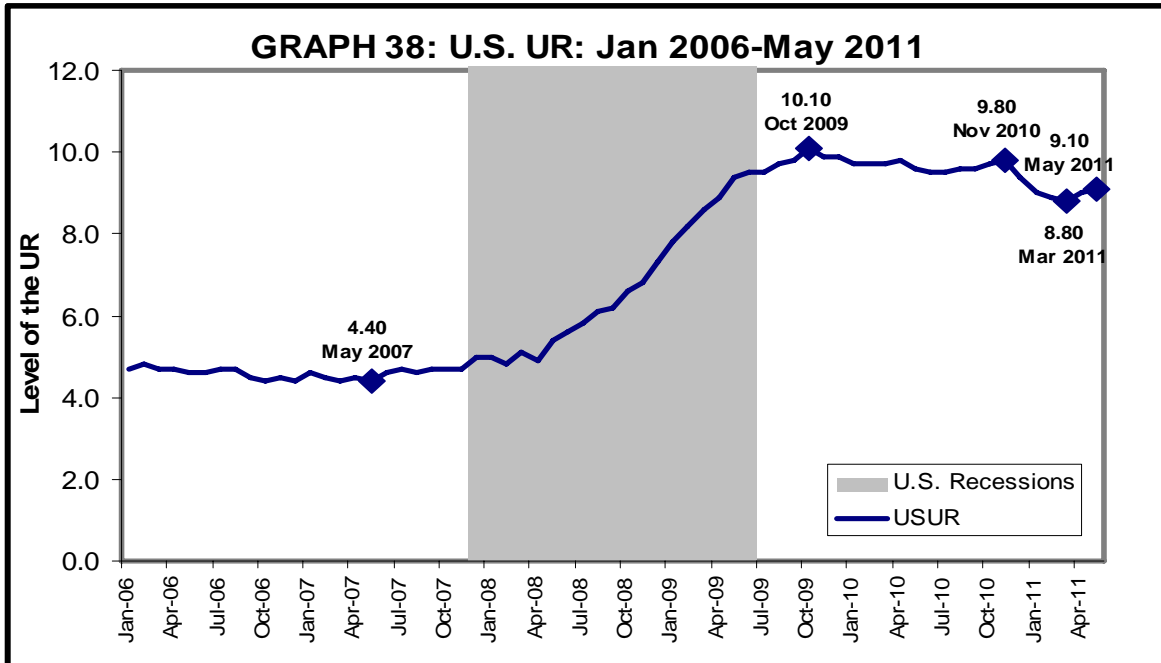
SOURCE: U.S. BLS and U.S. Census.

compares to a 110 basis-point drop from the peak of the LFPR before the 2001 Recession, and 23 months into recovery. Over the first five months of 2011, the LFPR has held steady at 64.20%.

Graph 38 tracks the U.S. Unemployment Rate (UR) over the current cycle from December 2006 to May 2011, the last period for available data.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



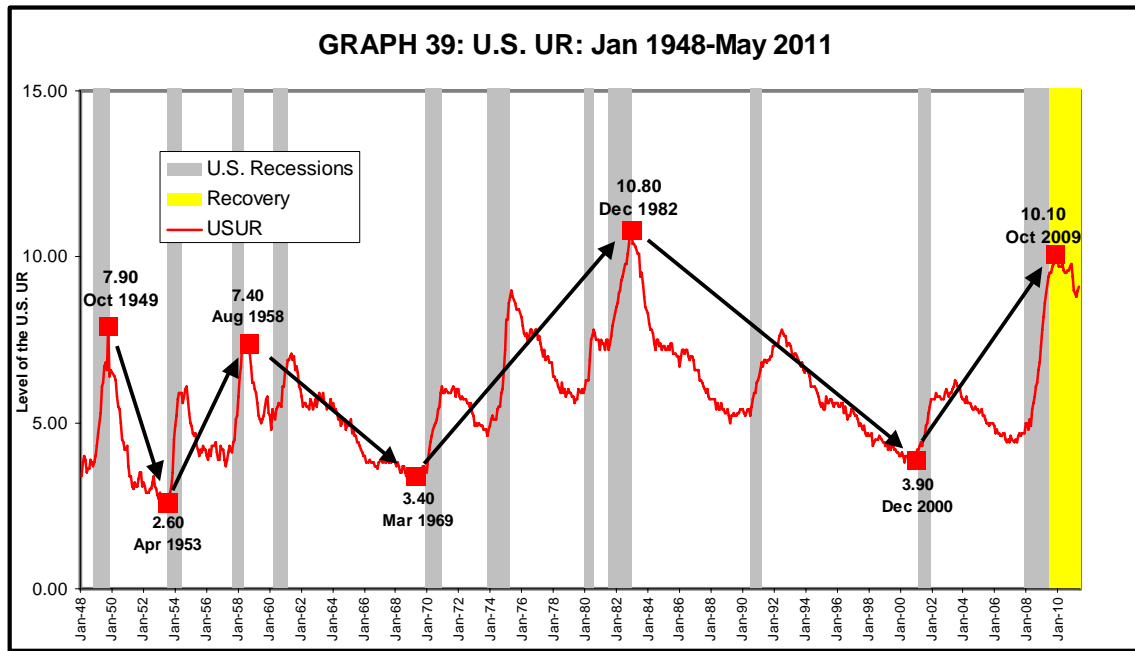
SOURCE: U.S. BLS and U.S. Census.

After a low of 4.40% in May 2007, the UR climbed to 10.10% in October 2009, the second highest UR in the post-war period behind the 10.80% in December 1982. It remained at a high plateau and was still 9.80% in November 2010. Then between November 2010 and March 2011, the UR fell by one percentage point (100 basis points), but then began to reverse course, and rise again. Between March and May 2011, the UR rose from 8.80% to 9.10%. As the UR declined slightly between October 2009 and November 2010, the Labor Force also declined by 72,000. Further, coinciding with the 100 basis-point drop in the U.S. UR between November 2010 and March 2011, the U.S. Labor Force declined by 544,000. Conversely, coinciding with the 100 basis-point rise in the UR between March and May 2011, the Labor Force increased by 287,000.

For a longer-view perspective, Graph 39 tracks the U.S. UR from Jan 1948 to May 2011. As noted above, the 10.10% UR in October 2009 was the second highest behind the 10.80% in December 1982, in the entire Post World War II Era. The lowest UR was the 2.60% rate in April 1953. As indicated by the arrows, the pattern of the UR over the Post-World War II Era business cycles, suggests a possible long-wave in the unemployment



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BLS and U.S. Census.

cycle. The peaks (October 1949 and August 1958) and troughs (April 1953 and March 1969) suggest a shorter long-wave pattern. After 1969, the possible, longer wave cycles become longer, with a greater amplitude. Unfortunately, there is not enough data to statistically test the existence of such a cycle.

### **D. HOUSEHOLDS: Consumer Spending Support**

A critical piece to any recovery is the ability of consumers to buy goods and services produced for sale by businesses in the economy. Two major sources of consumer spending are Income and Wealth. As income goes up, all other things constant, the fraction of income spent falls, and the fraction saved goes up. However, in the aggregate, as income rises, aggregate spending in the economy goes up. In addition, as households accumulate more assets, or see the value of their assets increase, or both, they feel wealthier. And, the wealthier households feel, the more they spend. Thus, for every dollar increase in the value of their assets, households tend to spend a fraction of that dollar-increase in wealth on consumption of goods and services. This is called the *Wealth Effect*.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

However, the type of asset that increases in value apparently matters in terms of how much of an extra dollar of increase in the asset's value is translated into increased spending<sup>21</sup>. These two effects also work in the opposite direction. As income declines, though a larger fraction of an extra dollar received is spent, and a smaller fraction saved, in the aggregate, the absolute amount spent falls, as aggregate income declines. So too, as assets fall in value, consumer spending falls by a fraction of the fall in the value of assets. This is called the *Negative Wealth Effect*.

However, there is another effect that is also important in determining the level of spending in the economy. This is called the *Balance Sheet Effect*. Though the balance sheet records assets and liabilities at a point in time, the Balance-Sheet Effect is separate from the Wealth Effect. The Wealth Effect focuses on the asset-side of the balance sheet and how changes in asset-values effect spending. The Balance-Sheet Effect focuses on both, assets and liabilities, and how changes in Net Worth effect spending. Further, the Balance Sheet Effect actually operates through the consumption function. With the popping of the housing bubble (See Section IV, below), in conjunction consumers running up unsustainable levels of debt, many households found that, even if they did not default on their mortgage, with the decline in the value of their most important asset, their house, given their debt-loads on the liabilities side, they were insolvent, or close to it. That is, many had negative Net Worth. Consumers then begin to increase their debt-service payments in order to repair their Net Worth. This operates through the consumption function by increasing the savings rate and reducing spending in the economy. This appears to have been operating in 2008 to hold down the spending boost from the tax rebates passed under the *Economic Stimulus Act of 2008*<sup>22</sup>. Consumers indicated that they were going to use most of the rebate to pay down debt, or save it.

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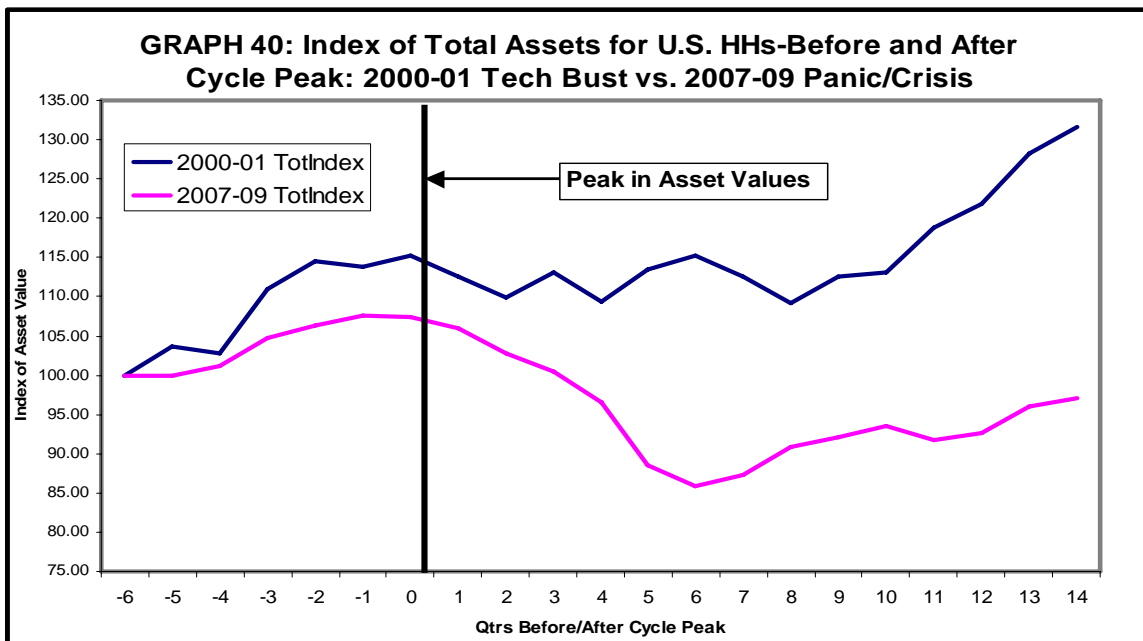
<sup>21</sup> For instance see Congressional Budget Office, *Housing Wealth and Consumer Spending* (January 2007) U.S. Congress: Washington

<sup>22</sup> Though some studies contend there was some stimulation, most studies found that most of the Bush tax rebates in 2008 were either saved or used to pay down debt. See Shapiro, Matthew D. and Joel Slemrod, *Did the 2008 Tax Rebates Stimulate Spending?* (May 2009) AMERICAN ECONOMIC REVIEW: Papers & Proceedings 2009, 99:2, 374–379; Congressional Budget Office, *Did the 2008 Tax Rebates Stimulate Short-Term Growth?* (June 10, 2009) ECONOMIC ISSUE AND BUDGET BRIEF: Washington; and National Bureau of Economic Research, *Did the 2008 Tax Rebates Stimulate Spending?* (March 2009) THE NBER DIGEST: Cambridge, MA.



## THE HOUSING BUST, DEBT, AND THE HIT TO HOUSEHOLDS' BALANCE SHEETS

Graph 40 illustrates the significant hit to households' wealth over the housing bust and into the 2007-08 Financial Panic, and into the current fledging recovery. An index of the level of total household assets, which is equal to 100.00 in the base period when Total Assets had peaked during the expansion/bubble over the Tech Bubble/Bust and 2001 Recession, and the Housing Bubble/Bust and Financial Panic and 2007-09 Recession. What stands out is the steep decline in the value of Total Assets over the 2007-09 Panic/Recession compared to the 2001 Tech Bubble Recession. Eleven quarters after the pre-recession peak in Asset Values, Total Assets had recovered their value. Conversely, as of the first quarter of 2011, Total Assets had only recovered 90% of their previous peak value.

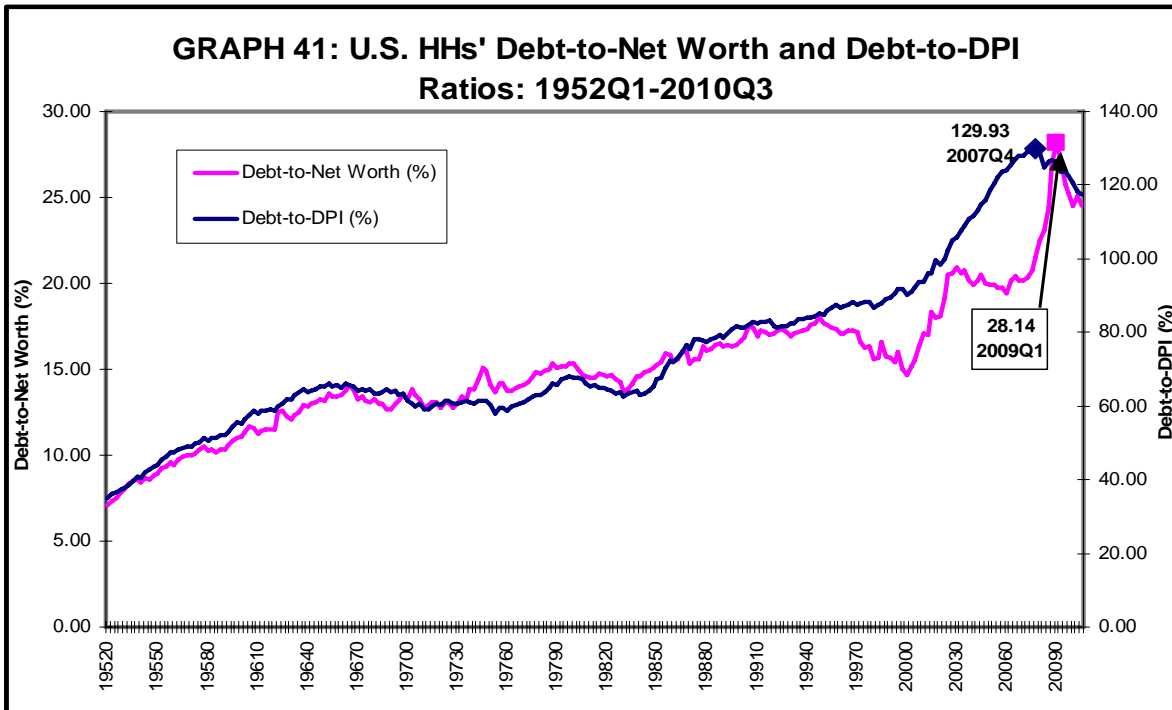


SOURCE: Federal Reserve Board

In addition, households had accumulated unprecedented levels of debt. As depicted in Graph 41, by the late 1990's, two critical leverage indicators parted ways. While Debt-to-Net Worth was kept artificially low by inflated housing values, it is clear that the Debt-to-Disposable Personal Income (DPI) ratio soared to an unprecedented, and unsustainable,

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

level of 129.93 in 2007Q4. With the popping of the housing bubble, it was quite apparent that the Debt-to-Net Worth Ratio was equally unsustainable. The Debt-to-Net Worth Ratio jumped to 28.14 in the first quarter of 2009.

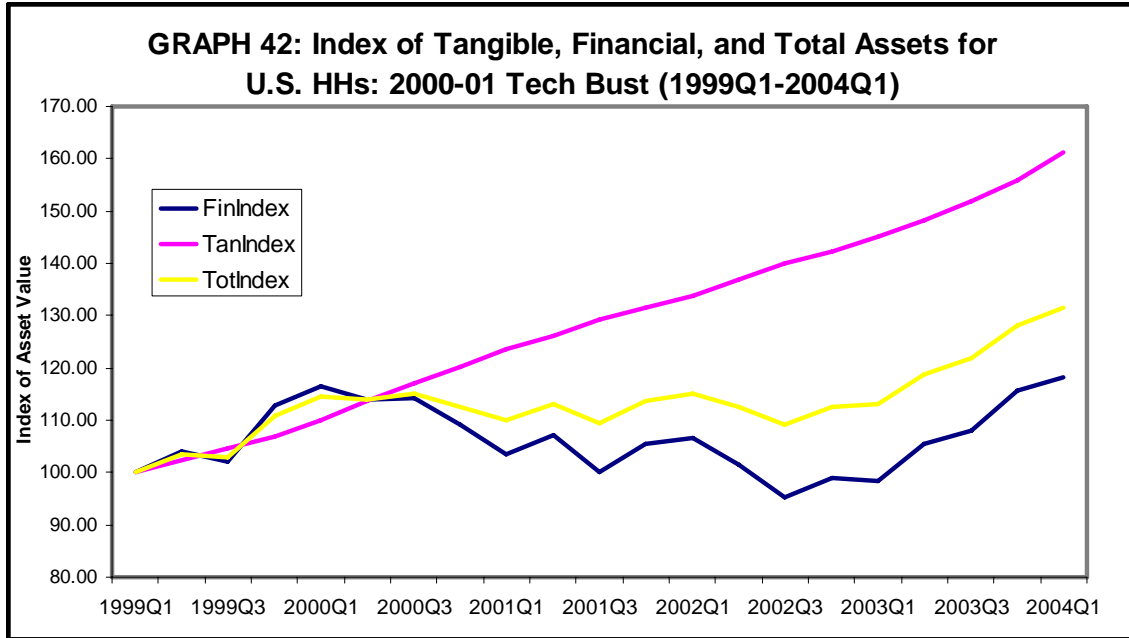


SOURCE: Federal Reserve Board.

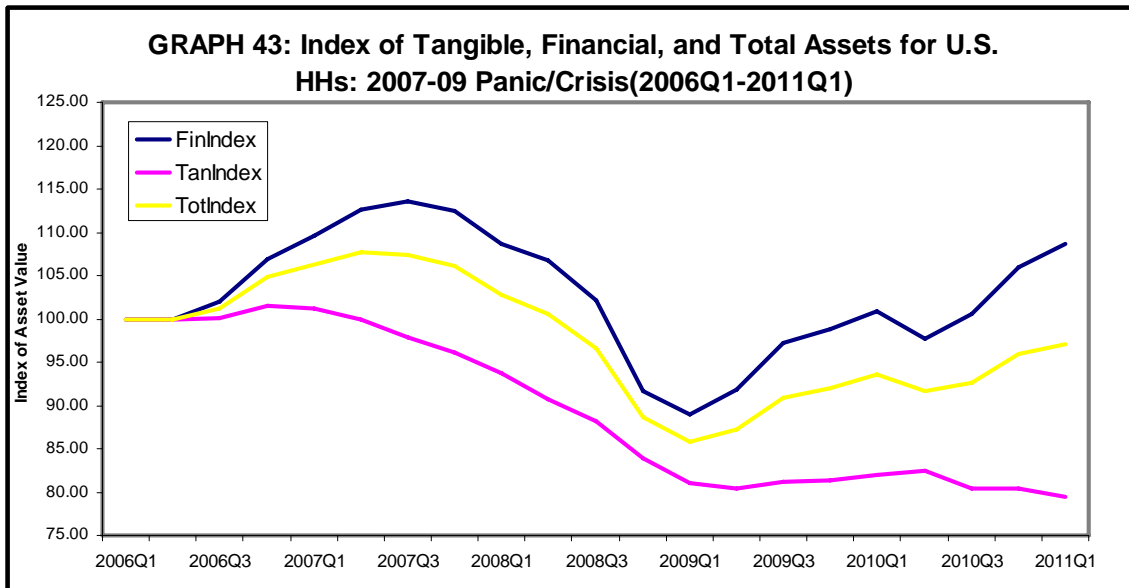
However, it was not just the steep decline in Total Asset Values over the recent crisis/recession that tells the story of the severity of this recession. Graphs 42 and 43 show the breakout of the type of asset and the decline in the values of the two major components of Total Assets, Tangible Assets and Financial Assets.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: Federal Reserve Board.



SOURCE: Federal Reserve Board.

The behavior of the two major sub-classes of assets is very different over the two cycles depicted in Graphs 42 and 43. The value of Financial Assets declined more steeply over the 2007-09 Crisis/Recession than they did over the 2001 Tech Bust/Recession.

However, the value of Financial Assets bounced back much more strongly after the 2007-





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

09 decline compared to their recovery after the 2001 decline. The story of both cycles lies in the behavior of Tangible Assets. The largest component of Tangible Assets for the Household Sector is Real Estate, particularly, housing (i.e., the family home). The value of Tangible Assets never declined over the 2001 cycle. In fact, thanks to the “Greenspan Put”, the value of Tangible Assets grew strongly over the entire 2001 Tech Bust/Recession, and nine quarters into recovery, and as we know, they continued to grow strongly until the housing bubble popped in 2006. The 2007-09 Crisis/Recession is quite a different story.

After bottoming in value at the NBER-declared trough of the 2007-09 Recession in 2009Q2, Tangible Assets started a weak recovery in value, however, even the weak recovery in value reversed course in the second quarter of 2010. Tangible Assets declined in value another 1.25% in the first quarter of 2011, and stood at only 78%, of their peak value, in 2006Q4, and the lowest level since then.

It is the distributional effects of the collapse in Tangible Asset values, over this cycle that is critical. Even in this age of 401k retirement portfolios, it is still true that for middle-class income households, and lower, their most important asset is their house. It is the upper-income households that hold the major portion of their wealth in Financial Assets. Thus, the collapse of the value of Tangible Assets, with the popping of the housing bubble, hit middle- and lower-income, households the hardest in terms of the decline in their wealth, which decimated their balance sheets. Thus, with the accumulation of unsustainable levels of debt, in conjunction with the popping of the housing bubble, the Net Worth of middle-income, and lower-income households collapsed, leaving them insolvent, or close to it. And, of course, many defaulted on their mortgages and bankruptcies soared. Since, middle-income, and lower-income, households have a higher *Marginal Propensity to Consume* (MPC), that is, they spend a higher fraction of a new dollar of income on goods and services, than upper income households, and since they by far, outnumber upper income households, their need to pay down their debt to repair their balance sheets, and restore their credit rating, resulted in a significant drop in aggregate spending in the economy. Reverse multiplier effects worked to reduce income, output,



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

and employment as successive rounds of spending cutbacks rippled their way through the economy. This, of course, is a prime example of the *Paradox of Thrift* (see Section IV below). While it was prudent for individual households to cut back on their spending to build up their savings, and pay down their debt, when large numbers of them did it all at once, aggregate spending collapsed in the Macroeconomy.

The distributional effects, and their implications for the rest of the economy were highlighted by the 2011 release of Harvard University's annual report on the nation's housing<sup>23</sup>. The report noted that, in fact, lower-priced homes have had much bigger price declines following their outsized gains during the bubble:

While prices for low-end homes made especially large gains during the housing boom, they have now dropped much more sharply than those for high-end properties<sup>24</sup>

And, as noted above, it is moderate-to-low income households for whom their home is their most important, or only, asset. With their primary asset plummeting in value, and with their then being underwater (i.e., their mortgage exceeds their home's value), their liabilities exceed their assets resulting in negative Net Worth. This inhibits spending, as well as, mobility. That is, in addition to cutting back on spending, homeowners, underwater, cannot sell their homes to relocate to take another job that might be available in another region, which contributes to the continued high unemployment rate.

### **THE HOUSING BUST, DEBT, AND THE HIT TO CONSUMER SPENDING**

Graph 44 illustrates the significant decline in retail activity after the middle of 2008 and the onset of financial panic, which took the recession to a whole new level. Total Retail Sales and Food declined by 10.26% between July 2008 and Jan 2009.

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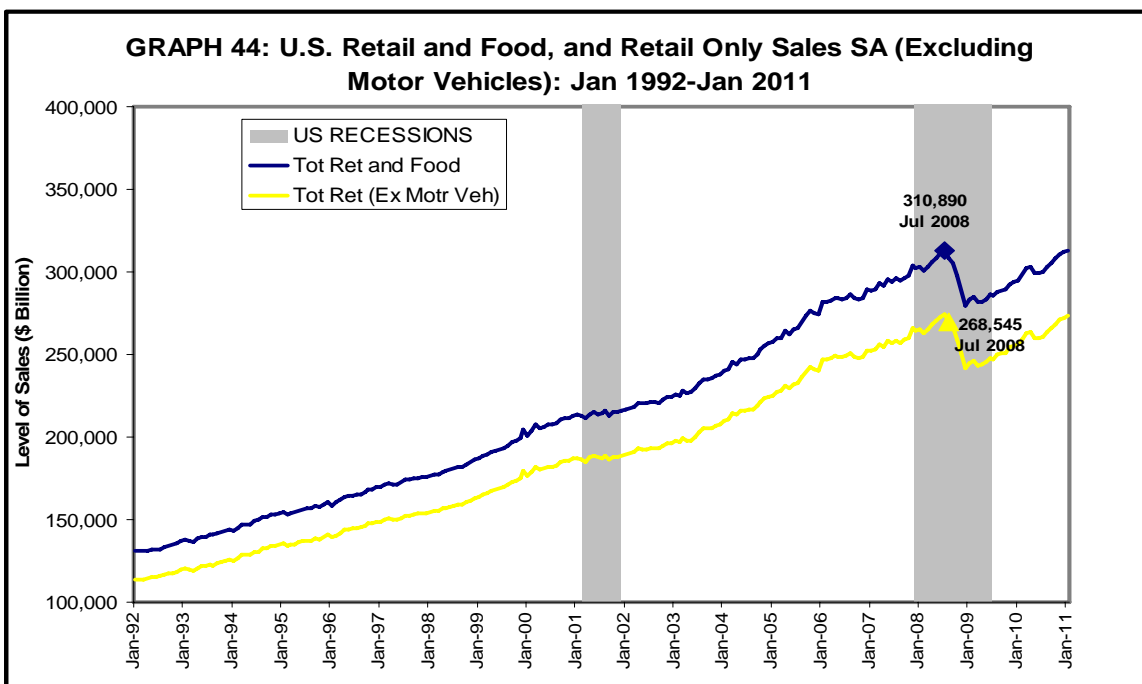
<sup>23</sup> Graduate School of Design, JFK School of Government, THE STATE OF THE NATION'S HOUSING 2011 (May 2011) JOINT CENTER FOR HOUSING STUDIES OF HARVARD UNIVERSITY: Cambridge, MA.

<sup>24</sup> *ibid* p. 7.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Total Retail Sales, excluding Food and Motor Vehicles, declined by 9.25% between July 2008 and January 2009. By July 2011, Total Retail and Food Sales had recovered by nearly 16% and reached a level that was 4% higher than that of the previous peak. Retail Sales, excluding Food and Motor Vehicle Sales, also recovered by nearly 16% and reached a level that was 5% higher than that of its previous peak. One interesting observation from Graph 44 is that it appears that Total Retail Sales and Food, and Retail Sales, excluding Food and Motor Vehicles, follow parallel paths. That is their slopes seem to be the same, or at least close in value, throughout the range of data, but each series has a different intercept.



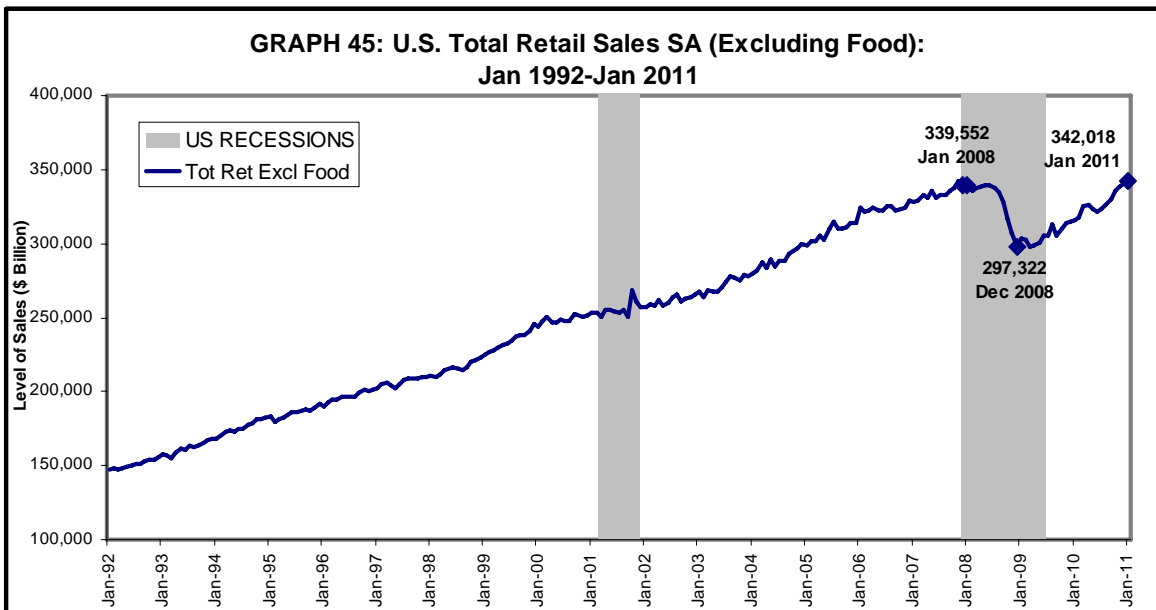
SOURCE: U.S. Census.

Graph 45 looks at the Month-to-Month (MTM) percent-change in Total Retail Sales (excluding Motor Vehicle Sales), but zooms in on the current cycle. There seems to be two soft patches in retail-sales growth, May-July 2010, and April-June 2011. There does seem to be a slight rebound in July 2011 when retail sales increased by 0.57%, MTM, which is a 7.06% annualized, compounded growth-rate. It should be noted however, that, although the growth-rates in retail sales in Graph 45 excludes food it does not exclude



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

gasoline. Thus, at least some of the retail growth reflected in Graph 45 is driven by the high price of gasoline over the last half of 2010 and into the first half of 2011.

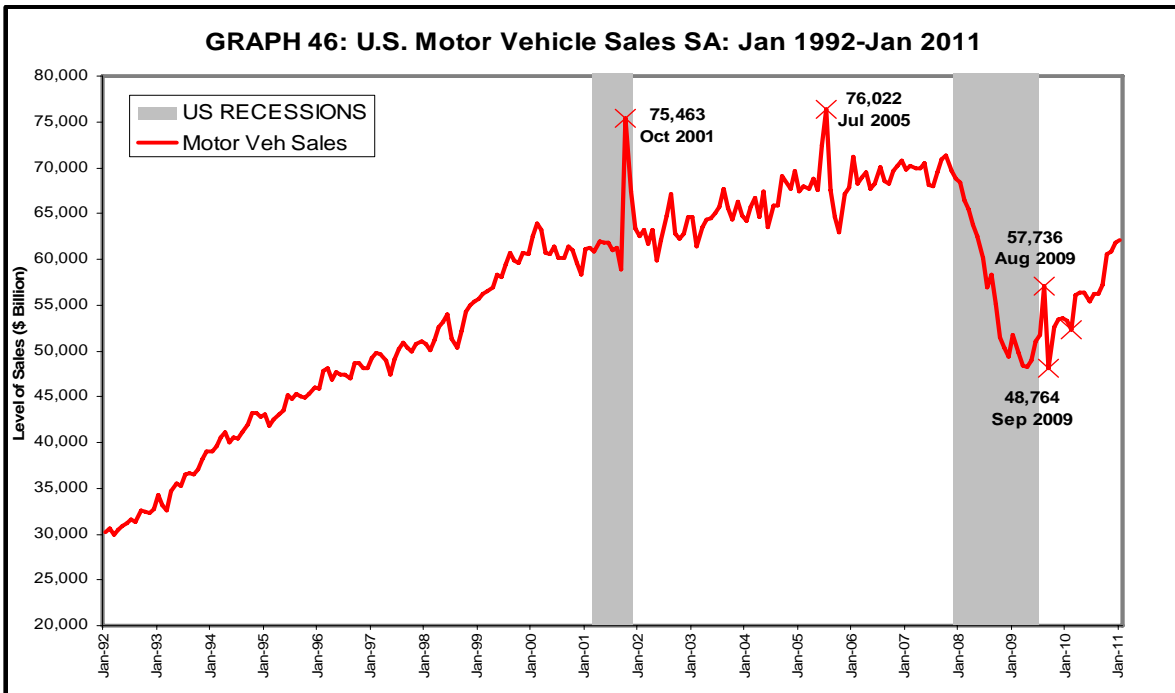


SOURCE: U.S. Census

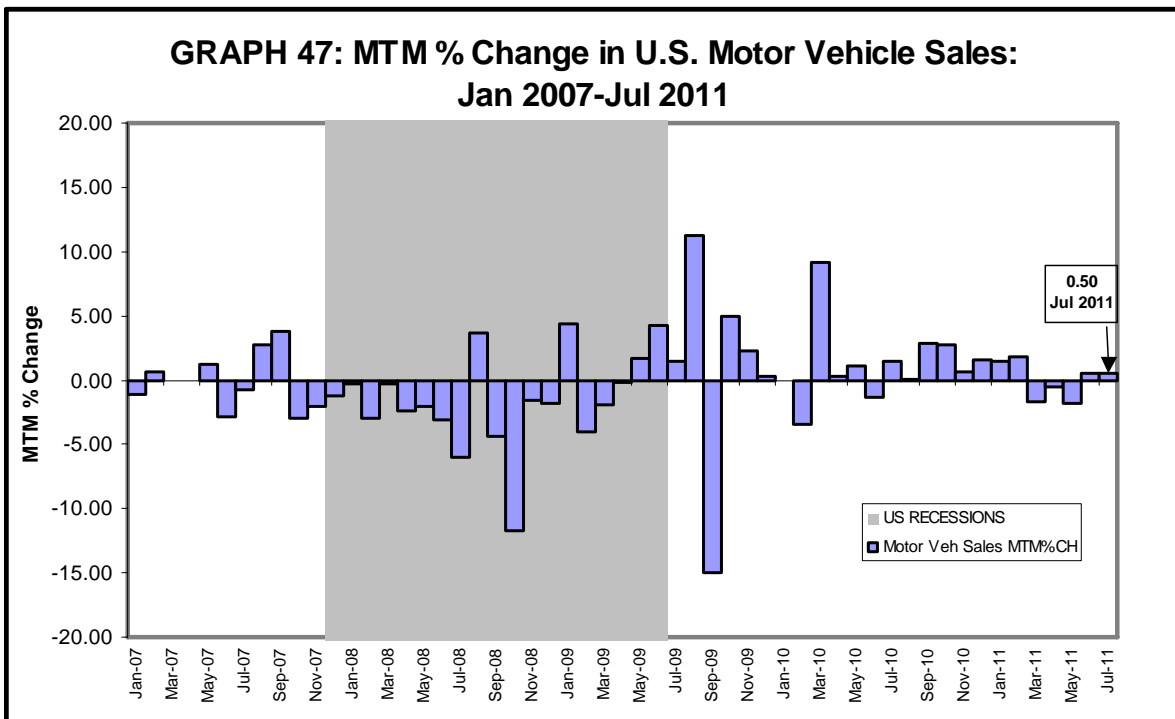
In addition to housing, durable goods sales, and in particular motor vehicle sales, have been hit hard by the crisis and its aftermath. Graph 46 tracks Motor Vehicle Sales from January 1992 to July 2011. U.S. Motor Vehicle Sales peaked at \$76.4 billion in July 2005. Before the onset of recession, Motor Vehicle Sales were at \$72.7 billion in September 2007. With the onset of recession and crisis, Motor Vehicle Sales fell by 33.63% between September 2007 and May 2009 to \$48.2 billion. With the Cash-for-Clunkers program, vehicle sales increased 17.71% between May and August 2009 to \$56.8 billion. That translates into an 88% compounded, annualized increase in vehicle sales. With the end of Cash-for-Clunkers, Motor Vehicle Sales dropped once again to \$48.2 billion by September. Then, between September 2009 and February, vehicle sales grew again by 28.46% to \$62 billion. But, since then they have declined again to \$60.1 billion in July 2011, which is at 83% of the level of sales in September 2007, before entering recession, and 79% of the level of sales at the peak of the last expansion in July 2005.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. Census.



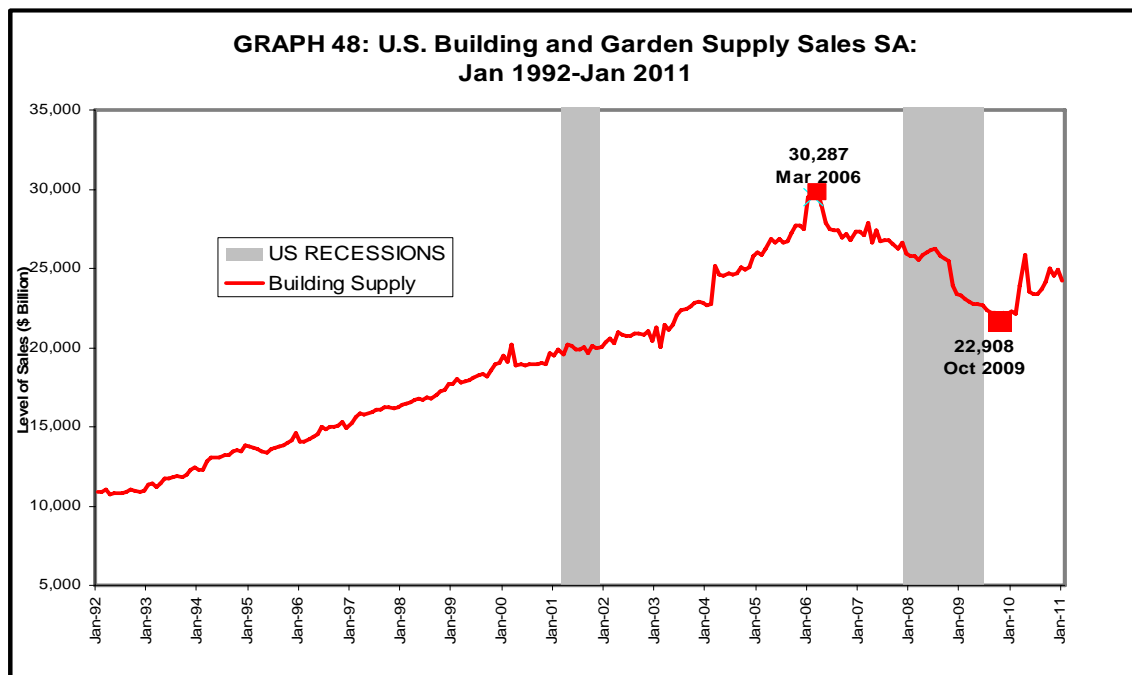
SOURCE: U.S. Census.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Graph 47 tracks the MTM percent-change in Motor Vehicle Sales over the current cycle. After a 1.76% increase in sales in February 2011, following six months of positive growth, Motor Vehicle Sales declined by 1.67% March 2011, the month of the earthquake and tsunami in Japan. Motor Vehicle Sales then declined for three straight months, turning positive and growing by 0.54% in June. Motor Vehicle Sales grew again in July by 0.50%.

To see the effect of the popping of the housing bubble on consumer, retail spending, Graph 48 focuses on tracking the sales of Building and Garden Supplies from January 1992 to July 2011.



SOURCE: U.S. Census.

From its peak of \$29.6 billion in March 2006, as the housing bubble was popping, Building and Garden Supply Sales declined until they hit bottom in November 2009. Sales fell by 27.61% over the 44-month decline. Between November 2009 and April 2010, with the fist-time homebuyers' program, Building and Garden Supply Sales jumped by 19% to \$25.5 billion, which represents a 51.72% compounded, annualized growth-rate. Subsequently, Building and Garden Supply Sales fell 8.77% to \$23.3 billion



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

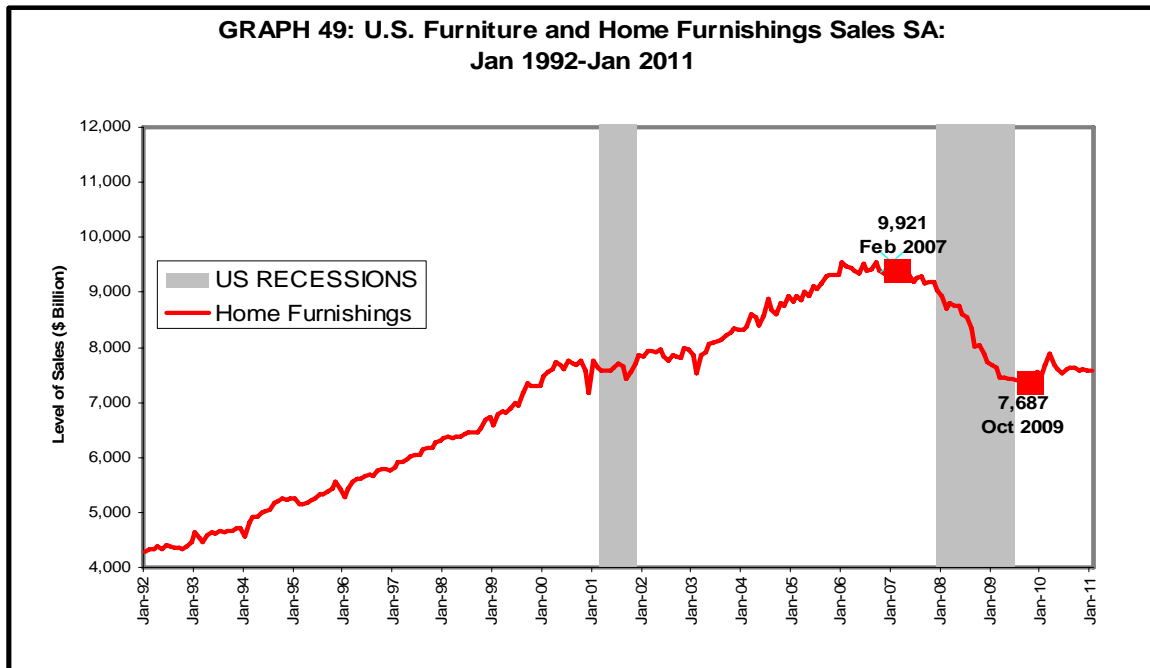
by July 2010. One year later, in July 2011, sales had inched back up to \$25.1 billion, a 7.54% increase. Finally, after accelerating monthly growth (on a MTM basis) over the middle of 2010, the monthly growth in Building and Garden Supply Sales have been up-and-down from month-to-month through the last three months of 2010, and the first six months of 2011. After growing by 1.58% in June 2011, Building and Garden Supply Sales, once again turned down in July, declining by 0.38%, which follows the pattern over the previous nine-to-ten months.

Another indicator of the drag on the rest of the economy from the popping of the housing bubble is Furniture and Home Furnishings Sales. Graph 49 tracks sales of Furniture and Home Furnishings from January 1992 to July 2011. Like Building and Garden Supplies, the growth in sales of Furniture and Home Furnishings was steady from January 1992, the beginning of the data, up until the popping of the housing bubble. Sales of Furniture and Home Furnishings peaked at \$9.6 billion in January 2007. Sales then fell for 34 months, bottoming in November 2009 at \$7.1 billion, a decline of 25.88%. And, due to the First-Time New Homebuyers' tax credit, sales grew by 3.82% between November 2009 and March 2010 to \$7.5 billion, which translates into an 11.90% compounded, annualized growth-rate. Sales have remained flat and were at \$7.441 billion in April 2011. Sales in July 2011 were slightly lower at \$7.407 billion. In July, Furniture and Home Furnishings Sales grew by 0.53%, after three months of declines.

In addition to aggregate demand, in general, it has also been noted in this outlook, more than once, that the key to the aggregate demand problem, which would go along way toward repairing households' balance sheets as well, is housing. As Mark Zandi has said, and noted below in the next section, if you fix housing, you fix the economy.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. Census.

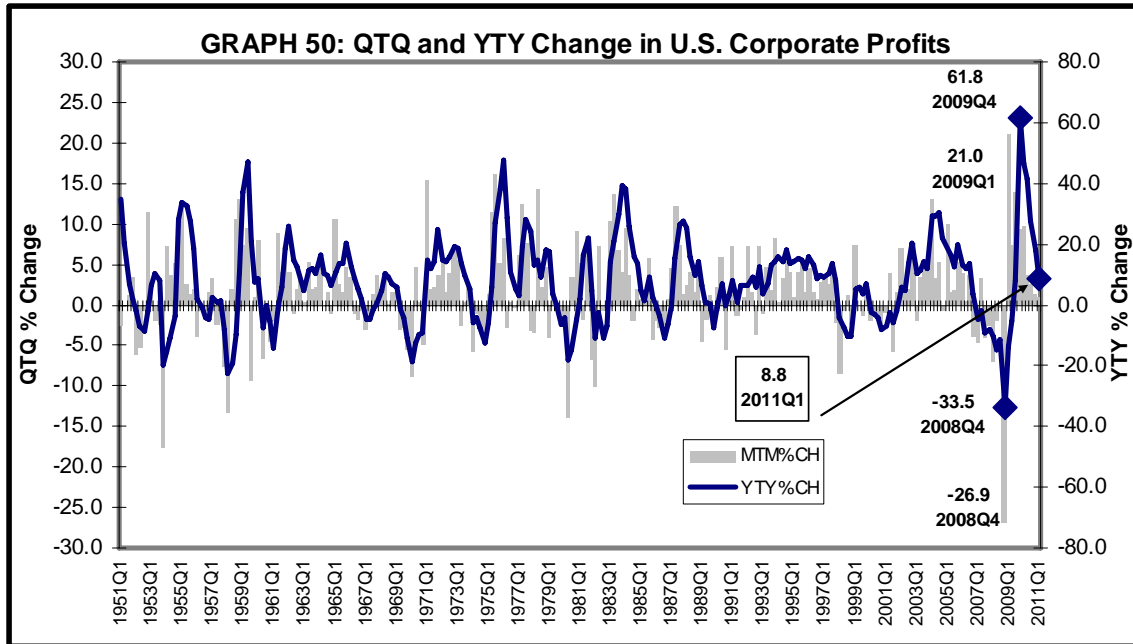
## E. BUSINESS CONDITIONS

CORPORATE PROFITS-- As depicted on Graph 50, after plunging by 26.9%, on a Quarter-to-Quarter (QTQ) basis, and by 33.5% on a Year-to-Year (YTY) basis, in the fourth quarter of 2008, during the financial crisis, though still down by 13.6%, YTY, the QTQ growth-rate bounced back to a strong 21.0% in the first quarter of 2009. Save 2009Q3, the QTQ growth-rate has decelerated with profits growing by a mere 1.0% in the first quarter of 2011, on a QTQ basis.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

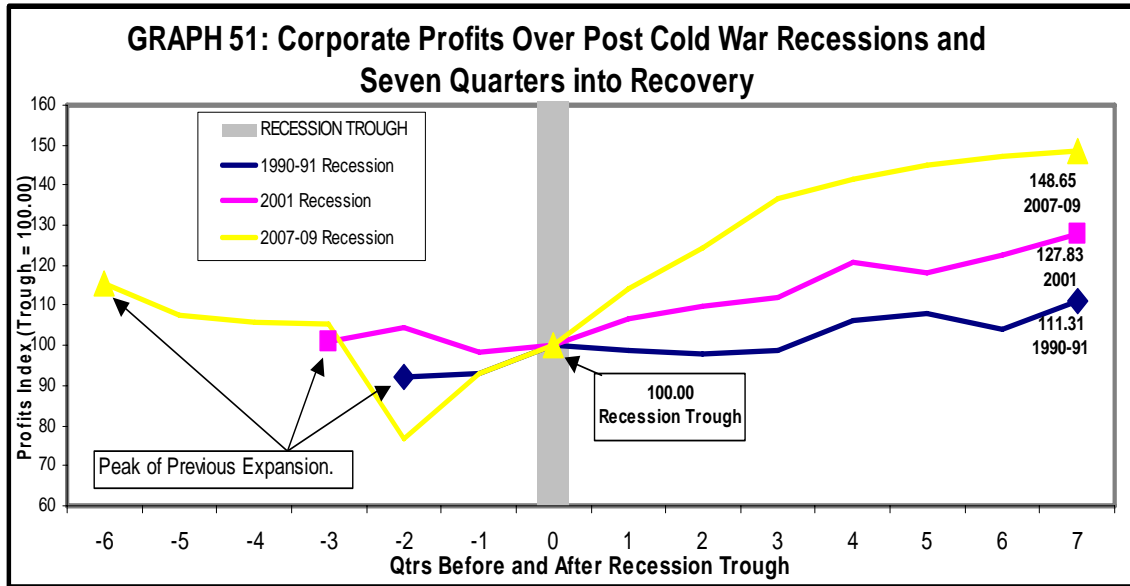


SOURCE: U.S. BEA.

Due to six contractions in profit-growth over the preceding seven quarters before the 2008Q4 meltdown, YTY growth showed a strong showing once profit-growth bounced back. YTY, corporate profits grew by 61.8% in 2009Q4, and over 40% in each of the two subsequent quarters. However, like the QTQ growth-rate, the YTY growth-rate has also decelerated since its peak in 2009Q4. In 2011Q1, on a YTY basis, corporate profits grew by 8.8%. Nevertheless, the growth in Corporate Profits has been strong over the current cycle compared to the other two Post Cold War recoveries. Graph 51 tracks an index of profit-growth over the 1990-91 Cycle, the 2001 Cycle, and the current cycle. Each index begins at the peak of the previous expansion (as designated by the NBER) and goes out to seven quarters beyond the NBER-designated trough of each recession. Each index equals 100.00 at the trough period, designated as “0”, with negative values representing quarters before the trough, and positive values representing quarters after trough.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BEA and calculations by CTDOL-Research.

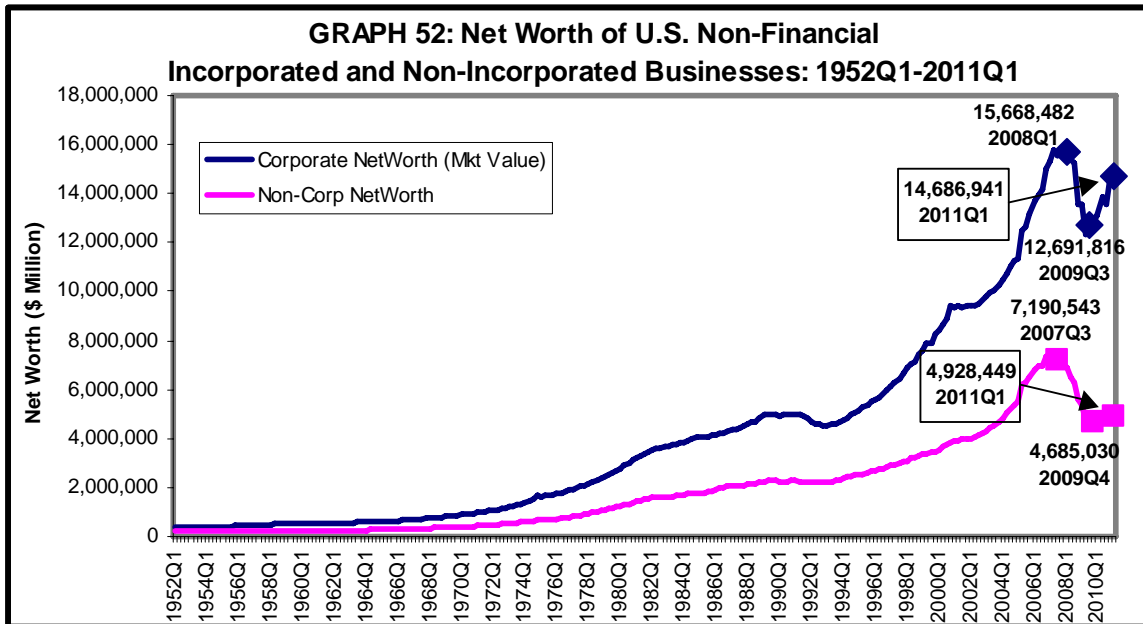
What stands out over the current cycle is that after the steepest decline in profits (two periods before the trough in the current cycle), of any of the three Post Cold War recessions, Corporate Profits then grew by 48.65% from the trough of the 2007-09 Recession, in 2009Q2, to 2011Q1, seven quarters into recovery. This is much stronger than the growth in profits seven quarters into recovery from the 2001 Recession, in which Corporate Profits grew by 27.83%, or seven quarters into recovery from the 1990-91 Recession, in which Corporate Profits grew by 11.31%. However, like the Household Sector, there has been a bifurcation in the fortunes of firms in the Business Sector over the last couple of decades, which is being magnified over this cycle. To see that, the discussion now turns to the balance sheets of the Incorporated and Non-Incorporated segments of the Business Sector, and the disparity in their fortunes over the recent crisis and current fledging recovery.

BUSINESS-SECTOR BALANCE SHEETS-- The Business Sector, like the Household Sector of the U.S. Economy, has not shared equally in the impacts from the 2007-08 Financial Panic and subsequent economic contraction. Graph 52 tracks the Net Worth of Incorporated versus Non-Incorporated businesses from 1952Q1 to 2011Q1. Between 1993Q1 and the panic in 2008Q4, Net Worth of Incorporated businesses grew 3.5 times



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

from \$4.5 trillion to 15.7 trillion. From 1993Q1 to the peak in Non-Incorporated businesses' Net Worth in 2007Q3, unincorporated businesses' Net Worth grew 3.2 times, from \$2.2 trillion to \$7.2 trillion.



SOURCE: Federal Reserve Board.

By 2011Q1, the Corporate Sector's Net Worth recovered 94% of its peak value in 2008Q4, while the Non-Incorporated Sector had only recovered 69% of its peak value in 2007Q3. Further, the Net Worth of the unincorporated business sector was actually once again, in decline, by 2011Q1.

The divergence of the fortunes of the sub-sectors of the U.S. Business Sector is detailed in Table 2. For comparison, the Household Sector is also included. The Net Worth of the Corporate Sector peaked in 2008Q4, and then declined by 21.79% over six quarters. That translates into a 15.12% compounded, annualized rate of decline. However, the Non-Incorporated Business Sector, after their Net Worth peaked in 2007Q3, then declined by 37.36% over the next 10 quarters, which represents a 17.06% compounded, annualized rate of decline. Further, after the second quarter of 2010, the Net Worth of the unincorporated business sector began declining once again. As of 2011Q1, the Net Worth



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

has declined by 2.24% over three quarters, which translates into a 2.97% compounded, annualized rate of decline.

<b>TABLE 2: Decline and Recovery of Net Worth of Major U.S. Sectors</b>			
	<b>Corp Sect</b>	<b>Non-Cor Sect</b>	<b>HH Sector</b>
<b>DECLINE-PANIC</b>	-21.79	-37.36	-24.93
<b>COMPOUNDED-RATE</b>	-15.12	-17.06	-15.11
<b>QTRS OF DECLINE</b>	6	10	7
	<b>Corp Sect</b>	<b>Non-Cor Sect</b>	<b>HH Sector</b>
<b>RECOVERY</b>	18.99	7.60	17.53
<b>COMPOUNDED-RATE</b>	10.45	15.78	8.41
<b>QTRS OF RECOVERY</b>	7	2	8
	<b>Corp Sect</b>	<b>Non-Cor Sect</b>	<b>HH Sector</b>
<b>DOUBLE-DIP</b>	----	-2.24	----
<b>COMPOUNDED-RATE</b>	----	-2.97	----
<b>QTRS OF DECLINE</b>	----	3	----

SOURCE: Federal Reserve Board

For comparison, U.S. Households' Net Worth declined by 24.93% over seven quarters, after peaking in 2007Q2. That translates into a 15.11% compounded, annualized decline. It is clear that the unincorporated business sector has fared the worst in terms of the decimation of its aggregate balance sheet. The recovery was also short-lived for unincorporated businesses in terms of their Net Worth. As of 2011Q1, the Incorporated Business Sector's Net Worth has increased by just under 19% over seven quarters since it bottomed. That represents an annualized growth-rate of 10.45%. For the Household Sector, Net Worth has grown by 17.53% over eight quarters since it bottomed. However, the annualized rate of 8.41% is slightly lower than the annualized growth-rate for the recovery in the incorporated business sector's recovery in Net Worth. And, as noted in the last section, the recovery in Net Worth is a much different story for upper-income households, for whom the largest share of their assets are financial, than it is for middle-income, and lower-income, households, for whom their assets are largely tangible, and more specifically, their house. Further, lower- and middle-income households tend to be net borrowers, whereas, upper-income households tend to be net lenders.

For unincorporated businesses, though they recovered their Net Worth by 7.60%, and the growth was strong at a 15.78% annualized rate of growth, it only lasted two quarters.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

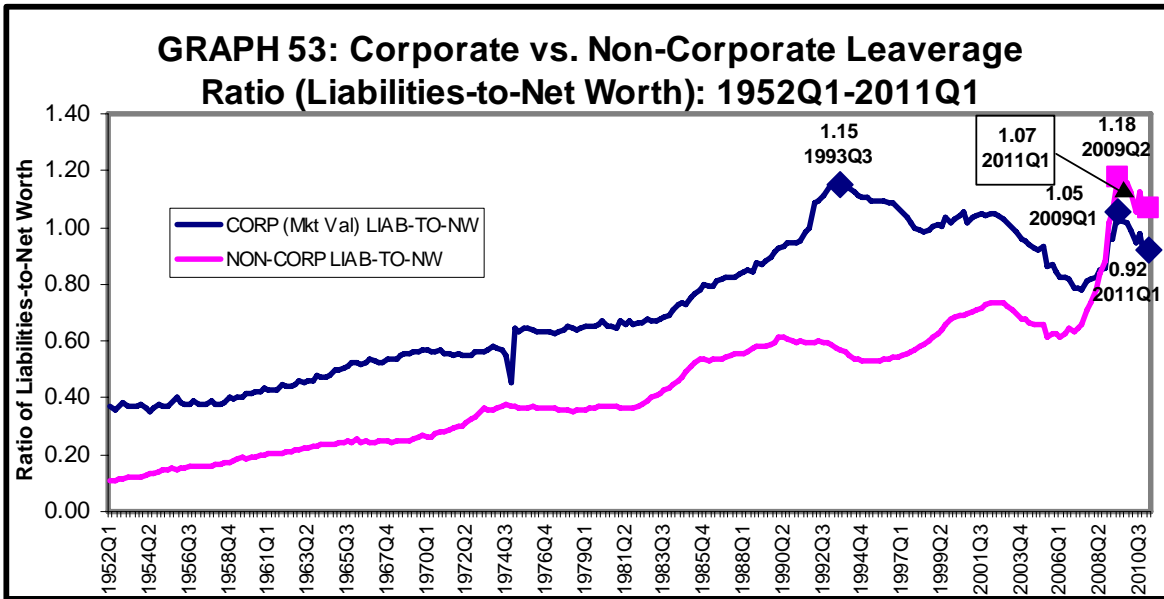
And, as noted above, over the last three quarters, up to 2011Q1, the last quarter of data, their Net Worth is, again, declining.

BUSINESS-SECTOR DEBT-- From Graph 53, which tracks the Liabilities-to-Net Worth leverage ratio, it is only after the financial panic in September 2008, that unincorporated businesses' leverage ratio shot above that for the corporate sector. The Incorporated Business Sector's leverage ratio had peaked at 1.15 in 1993Q3, and had been declining since then. However, it shot up from 0.78 in 2007Q2 to 1.05 in 2009Q1 with the onset of crisis. By 2011Q1, it had declined to 0.92. However, for the Unincorporated Business Sector, the leverage ratio, from a low of 0.62 in 2005Q3, went through a nearly vertical climb to 1.18 by 2009Q2, following the September 2008 Financial Panic. By 2011Q1, the leverage ratio for unincorporated businesses was still above one at 1.07.

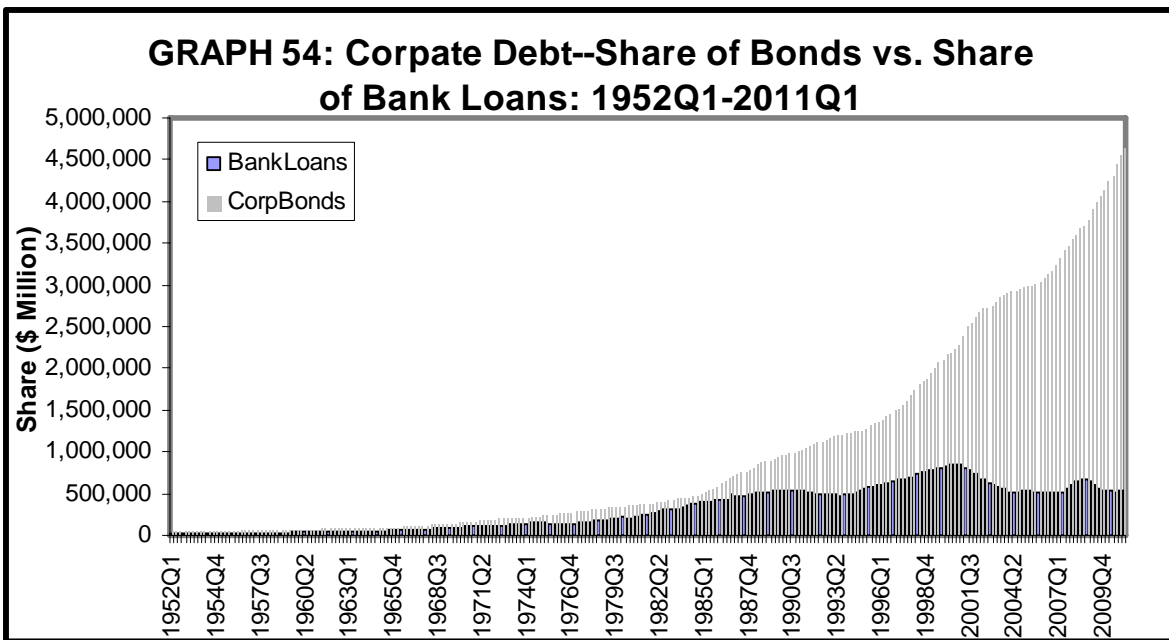
Interestingly, even though the amount of corporate debt in bonds versus bank loans, has been more than half of the two forms of total debt, bonds did not exceed three-quarters of the debt until 2001, the Corporate Sector has been going more to the bond market at an increasing rate from the mid-1980's to the mid-1990's, and then the share of bond-debt further accelerated, growing from \$1.4 trillion in 1995Q4 to \$4.7 trillion by 2011Q1. This is depicted in Graph 54. Given this, the total value of corporate debt in bank loans began to decline after peaking at \$840.024 billion in the first quarter of 2001, with the onset of the 2001 Recession, the Post World War II Era's only investment-lead recession. Then, in 2005Q3, for the first time, the value of bank loans taken out by unincorporated businesses exceeded that of bank loans taken out by incorporated businesses.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: Federal Reserve Board

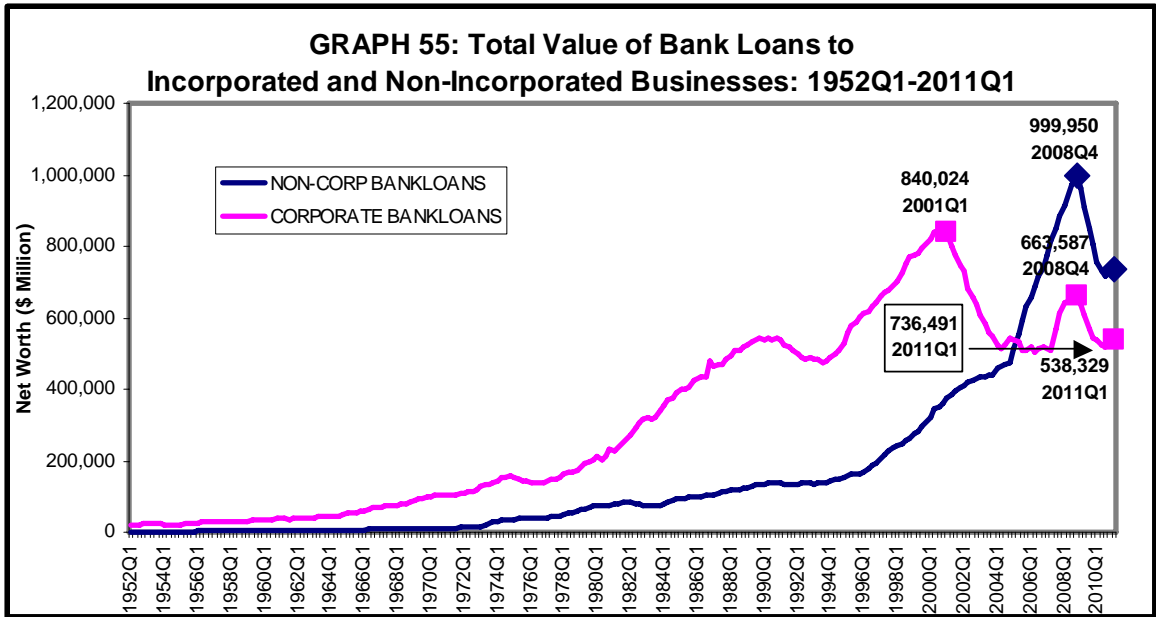


SOURCE: Federal Reserve Board

In 2008Q4, during the Panic of 2008, the value of non-corporate bank loans reached its highest level of just under one trillion dollars. This is illustrated in Graph 55.

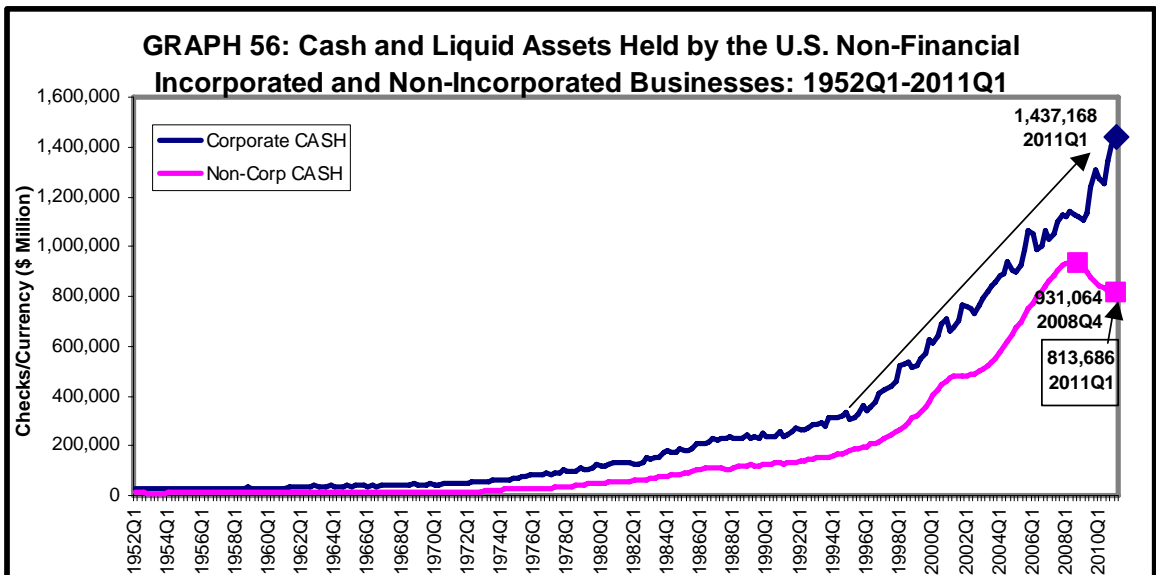


**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: Federal Reserve Board

CASH-ON-HAND-- Besides the growth in profits, the story of how the corporate sector is fairing over this recovery is reflected by the cash-on-hand by the Incorporated Business Sector versus the Unincorporated Business Sector. This is illustrated in Graph 56.



SOURCE: Federal Reserve Board.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

From 1995Q2, the U.S. Corporate Sector's cash-on-hand (checks and currency + time deposits + money-market funds) has grown over four times, from \$328.3 billion in the third quarter of 1995 to \$1.4 trillion by the first quarter of 2011. For unincorporated businesses, cash-on-hand grew nearly five times, from \$189.5 billion in 1995Q2 to a peak of \$931.1 billion in the fourth quarter of 2008, the quarter of the financial panic. However, between 2008Q4 and 2011Q1, cash-on-hand, for unincorporated businesses, declined by 12.6% to \$813.7 billion. Total cash on hand, for both incorporated and unincorporated businesses, was \$2.3 trillion in 2011Q1. So, why are, especially incorporated businesses, sitting on all this cash, and not investing it and hiring people? The answer lies in the testimony by Christina Romer before the U.S. Senate, in April 2010, and recounted above in this outlook, specifically, in what she decided would be the most appropriate title of her testimony: "It's Aggregate Demand Stupid!"

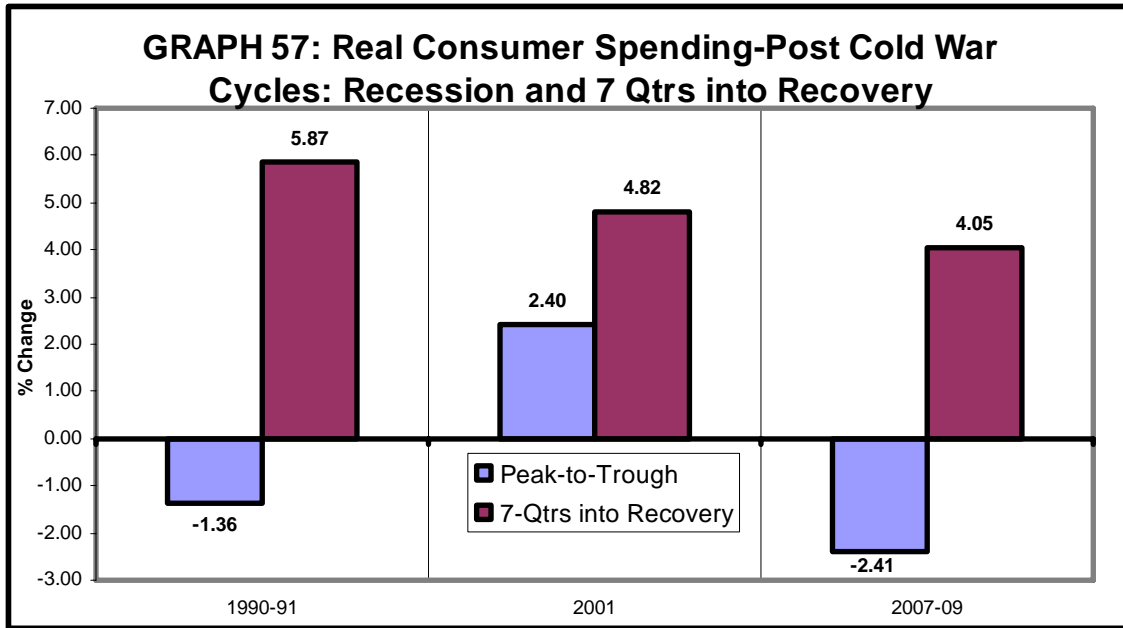
DEMAND CONDITIONS-- Business conditions, in terms of the U.S. domestic market, have not looked so bleak since the Great Depression. And, for the same basic reasons: collapse of two asset bubbles, particularly, the popping of the housing and credit bubbles. The result: an overhang of unsustainably high levels of debt, forcing, especially middle- and lower-income consumers, into a massive retrenching as they pay down their debt to repair their balance sheets. Further, as reflected in our chronic trade deficit, the U.S. has been consuming more than it has been producing for three decades.

Graph 57 shows the behavior of Real Consumer Spending over the three Post Cold War recessions, and seven quarters into the subsequent recoveries. Over the 1990-91 Recession, consumption spending by U.S. Households declined by 1.36%, but over the 2001 Recession, real consumer spending actually grew by 2.40%. However, over the 2007-09 Recession, which was also accompanied by a financial panic, real spending declined by 2.41%. Further, seven quarters into recovery, the growth-rate of Real Consumption grew in each subsequent Post Cold War recovery. Seven quarters into recovery, following the 2007-09 Recession, real consumer spending grew by 4.05%, compared to 4.82% seven months after the through of the 2001 Recession, 5.87% seven quarters into the recovery from the 1990-91 Recession.



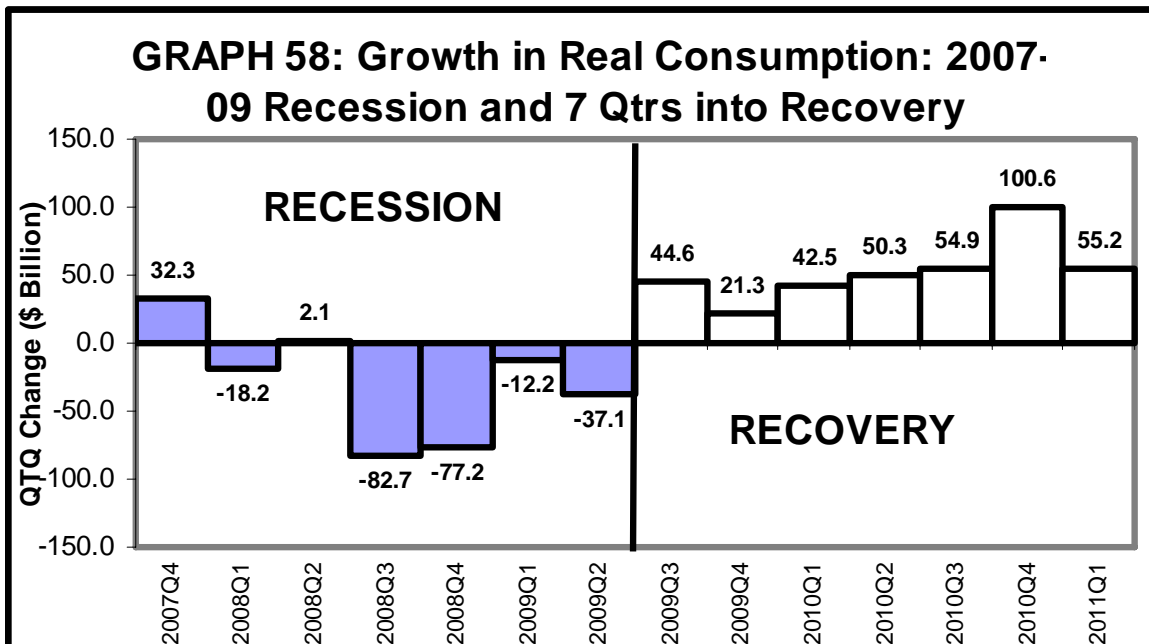


**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BEA

As Graph 58 illustrates, over the current recovery, there was a spurt in real consumer spending in 2010Q4, which jumped by \$ 100.6 billion, driven by a 5.05% surge in durable goods spending, which translates into a nearly 22% annualized rate. In 2011Q1, real spending fell by \$55.2 billion, closely matching spending-growth for 2010Q3.



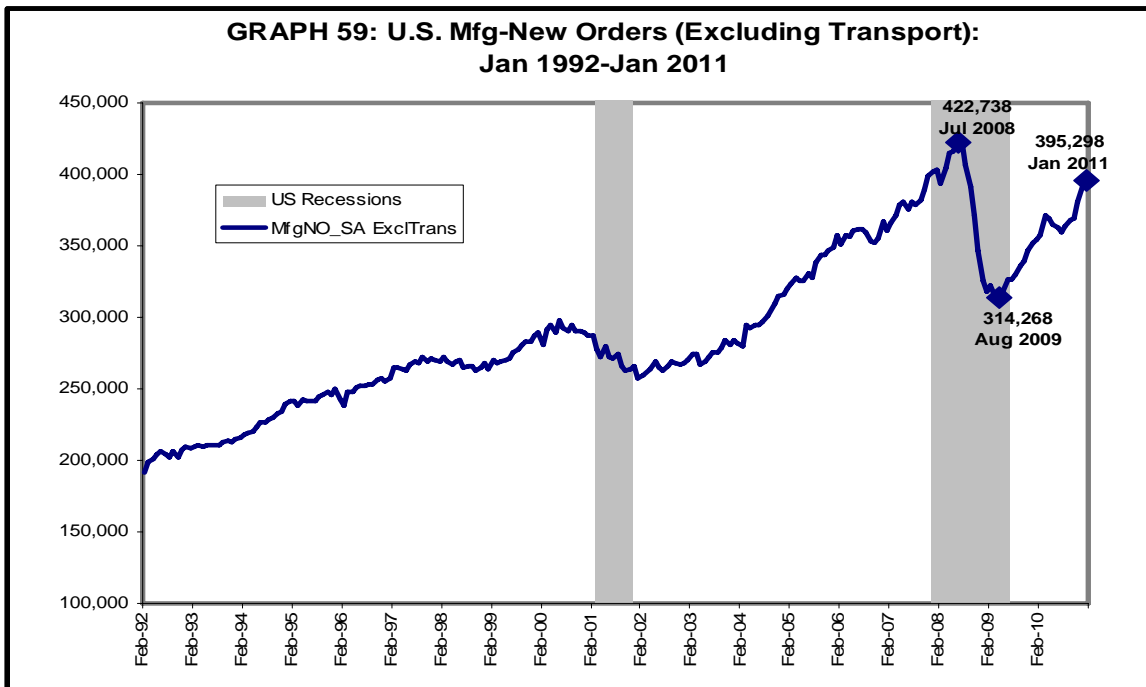
SOURCE: U.S. BEA



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Graph 59 looks at Manufacturers' New Orders from January 1992 to June 2011, which excludes the volatile Transportation Sector. After peaking over the last expansion at \$422.8 billion in July 2008, New Orders fell by 27.90% to \$304.8 billion in March 2009, the steepest drop over the entire range of data. But, by Jun 2011, New Orders had recovered by 29.26%, and at \$394.0 billion, had recovered to 93% of their level in July 2008.

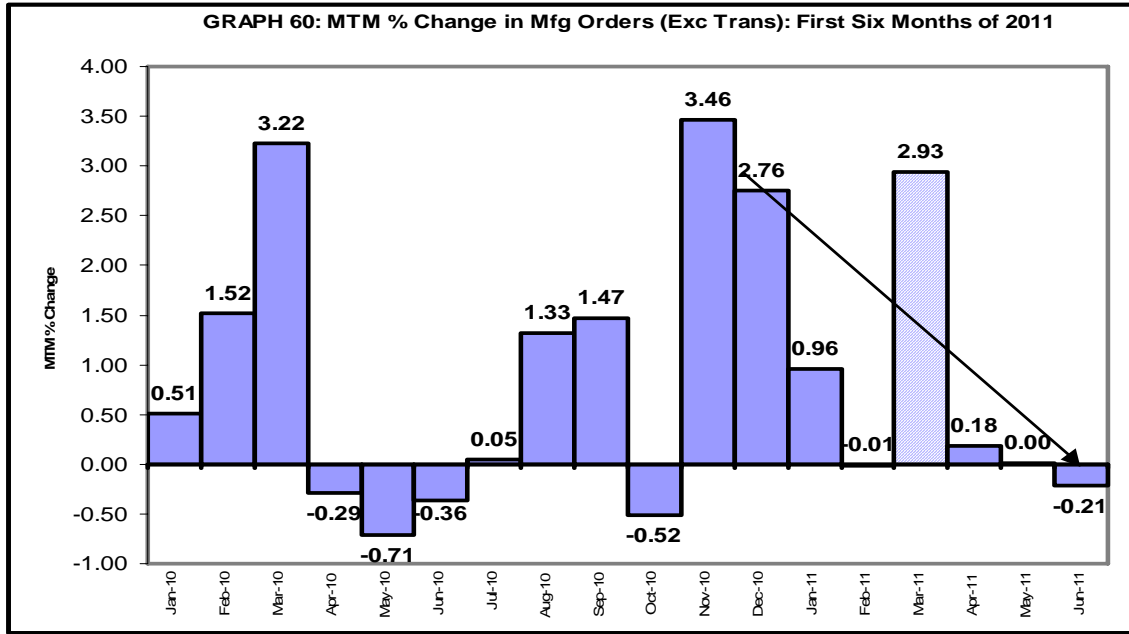
However, as depicted on Graph 60, which zooms in on the more recent 18-period covering January 2010 to June 2011, it appears that the growth-rate in New Orders is decelerating. The one spurt in growth of 2.93%, in March 2011, was during the month of the earthquake and tsunami in Japan. Nevertheless, New-Orders growth had decelerated in January (+0.96%) and turned negative in February (-0.01%). New-Order growth was then flat in April and May, and then declined by 0.21% in June.



SOURCE: U.S. Census



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



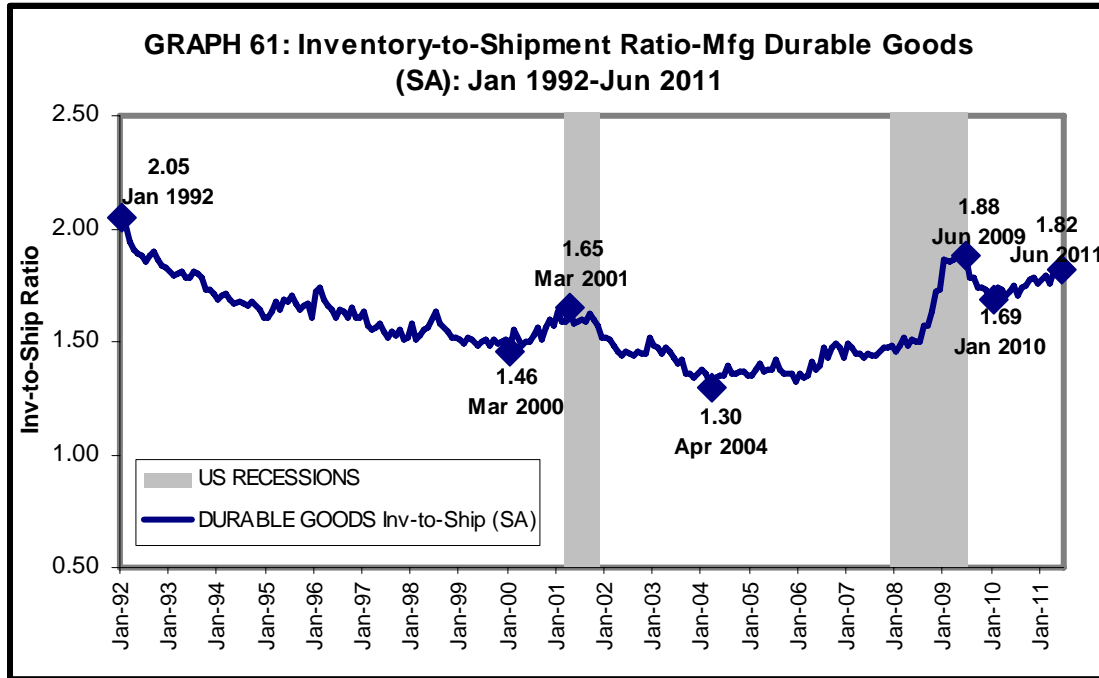
SOURCE: U.S. Census

Turning to the Inventory-to-Shipments Ratio in Graph 61, the highest ratio of inventories to shipments, over the range of data, was the 2.05 recorded in January 2002. The lowest it got in the 1990's Expansion was 1.46 in March 2000. Then, the first month of the 2001 Recession it climbed to 1.65 in March 2001. The lowest value recorded, over the range of data, was the 1.30 in April 2004, but then it began climbing again until it returned to the 2000 level of 1.46 in January 2008, the second month of the 2007-09 Recession. With the onset of financial panic, it jumped to 1.88 in April 2009, the highest since September 1992. By January 2010, the Inventory-to-Shipment Ratio had declined to 1.69, however, reflecting the weakening economy, the Inventory-to-Shipments Ratio had climbed back up to 1.82 by June 2011.

With, especially middle- and lower-income, consumers struggling, domestic markets have been weak, and with housing and construction absent from this recovery, the prospects for the strong-growth, self-sustaining phase of the typical Post World War II recovery/expansion are dim. One bright spot has been exports. Graph 62 shows the growth in Real Exports over the recession and first seven months of recovery, for the three Post Cold War cycles.



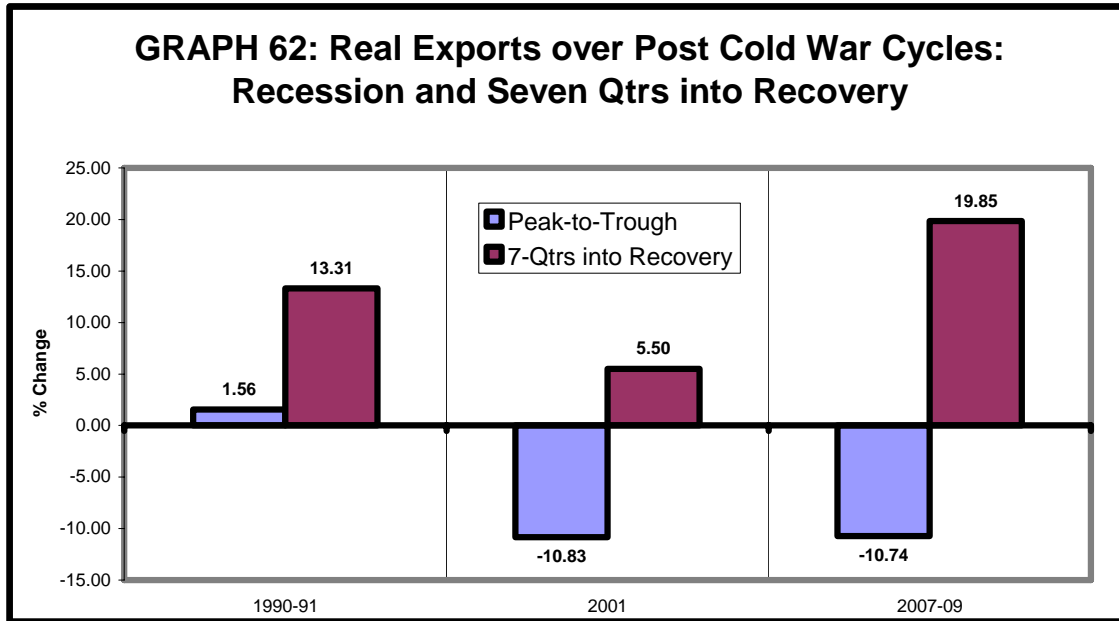
**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. Census

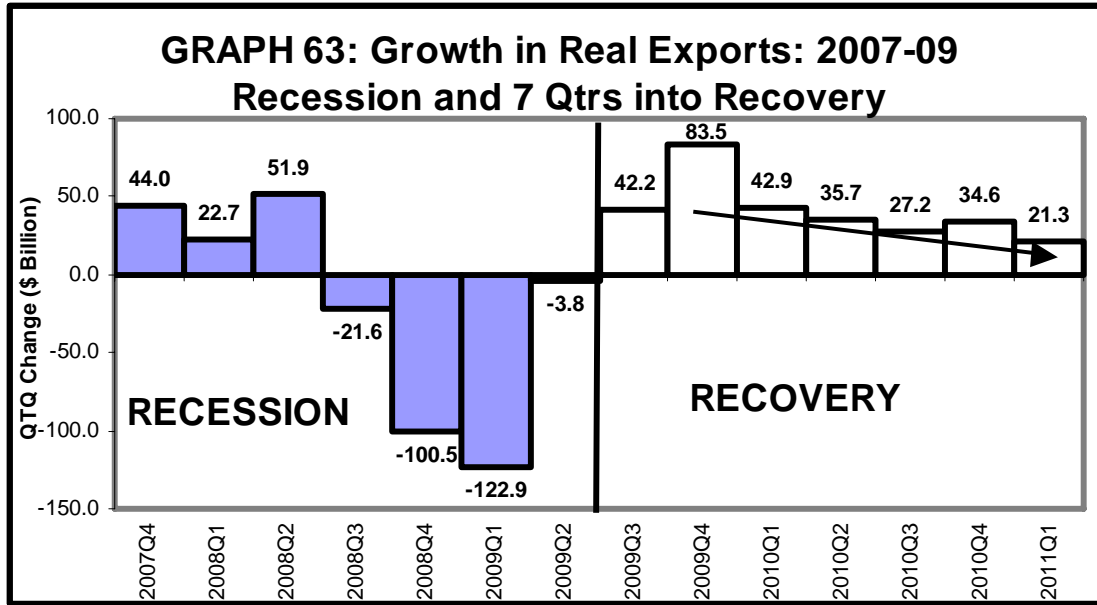
As illustrated in Graph 62, Real Exports actually grew by 1.56% over the 1990-91 Recession, while they declined the most steeply over the 2001 Recession (-10.83%), which also included the September 11th Terrorist Attacks. Over the recent 2007-09 Recession/Financial Panic, Real Exports declined by 10.74%, however, over the period before the onset of panic of panic (2008Q3) and the official end of the recession (2009Q2), U.S. Exports declined by 13.56%. And, if measured from their peak in 2008Q2, Real Exports declined by 14.66%. Despite this drop in Real Export activity, Real Exports have grown the strongest over the first seven months of the current recovery (+19.85). This compares to 13.31% seven months after the 1990-91 Recession, and only 5.50% over the first seven months of recovery after the 2001 Recession.





SOURCE: U.S. BEA

This growth in U.S. Exports has helped U.S. Manufacturing over the current recovery. However, some of our trading partners have complained that, part of our export-growth performance over this recovery, is being driven by the Fed's QE2 Policy. Nevertheless, as depicted in Graph 63, after the \$83.5 billion surge in Real Export growth in 2009Q4, the QTQ growth in Real Exports has been steadily decelerating and was only \$21.3 billion in the first quarter of 2011. This reflects, not just temporary shocks to the World Economy, such as the production and supply disruptions from the Japanese Earthquake and Tsunami, but probably a longer-term slowing of World economic growth as reflected by the slowing-growth numbers coming out of Germany and France, but also slowing growth in China.



SOURCE: U.S. BEA.

It appears that U.S. business conditions are fragile, especially for the unincorporated business sector. U.S. Corporations, as a whole, are sitting on \$1.4 trillion in cash (see above), and for them, the U.S. Market is just part of their portfolio of markets. As a consequence, more than half of their profits have come from their overseas operations. For the unincorporated U.S. businesses, especially for those who, either do not mostly export, or do not cater to the high-end U.S. Market, which has been doing well, up to now, because U.S. Consumers are over-extended, and therefore paying down debt, and seeing their major asset, their home decline in value, and with persistent levels of high unemployment, their prospects are more bleak than those of the incorporated business sector. In addition, most small businesses are financed to one degree or another by tapping into their home equity thus they were hit hard by the housing bust (see Graph 52 and Table 1 above). And, clearly, access to credit is more of an issue for small, and new start-ups, than for large, on-going concerns. In other words, for the Unincorporated Business Sector, it is a credit-supply problem, not a credit-demand problem. In the final analysis, it is worth repeating, yet again, the title of Christina Romer’s testimony before the Senate in April 2010, which says it all: “It’s Aggregate Demand Stupid!”

## IV. DRAGS ON THE FLEDGING RECOVERY

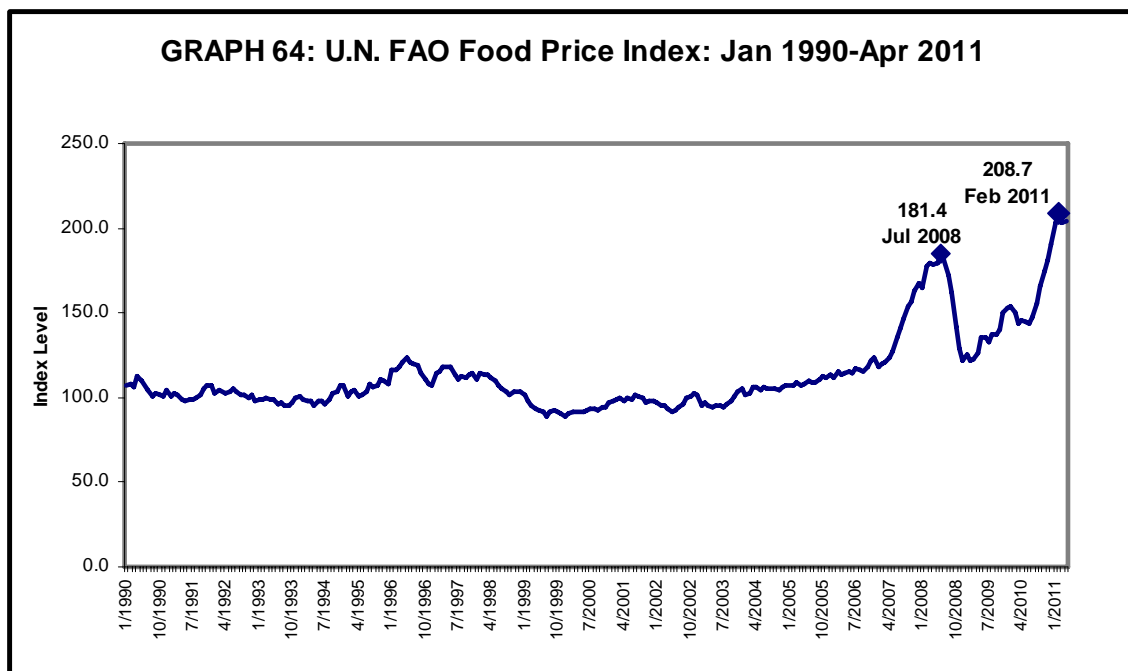
### A. BACK TO THE FUTURE: Rising Food and Energy Prices

#### RISING FOOD PRICES AND THE ARAB SPRING

The following passage is from the 2007-09 U.S. and Connecticut Economic Outlook:

Tracking the price of West Texas Intermediate (WTI) from January 1971 to October 2007 reveals that there are rapid rises, or outright spikes, in oil prices before the on-set of all the recessions that occurred over the 1971-2007 Period<sup>25</sup>

Here we are, three years later, and, once again, facing rising energy and food prices. And, just as rising energy and food prices were battering a weakening economy, on the verge of panic and crisis, in 2008, so too, as the year 2011 was ushered in, a fragile and struggling recovery, which could easily be cut short, was, once again, being battered by rising energy prices and record food-price increases.



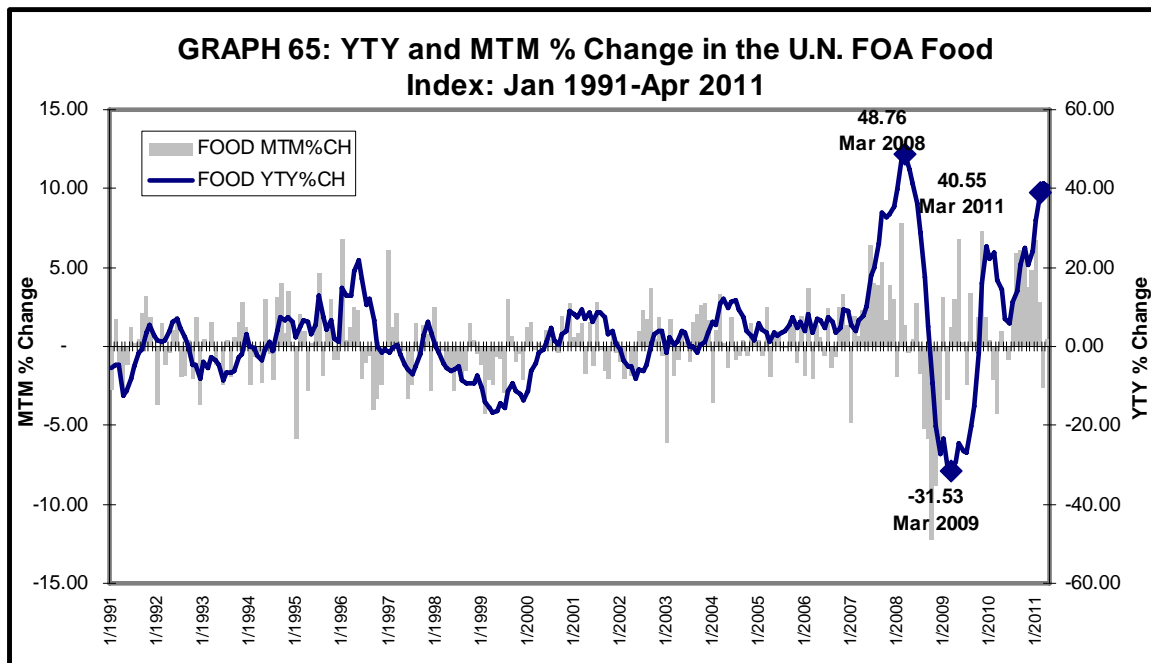
SOURCE: U.N. FAO

<sup>25</sup> Kennedy, Daniel W., *Current Conditions and Outlook for the U.S. and Connecticut Economies: 2007-2009* (January 2008, Revised May 2008) Office of Research, Connecticut Department of Labor: Wethersfield, p. 10.

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Graph 64 shows the Food Index of the United Nations (U.N.) Food and Agricultural Organization (FAO) for the available years of monthly data, 1990 to 2011. Until recently, the record level of the U.N.'s Food Price Index was 181.4, set in July 2008, surpassing the 120.9 level reached in July 1996, and just two months before the September 2008 financial panic. After bottoming out at 121.4 in February 2009, it climbed again to a local peak of 153.6 in January 2010. It declined again to 143.6 in June 2010, but then the index began a sustained, steep increase, that has so far, continued for seven straight months, reaching a new global high of 208.7 in February 2011. It then declined to 203.2 in March, and then increased again to 204.1 in April.

Graph 65 shows the month-to-month (MTM) and year-to-year (YTY) percent changes in the FOA Food Index from January 1991 to April 2011. What is of note, is not only the 48.76% YTY change in the food-price index in March 2008, and the 28.31% increase (YTY) in January 2011, but, also the 31.53% YTY plunge in the food-price index in April 2009. That is, the dramatic increase in the volatility of the index since 2007. April 2011 had another large YTY increase of 40.55%.



SOURCE: U.N. FOA and CTDOL-Research calculations.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

The geopolitical consequences of this have been nothing less than historic. It was the recent and relentless rise in food prices that apparently acted as the proverbial straw that brought about the wave of largely non-violent revolutions in the Middle East and North Africa. This recent wave of uprisings follows decades-long frustration and anger over the repression inflicted on the region by autocratic, often corrupt leaders, such as Ben Ali in Tunisia and Mubarak in Egypt. In addition, a rising generational rift stemming from that region's well educated and economic-opportunity deprived youth population further stimulated this political tension. This wave of historic grassroots uprisings has been dubbed the "Arab Spring", which conjures up the Prague Spring in 1968, and the "spring" reference used to describe the brief period of elation following the 1848 Revolutions that swept across Europe. In each instance the use of the word "spring" is used to refer to a period of re-birth, and optimism.

The incident that began the wave of non-violent revolutions was Mohamed Bouazizi's self-immolation in protest over police corruption and ill-treatment in Tunisia on December 18, 2010<sup>26</sup>. Further, these uprisings, which began in late 2010, and have spilled over into early 2011, have also brought about promised reforms in Jordan, Bahrain, and Saudi Arabia. Besides their rapid, and spontaneous spread over two continents, a remarkable feature of these revolutions that have toppled long-standing regimes, is that they have been characterized by civil disobedience, civil resistance, demonstrations, strike actions, and the use of social media, all non-violent means of descent. And, though there have been some violent incidents such as riots and self-immolations, most of the violence has been inflicted by the governments responding to the protestors, as they peacefully resisted. It is Libya, where it turned into a violent confrontation where Colonel Gadhafi has struck back against protesters (now rebels) with brutal force, and has now become a rebellion, or civil war, with U.S. and NATO involvement, have these uprisings taken the most violent turn<sup>27</sup>. Assad in Syria, has also responded violently to protesters.

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<sup>26</sup> 2010–2011 Middle East and North Africa protests (Accessed on February 24, 2011) WIKIPEDIA

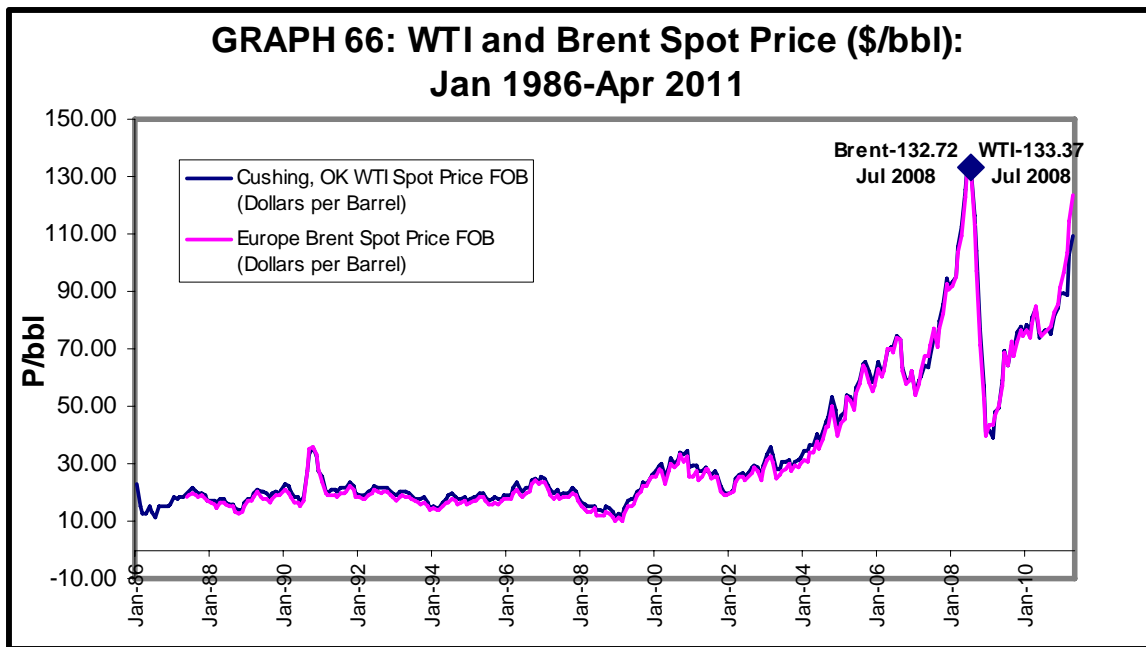
<sup>27</sup> Dreibus, Tony C., *Food Prices Rise to Record on Commodity Gains, UN Says*, (February 03, 2011) BUSINESSWEEK.COM < <http://www.businessweek.com/news/2011-02-03/food-prices-rise-to-record-on-commodity-gains-un-says.html> > Accessed on February 24, 2011 and Schemm Paul and Sarah El Deeb, Associated Press, Associated Press, *Gadhafi forces strike back at Libya uprising* (February 24, 2011)



### OIL PRICES ALSO RIDE THE WAVE

As the Arab Spring spread across the Middle East and North Africa and is now threatening the 42-year rule of Muammar Gadhafi, the upheaval in the OPEC nation took most of Libya's oil production of 1.6 million barrels a day off the market, and crude prices jumped 20% to two-year highs in just a week — reaching \$99.77 per barrel in afternoon trading in New York and \$114.20 in London on Thursday. Most of Libya's oil goes to Europe<sup>28</sup>.

Graph 66 tracks the average monthly prices of West Texas Intermediate (WTI) crude, FOB at Cushing, and Brent crude at London.



SOURCE: U.S. EIA

Both WTI and Brent crude peaked in July 2008 at \$133.37 per barrel (bbl) and \$132.72 per bbl (Brent). With the onset of financial panic in September 2008, Brent had dropped to \$39.95/bbl by December 2008, and WTI had dropped to \$39.09/bbl by February 2009.

YAHOO NEWS < [http://news.yahoo.com/s/ap/20110224/ap\\_on\\_re\\_af/af\\_libya](http://news.yahoo.com/s/ap/20110224/ap_on_re_af/af_libya) > Accessed on February 24, 2011.

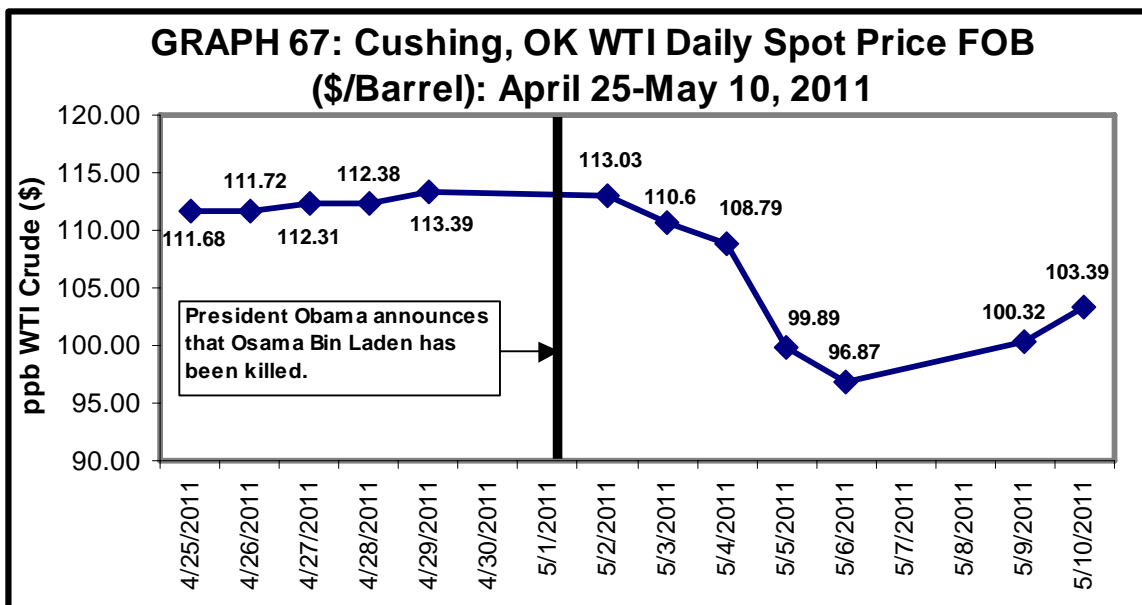
<sup>28</sup> Schemm Paul and Sarah El Deeb, Associated Press, Associated Press, *Gadhafi forces strike back at Libya uprising* (February 24, 2011) YAHOO NEWS < [http://news.yahoo.com/s/ap/20110224/ap\\_on\\_re\\_af/af\\_libya](http://news.yahoo.com/s/ap/20110224/ap_on_re_af/af_libya) > Accessed on February 24, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

At that point, oil prices began to climb again. By April 2011, Brent was at \$123.26/bbl and WTI was at \$109.53/bbl. Then, events seemed to take a dramatic turn on May 1<sup>st</sup>.

In a late-night appearance in the East Room of the White House, Sunday night, May 1, 2011, President Obama disclosed that American military and C.I.A. operatives had finally cornered Osama Bin Laden, the leader of Al Qaeda, who had eluded the U.S. for nearly a decade. Apparently, Bin Laden resisted and was shot in the head. He was later buried at sea<sup>29</sup>. In the week following May 1<sup>st</sup>, oil prices, and commodities in general, dropped.



SOURCE: U.S. EIA

Graph 67 depicts the day-to-day price movements in the price/bbl of WTI from April 25 to May 10, 2011. As can be seen, the price/bbl of WTI declined from \$113.03 on Monday (May 2<sup>nd</sup>) to \$96.87 on Friday (May 6<sup>th</sup>). However, the following week, WTI closed at \$100.32/bbl on Monday (May 9<sup>th</sup>) and increased to \$103.39 on Tuesday (May 10<sup>th</sup>). Was the decline a temporary response to the killing of Bin Laden, or is it indicative of a sea-

<sup>29</sup> Baker, Peter, Helene Cooper, and Mark Mazzetti, *Bin Laden Is Dead, Obama Says* (May 1, 2011) NEW YORK TIMES < <http://www.nytimes.com/2011/05/02/world/asia/osama-bin-laden-is-killed.html> > Accessed on May 20, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

change in the outlook and thus sustainable? Or, did speculators temporarily run for the exits, and have now begun to return?

**WHAT'S BEHIND THE RISE IN TRADABLE COMMODITY PRICES?**

So, what is behind the recent rise in World food prices? It appears that the latest round of food-price increases that began in 2010, and have continued into 2011 were set off by droughts, first in Russia, and then in Argentina. These droughts were followed by torrential rains, that battered Canada and Australia, and a cool, wet summer in the American Midwest. These climatological events greatly reduced the wheat crop. The result: wheat prices climbed by 74% in the past year<sup>30</sup>. Further driving up wheat prices are hoarding and buying wheat before prices go even higher. The fate of the wheat market now lies in the harvest from the North China plain. A Chinese ban on wheat exports could spike already climbing prices<sup>31</sup>. Given this set of events, the question turns to how much of a role has climate change played in the current and recent food crises?

Some have argued that speculation has contributed to rising food, as well as oil, prices in, both, the current and 2003-08 episodes. A loophole in the Commodity Futures Modernization Act known as “Enron’s Revenge” opened the door to unregulated trading of Credit Default Swaps (CDS’s). The *Commodity Futures Act* of 2000, in addition to allowing unregulated trading of financial derivatives, included language advocated by Enron that largely exempted the company from regulation of its energy trading on electronic commodity markets, like its once-popular Enron Online. It is this provision that became known as the “Enron Loophole”<sup>32</sup>. Further, Senator Phil Gramm played a central role in writing the *Commodity Futures Modernization Act*, and, it was Mr. Gramm’s wife, Wendy Gramm served on the Enron Board, a position she took after stepping down as chairwoman of the Commodity Futures Trading Commission (CFTC).

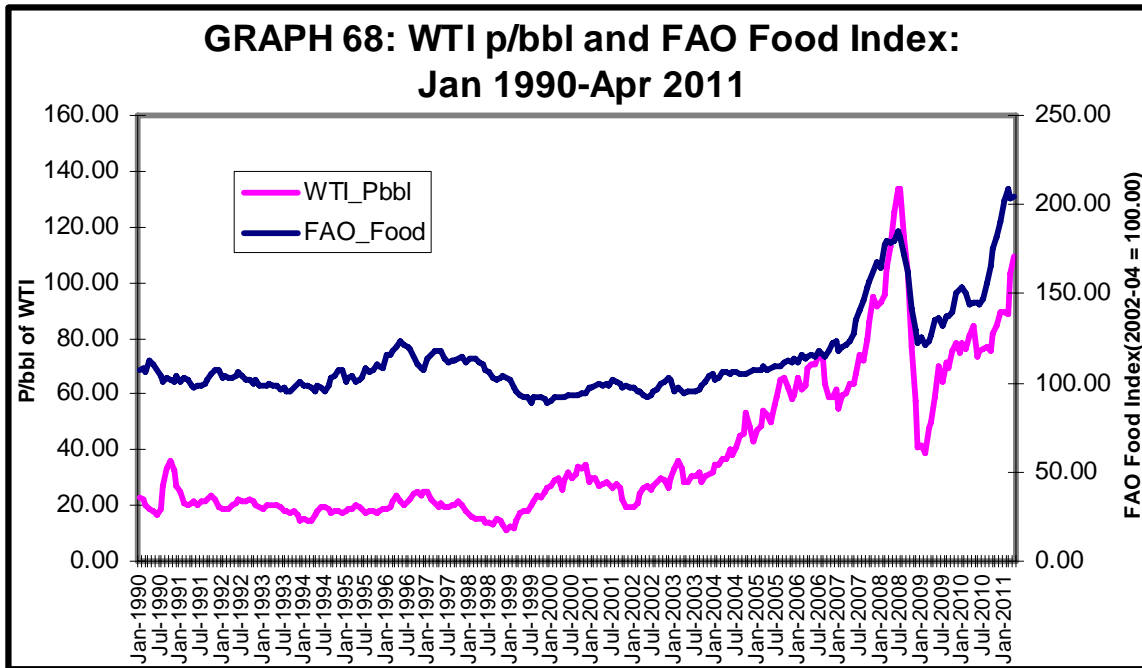
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<sup>30</sup> Pooley, Eric and Philip Revzin, *Hungary for a Solution* (February 21-27, 2011) BLOOMBERG BUSINESSWEEK: New York

<sup>31</sup> *ibid*

<sup>32</sup> Lipton, Eric, *Gramm and the ‘Enron Loophole’* (November 17, 2008) NEW YORK TIMES <<http://www.nytimes.com/2008/11/17/business/17grammside.html?pagewanted=print>> Accessed on February 25, 2010.





SOURCE: U.S. EIA and U.N. FAO

### THE TRANSFORMATION OF OIL: From Commodity to Asset?

In June 2011, the Political Economy Research Institute (PERI) at the University of Massachusetts released a report that found that U.S. consumers paid an 83-cent premium for a gallon of gasoline in the month of May because of speculation in the futures market for oil<sup>33</sup>. From Graph 68, the increase in the volatility of the price of West Texas Intermediate (WTI) from the 1990's to the first decade of this century comes through. What is behind this? According to the report by PERI:

While the market for energy futures contracts is not new, what is new is that the amount of trading of crude oil futures contracts has exploded over the past decade. For example, the overall level of futures market trading of crude oil contracts on the New York Mercantile Exchange is currently 400 percent greater than it was in 2001, and 60 percent higher than it was only two years ago<sup>34</sup>.

<sup>33</sup> Pollin, Robert and James Heintz, *How Wall Street Speculation is Driving Up Gas Prices Today* (June 2011) Political Economy Research Institute University of Massachusetts: Amherst, p. 1.

<sup>34</sup> *ibid*, p. 2.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Further, driving this explosive growth in trading is:

The reason the crude oil futures market has exploded is that a new type of trader has come to dominate the futures market. These traders entered the market with enormous financial resources, enabling them to influence the ups and downs of market prices to an unprecedented degree. To a large extent, these traders are affiliated with major investment banks, such as Goldman Sachs or UBS. They became involved in this market to buy energy futures contracts as an alternative to holding stocks, bonds, or other types of derivative assets, such as mortgage-backed securities. But when these traders came to hold dominant positions in the market, they also gained the power to move prices up or down through their own trading decisions<sup>35</sup>.

This observation was also noted by Dan Dicker in his book, *OILS'S ENDLESS BID*. By 2003, the dominating forces in oil trade were no longer the oil companies. In 2006, just before the New York Mercantile Exchange (NYMEX) went public, oil companies held 22 seats on the NYMEX, while investment banks held 56 seats<sup>36</sup>. Until the 1990's, the oil companies held twice as many seats as they did in 2006. The largest number of seats held was nine, by the French bank BNP Paribas. The second largest number of seats held (six), was held by AIG! And, in fact, in 1998, Goldman Sachs attempted to buy the NYMEX.<sup>37</sup> Thus, the financial sector has had their eye on the oil-trading market for a couple of decades. In addition, Dicker cites the introduction of electronic/on-line trading as also driving increases in the volatility in the price of oil<sup>38</sup>. Further, this new set of players are not interested in the price of oil per se, but, instead, are interested in the spread, rather than the specific price. That is, they tend to be *Spread Traders*, rather than *Outright Traders*<sup>39</sup>.

What is noted by both the PERI report and Dicker is that with the wholesale entry of the investment banks into the oil futures market, in the first decade of this century, oil has

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<sup>35</sup> *ibid*, p. 3.

<sup>36</sup> Dicker, Dan, *OIL'S ENDLESS BID: Taming the Unreliable Price of Oil to Secure Our Economy* (2011) John Wiley & Sons: New York, pp. 101-106.

<sup>37</sup> *ibid*, pp. 111-112.

<sup>38</sup> *ibid*, Chapter 5.

<sup>39</sup> *ibid*, pp. 12-18 and Chapter 6.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

been treated as another investment in a portfolio. That is, it is being treated just like a stock or other asset, as opposed to a commodity. Further, with investment banks now accounting for a significant volume of trading in oil futures, cash-settlement contracts have now come to dominate physical-settlement contracts. That is, the trading of oil futures has become a purely financial transaction.

These changes in the players, in conjunction with the transformation of oil from a commodity to an asset, have resulted in an oil market in which wild swings in the price of oil have become decoupled from the fundamental factors that have driven the price of oil: the supply and demand for oil. This is apparent in the wild swings in oil prices supposedly due to the upheavals in the Middle East and North Africa. After rising, Oil prices then dropped after a nine-day run-up in February 2011, after the International Energy Agency (IEA) said the rebellion in Libya may have cut oil production less than originally feared. The IEA said that the violent uprising in Libya had forced oil companies to idle between 500,000 and 750,000 barrels per day of production, or less than 1 percent of global daily oil consumption. That's roughly half of what Italy's Eni, Libya's largest oil producer, estimated earlier. IEA also said it could make up for any lost shipments from Libya by tapping into large surpluses held by member countries, which include the U.S., the United Kingdom, France, and Germany. Altogether, member nations hold 1.6 billion barrels of emergency oil supplies, or enough crude to supply the group for 145 days.

Further, the IEA had been in close contact with Organization of Petroleum Exporting Countries (OPEC), including Saudi Arabia, the most important member of the OPEC Countries, and it promised to increase production to make up for any shortfalls, due to unrest in Libya, if necessary. The Saudis currently produce about 8.5 million barrels of oil a day and have the capacity to produce more than 12 million barrels a day<sup>40</sup>.

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<sup>40</sup> Kahn, Chris, AP Energy Writer, *Oil prices fall as Libya production fears ease* (February 24, 2011) YAHOO NEWS < [http://news.yahoo.com/s/ap/20110224/ap\\_on\\_bi\\_ge/us\\_oil\\_prices](http://news.yahoo.com/s/ap/20110224/ap_on_bi_ge/us_oil_prices) > Accessed on February 24, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

With regard to the argument that ethanol is driving the increase in food prices, the Congressional Budget Office (CBO) contends that the “jury is still out” on that:

Beyond the one-year period that ended in April 2008, food prices are likely to be higher than they would have been if the United States did not use ethanol as a motor fuel. However, ethanol’s effect on future food price inflation is uncertain because the forces determining that impact move in opposite directions. Federal mandates now in place require additional use of ethanol in the future, which would continue to put upward pressure on prices. In contrast, increases in the supply of corn from cultivating more cropland, increasing crop yields, or improving the technology for making ethanol from corn or other feedstocks (raw materials) would tend to lower<sup>41</sup>

## **B. HOUSING AND THE BUSINESS CYCLE**

Is it any wonder that the conventional wisdom in economics missed the whole housing-financial markets linkage and bubble and bust? Particularly, the disciples of the Rational Expectations/Real Business Cycles School. But, in general, regardless of which school of Macroeconomic thought that one subscribed too, as Leamer points out in his 2007 paper, *HOUSING IS THE BUSINESS CYCLE*<sup>42</sup>

The good news is that I am not a macro-economist. That frees me from the heavy conceptual burdens that most macro economists seem to carry. It allows me to conclude that Keynesian thinking, monetarism, rational expectations and real business cycles all suffer from the same problem – too much theory and not enough data. In particular, none of these comes to grips with the role of housing in modern US recessions<sup>43</sup>

Leamer goes on to point out that he could find no macroeconomic, or even, business cycle text book in which housing and real estate was given a prominent discussion. None had any mention of housing in their discussions of aggregate investment demand. The only Macroeconomic textbook I know of that gives housing any significant treatment in

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<sup>41</sup> Congressional Budget Office, *The Impact of Ethanol Use on Food Prices and Greenhouse-Gas Emissions* (April 2009): Washington, p. VII.

<sup>42</sup> Leamer, Edward E., *HOUSING IS THE BUSINESS CYCLE* (September 2007) National Bureau of Economic Research: Cambridge, MA.

<sup>43</sup> *ibid*, p. 1.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

its chapter on investment demand is that of Rudiger Dornbusch, Stanley Fischer, and Richard Startz<sup>44</sup>. In addition, an appreciation of economic history would have been helpful. As White noted in his 2008 paper:

The first nationwide twentieth century real estate “bubble” appeared in the early 1920s and burst in 1926. While fundamentals, including a post-war construction catch-up, low interest rates and a “Greenspan put,” played a role in its inception, the boom developed its own momentum, particularly in hot regional markets, including Florida. Financial innovation and lax supervision contributed to the upswing. Alternative monetary policies would have dampened but not eliminated the boom. Its collapse caused foreclosures to rise and weakened households’ balance sheets on the eve of the stock market crash and the Great Depression<sup>45</sup>.

Housing plays several distinct and critical roles in the economy with each role generating its own independent, and distinct set of multiplier effects on output, income, and employment. Housing straddles, at least, three separate markets<sup>46</sup>:

- ASSET MARKET: Housing is an asset and the construction and sale of structures generates increases in construction activity, including increased income and jobs.
- PROPERTY MARKET: The activity in the Property Market where living space is demanded and supplied generates a separate set of increases in jobs and income.
- GOODS MARKET: Housing is also a Durable Good, which yields a stream of services over multiple time periods. Further, the consumption of housing services generates the consumption of *complementary goods and services*. This produces another set of independently generated multipliers as homeowners purchase furniture, appliances, landscapers, and other goods and services connected to homeownership.

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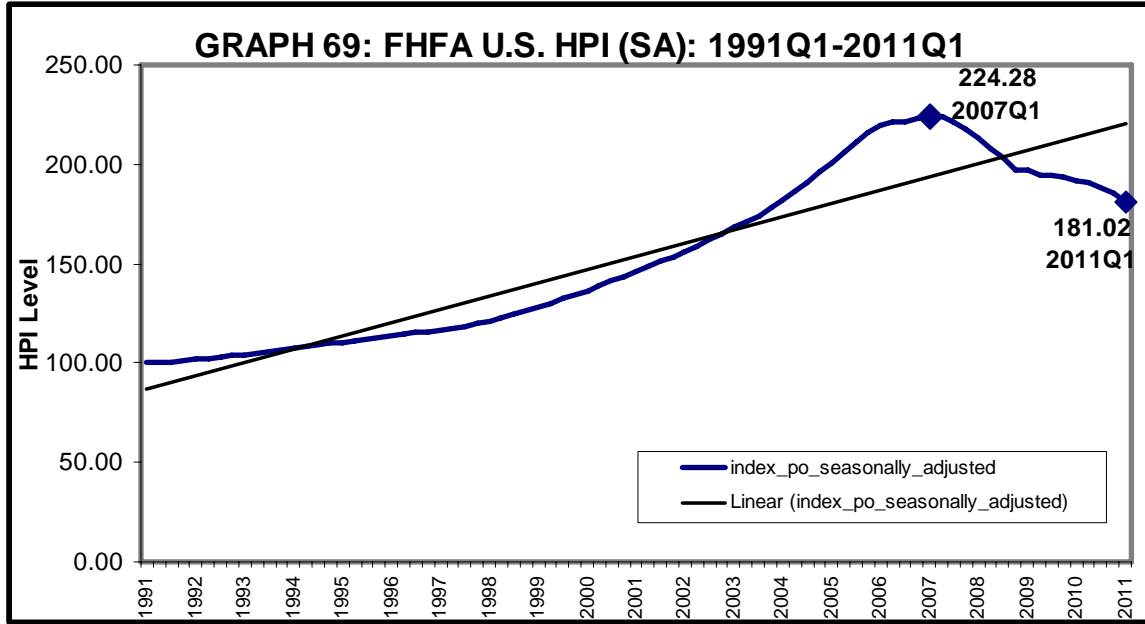
<sup>44</sup> See Chapter 14 “Investment Spending”, Dornbusch, Rudiger, Stanley Fischer, and Richard Startz, *MACROECONOMICS* (2007) McGraw-Hill Companies: New York

<sup>45</sup> White, Eugene N., Abstract, *The Great American Real Estate Bubble of the 1920s: Causes and Consequences* (October 2008) National Bureau of Economic Research: Cambridge, MA.

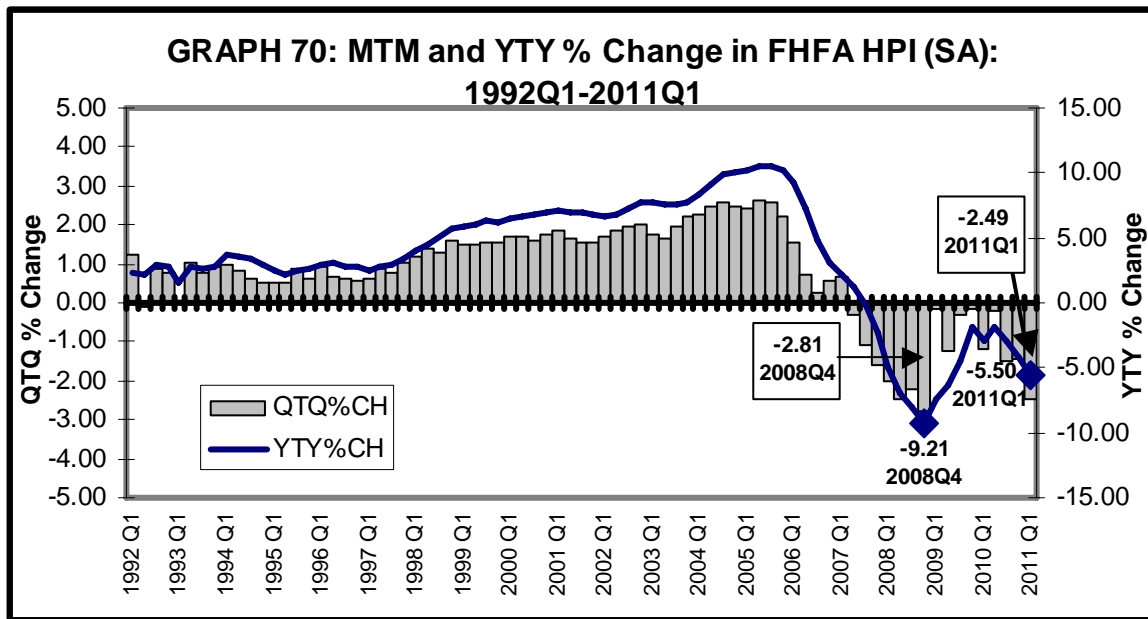
<sup>46</sup> See DiPasquale, Denise and William C. Wheaton, *Urban Economics and Real Estate Markets* (1996) Prentice-Hall,



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: FHFA



SOURCE: FHFA and calculations by CTDOL-Research.

Graph 69 tracks the level of the Federal Housing Finance Agency’s (FHFA) House Price Index (HPI) for the U.S. from 1991Q1 to 2011Q1. Graph 70 shows the quarter-to-quarter



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

(QTQ) and year-to-year (YTY) percent change in the FHFA HPI from 1992Q1 to 2011Q1. From Graph 69, the HPI peaked at 224.28 in 2007Q1, by 2011Q1 it had fallen to 181.02, which represents a 19.29% decline. And, as predicted by the famous Credit Suisse graph<sup>47</sup>, which warned of the Option ARM re-sets that were scheduled to take place in 2010 and 2011, and in addition, with the resumption of foreclosures after the “Robo-Foreclosure” problem, the double-dip in housing began in the second half of 2010, and continued into the first quarter of 2011. This can be clearly seen in Graph 70. The HPI declined by 2.49%, on a QTQ basis, in the first quarter of 2011. This is the steepest QTQ percent decline over the entire range of data, even exceeding the 2.47% decline in 2008Q2. On a YTY basis, the 5.50% decline in 2011Q1 is the steepest since the 6.33%, YTY percent decline, in 2009Q2. The steepest YTY percent decline over this cycle, and over the entire range of data, was the 9.21% decline in 2008Q4.

From Graph 71, which tracks the monthly, annualized level of U.S. Housing Permits from January 1960 to May 2011. The May 2011 annualized level of Housing Permits was 563,000, up 42,000 from the cycle-low of 521,000 in April 2009, which was the lowest monthly level recorded over the entire data series, which begins back in January 1960. Further, it was down by 125,000 from the recent high of 688,000 in March 2010. Home sales, shown in Graph 72, have followed a similar track. Graph 72 looks at Home Sales, and the average number of months a home is on the market before it is sold, given the current turnover rate. At the peak of the housing bubble, 566,000 homes were sold in August 2006. Home Sales plummeted after August 2006, and continued to free-fall. By April 2011, Home Sales had fallen to 180,000. Right after the peak in Home Sales, the average number of months a home was on the market before being sold shot up from 3.5 months in August 2003, a record low, to 12.2 months in January 2009, a record high. With the fall in Home Sales, the number of months a home is on the market had also fallen to 6.2 months by March 2010. By May 2010, that time had jumped back up to 9.2 months. Between May 2010 and April 2011, the average time of home was on the market fell again to 6.5 months.

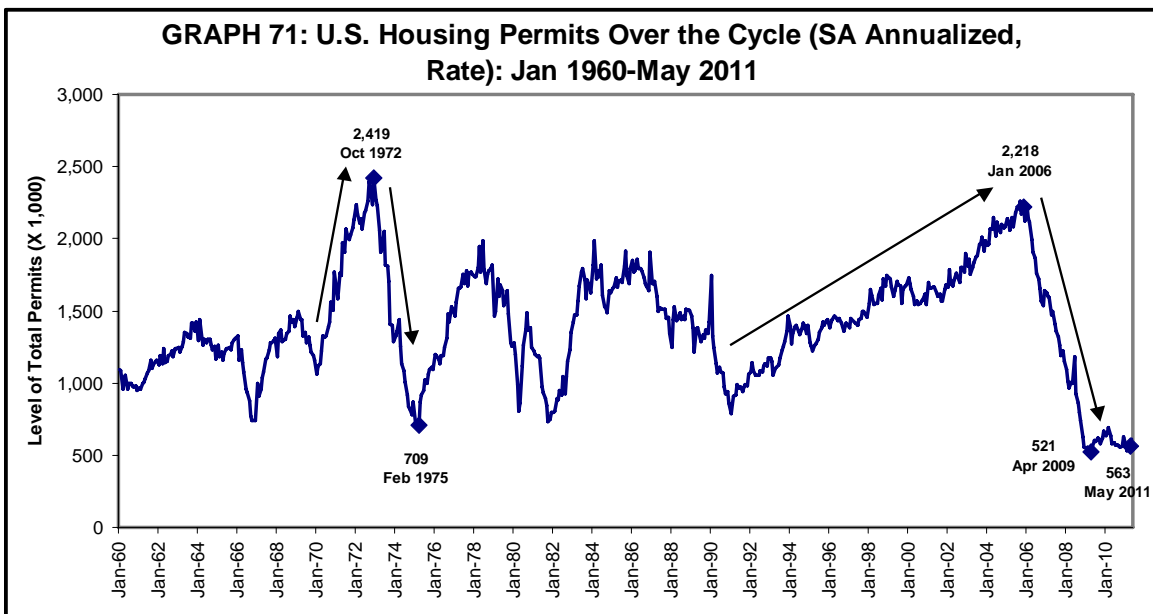
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<sup>47</sup> For a discussion of the Credit Suisse graph, see Kennedy, Daniel W., U.S. ECONOMIC OUTLOOK 2009-11 (August 2010) Office of Research, Connecticut Department of Labor: Wethersfield, pp. 100-103.



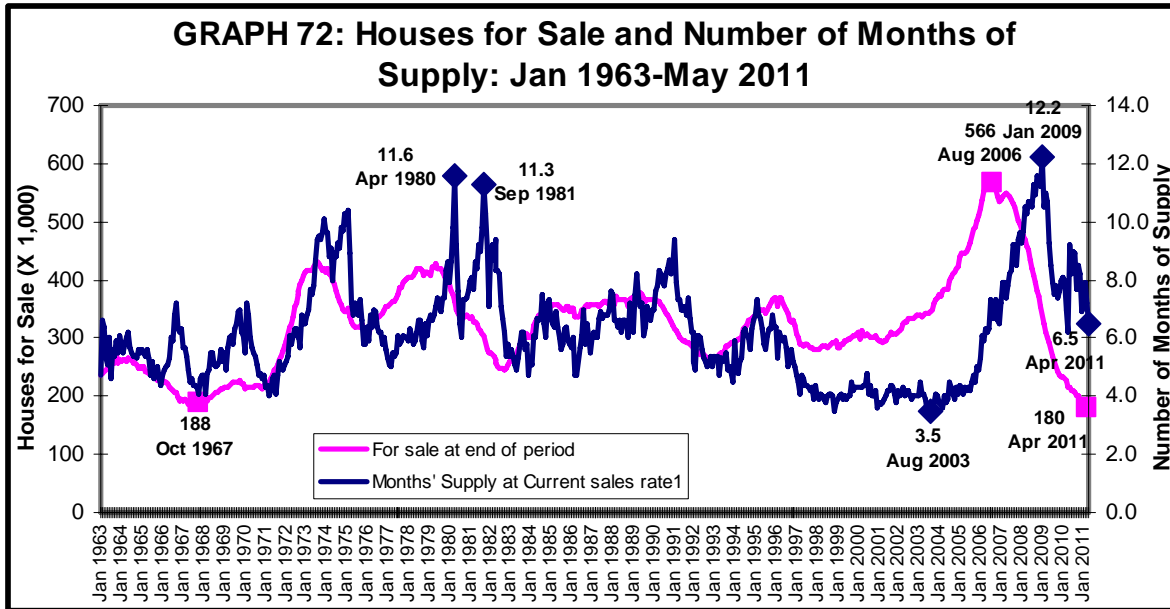
**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Existing home sales have fared no better. According to the latest data released by the National Association of Realtors (NAR), U.S. Existing Home Sales fell by 3.8% between April and May 2011, and were down by 15.3% from May 2010. The average number of months an exiting home was on the market until sold has steadily risen from March 2011. The average number of months was 8.3 months in March, and that rose to 9.0 months in April, and rose further to 9.3 months in May. The number of homes for sale on the market (Inventory) fell 1.0% between April and May 2011, and fell 4.4% compared to May 2010.



SOURCE: U.S. Census Bureau





SOURCE: FHFA, U.S. Census

As we move into the mid-point of 2011, as noted above, the predicted double-dip in housing is playing itself out. As Mark Zandi, Chief Economist of Moody’s Analytics, stated in the opening paragraph of a recent report:

It is hard to be enthusiastic about the economy’s prospects as long as house prices are declining. A house is usually a household’s most important asset; many small-business owners use their homes as collateral for business credit, and local governments rely on property tax revenues tied to housing values. Most worrisome is the risk that housing will resume the vicious cycle seen at the depths of the last recession, when falling prices pushed more homeowners under water—their loans exceeded their homes’ market values—causing more defaults, more distress sales, and even lower prices. That cycle was broken only by unprecedented monetary and fiscal policy support<sup>48</sup>.

However, with the fiscal stimulus winding down and the end of QE2, and with Home Affordable Modification Program (HAMP) having come to an end in late 2010<sup>49</sup>, the resumption of bank foreclosures after “Robo-Foreclosures” moratorium, and no policy in

<sup>48</sup> Zandi, Mark, *To Shore Up the Recovery Help Housing* (May 25, 2011) Moody’s Analytics, p. 1.

<sup>49</sup> Dennis, Brady, *U.S. foreclosure-prevention program fell short, Congressional Oversight Panel says* (December 14, 2010) WASHINGTONPOST.COM < <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/14/AR2010121400203.html> > Accessed on July 5, 2011.

sight to seriously address the on-going foreclosures and distressed sales, a rebound in the housing market appears to be very remote.

## **C. THE STATES' FISCAL CRISES AND FISCAL DRAG**

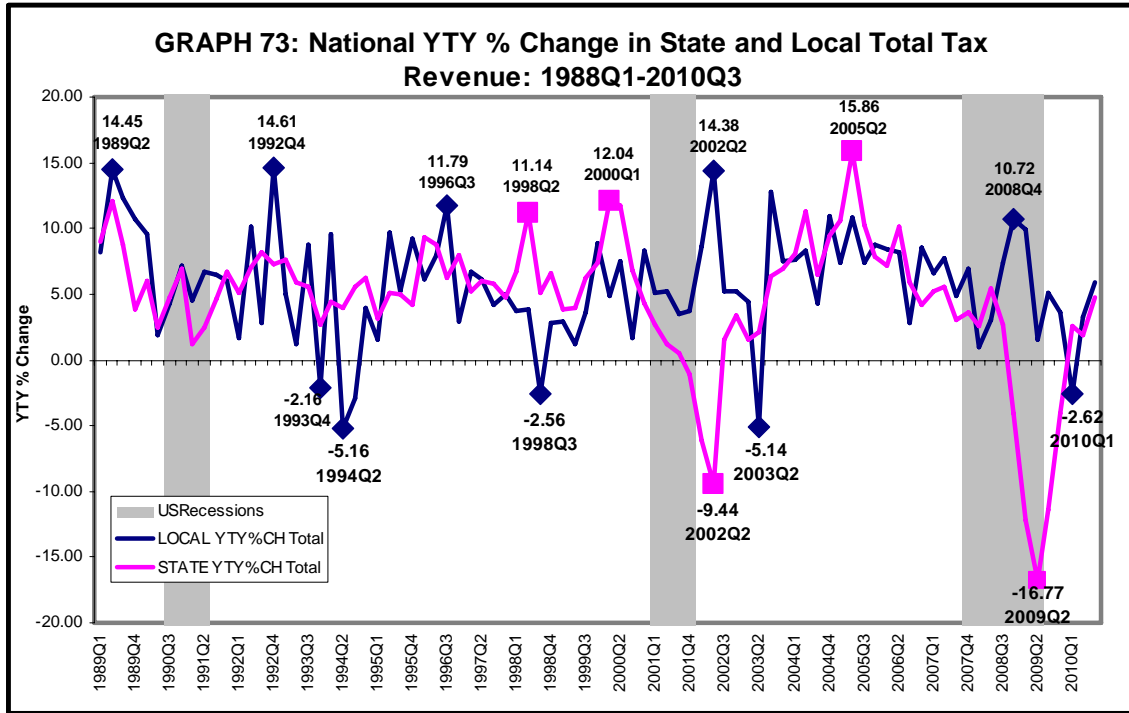
### **STATE AND LOCAL REVENUES OVER THE CURRENT CYCLE**

The severity of the recent crisis on state and local revenues is illustrated in Graph 73. Over the range of the data, 1988Q1 to 2010Q3, by far, the steepest decline in states' revenue was the 2007-09 Recession, when revenue contracted by 16.77% in 2009Q2, on a year-to-year (YTY) basis. This was much steeper than the 9.44% decline in 2002Q2, and over the 1990-91 Recession, there was no decline, in either state or local revenue. Local revenues declined by their steepest, over the range of data, in 1993Q4 (-5.16%), and then again in 1994Q2, after the 1990-91 Recession, and again in 1998Q3 as the 1990's boom was gathering momentum. The next, and second steepest decline in local revenues was 5.14% in 2003Q2 after the 2001 Recession. Again, in 2010Q1, after coming out of the 2007-09 Recession, local revenues declined by 2.62%, the second smallest decline after the 2.16% decline in 1998Q4. This was probably the result of states keeping up aid to local governments, at least for a while at any rate, despite their own decline in revenues.

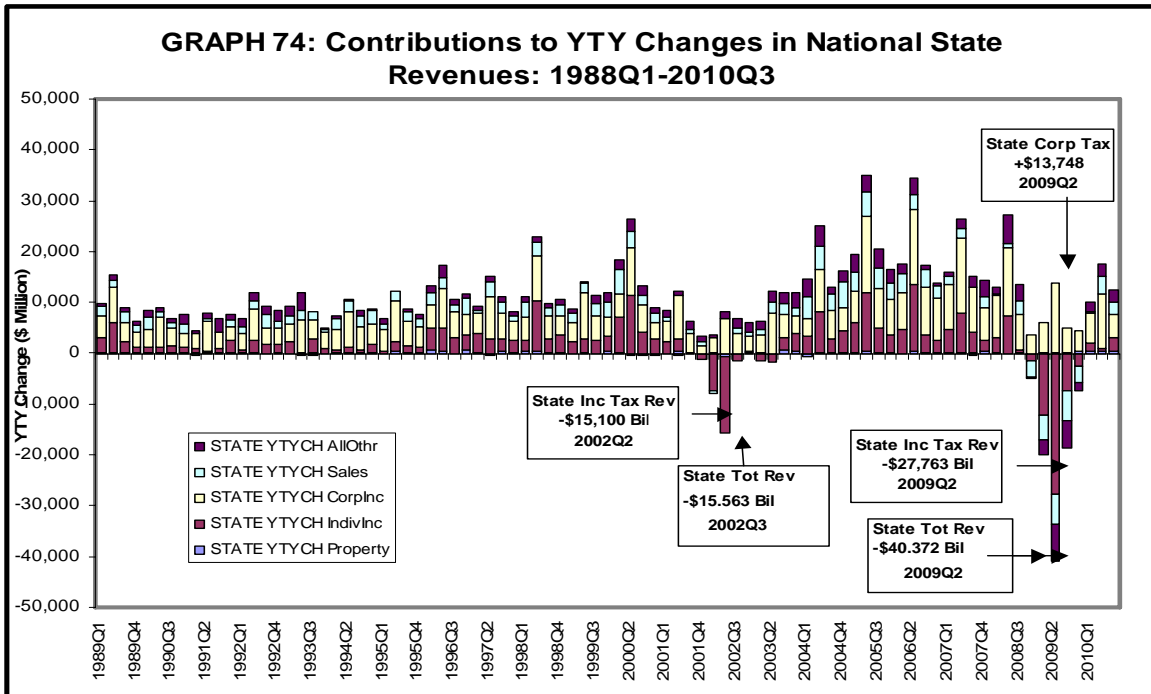
Graph 73 looks at the composition of the YTY change in states' revenues from 1988Q1 to 2010Q3. Coming out of the 2001 Recession, the dominant contributor to the decline in states' revenues, nationally, was the Income Tax. Of the \$15,563 billion decline in states' Total Tax Revenue in 2002Q3, \$15.100 billion was due to the decline in the Personal Income Tax. However, though the decline in income tax revenues accounted for \$27.763 billion of the \$40.372 billion decline in 2009Q2, significant contributions to the decline were also made by Sales Taxes (-\$5.984 billion) and All Other categories of tax revenue (-\$7.006 billion). Interestingly, also in 2009Q2, Corporate Income Tax revenues grew by \$13.748 billion. And, though corporate tax revenues were also positive over the two other



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. Census



SOURCE: U.S. Census

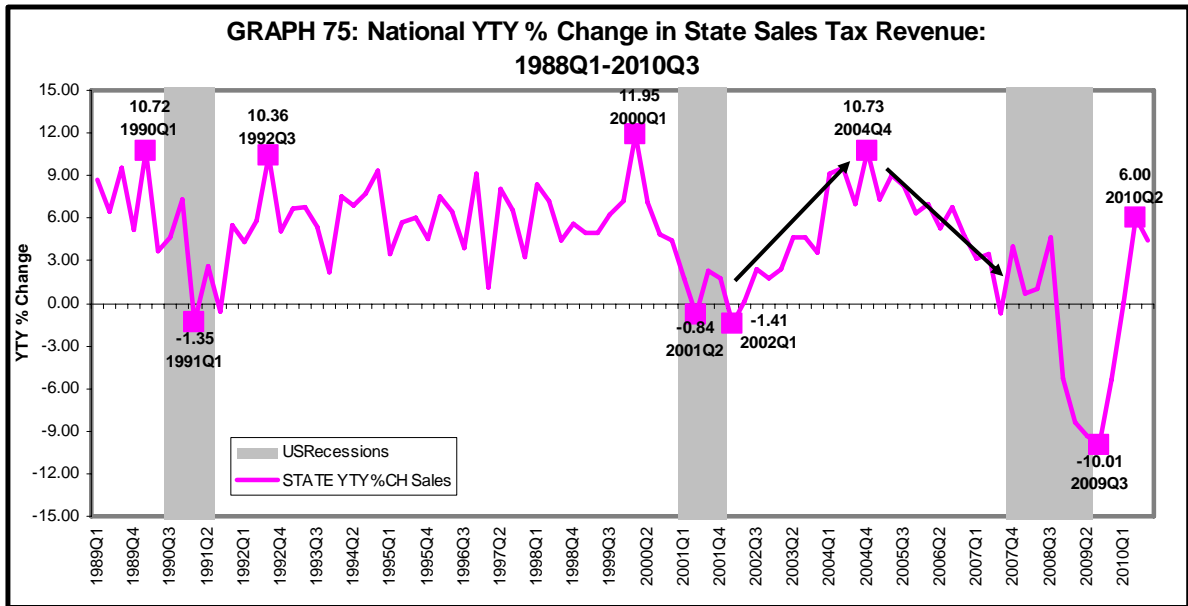


**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

periods of decline in state tax revenues, 2009Q2 was, by far, the largest YTY increase over the range of data.

Another difference observed over this cycle is the behavior of the states' Sales Tax Revenue, illustrated in Graph 75. What is different is not the level of the YTY growth-rate in sales tax revenues, but its pattern of growth and decline. In fact, the highest growth-rate, over the range of data, was the 11.95% in 2000Q1 just before the Tech Bubble popped. However, the YTY growth-rate after bottoming out at -1.41% in 2002Q1, then climbed steeply over the course of the housing/credit bubble, peaking at a YTY growth-rate of 10.73% in 2004Q4. Then, it fell just as steeply, and after two temporary bump-ups, the YTY growth-rate in states' sale tax revenue once again fell steeply, declining by -10.01% in 2009Q3, on a YTY basis. The YTY growth-rate recovered to 6.00% in 2010Q2, but then began to decelerate again.

The discussion now turns to the prognosis for state revenues over the foreseeable future, which is bleak, at best.



SOURCE: U.S. Census

On August 10, 2010, President Obama signed a bill that gave the states \$26 billion for Medicaid and to keep them from having to lay off teachers. The law provided funding to





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

the states through June 2011. It was probably the last emergency, recession-related, aid the states will ever receive from the Federal Government for the foreseeable future, especially in light of the Republican take-over of the House of Representatives after the 2010 mid-term elections, and whatever comes out of the current, self-inflicted crisis over the debt, deficit, and debt-ceiling.

Many of the Federal aid programs to the states, under the *American Recovery and Reinvestment Act of 2009* (ARRA), and subsequent programs expired toward the end of 2010. One of those programs was the Build America Bonds (BABs) program. BABs are taxable municipal bonds that carry special tax credits and Federal subsidies for either the bond issuer or the bondholder. BABs were created under Section 1531 of Title I of Division B of the ARRA. BABs provided states and localities with substantial savings on their borrowing costs. According to the United States Department of the Treasury, the savings for a 10-Year bond are estimated to be 31 basis points and the savings for a 30 year bond are estimated to be 112 basis points versus traditional tax-exempt financing. However, the program is only open to new issue capital expenditure bonds issued before January 1, 2011, as it expired on December 31, 2010<sup>50</sup>.

In addition, the business expensing part of the December 2010 deal to extend the Bush tax cuts will cost states over \$11 billion in state corporate and individual income tax revenues during the current and next two state fiscal years. State shortfalls are likely to exceed \$130 billion for state fiscal year 2012, which started July 1, 2011 in most states<sup>51</sup>. Though the tax cuts and unemployment insurance deal would increase economic activity and job creation in the near future, due primarily to its provisions to continue Federal unemployment benefits and expansions in refundable tax credits and its payroll tax deduction, and consequently, the increase in economic growth should result in some rise in state revenues, although it is difficult to know by exactly how much.

In addition, some states may be able to avoid revenue losses from the expensing provision by severing the link between their tax codes and the Federal code with regard

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<sup>50</sup> END OF BABs in DECEMBER 2010-Wikipedia, Accessed on March 25, 2011.

<sup>51</sup> Johnson, Nicholas and Ashali Singham, *BUSINESS EXPENSING PROPOSAL WOULD ADD TO STATE FISCAL PROBLEMS*, Center for Budget and Policy Priorities (Dec 16, 2010))



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

to this provision, an action known as “decoupling.” But, for states that do not decouple, the state revenue losses resulting from the expensing proposal will make it necessary to enact some mix of additional budget cuts and tax increases to offset those losses, and these budget cuts and tax increases will reduce whatever modest stimulative effect the expensing proposal otherwise might have<sup>52</sup>. Further, some total of revenue losses for the states in FYs 2011-13 is estimated to be \$11.217 Billion.

### **THE FISCAL STATE OF LOCAL GOVERNMENTS**

Surprisingly, as depicted in Graph 76, local governments’ property tax revenue has only fallen one-half as much as a result of the 2007-09 Recession, compared to the 2001 Recession, which is especially surprising given that this recession, unlike the 2001 Recession, was preceded by a housing bust, which would effect property values, the base for the Property Tax.

A study by the Federal Reserve Board may shed some light on this paradox. They note to two primary conclusions:

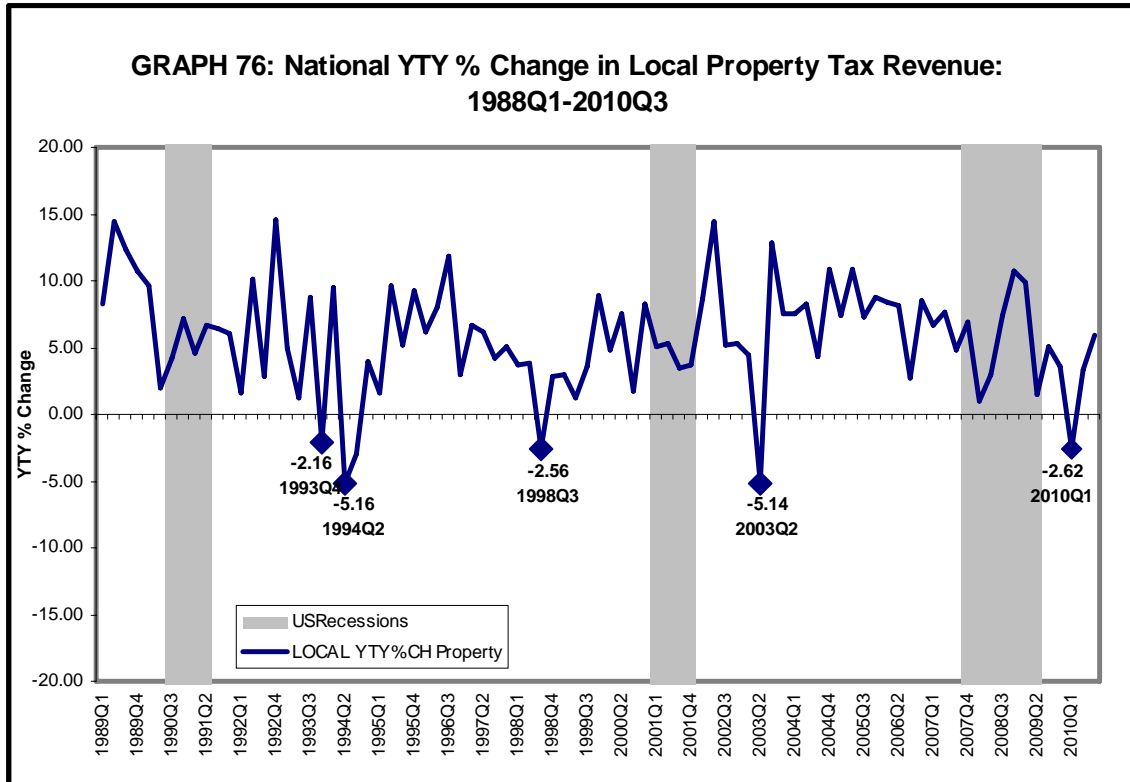
- First, we find that property tax collections have been surprisingly resilient due to both the long lags between changes in the market value of property and changes in taxable assessments and the tendency of policy makers to insulate revenues from housing price declines by raising tax rates. This propensity makes it unlikely that property tax revenues will fall sharply in coming years.
- Second, although the housing market downturn has reduced states’ collections of transfer taxes, sales taxes and personal income taxes, the magnitude of this effect is relatively modest, particularly when viewed against the recent plunge in aggregate tax receipts. Thus, the downturn in state and local tax revenues was likely driven by the economic recession rather than the direct influence of the housing market downturn.

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<sup>52</sup> *ibid.*



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. Census

However, with the double-dip in housing well under way in the middle of 2011, the Fed study’s observation in their first finding, above, that “This propensity makes it unlikely that property tax revenues will fall sharply in coming years”, may have to be re-thought.

**STATE AND LOCAL FISCAL CRISES A SERIOUS RISK TO THE ECONOMY**

In the early 2000s, as in the early 1990s and early 1980s, state fiscal problems lasted for several years after the recession ended. The same will undoubtedly be the case this time, since the current recession is more severe — deeper and longer — than the last one, and state fiscal problems have proven to be worse and are likely to remain so.

For 2012, states are already reporting shortfalls that total \$112 billion with only \$6 billion in federal Recovery Act dollars remaining available<sup>53</sup>. In states facing budget gaps, the consequences are severe in many cases — for residents as well as the economy. To date,

<sup>53</sup> McNichol, Elizabeth Phil Oliff, and Nicholas Johnson, STATES CONTINUE TO FEEL RECESSION’S IMPACT (March 9, 2011) Center for Budget and Policy Priorities



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

budget difficulties have led at least 46 states to reduce services to their residents, including some of their most vulnerable families and individuals. Over 30 states have raised taxes to at least some degree, in some cases quite significantly. If revenue remains depressed at low levels, as is expected in many states, additional spending and service cuts are likely. Budget cuts often are more severe later in a state fiscal crisis, after largely depleted reserves are no longer an option for closing deficits. As the Center for Budget and Policy Priorities notes, this leaves two options: spending cuts and tax increases<sup>54</sup>.

**Spending cuts** are problematic during an economic downturn because they reduce overall demand and can make the downturn deeper. When states cut spending, they lay off employees, cancel contracts with vendors, eliminate or lower payments to businesses and nonprofit organizations that provide direct services, and cut benefit payments to individuals. In all of these circumstances, the companies and organizations that would have received government payments have less money to spend on salaries and supplies, and individuals who would have received salaries or benefits have less money for consumption. This directly removes demand from the economy.

**Tax increases** also remove demand from the economy by reducing the amount of money people have to spend — though to the extent these increases are on upper-income residents, that effect is minimized because much of the money comes from savings and so does not diminish economic activity. At the state level, a balanced approach to closing deficits — raising taxes along with enacting budget cuts — is needed to close state budget gaps in order to maintain important services while minimizing harmful effects on the economy.

Ultimately the actions needed to address state budget shortfalls place a considerable number of jobs at risk. The roughly \$106 billion shortfall that states are facing for fiscal year 2012, after taking federal assistance into account, equals about 0.71 percent of GDP. Assuming that economic activity declines by one dollar for every dollar that states cut spending or raise taxes, and based on a rule of thumb that a one percentage point loss of

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<sup>54</sup> *ibid.*



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

GDP costs the economy 1 million jobs, state shortfalls could cost the economy 710,000 jobs next year Further, according to a study by the Center for Budget and Policy Priorities, it could cost the economy 900,000 jobs<sup>55</sup>. And, as noted by the U.S. Bureau of Economic Analysis (BEA), in their advanced estimate of Real GDP for 2011Q1, real state and local government consumption expenditures and gross investment decreased 3.4%, the same decrease as in the first. Further, they noted that contributing to the weak growth in GDP was the “negative contribution from state and local government spending”<sup>56</sup>

## **V. RECOVERING FROM A BALANCE-SHEET RECESSION**

This is the first Balance-Sheet Recession for the U.S. since the Great Depression (Japan also had a Balance Sheet Recession after their Real Estate Bubble Collapsed in 1989). Balance Sheet recessions follow the popping of Asset and Credit Bubbles. In addition, the U.S. had its first Systemic Banking Panic since the 1930’s. (And, since, in addition, a shadow banking system collapsed, it also had aspects of the Panic of 1907). Not only are recoveries following balance recessions and financial panics much longer, but they are also much weaker. The next section discusses why Balance-Sheet recessions are different, and then the role of housing, in conjunction with heavy debt loads, and the process of balance sheet repair are discussed. This section then closes with a note on the weakness of the Post Cold War recoveries, in general.

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<sup>55</sup> Oliff, Phil Erica Williams and Nicholas Johnson, PREMATURE END OF FEDERAL ASSISTANCE TO STATES THREATENS EDUCATION REFORMS AND JOBS (March 25, 2010) Center for Budget and Policy Priorities

<sup>56</sup> U.S. Bureau of Economic Analysis, NATIONAL INCOME AND PRODUCT ACCOUNTS GROSS DOMESTIC PRODUCT: SECOND QUARTER 2011 (ADVANCE ESTIMATE) REVISED ESTIMATES: 2003 THROUGH FIRST QUARTER 2011 (July 29, 2011) U.S. Department of Commerce: Washington.



## A. WHY BALANCE-SHEET RECESSIONS ARE DIFFERENT

A Balance Sheet Recession is not just a matter of degree. That is, it is not just a deeper version of a “normal” recession. A Balance Sheet Recession is qualitatively different from the garden-variety recession. It is a different animal. Richard Koo (2009)<sup>57</sup> classifies the Great Depression in the 1930’s, the Great Recession in Japan, and the recent crisis and its aftermath as balance-sheet recessions.

In a “Normal” Recession, a slowdown in economic activity results in slowing output growth and rising unemployment (the Fed raises interest rates to cool off the economy and constrain inflationary pressures, or Businesses’ inventories begin building up to unacceptable levels and they cut back output to bring them back in line, or costs increase over an expansion as less productive inputs are brought into play resulting in diminishing returns, etc.). Under this “normal recession” scenario, recession comes from a slowdown in the *Flows* of economic activities. Another set of scenarios is based on the economy’s being buffeted by outside shocks that disrupt the flow of economic activity. However, a Balance Sheet Recession comes from the *Stock* perspective. The stock of assets owned by a household, business, or government agency is reflected on the *Balance Sheet*. Claims against those assets (i.e. debts or obligations) are also reflected on the Balance Sheet as liabilities. Assets minus liabilities are equal to *Net Worth*. If assets exceed liabilities, Net Worth is positive, if Liabilities exceed assets, Net Worth is negative and the business, household, individual, or government is *Insolvent*. What produces a ***Balance Sheet Recession***, rather than a “normal recession” is when major sectors of the economy become INSOLVENT. That is

$$\text{ASSETS} - \text{LIABILITIES} = \text{NET WORTH} < 0$$

After the bursting of the housing bubble, the most important asset for middle-income, and below, individuals, families, and households, their house, began to rapidly fall in value, reducing the asset-side of their balance sheets. During the period of rising home values,

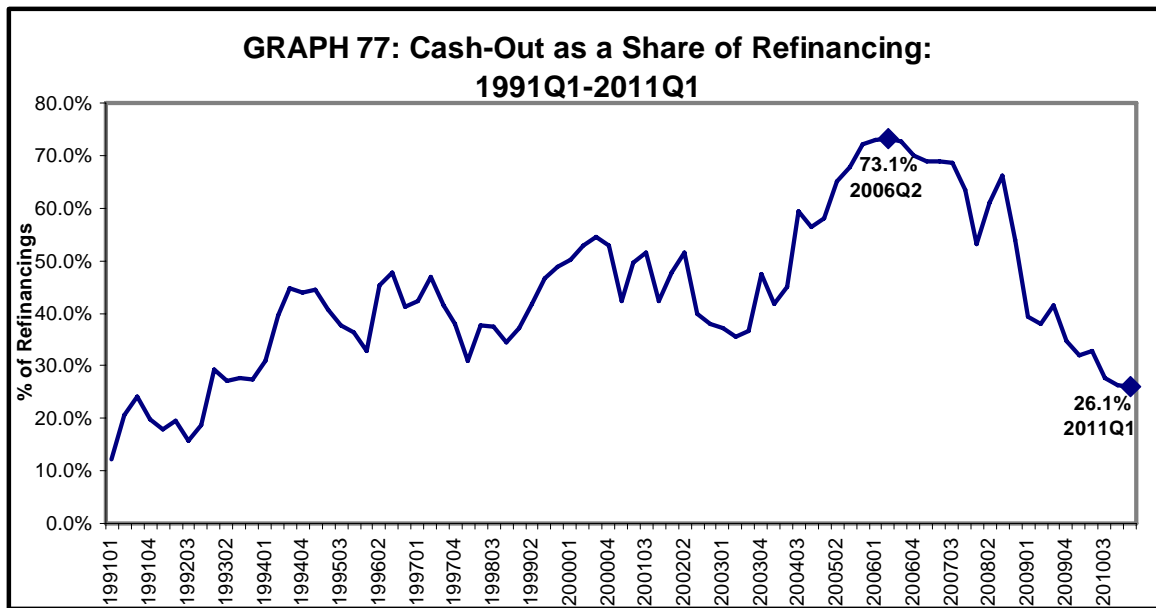
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<sup>57</sup> Koo, Richard, THE HOLY GRAIL OF MACROECONOMICS (2009) John Wiley & Sons: New York



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

many homeowners tapped into the increasing value of their house to cash-out and use the money for current consumption. They essentially used their houses as ATMs.



SOURCE: U.S. Census Bureau

This phenomenon is starkly illustrated in Graph 77. At the peak of the housing bubble in 2006Q2, 73.1% of all refinancings were Cash-Outs. That share dropped to 26.1% by the first quarter of 2011. Between the bursting of the housing bubble, and the run-up in unsustainable levels of debt, homeowners' balance sheets were decimated as the value of their assets collapsed, leaving them with high levels of outstanding debt. This situation is summarized by the expression below:

$$\text{ASSETS } \downarrow \text{ (Housing)} - \text{LIABILITIES } \uparrow \text{ (Debt)} = \text{NET WORTH} < 0$$

To repair their Balance Sheets, Households and Non-Corporate Businesses began to pay down their debt, as a consequence the savings rate increased and consumption spending declined. To summarize:

$$\text{THE SAVINGS RATE } \uparrow \quad \rightarrow \quad \text{AGGREGATE SPENDING } \downarrow$$



This, in turn (in conjunction with the shut-off of credit from the financial panic), resulted in a decline in aggregate spending, which, in turn, led to a decline in output, income, and employment. This linkage is summarized below:



### **CONNECTING THE DOTS: Identifying Balance-Sheet Recessions-Fisher, Mishkin, Minsky, and Koo**

#### **THE PANIC of 2007-08: The 21<sup>st</sup> Century's First Banking Panic**

On February 27, 2007, the Shanghai stock market dropped 9%, which sent chills across the World's markets. When it opened, the Dow closed the day's trading session down more than 400 points<sup>58</sup>. That it reverberated around the World may have been an indication that the drop in the Shanghai market was, in fact, a warning shot of things to come. Six months later, in August 2007, the collapse of the Asset-Backed Commercial Paper Market (ABCP) ushered in the 21st Century's first financial panic. Kacperczyk and Schnabl (2010) divide the first 21st Century Financial Panic into two parts:

- (1.) **A Liquidity Crisis** ushered in by the events of July and August 2007 and the collapse of the ABCP market (see above), and
- (2.) **A Solvency Crisis**, which was brought on by the collapse of Lehman Brothers and the events leading to the nationalization of AIG in September 2008<sup>59</sup>.

A useful way of thinking about the two-part crisis is that the Liquidity crisis was sparked by the inability to value the collateral used to back the short-term credit provided by the shadow banking system, while the Solvency Crisis was brought on by the inability of

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<sup>58</sup> Fallows, James, Market Crash Day in Shanghai (February 28, 2007) THEATLANTIC.COM < <http://www.theatlantic.com/science/archive/2007/02/market-crash-day-in-shanghai/7537/> > Accessed on July 14, 2010).

<sup>59</sup> See the previous year's outlook, Kennedy, Daniel W., *Current Conditions and Outlook for the U.S. and Connecticut Economies 2008-2010: Volume 1-The U.S. Economy* (June 2009) Office of Research, Connecticut Department of Labor: Wethersfield, Section I: THE PANIC of 2008 and ITS AFTERSHOCKS, p. 7 and Section IV. THE PANIC OF 2007-08: Back from the Brink? pp. 103-112.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

financial institutions to gauge the solvency of their counterparties (i.e., the condition of their balance sheets) on a systemic scale because of asymmetric and hidden information about the value of their assets. This, not only resulted in the collapse of the shadow banking system, but also the collapse of the shadow insurance industry and its complex interconnections. Both instances were cases in which asymmetric and hidden information was severe enough to cause complete market failure<sup>60</sup>.

There were signs that an impending financial crisis was on the horizon, which Rogoff and Rihenhart (2009)<sup>61</sup> identified in their study of 800 years of financial crises. They were able to go back to 1200 in the case of sovereign debt crises, and back to 1600 in the case of banking crises. They found several factors that were common to all the banking crises that they studied. They included<sup>62</sup>:

- A Deteriorating Current Account
- Asset Price Inflation (Housing Bubble)
- Rapidly growing and unsustainable levels of Household Debt (Overleveraged Households)
- Slowing Growth in Output.

Rogoff and Rihenhart's (2009) also report a result that really surprised them. There were a number of factors shared by both developed and undeveloped nations leading up to financial crisis. They included:

- A Capital-Inflow "Bonanza"
- A Run-Up in the Inflation-Adjusted Price of Housing Followed by a Bursting of the Asset Bubble
- Financial Liberalization, which Includes One, or More Of the Following:
  - Unrestricted Capital Flows
  - De-Regulation

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<sup>60</sup> One motivation driving the increasing complexity of financial derivatives was the strategy to capture profits from artificially created information asymmetries.

<sup>61</sup> Rogoff, Kenneth and Carmen M. Rihenhart, THIS TIME IS DIFFERENT (2009) Princeton University Press: Princeton, NJ.

<sup>62</sup> *ibid*, p. 200



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Financial “Innovation”

- On average, the **national debt increased by 86% three years after a banking crisis.** (Author’s emphasis)

**AFTERMATH OF FINANCIAL CRISIS**

Recessions following financial crises are deeper, last longer, and are followed by weaker recoveries compared to recessions not accompanied by financial crises. The type of recession that follows a financial crisis, particularly one that follows the collapse of an asset and credit bubble is known as a **BALANCE-SHEET RECESSION**. As noted in the previous sub-section, unlike a “normal” recession (i.e., a recession that was not brought on by the collapse of an asset and credit bubble), Balance-Sheet recessions require government intervention on two fronts: intervention in the financial sector, and active fiscal policy to prevent a spending collapse in the real economy.

**WHY A GOVERNMENT RESPONSE TO THE FINANCIAL CRISIS?**

The question many have had about the Federal Government’s response to the recent financial crisis and subsequent economic contraction is: Why a government response? To answer that question, it is first helpful to look at the dynamics that generate financial crises. One model that offers some insights into the dynamics that produce financial crisis is that proposed by Brunnermeier (2009). He summarizes the economic mechanisms through which negative synergies interacted with each other to produce the recent credit bubble and its subsequent popping. He notes four economic mechanisms<sup>63</sup>

1. Borrowers’ *Balance-Sheet Effects* cause two *liquidity spirals*

When asset prices drop, financial institutions’ capital erodes, and  
At the same time, lending standards and margins tighten.

2. The lending channel can dry up when banks become concerned about their future access to capital markets and start hoarding funds (even if the creditworthiness of the borrowers dose not change)
3. Runs on financial institutions, like those that occurred at Bear Stearns, Lehman Brothers, and Washington Mutual, can cause a sudden erosion of bank capital.

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<sup>63</sup> Brunnermeier, Markus K., Deciphering the Liquidity and Credit Crunch 2007-2008 J. OF ECONOMIC PERSPECTIVES (Winter 2009) (23): 1 77-100, p. 78



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

4. Network effects can arise when financial institutions are borrowers and lenders at the same time. In particular, a gridlock can occur in which multiple trading parties fail to cancel out offsetting positions because of concerns about counterparty risk. To protect themselves against the risks that are, not netted out, each party has to hold additional funds.

Krishnamurthy (2010)<sup>64</sup> offers a similar dynamic that leads to financial crisis:

1. When the feedback starts from falling asset values resulting in a decrease in risk capital, which increases risk-aversion.
2. This causes a further fall in asset prices.
3. Falling liquidity raises haircuts reducing repo activity and trading, further reducing liquidity.
4. The above three feedbacks are indicative of EXTERNALITIES
5. Further, the financial sector is systemically important because it supplies the credit the lubricates the wheels of the real economy

Given the above models of the dynamic of financial crisis, three major advantages justify a government response to financial crisis. Following Krishnamurthy (2010)<sup>65</sup>

1. The government can internalize the negative externalities (noted in Point 4 above) by injecting risk capital into the financial sector.
2. Further, its comparative advantage over the private sector is that it has little, or no demand for liquidity. It can issue T-Bills.
3. Thus, the government can offer lower haircuts, and longer maturity repo loans since it DOES NOT face liquidity considerations

Unfortunately, due to the threat of a U.S. default, at the time of writing, Point 2, and especially Point 3, though certainly true with regard to the U.S. Government in the past, may be tested if it defaults for the first time in its history in August 2011.

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<sup>64</sup> Krishnamurthy, Arvind., How Debt Markets have Malfunctioned in the Crisis, J. OF ECONOMIC PERSPECTIVES (Winter 2010): Vol. 24 No. 1.; p. 26.

<sup>65</sup> *ibid*, pp. 26-27.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

The next sub-section turns to a brief recap of the development the Balance-Sheet recession concept, beginning with Irving Fisher's Debt-Deflation Theory of depressions, and concluding with Richard Koo's identifying the Balance Sheet recession as something distinct from that of an "ordinary" recession.

**THE BALANCE-SHEET RECESSION: Fisher, Mishkin, Minsky, and Koo.**

As noted in the sub-section above, a Balance Sheet Recession is not just a matter of degree. That is, it is not just a deeper version of a "Normal Recession". A Balance Sheet Recession is qualitatively different from the garden-variety recession. It is a different animal. Richard Koo (2009)<sup>66</sup> classifies the Great Depression in the 1930's, the Great Recession in Japan, and the recent crisis and its aftermath as balance-sheet recessions. There are many theories of how recessions come about. Endogenous business cycle theories ascribe the periodic fluctuations in economic activity to factors within the economic system [e.g., Underconsumption (later, more developed by Keynes) and Profit Squeeze theories] and Exogenous theories that ascribe economic fluctuations to outside shocks that disturb the otherwise smooth functioning of the economy, either at, or tending toward full employment (Real Business Cycles Theory). Though there were theories of how the financial system, and its inherent instability, drove booms and busts in the real economy, it was Irving Fisher (1933) who related debt-loads, in conjunction with falling asset prices and general price deflation, with, not a recession, but what he defined as a *Depression*. That is, a *depression* was different from a normal recession, (where the economy could gradually right itself and return to full employment), because once in a depression, the economy could not right itself on its own<sup>67</sup>.

Then, in a 1978 *Journal of Economic History* article, Fredrick Mishkin connected the balance-sheet implications to high debt-loads and argued that the need to pay off high debt loads caused households to change their preference toward more liquid assets, and away from less liquid assets (i.e., durable goods). This, of course had implications for

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<sup>66</sup> Koo, Richard, THE HOLY GRAIL OF MACROECONOMICS (2009) John Wiley & Sons: New York

<sup>67</sup> Fisher, Irving,(1933), *The Debt-Deflation Theory of Great Depressions*, ECONOMIC TRICA, pp. 337-357.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

aggregate demand—particularly for durable goods<sup>68</sup>. Others, like Minsky (1976, 1986)<sup>69</sup>, have also connected problems in the financial sector, and credit expansion to producing crises in the real economy. These theories of the business cycle come under the heading of *Non-Monetary/Financial* theories of the business cycle, or ***Financial Instability*** hypotheses.

It was Richard Koo (2009)<sup>70</sup> who connected the dots that had been identified by Fisher, Keynes, Mishkin, Minsky, and others. The deep and long, economic contractions that follow the popping of an asset bubble, in conjunction with a credit bubble are what he called ***Balance Sheet Recessions***.

### **BALANCE SHEET RECESSIONS IN HISTORICAL CONTEXT**

The steep contractions during the Great Depression in the 1930's, Japan in the 1990's and early 2000's, and the recent steep contraction, and current weak fledging recovery, all followed the collapse of asset bubbles, which left sectors the economy with high, unsustainable levels of debt. The Great Depression followed on the heels of the collapse of two asset bubbles: the housing bubble in 1926, and the stock-market bubble in 1929<sup>71</sup>, as well as the collapse of a credit bubble<sup>72</sup> Japan's Great Recession was ushered in by the collapse of its real estate bubble and subsequent crash of the Niekki Index beginning in 1989<sup>73</sup>

In 1929, U.S. Households' balance sheets were decimated by both the bursting of the housing and stock market bubbles, in 1926 and 1929. This contracted the asset-side of the balance sheet. But, there was also a credit bubble, due to financial “innovation” in which households ran up unsustainable levels of debt. It looked as if the debt could be carried

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<sup>68</sup> Mishkin, Frederic (1978), *The Household Balance Sheet and the Great Depression*, JOURNAL OF ECONOMIC HISTORY, 38: pp. 918-937.

<sup>69</sup> Minsky, Hyman, JOHN MAYNARD KEYNES (1976) McGraw-Hill: New York (Paperback, 2008) and STABILIZING AN UNSTABLE ECONOMY (1986) McGraw-Hill Edition (2008) New York

<sup>70</sup> Koo, Richard, THE HOLY GRAIL OF MACROECONOMICS (2009) John Wiley & Sons: New York

<sup>71</sup> White, Eugene N, *The Great American Real Estate Bubble of the 1920s: Causes and Consequences* (October 2008) National Bureau of Economic Research: Cambridge, MA.

<sup>72</sup> Eichengreen, Barry and Kris Mitchener, (September 2003), *The Great Depression as a Credit Boom Gone Wrong*, BIS Working Paper 137

<sup>73</sup> Koo (2009), Ch. 1.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

due to the inflated values of assets, particularly housing and stocks. This can be thought of as a “*Wealth Illusion*” effect. Thus, households were left with declining asset values, and high levels of debt, leaving many with zero, or negative, net worth. That is, many households were insolvent.

At this point, households began to pay down debt to repair their balance sheets, and rebuild net worth. But, this came at the expense of spending on goods and services, and following the Paradox of Thrift, with many households paying down their debt at once, consumer spending collapsed. In addition, with consumers paying off debt at a faster rate than credit was being extended, as well as banks writing off bad loans, as consumers defaulted, the Inside, or Endogenous, Money Supply contracted. However, banks’ reserves did not decline as their vault cash remained constant, and they borrowed to replenish their reserves from the Fed. But, since the demand for credit fell, new loans, via the money multiplier process did not offset the contraction in the money supply<sup>74</sup>.

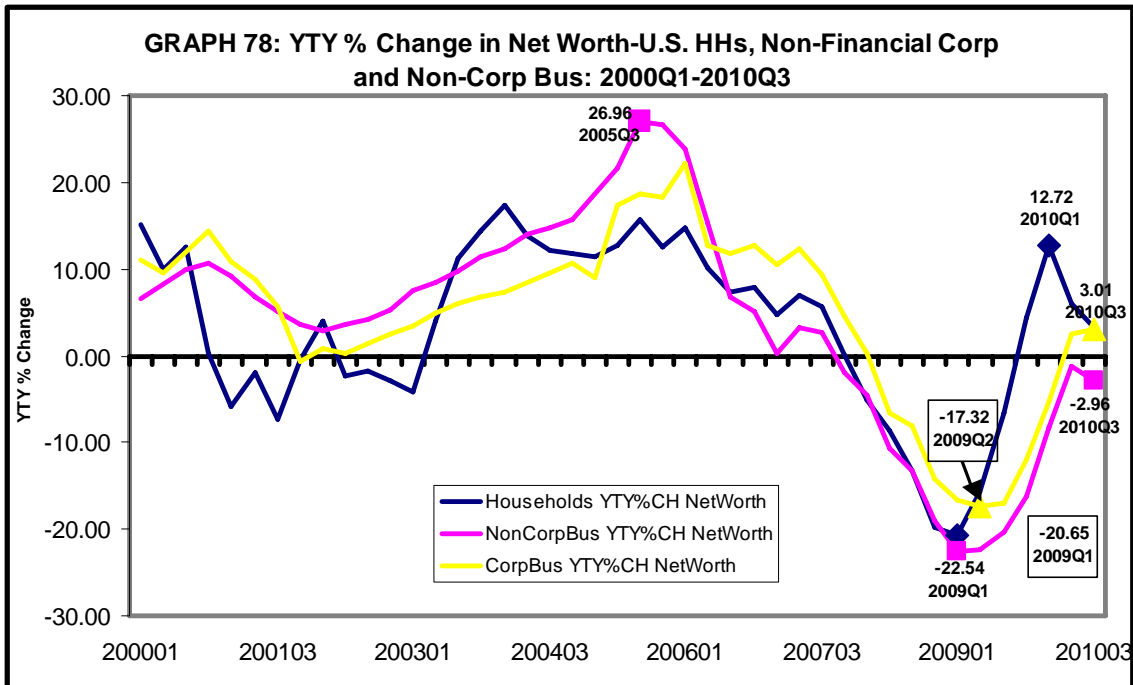
But, as illustrated in Graph 78, in addition to the Financial Sector and households, the balance sheets of especially non-incorporated businesses, were also decimated by the popping of the housing bubble and the crushing effects of unsustainable debt-loads.

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<sup>74</sup> *ibid.* pp. 96-99.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



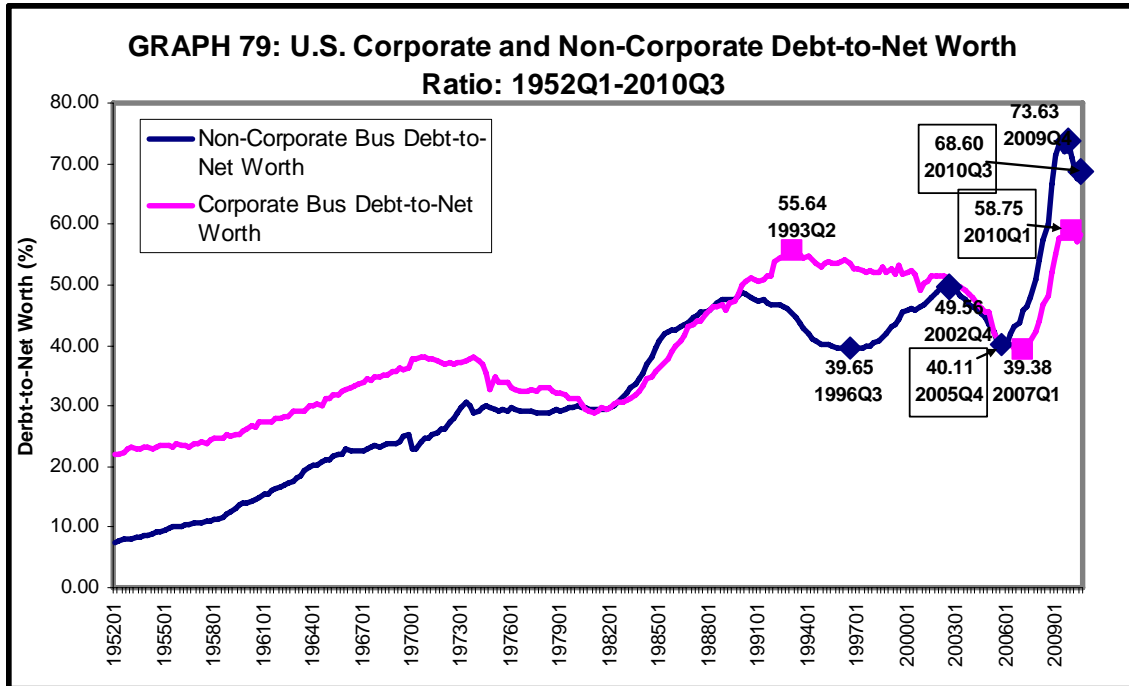
SOURCE: Federal Reserve Board.

After 2005Q3, about the time the air was first beginning to escape from the housing bubble, the YTY growth-rate in the Net Worth of Non-Corporate businesses began to rapidly decelerate, and turned negative after the fourth quarter of 2007, the beginning of the recent recession. The YTY growth-rate in both, households' and unincorporated businesses', Net Worth had its steepest decline in 2009Q1. While U.S. Household's Net Worth contracted by 20.65%, on a YTY basis, the Net Worth of Non-Incorporated Businesses plummeted by 22.54%. The Corporate Sector's (incorporated businesses) steepest decline in Net Worth was 17.32%, one quarter later, in 2009Q2. By 2010Q1, the YTY growth-rate in corporate Net Worth was back in positive territory and grew by 12.72%. The YTY growth-rate in Household Net Worth turned positive again in 2010Q3, but only grew at a modest 3.01% rate. However, the growth-rates in Net Worth for both, the corporate and household sectors, though still positive, were decelerating over the last part of 2010. Further, by the third quarter of 2010, the YTY growth-rate in Non-Incorporated businesses' Net Worth was still negative, contracting by 2.96%. Further, as depicted on Graph 79, the Debt-to-Net Worth (DNW) ratio had been lower for unincorporated businesses, compared to incorporated businesses in the 1990's. Then,



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

after the collapse of the Tech Bubble, they fairly closely tracked each other until the collapse in asset values with the onset of crisis in 2007 and 2008. With the onset of crisis, the Corporate Sector's DNW ratio shot up from 39.38 in 2007Q1 to 58.75 by 2010Q1. But, the DNW ratio for non-incorporated businesses shot up from 40.11 in 2005Q4, to 73.63 in 2009Q4. By the end of 2010, the Unincorporated Business Sector's DNW ratio was still at record levels.



SOURCE: Federal Reserve Board.

With both households and, especially non-incorporated, businesses trying to repair their balance sheets, and, in addition, businesses cutting back on output and employment due to the collapse in demand (from households' paying down debt), and accumulating inventories, aggregate spending collapsed. In addition, the financial crisis brought on a disruption in the flow of credit. But, it is not just the supply of credit that is the problem. With households and, especially, non-incorporated businesses trying to repair their balance sheets by paying down debt, the demand for credit is down too. Thus, the problem with credit is *both*, Supply and Demand.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

This was found to be the case during the Great Depression in a survey done by the National Business Industrial Conference Board, on behalf of the Federal Government, in 1932. Only 13.6% of the firms surveyed, mostly small and medium-sized firms, reported having problems in their dealings with their banks. The remaining 86.4% of firms surveyed reported that they were not in the market to borrow, or had no problem obtaining credit. It is unlikely that 13.6% of firms, mostly small to medium-sized, accounted for the 47% drop in aggregate loans outstanding<sup>75</sup>. However, if businesses, and households as well, were paying down their loans, then deposits at banks would shrink. What would motivate businesses to aggressively pay down their debt? Because the stock-market crash in 1929 reduced their market capitalization, and asset-price deflation reduced the value of assets on their balance sheets, which in conjunction with the accumulation of high levels of debt during the boom/bubble, wiped out shareholders' equity (i.e., net worth) which left their balance sheets badly damaged and they needed to re-build their net worth by paying down their debt. Households too, took a hit on the asset side with the popping of the housing bubble in 1926, and the stock-market crash in 1929, and, their accumulating unprecedented levels of debt in the 1920's as a result of new financial innovations and the expansion of credit. So, they too, had to repair their balance sheets<sup>76</sup>.

It is these same sets of conditions that drove the "lost decade" of Japan's Great Recession, after the collapse of the Real Estate Bubble and Nikkei Index in 1989, and the conditions that are prevailing in the U.S. in 2011, on the heels of the housing bust in 2006, and the financial crisis in 2007 and 2008.

As noted above, the recent crisis has damaged the balance sheets of the Financial Sector, the Household Sector, and the Non-Incorporated Business Sector, whereas, the Corporate Sector made record profits in 2010, and is sitting on \$1.6 Trillion in Cash. In 1989, it was Japan's Business Sector that was mainly hit by the collapse of the real estate and stock-market bubbles. As Koo (2009) shows, credit demand by businesses collapsed as they

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<sup>75</sup> Koo (2009), pp. 99-100.

<sup>76</sup> See Koo (2009), pp. 100-101.



channeled their cash-flow from export earnings into paying down their debt and repairing their balance sheets. This meant they were not borrowing to invest.

With the collapse of the Tech Bubble in 2000, and the Housing Bubble in 2005, and the banking panic ushered in by the connection between bad mortgages, and the toxic assets that decimated banks' balance sheets, especially those of the shadow banking system, the U.S. fell into a balance-sheet recession with the housing bust in 2005-06, which was then followed by a banking panic in 2007-08 that accelerated the balance-sheet effects, just as it had in the late 1920's and into the early 1930's.

## **B. HOUSING AND THE PROCESS OF BALANCE-SHEET REPAIR: A Long Slog?**

With Household's paying down their debt, the Liabilities side of the Balance Sheet is being addressed, however, debt-levels are still historically high. Further, the Asset side is still deteriorating, as housing prices continue to fall—especially for Households at, or below, the median income, as modest-priced homes are experiencing the steepest declines. This was one of the findings of the report released by Harvard University's Joint Center for Housing Studies in June<sup>77</sup>. And, as noted in Part C, Section II, above, the double-dip in the housing sector has been underway since the end of 2010.

Further, Housing and Construction are important drivers of the Business Cycle, and their strong multiplier-effects are not there for this recovery. As noted above, housing plays several distinct and critical roles in the economy with each role generating its own independent, and distinct set of multiplier effects on output, income, and employment. Housing straddles, at least, three separate markets: the Asset Market, the Property Market, and the Durable Goods Market.

Housing is an *Asset* and the construction and sale of structures generates increases in construction activity, including increased income and jobs. Housing is also integral to the Property Market. The activity in the Property Market where living space is demanded and

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<sup>77</sup> Joint Center for Housing Studies of Harvard University, THE STATE OF THE NATION'S HOUSING-2011 (June 2011) Graduate School of Design, John F. Kennedy School of Government: Cambridge, MA.

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

supplied generates a separate set of increases in jobs and income. Finally, housing is also a Durable Good, which yields a stream of services over multiple time periods. Further, the consumption of housing services generates the consumption of *complementary goods and services*. This produces another set of independently generated multipliers as homeowners purchase furniture, appliances, landscapers, and other goods and services connected to homeownership.

As Zandi points out in a recent report, if you want to fix the economy, then you fix housing.

It is hard to be enthusiastic about the economy's prospects as long as house prices are declining. A house is usually a household's most important asset; many small-business owners use their homes as collateral for business credit, and local governments rely on property tax revenues tied to housing values<sup>78</sup>

With Households and Non-Corporate Businesses re-building their Net Worth, and the Corporate Sector sitting on \$1.6 Trillion in Cash, the only sector left to spend in the economy is the Federal Government. But, given the current political climate, further fiscal stimulus is off the table (In fact, there's talk of spending cuts!). This leaves us with the prospect of persistently high unemployment for several years, and the specter of a "lost decade".

## **VI. WILL HISTORY RHYME? The U.S. in 1937, and Japan in 1997**

There are a number of noted persons who have been credited with the well-known "History Rhymes" quote, including Will Rogers (1879-1935), but since Mark Twain (1835-1910) came first, his version is presented here:

"The past may not repeat itself, but it sure does rhyme."<sup>79</sup>

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<sup>78</sup> See Footnote 40, above.

<sup>79</sup> <http://www.quotesdaddy.com/quote/256058/will-rogers/history-doesnt-repeat-itself-but-it-rhymes>  
Accessed on July 15, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Whoever said it, or said it first, that quote is a great segue into a discussion of the current budget-cutting hysteria that has gripped the U.S. In fact, there are those that have said they will force the U.S. to default on its debt obligations for the first time in history if there are not massive cuts in spending, but no tax increases. Assuming that your budget does need to be fixed, how do you do that by cutting spending, but also cutting your income at the same time? The two seem to be at odds with each other. But, all this talk of spending cuts raises still another question. Are we about to, or are we already in the process of, repeating the mistakes of the past? Before answering that question, it will be instructive to recount the crisis that brought us to this point, and to keep in mind that we entered the recent crisis on the heels of eight straight years of structural budget deficits.

The economic crisis and the government's response to it can be explored in terms of a medical analogy. If a person is admitted to the emergency room with a life-threatening condition, the first thing the ER doctors, nurses, and technicians must do is save the patient's life. Once the patient is stabilized and out of immediate danger, then he or she will be admitted to the hospital and treated with any further surgery, medicine, therapy, or some combination of them, to bring them back to health. Toward the end of their hospital stay, or shortly after being discharged, his, or her doctor, will address any long-term lifestyle changes, or other issues, that may be relevant to insure that the patient doesn't end up back in the ER again, or worse.

Following our medical analogy, the ER event was when Lehman Brothers collapsed, on September 15, 2008, and sparked the subsequent financial panic that brought about the solvency crisis and steep economic contraction. The economy needed triage, that is, the process of determining the priority of treatment in the ER. The first thing that needed to be done was to save the patient's life. This was what the Troubled Asset Relief Program (TARP) was supposed to do. Even though the TARP did have its problems, it, along with the ARRA (discussed below) probably kept us out of a depression<sup>80</sup>.

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<sup>80</sup> See Zandi, Mark and Alan Blinder, *How the Great Recession Was Brought to an End* (July 27, 2010)



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

The next step was to admit the patient to the hospital for further treatment to bring them back to health. This is where the *American Recovery and Reinvestment Act* (ARRA) of 2009 comes in. And, like the TARP, the ARRA also had its problems, it certainly was not big enough, it was too heavy on tax cuts, and it did not inject enough direct spending into the economy but probably did contribute to preventing the on-set of sustained deflation.

The last step is to address the lifestyle changes, and other issues, to insure that the patient does not end up back in the ER again, or worse. This is where the financial reforms, re-regulation, and other long-term reforms come in. And, at this point, mid-2011, they are being scaled back, watered down, delayed and road-blocked, which does not present an optimistic prognosis for the patient's long-term health, as he, or she, seems to be unwilling to implement needed lifestyle changes.

As noted above, Zandi and Blinder pointed out in their study that, even though they have some serious problems, the TARP and ARRA did prevent us from going into a depression<sup>81</sup>, at least, so far. But, returning to the medical analogy: is the plug about to be pulled on the patient before the patient is ready to come off life support? Are we about to permanently harm, or even kill, the patient? What follows explores the answer to this question. Section A discusses the recession that followed FDR's budget-balancing in 1937. Though there were other factors that likely played a role, deep cuts in Federal spending certainly contributed to the economic contraction. What not to do seemed to be reinforced by Prime Minister Hashimoto's budget-cutting in 1997. Caving into pressure from the Ministry of Finance, the World Bank and the International Monetary Fund (IMF), Hashimoto cut Japan's government budget. What followed was five consecutive quarters of steep contraction in Japan's GDP. Section B reviews Keynes's challenge to the Say's Law/Walras's Law Classical model of the economy and its ignoring the Fallacy of Composition with his Paradox of Thrift observation. Section C presents an overview of the current, U.S., self-inflicted crisis over the debt, deficit, and debt ceiling.

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<sup>81</sup> *ibid.*



## A. FDR and HASHIMOTO

What do FDR and Hashimoto have in common? As noted above, they both implemented budget-cutting policies in their respective governments that were followed by steep economic contractions.

There are several different views on why the U.S. economy went back into recession for 13 months in 1937. The National Bureau of Economic Research (NBER) dates the 1937-38 Recession as beginning in May 1937 and ending in June 1938<sup>82</sup>. Kindleburger<sup>83</sup> notes several factors that may have played a significant role in bringing about the 1937-38 Recession. A major factor may have been the dishoarding of gold beginning in 1936, which was sparked by the *Tripartite Monetary Agreement of 1936* that signaled the rapid expansion of prices, wages, and output<sup>84</sup>. Because the agreement restored some confidence in Europe's currencies, mostly small investors, cashed in their gold and purchased securities<sup>85</sup>. This resulted in an in-flow of gold into London and New York. This, in turn raised the specter of inflation, as commodity prices rose. Before that, the Federal Reserve raised the reserve requirements for banks in November 1935, as excess reserves reached an amount equal to half of the total reserves in the banking system<sup>86</sup>. Then, in December 1936, U.S. Treasury undertook a program of gold sterilization to prevent further in-flows of gold from adding to excess reserves, which, as noted above, had reached 50% of total reserves<sup>87</sup>. Also motivated by the inflow of gold, and rising commodity prices, firms, anticipating inflation, began to build up inventories as they sought to capture higher profit margins on the expected price-rise between the time of production and the time of sale. Further, the auto industry began to accelerate inventory build-up in anticipation of a strike.

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<sup>82</sup> US Business Cycle Expansions and Contractions, National Bureau of Economic Research: Cambridge, MA. <http://www.nber.org/cycles/cyclesmain.html> Accessed on July 15, 2011.

<sup>83</sup> Kindleburger, Charles P., *THE WORLD IN DEPRESSION, 1929-1939* (1973, 1986) University of California Press: Berkley and Las Angeles, Ch. 12, pp. 261-275.

<sup>84</sup> *ibid*, p, 263.

<sup>85</sup> *ibid*, p, 263

<sup>86</sup> *ibid*, p, 264.

<sup>87</sup> *ibid*, p, 264



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

There are those who contend that the 1937-38 Recession was principally due to the Fed's raising the reserve requirements in 1935 and 1936 (see above). It is particularly the Monetarists, and most notably, Friedman and Schwartz<sup>88</sup>, who have advanced this argument. However, studies of the effects of the Federal Reserve's raising the reserve requirement show that, in fact, the Fed's policy did not induce the economic contraction that brought on the 1937-38 Recession<sup>89</sup>. Others, of a more Keynesian bent, contend that the principal culprit sending us back into recession was FDR's fiscal belt-tightening policies in 1937. Paul Krugman noted this in his January 2010 Op-Ed<sup>90</sup> Further, the economic historian, Charles Kindleburger, also notes this, as well as other possible explanations, in his work on the Great Depression. In 1937, there was a sharp change in fiscal policy. The 1936 deficit had been large, boosted by the \$1.7 billion bonus payment to veterans of World War I. The Federal budget deficit declined from \$4.6 billion in FY1936, to \$3.1 billion in 1937, to \$1.4 billion in 1938. The deficit was reduced by \$2.2 billion between calendar years 1936 and 1937<sup>91</sup>. Koo also notes the contribution that FDR's policy of fiscal consolidation made to bring about the 1937-38 Recession. Once fiscal stimulus was withdrawn from the economy, industrial output plunged by 33%, and the stock market contracted by 50%<sup>92</sup>

To follow up with a little more detail about the events preceding the 1937-38 Recession, with regard to fiscal belt-tightening. In 1937, President Franklin Roosevelt, after five years of sustained economic growth and a steadily declining unemployment rate, began to worry more about possible inflation and the size of the Federal deficit than the ability of the economy to sustain the recovery. As a consequence, in the fall of 1937, FDR supported those in his administration who advocated a reduction in Federal

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<sup>88</sup> Friedman, Milton, and Anna J. Schwartz (1963). *A MONETARY HISTORY OF THE UNITED STATES, 1867-1960*. Princeton: Princeton University Press.

<sup>89</sup> See. Calomiris, Charles W, Joseph R. Mason and David C. Wheelock, *Did Doubling Reserve Requirements Cause the Recession of 1937-1938? A Microeconomic Approach* (January 2011) Working Paper 2011-002A, Federal Reserve Bank of St. Louis <http://research.stlouisfed.org/wp/2011/2011-002.pdf> and Koo (2009), pp. 99-100. Kindleburger (1973, 1986), pp. 263-269 and p. 272.

<sup>90</sup> Krugman, Paul, *That 1937 Feeling* (January 4, 2010) NEW YORK TIMES <http://www.nytimes.com/2010/01/04/opinion/04krugman.html> Accessed on June 10, 2011.

<sup>91</sup> *ibid*, p, 271-272

<sup>92</sup> Koo (2009), pp. 117-118.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

expenditures<sup>93</sup> Four years into Franklin Roosevelt's first presidential term, the worst of the Great Depression seemed behind him. Massive jolts of New Deal spending had stopped the economic slide, and the unemployment rate was cut from 22% to less than 10%<sup>94</sup>. So Roosevelt, on the advice of his conservative Treasury Secretary Henry Morgenthau, decided to tackle the country's exploding deficits. Over two years, FDR slashed government spending by 17%<sup>95</sup>. The results — which included a massive reduction in the number of people employed by such programs as the WPA — were catastrophic. From the fall of 1937 to the summer of 1938, industrial production declined by 33%; wages by 35%, national income by 13%; and not surprisingly, the unemployment rate rose by roughly 5 percentage points, with an estimated 4 million workers losing their jobs<sup>96</sup>.

Now, jump forward, exactly 60 years, to Japan in 1997. It was the Administration of Prime Minister Hashimoto that became the first post-bubble government to implement a program of fiscal consolidation. In 1989, the Japanese real estate bubble popped, and the Nikkei Index crashed, ushering in Japan's Great Recession, which was a balance-sheet recession. This collapse in asset prices destroyed millions of Japanese corporate balance sheets<sup>97</sup>. Japanese companies then moved to repair their balance sheets by paying down debt to reduce their liabilities to bring them in line with their now, lower-value assets. Many were actually insolvent. The result: reduced borrowing, reduced investment spending, and increased saving as companies paid down their debt.

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<sup>93</sup> Woolner, David, *Repeating Our Mistakes: The "Roosevelt Recession" and the Danger of Austerity* (July 7, 2010) Roosevelt Institute: New York <http://www.rooseveltinstitute.org/new-roosevelt/repeating-our-mistakes-roosevelt-recession-and-danger-austerity>. Accessed on July 14, 2011

<sup>94</sup> *ibid.*

<sup>95</sup> NPR Staff, *When A Turn Toward Austerity Turned To Disaster* (July 16, 2011) <http://www.npr.org/2011/07/16/138185648/when-a-turn-toward-austerity-turned-to-disaster>. Accessed on July 14, 2011.

<sup>96</sup> Woolner (July 7, 2010)

<sup>97</sup> Koo, Richard, *THE HOLY GRAIL OF MACROECONOMICS: Lessons from Japan's Great Recession* (2009) John Wiley & Sons: New York, pp. 13-22.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Japan's Great Recession, like the Great Depression, was a balance-sheet recession, so then why did Japanese GDP stay above the peak level of the previous expansion, both nominally and in real terms? Koo identifies two reasons:

- First: Households continually reduced their savings because the popping of the bubble triggered job-losses, pay cuts, and the elimination of bonuses<sup>98</sup>.
- Second: Fiscal stimulus supported Japan's Economy<sup>99</sup>.

With regard to the first reason, as households' income fell their Marginal Propensity to Consume (MPC) increased, and their Marginal Propensity to Save (MPS) fell, which raised their spending in the economy. With regard to the second reason, the Japanese Government stepped in to borrow and spend the money that households and businesses were not spending. As the Japanese Government freed the funds from the banking system, by issuing bonds that were purchased by the banks, the government's deficit mounted sharply. But, it was because of the government's deficit spending that Japan was able to sustain pre-recession levels of GDP, even in the face of loss of wealth equivalent to three-years worth of GDP<sup>100</sup>. However, by 1997, Prime Minister Hashimoto began to be pressured by<sup>101</sup> his Ministry of Finance, the International Monetary Fund (IMF), and the Organization for Economic Cooperation and Development (OECD) to cut government spending, because, they argued, fiscal stimulus had not produced economic improvement and money was being spent on wasteful projects.

Hashimoto responded with a four-pronged plan in FY1997 to reduce the fiscal deficit by ¥15 trillion. The plan included raising the consumption tax from 3% to 5%, increasing taxpayers' share of social security, and other measures. Although revenue shortfall seemed to decline in FY1997, the first year of the budget cuts, the economy then proceeded to contract for five straight quarters, ushering in Japan's worse Post World

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<sup>98</sup> Koo (2009), pp. 22-24.

<sup>99</sup> *ibid.* pp. 24-28.

<sup>100</sup> *ibid.* pp. 24-25.

<sup>101</sup> *ibid.* pp. 52-53.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

War II recession<sup>102</sup>. Once the government stopped borrowing and spending household savings began accumulating in the banking system, and a huge deflationary gap opened up in the economy. The result: tax revenue fell, rather than increasing, and the budget deficit expanded sharply. Instead of reducing the deficit by ¥15 trillion, the policy of fiscal contraction increased the deficit by ¥16 trillion to ¥38 trillion in FY1999<sup>103</sup>.

## **B. THE PARADOX OF THRIFT**

The events recounted in Section A, above, are both stark examples of a macroeconomic phenomenon known as *The Paradox of Thrift*. In both instances, when the government withdrew spending from the economy (FDR in 1937 and Hashimoto in 1997), in the face of spending retrenchment by households, or businesses, or both, government's failure not to free up funds sitting idle in the banking system (i.e., excess reserves), resulted in spending being withdrawn from the economy, which, in turn, resulted in a decline in the aggregate demand for goods and services in the economy. The decline in aggregate spending then caused firms to cut back in their production, as inventories built up beyond acceptable levels. To reduce their production levels, firms cut back workers' hours, or laid them off. As workers' hours were cut back, or if they lost their jobs, their income declined, causing them to cut back on their spending (and, especially their discretionary spending), which generated ripple effects throughout the economy, resulting in successive rounds of spending reductions, cutbacks in output and income, which, in turn, generated more cutbacks in hours and increased job-losses via the income, spending, and employment multipliers working in reverse.

Behind the mistakes of FDR and Hashimoto, was a fallacious, but as appealing as it is wrong, idea that the spending behavior by the government, and especially the national government should adhere to the principals that govern the spending behavior of the individual family. This produces a completely false analogy between deficit spending by

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<sup>102</sup> *ibid* pp. 51-53.

<sup>103</sup> *ibid* pp. 51-53.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

an individual household in the economy and deficit spending by the government, especially the national government (the Federal Government in the case of the U.S.). That is, because saving is good for an individual household (to buy a house, a car, or go to college, or for retirement) it does not necessarily follow that if all households save at once, that that is good for the economy as a whole. That is, what is true of the individual parts is not necessarily true for the whole. To assume that what is true of the parts is necessarily true for the whole is committing the *Fallacy of Composition*.

The *Fallacy of Composition* is a logical fallacy in which one concludes that what is true of a part of a whole is necessarily also true for the whole<sup>104</sup>. If you listen to a CD of short songs, such that each song is 60 seconds, or less, each, it does not follow that an entire CD filled with short songs will be short. That is, just because each song on the CD is short, it does not follow that listening to the entire CD will require only a short period of time, though listening to an individual song will only require a minute, or less, of your time.

The term, *Paradox of Thrift*, was coined by Paul Samuelson in his influential principals of economics text, first published in 1948<sup>105</sup>. It is a central theme in Keynes's economics<sup>106</sup>. Keynes stated that if a given household in the economy saves, this will be good for the individual household as they can build their "nest-egg", buy a new house, etc. But, if all households save at the same time in the economy, then aggregate spending declines, which will cause inventories to accumulate, resulting in a cutback in output, employment, and income. And, ironically, since savings by all, or most, of the individual households in the economy, at once, reduces aggregate demand, and therefore aggregate income as output declines, it therefore reduces aggregate savings in the economy, as savings is a function of the level of income. This is the Paradox of Thrift, which is just a specific application of the Fallacy of Composition introduced above. That is: what's true

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<sup>104</sup> *ibid* pp. 53-54.

<sup>105</sup> Paradox of Thrift-Wikipedia.

<sup>106</sup> Keynes, John Maynard, THE GENERAL THEORY OF EMPLOYMENT, INTEREST AND MONEY (1936) and Money, Chapter 7, p. 84



for the parts is not necessarily true for the whole. This is the basis for the Paradox of Thrift.

Eggertsson and Krugman<sup>107</sup>, in a recent paper, following along debt-deleveraging explanations of economic crisis, as advanced by Irving Fisher, Hyman Minsky, and Richard Koo (see above), demonstrated with a simple New Keynesian-style model that in the case of debt-driven slumps – that is, situations in which an overhang of debt on the part of some agents, which forces them into rapid deleveraging, results in depressing aggregate demand. In their paper they sought to formalize the notion of a deleveraging crisis, in which there is an abrupt downward revision of views about how much debt it is safe for individual agents to have, and in which this revision of views forces highly indebted agents to reduce their spending sharply. Such a sudden shift to deleveraging can, if it is large enough, create major problems of macroeconomic management. If a slump is to be avoided, someone must spend more to compensate for the fact that debtors are spending less; yet even a zero nominal interest rate may not be low enough to induce the needed spending<sup>108</sup>. This is the problem of the Paradox of Thrift, discussed above.

Eggertsson and Krugman's results suggest that the current conventional wisdom about cutting spending and reducing government debt is what we should be doing now is almost completely wrong.

### **C. REPEATING THE SAME MISTAKES? The Deficit, The Debt, and the Debt Ceiling**

At the time of writing, the U.S. is facing the possibility of defaulting on its debt for the first time in its history. After their victory in November 2010, House Republicans indicated that they would cut spending, including entitlements, and try to repeal the new health care law passed under Obama and the Democrats. By early 2011, House

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<sup>107</sup> Eggertsson, Gauti B. and Paul Krugman, *Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo approach* (November 16, 2010) New York Federal Reserve Bank: New York.

<sup>108</sup> *ibid.*

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Republican leaders were reassuring their own party, particularly the new Tea Party members, that supporting short-term continuing resolutions to keep the government going does not mean they are giving up the fight on broader spending cuts and reforms, and indicated then, that they planned to take a stand over the upcoming debt ceiling increase<sup>109</sup>. The actual debt limit was reached on May 16th, but the Treasury indicated that they could still operate the government, and meet its obligations, until August 2, 2011. After that date the U.S. Government would default on its debt for the first time in its history.

Then, on May 31<sup>st</sup>, the House of Representatives rejected a measure to raise the debt limit in a vote staged by Republicans to pressure President Obama into agreeing to the accompanying spending cuts. Senior Democrats criticized the vote as a political stunt, although 82 Democrats joined the Republicans in defeating the bill<sup>110</sup>. Talks between the President and the House Republicans have broken down several times, with the Republicans walking out of negotiations. Heading toward the end of July, the possibility of default now seems likely.

### **A BRIEF HISTORY OF THE DEBT LIMIT**

Congress has always placed restrictions on Federal debt. The form of debt restrictions, structured as amendments to the *Second Liberty Bond Act of 1917*, evolved into a general debt limit in 1939<sup>111</sup>. Congress has voted to raise the debt limit 10 times since 2001, as Federal debt has nearly reached the debt limit several times due to persistent deficits and additions to Federal trust funds. Table 3 presents a summary of the instances in which the debt ceiling has been raised since 2001. The recent economic slowdown led to sharply higher deficits in recent years, which led to a series of debt limit increases. The government's surpluses or deficits determine essentially all of the change in debt held by

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<sup>109</sup> Cover, Matt, *House GOP Aide: Republicans to Fight on Debt Ceiling Bill* (March 16, 2011) CNSNEWS.COM

<sup>110</sup> Reuters, *Timeline: How U.S. debt talks spiraled into crisis* (Tue Jul 26, 2011 12:39pm EDT) <http://www.reuters.com/article/2011/07/26/us-usa-debt-timeline-idUSTRE76P4T320110726> Accessed on July 26, 2011.

<sup>111</sup> Austin, D. Andrew and Mindy R. Levit, *The Debt Limit: History and Recent Increases* (July 1, 2011) Congressional Research Service: Washington, p. 1..



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

the public<sup>112</sup><sup>113</sup>. Also, it should be noted that the government's on-budget fiscal balance, which excludes a small U.S. Postal Service net surplus or deficit and a large Social Security surplus of payroll taxes net of paid benefits, does not directly affect debt held in government accounts<sup>114</sup>

As noted above, on May 16, 2011, U.S. Treasury Secretary, Timothy Geithner, announced that the Federal debt had reached its statutory limit and declared a debt issuance suspension period, which would allow certain extraordinary measures to extend Treasury's borrowing capacity until about August 2, 2011<sup>115</sup>. On July 1, 2011, the U.S. Treasury confirmed its view that its borrowing authority would be exhausted on that day<sup>116</sup>.

### **THE DEBT LIMIT AND THE TREASURY**

Standard methods of financing Federal activities or meeting government obligations used by the U.S. Department of Treasury (Treasury) can be hobbled when Federal debt nears its legal limit. The government's income and outlays vary over the course of the year, producing monthly surpluses and deficits that affect the level of debt, whether or not the government has a surplus or deficit for the entire year

Even major government trust fund accounts that usually run annual surpluses can swing back and forth between deficits and surpluses on a month-to-month basis. The ability to borrow is central to Treasury cash management systems that handle fluctuations in Federal revenues and outlays.

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<sup>112</sup> Other means of financing—including cash balance changes, seigniorage, and capitalization of financing accounts used to fund federal credit programs—have relatively little effect on the changes in debt held by the public.

<sup>113</sup> *ibid*, p. 1.

<sup>114</sup> *ibid*, p. 1.

<sup>115</sup> Secretary of the U.S. Treasury Timothy Geithner, letter to Majority Leader Harry Reid, dated May 16, 2011, available at

<http://www.treasury.gov/connect/blog/Documents/20110516Letter%20to%20Congress.pdf>.

<sup>116</sup> U.S. Treasury, "Treasury: No Change to August 2 Estimate Regarding Exhaustion of U.S. Borrowing Authority," Press release tg-1225, July 1, 2011, available at <http://www.treasury.gov/press-center/press-releases/Pages/tg1225.aspx>.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

**TABLE 3: U.S. DEBT-LIMIT INCREASES SINCE 2001**

DATE	REASON/DEBT LIMIT
June 2002	U.S. Treasury asked Congress for an increase
December 2002 (Passed in May 2003)	U.S. Treasury asked Congress for another increase
June 2004 (Enacted in November 2004)	U.S. Treasury asked Congress for another increase  After Congress recessed in mid-October 2004 without acting, the Treasury Secretary told Congress he could keep debt below its limit only through mid-November. A debt limit increase was enacted on November 19, 2004.
March 2006	In 2005, reconciliation instructions in the FY2006 budget resolution (H. Con. Res. 95) included a debt limit increase. The U.S. Treasury warned Congress that it would exhaust options to avoid default by mid-March 2006. Congress passed an increase that the President signed on March 20.
September 2007	The House indirectly approved legislation (H.J Res. 43) to raise the debt limit by \$850 billion to \$9,815 billion  The Senate approved the resolution on September 27, 2007, and the President signed it two days later.
July 2008	The <i>Housing and Economic Recovery Act of 2008</i> (H.R. 3221), signed into law (P.L. 110-289) on July 30, 2008, included a debt limit increase.
October 2008	<i>The Emergency Economic Stabilization Act of 2008</i> (H.R. 1424), signed into law on October 3 (P.L. 110-343), raised the debt limit again
February 2009	The debt limit rose a third time in less than a year to \$12,104 billion with the passage of the <i>American Recovery and Reinvestment Act of 2009</i> on February 13, 2009 (ARRA; H.R. 1), which was signed into law on February 17, 2009 (P.L. 111-5).
April 2009	The House's adoption of the conference report on the FY2010 budget resolution (S. Con. Res. 13) on April 29, 2009, triggered the automatic passage of H.J Res. 45 to raise the debt limit to \$13,029 billion.
December 2009	In August 2009, Treasury reportedly said that the debt limit would be reached in mid-October, although it later stated that the limit would not be reached until December 2009. H.R. 4314, passed by the House on December 16, 2009, and by the Senate on December 24, raised the debt limit to \$12,394 billion when the President signed the measure (P.L. 111-123) on December 28
January 2010 (Signed by President in February 2010)	On January 28, the Senate passed an amended version of H.J Res. 45, which the House passed on February 4 and the President signed on February 12 (P.L. 111-139), raising the limit to \$14,294 billion.

SOURCE: CRS, *The Debt Limit: History and Recent Increases* (July 1, 2011), Summary and Table 2, p. 20.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

When Federal debt has neared the debt limit in the past, limiting the U.S. Treasury's borrowing authority, financial management has become more complicated. If the U.S. Treasury were precluded from borrowing due to a binding debt limit in times when Federal outlays outpaced revenues, the government would no longer meet all of its legal obligations in a timely manner<sup>117</sup>. If the limit prevents the Treasury from issuing new debt to manage short-term cash flows or to finance an annual deficit, the government may be unable to obtain the cash needed to pay its bills or it may be unable to invest the surpluses of designated government accounts (Federal trust funds) in Federal debt as generally required by law. In either case, the Treasury is left in a bind; the law requires that the government's legal obligations be paid, but the debt limit may prevent it from issuing the debt that would allow it to do so on time.

Among other consequences, a sustained inability to pay obligations on time could hinder the U.S. Treasury's ability to borrow on advantageous terms in the future. The Government Accountability Office has also concluded that delays in debt limit increases could lead to "serious negative consequences for the Treasury market and increase borrowing costs."<sup>118</sup> A delay in interest payments on Treasury securities would trigger a default and risk serious negative repercussions for economies and financial markets around the world. Default might be avoided in such situations by delaying other types of Federal payments and transfers. A government that delays payment of an obligation, in effect, borrows from vendors, contractors, beneficiaries, state and local governments, or employees who are not paid on time. In some cases, delaying payments incurs interest penalties under some statutes such as the *Prompt Payment Act*, which directs the government to pay interest penalties to contractors if it does not pay them by the required payment date,<sup>119</sup> and the Internal Revenue Code, which requires the government to pay interest penalties if tax refunds are delayed beyond a certain date<sup>120</sup>.

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<sup>117</sup> See CRS Report R41633, *Reaching the Debt Limit: Background and Potential Effects on Government Operations*, coordinated by Mindy R. Levit.

<sup>118</sup> Government Accountability Office, *Debt Limit: Delays Create Debt Management Challenges and Increase Uncertainty in the Treasury Market*, GAO-11-203, February 22, 2011.

<sup>119</sup> 31 U.S.C. §3902.

<sup>120</sup> 26 U.S.C. §6611.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Several credit ratings agencies and investment banks have expressed concerns about the consequences to the financial system and the economy if the U.S. Treasury were unable to fund federal obligations or if the market associated Treasury securities with default risks<sup>121</sup>.

**THE ECONOMIC SLOWDOWN AND THE FEDERAL DEBT**

The U.S. economy is currently recovering slowly from a severe economic recession that began in December 2007 and ended in June 2009<sup>122</sup>. The economic slowdown began with a rapid deceleration of housing prices and a rise in interest rate spreads between private lending rates and benchmark Federal Reserve rates, indicating an increasing reluctance of major financial institutions to lend to each other as well as to firms and individuals. This led to sharply higher Federal deficit spending in FY2008 spurred by several major actions taken by Congress to unfreeze credit markets, boost consumption, and increase spending. Deficit spending was even higher in FY2009, with higher than average deficits as a percentage of GDP persisting into the next decade, likely leading to further increases in the federal debt and debt limit. While deficits for FY2010 were slightly lower and fiscal conditions are projected to improve in FY2011, deficits remain high relative to historical experience.

Economic recession affects the Federal deficit in several ways<sup>123</sup>:

- First, falling prices of many assets and equities can sharply reduce Federal revenues from capital gains taxes and from the corporate tax.
- Second, individual income taxes, the largest component of Federal revenues, may also fall if jobs are cut and unemployment increases due to economic conditions.

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<sup>121</sup> JP Morgan Chase, *The Domino Effect of a US Treasury Technical Default*, U.S. Fixed Income Strategy Group Brief, (April 19, 2011); *Fitch Ratings, Thinking the Unthinkable—What if the Debt Ceiling Was Not Increased and the US Defaulted?* June 8, 2011; Reuters, *S&P To Deeply Cut U.S. Ratings If Debt Payment Missed*, (June 29, 2011).

<sup>122</sup> The end of a recession is said to occur when an economy has stopped shrinking, not when it has recovered. See National Bureau of Economic Research Business Cycle Dating Committee, press release, September 20, 2010, available at <http://www.nber.org/cycles/sept2010.html>.

<sup>123</sup> Austin, D. Andrew and Mindy R. Levit, *The Debt Limit: History and Recent Increases* (July 1, 2011) Congressional Research Service: Washington, p.15.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

- Third, “automatic stabilizers” such as unemployment insurance and income support programs pay out more money as unemployment rises and the number of households eligible for means-tested benefits rises, thus increasing Federal spending.

Boosting the economy through deficit spending provides a fiscal stimulus (see discussion above), if the output levels of goods and services produced in the nation are below their potential levels. Deficit spending, however, can help accelerate inflation if output levels are near, or at, potential levels, and in addition, exacerbates long-term fiscal challenges. Several economists have expressed concerns that inflation, which had been relatively low since the early 1980s, could accelerate due to rising prices of food, energy, and primary commodities. While inflation would reduce the market value of the Federal deficit, it would require Treasury to pay higher nominal interest rates on Federal debt. The U.S. economy, however, is currently operating well below its potential, which has kept inflation at lower levels<sup>124</sup>.

Finally, with regard to the second and third points, many who argue that spending is out of control and that the government should live within its means and tighten its belt like households and business, as the economy goes into recession, in addition to committing the *Fallacy of Composition* (see Sub-Section B, above on *The Paradox of Thrift*), are also committing the *Fallacy of False Analogy*. For a private, for-profit business, there is a direct, or positive relationship between the demand for their product and their revenue. That is, as the demand for their product goes up, and they increase their sales, their revenue goes up. Conversely, if demand for their product falls, their revenue falls. But, for government agencies, and especially those that administer the safety net, and for private, non-profit charities, as well, the opposite is true. That is, as the demand for their product goes up their revenue falls! And, as the demand for their product falls their revenue goes up. As the economy goes into recession, and tax revenues fall, the demand for unemployment insurance, food stamps, Medicaid, and other safety-net payments goes up. Thus, as the automatic stabilizers kick in over a recession, payments on these programs go up, because the demand for these services goes up as unemployment rises,

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<sup>124</sup> *ibid.* p. 15.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

just as tax revenue is falling. Then, as the economy recovers, the demand for these income supports declines, as tax revenue picks up as income, once again, begins to rise, as unemployment declines. The consequence for the deficit is this: as the economy goes into recession the automatic stabilizers contribute to the budget deficit, but, upon recovery, the automatic stabilizers contribute to a budget surplus, as program revenues now exceed program outlays. This is illustrated in Graph 80.

A similar situation is faced by private charities. People are less generous as they lose their jobs and their income, but, this is just as demands are being made on charities for increased homeless shelter services, food banks, etc. Then, as the economy begins to recover and incomes rise, charitable contributions rise, but, at the same time, demand for services from the charities declines. Thus, with regard to the demand for their product and revenues, for-profit businesses face a different relationship between their product-demand and revenue than do governments and private non-profit charities

**THE U.S. DEFICIT AND DEBT: Historical Trends and Current Status**

Graph 81 presents the U.S. Debt, Held by the Public, as a percent of Nominal GDP from 1929 to 2010. The U.S. Debt, Held by the Public, rose from 16.34% in 1929 to nearly 40% in 1933. Some have argued that Hoover's policies were therefore stimulative, and thus proof that fiscal stimulus does not work--more on this later. Under FDR, the debt, as a percent of GDP, was 44% by 1939. But, with the onset of World War II, the U.S. engaged in massive deficit spending to rapidly mobilize for war, and by 1946 debt held by the public reached a record 108.85% of GDP. Almost 30 years later it had declined to a Post World War II low of just under 23% in 1974. After that, it began increasing again as a percent of GDP.

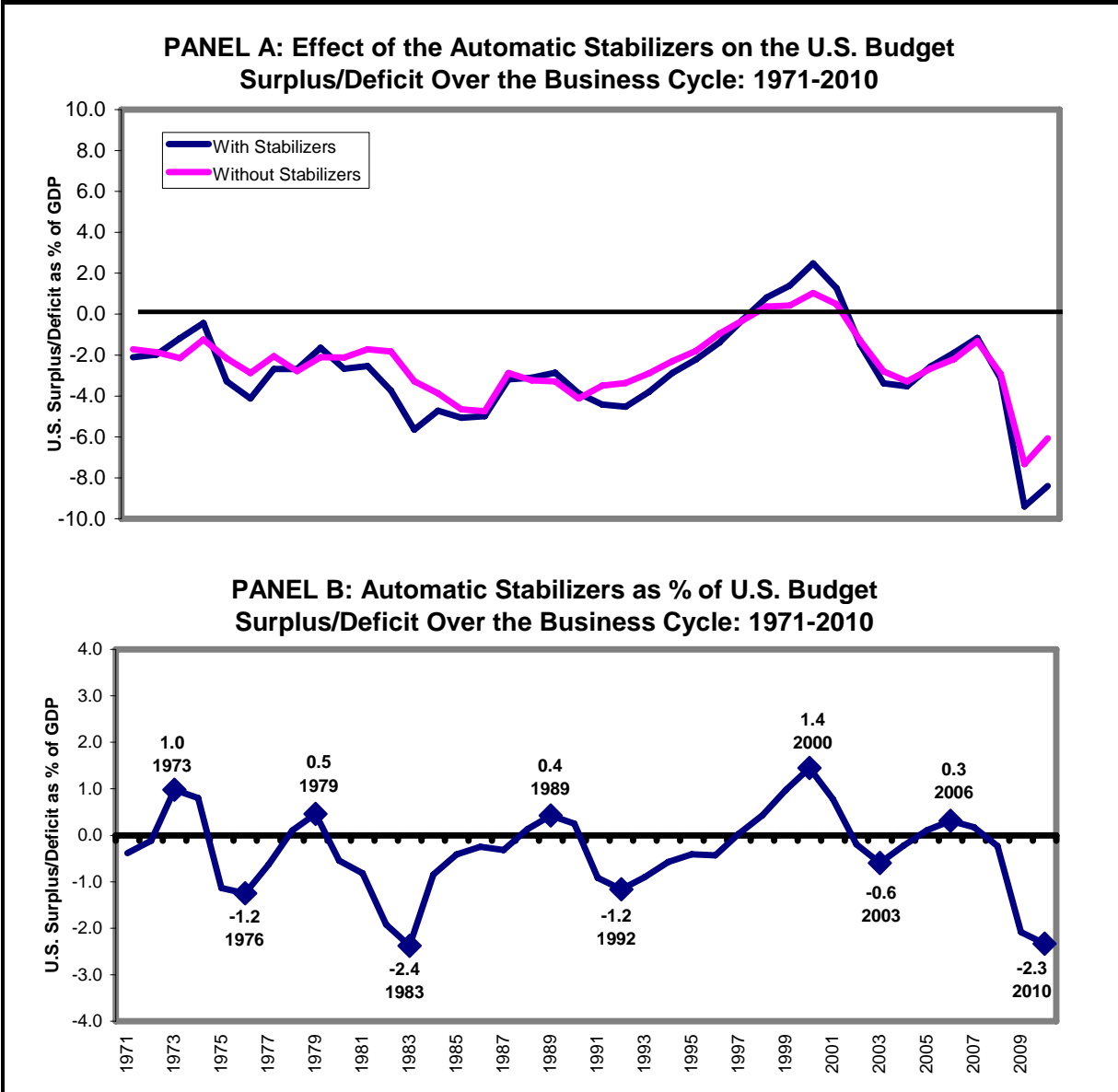
After the Reagan tax cuts and the largest peacetime defense build-up in U.S. history, U.S. debt grew to nearly 49% of GDP by 1994. With the upper-bracket income-tax increase to 39%, spending cuts, and an agreement with Greenspan to lower interest rates as the debt came down, all put in place in President Clinton's first term, the debt, held by the public, fell to 32.27% of GDP by 2001. After 2001, two tax cuts (discussed below), Medicare



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Part D, and two wars, the U.S. debt grew to just under 36% by 2007, just before the onset of financial crisis and economic contraction. With the onset of financial crisis and the subsequent steep economic contraction the U.S. Debt Held by the Public, jumped to 62.14% in 2010.

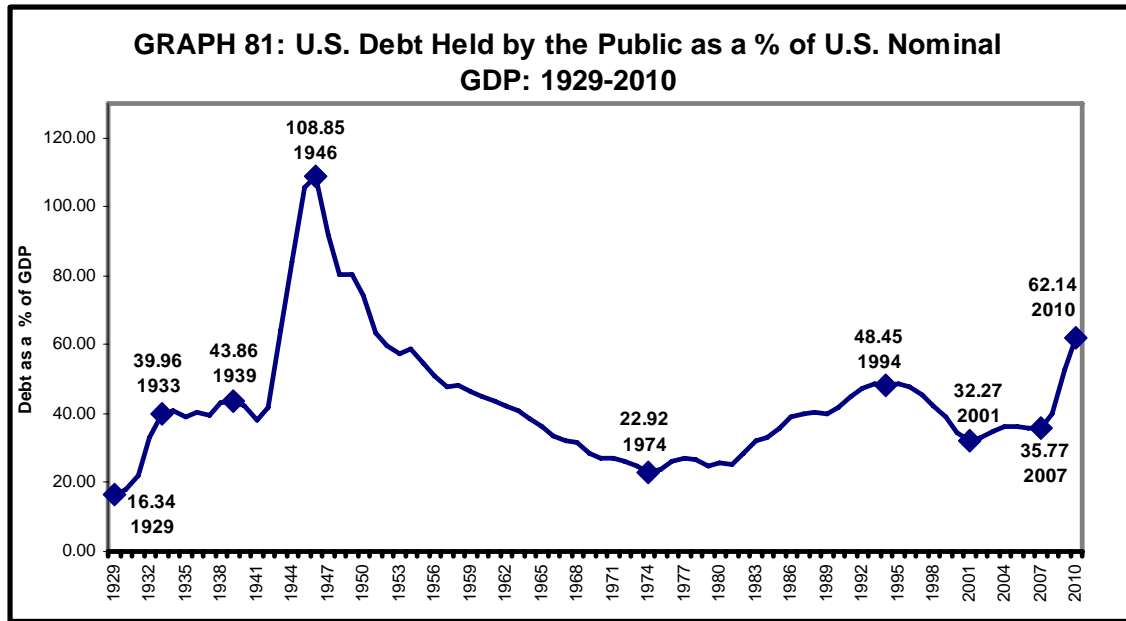
**GRAPH 80: Effect of the Automatic Stabilizers on the U.S. Budget Deficit Over the Business Cycle**



SOURCE: Congressional Budget Office



CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012



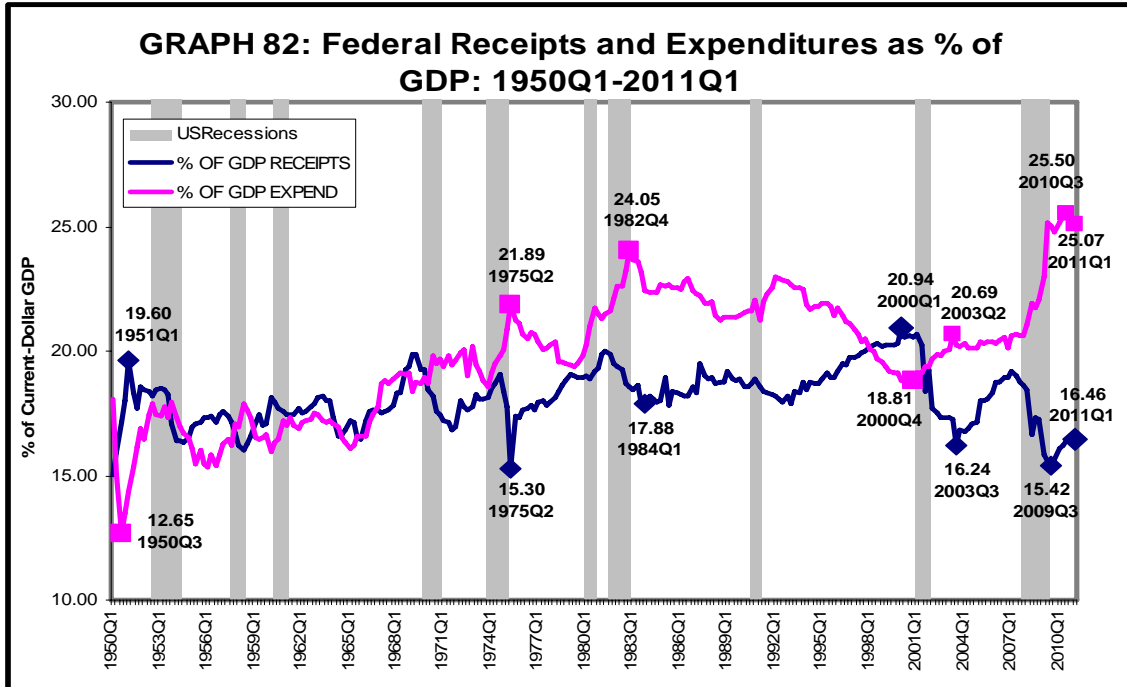
SOURCE: U.S. Bureau of the Debt and U.S. BEA.

What drives the behavior of the debt as observed in Graph 81? To answer that question, it will be helpful to first look at how deficits have been generated in terms of Federal receipts and expenditures. Graph 82 tracks current Federal Receipts and Expenditures from 1950Q1 to 2011Q1. Both receipts and expenditures are expressed in terms of their percent of GDP.

Up until the 1970 Recession, Federal Receipts exceeded Expenditures during expansions, and fell below Expenditures during recessions<sup>125</sup>. The first time, in the Post World War II Era that receipts remained below expenditures for most of an expansion, save at the very end, was after 1970, (one year later, the Bretton Woods System unofficially ended).

<sup>125</sup> When tax revenues fall as the economy goes into recession, and expenditures rise as the automatic stabilizers (e.g., Unemployment Insurance, Medicaid, etc.) kick in and automatically increase government spending, in addition active fiscal policy to stimulate aggregate demand may also reduce revenue (e.g., tax cuts) and increased expenditures (discretionary fiscal spending), the result will be a **Cyclical Budget Deficit**, as expenditures temporarily exceed revenue. But, as the economy comes out of recession and tax revenues begin to increase and payments induced by the automatic stabilizers decline, and even go into surpluses, the Cyclical Deficit will disappear and the Federal Budget will go into balance, or even surplus, as the economy returns to full employment. However, if a budget deficit persists even after the economy returns to full employment, then it would be considered a **Structural Deficit** rather than a Cyclical Deficit.

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BEA.

Receipts dropped to a Post World War II low of 15.30% of GDP in 1975Q2. Current Expenditures jumped to a post-war high, up until then, of 22%. Current Expenditures exceeded Current Receipts throughout the expansion following the 1973-75 Recession, when the Bretton Woods System had officially ended, and the dollar continued to fall. The U.S. entered both the 1980 and 1981-82 recessions running structural deficits for the first time since World War II. Then, with the largest tax cut up to that point, in conjunction with the largest peacetime defense build-up, coming out of the 1981-82 Recession, the U.S. began a period in which it ran the largest, and longest sustained period, of structural deficits in the entire Post World War II Era. While spending grew to 24% of GDP in 1982Q4, receipts fell to 18% of GDP by 1984Q1. With the spending cuts and tax increase implemented in the first Clinton Administration, noted above, the U.S. structural deficits turned to surpluses after the second quarter of 1998. By 2000Q1, U.S. Current Receipts reached a post-war record of 21% of GDP, while Current Expenditures declined to under 19% of GDP in 2000Q4.



## CURRENT CONDITIONS AND OUTLOOK FOR THE U.S. AND CONNECTICUT ECONOMIES: 2010-2012

With the George W. Bush Administration coming to power in January 2001, and the onset of the 2001 Recession in March, their response was to pass a supply-side tax-cut in 2001. Following the September 11<sup>th</sup> Attacks, and another jobless recovery, another tax-cut was passed in 2003. In addition, the wars in Afghanistan and Iraq were financed through deficit and off-budget spending. These increases in spending, along with the passage of Medicare Part D, pushed Federal Expenditures to 20.69% of GDP by 2003Q2. At the same time, due to the 2001 and 2003 tax cuts, Federal Receipts fell to 16.24% of GDP by 2003Q3. This produced structural budget deficits over the first decade of this century. The gap between revenues and expenditures began to close somewhat by 2007, but then with the onset of crisis in 2008, that gap widened again. By 2009Q3, Federal Revenues had fallen to 15.42% of GDP, and Expenditures grew to 25.50% of GDP by the first quarter of 2010. An interesting observation from Graph 82 is that there are only four times in the Post World War II Era in which Federal Expenditures exceeded 20% of GDP: 1975Q2, 1982Q4, 2003Q2, and 2010Q1. Three of those instances (1975Q2, 1982Q4, and 2010Q1) occurred during one of the three worst recessions in the post-war era. The fourth instance, 2003Q2, occurred *after* the 2001 Recession, the 911 Attacks, two large supply-side tax cuts, and the waging of two off-budget-financed wars.

### FACTORS CONTRIBUTING TO THE CURRENT U.S. DEBT

#### CHANGES IN SPENDING: 2001 vs. 2009

According to the Congressional Budget Office (CBO), the U.S. last had a surplus during Fiscal Year (FY) 2001. From FY2001 to FY2009, spending increased by 6.5 percentage points (650 basis points) of GDP (from 18.2% of GDP to 24.7% of GDP) while taxes declined by 4.7 percentage points (470 basis points) of GDP (from 19.5% of GDP to 14.8%). The drivers of the expenditure increases (expressed as a percentage-point change of a percent of GDP<sup>126</sup>) are Medicare and Medicaid (1.7, or 170 basis points), Defense (1.6, or 160 basis points), Income Security such as unemployment benefits and food

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<sup>126</sup> 100 Basis Points is equal to 1 Percentage Point. For instance, if there is an increase from 5% to 6%, then the increase was equal to a 1 percentage-point increase, or a 100 basis-point increase.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

stamps (1.4, or 140 basis points), Social Security (0.6, or 60 basis points) and all other categories (1.2, or 120 basis points).

**CHANGES IN REVENUES: 2001 vs. 2009**

The drivers of tax-revenue reductions are individual income taxes (−3.3 percentage points, or −330 basis points), payroll taxes (−0.5 percentage points, or −50 basis points), corporate income taxes (−0.5 percentage points, or −50 basis points) and other (−0.4 percentage points, or −40 basis points). The 2009 spending level was the highest relative to GDP in 40 years, while the tax-receipt levels were the lowest relative to GDP in 40 years. The next highest spending year was 1985 (22.8% of GDP) while the next lowest tax-revenue year was 2004 (16.1% of GDP)<sup>127</sup>.

**BUDGET OUTLOOK: 2001 vs. 2012**

The U.S. budget situation has deteriorated significantly since 2001, when the Congressional Budget Office (CBO) forecast average annual surpluses of approximately \$850 billion from 2009–2012. The average deficit forecast in each of those years as of June 2009 was approximately \$1,215 billion. The *New York Times* analyzed this roughly \$2 trillion "swing," separating the causes into four major categories along with their share:

- Recessions or the business cycle (37%);
- Policies enacted by President Bush (33%);
- Policies enacted by President Bush and supported or extended by President Obama (20%); and
- New policies from President Obama (10%).

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<sup>127</sup> Wikipedia, "United States Public Debt" and The Congressional Budget Office BUDGET AND ECONOMIC OUTLOOK: HISTORICAL BUDGET DATA (January 10, 2010)  
<http://cbo.gov/ftpdocs/108xx/doc10871/historicaltables.pdf>





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Further, CBO data is based only on current law, so policy proposals that have yet to be made law are not included in their analysis<sup>128</sup>

In another analysis, Peter Orszag, the OMB Director under President Obama, stated in a November 2009 article that of the \$9 trillion in deficits forecast for the 2010–2019 period, \$5 trillion are due to programs from the prior administration, including tax cuts from 2001 and 2003 and the unfunded Medicare Part D. Another \$3.5 trillion are due to the financial crisis, including reductions in future tax revenues and additional spending for the social safety net such as unemployment benefits. The remainder is stimulus and bailout programs related to the crisis<sup>129</sup>.

Finally, the Pew Center reported in April 2011 the cause of a \$12.7 trillion shift in the debt situation, from a 2001 CBO forecast of a cumulative \$2.3 trillion surplus by 2011 versus the estimated \$10.4 trillion public debt we actually face in 2011. The major drivers were<sup>130</sup>:

- Revenue declines due to the recession, separate from the Bush tax cuts of 2001 and 2003: 28%
- Defense spending increases: 15%
- Bush tax cuts of 2001 and 2003: 13%
- Increases in net interest: 11%
- Other non-defense spending: 10%
- Other tax cuts: 8%

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<sup>128</sup> Wikipedia, “United States Public Debt” and Leonhardt, David, *Americas Sea of Red Ink Was Years in the Making* (June 9, 2009)

< [http:// www.nytimes.com/2009/06/10/business/economy/10leonhardt.html](http://www.nytimes.com/2009/06/10/business/economy/10leonhardt.html) > The New York Times. Accessed on July 18, 2011.

<sup>129</sup> Wikipedia, “United States Public Debt” and Charlie Rose Show-Peter Orszag Interview-November 3, 2009

[http:// www.charlierose.com/download/transcript/10697](http://www.charlierose.com/download/transcript/10697) Accessed on July 20, 2011.

<sup>130</sup> Pew Charitable Trusts-*The Great Debt Shift*-(April 2011)

[http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Fact\\_Sheets/Economic\\_Policy/drivers\\_federal\\_debt\\_since\\_2001.pdf](http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Fact_Sheets/Economic_Policy/drivers_federal_debt_since_2001.pdf) Accessed on July 20, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

- Obama Stimulus: 6%
- Medicare Part D: 2%
- Other reasons: 7%

As of June 29, 2011, the Total Public Debt Outstanding of the United States of America was \$14.46 trillion and was approximately 98.6% of calendar year 2010's annual GDP of \$14.66 trillion<sup>131</sup>.

**THE FEDERAL BUDGET AND THE FINANCIAL AND ECONOMIC CRISIS**

The CBO reported in October 2009 reasons for the difference between the 2008 and 2009 deficits, which were approximately \$460 billion and \$1,410 billion, respectively. Key categories of changes included: tax receipt declines of \$320 billion due to the effects of the recession and another \$100 billion due to tax cuts in the stimulus bill (the *American Recovery and Reinvestment Act* or ARRA); \$245 billion for the Troubled Asset Relief Program (TARP) and other bailout efforts; \$100 billion in additional spending for ARRA; and another \$185 billion due to increases in primary budget categories such as Medicare, Medicaid, unemployment insurance, Social Security, and Defense – including the war efforts in Afghanistan and Iraq<sup>132</sup>.

This was the highest budget deficit relative to GDP (9.9%) since 1945<sup>133</sup>. The national debt increased by \$1.9 trillion during FY2009, versus the \$1.0 trillion increase during 2008<sup>134</sup>.

In addition, the Obama Administration made four significant accounting changes to more accurately report the total spending by the Federal Government. The four changes were<sup>135</sup>:

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<sup>131</sup> CRS (July 1, 2011), p. 1.

<sup>132</sup> Congressional Budget Office, *Monthly Budget Review* (October 2009) <http://www.cbo.gov/ftpdocs/106xx/doc10640/10-2009-MBR.pdf> Accessed on July 18, 2011

<sup>133</sup> *ibid.*

<sup>134</sup> Bureau of the Public Debt/Treasury Direct, *Debt changes from September 30, 2008 to September 30, 2009* [http://www.treasurydirect.gov/govt/reports/pd/histdebt/histdebt\\_histo5.htm](http://www.treasurydirect.gov/govt/reports/pd/histdebt/histdebt_histo5.htm) Treasurydirect.gov . Accessed on July 18, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

- 1) Accounting for the Wars in Iraq and Afghanistan (“overseas military contingencies”) in the budget rather than through the use of supplemental appropriations;
- 2) Assuming the Alternative Minimum Tax will be indexed for inflation;
- 3) Accounting for the full costs of Medicare reimbursements; and
- 4) Anticipating the inevitable expenditures for natural disaster relief.

According to administration officials, these changes will make the debt over ten years look \$2.7 trillion larger than it would otherwise appear<sup>136</sup>.

**DOES HIGH DEBT CAUSE SLOW GROWTH, OR DOES SLOW GROWTH CAUSE HIGH DEBT?**<sup>137</sup>

Driving the whole debt-ceiling crisis, to the extent that its not political calculation, is the good old-fashioned religion about living within one’s means. Unfortunately, as noted in the discussions in the sections above, much of the way the concern is expressed commits the Fallacy of Composition, or its application to macroeconomics, referred to by economists, as The Paradox of Thrift (see above). But should concern about reducing the debt, which is grabbing all the headlines, overshadow addressing the most serious instance of demand-deficit unemployment since the 1930’s? No one is addressing the need to stimulate aggregate demand to get the economy, and critically, jobs, growing again. Further, much of the public debt currently being carried on the books of the governments, in especially North America and Europe was run up by the private sector, including households and, especially, the financial sector.

There is also a debate among economists over the level of debt, relative to GDP, that signals a debt crisis, or even whether or not any such level exists. Kenneth Rogoff and

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<sup>135</sup> Calmes, Jackie, *Obama Bans Gimmicks, and Deficit Will Rise* (February 20, 2009). <http://www.nytimes.com/2009/02/0/us/politics/20budget.html> THE NEW YORK TIMES, Accessed on July 22, 2011 and “United States Public Debt”, Wikipedia.

<sup>136</sup> *ibid.*

<sup>137</sup> This section is builds on, and extends, some of the material presented in the Wikipedia entry “United States Public Debt”.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Carmen Reinhart published their study of 800 years of sovereign debt crises, and 400 years of banking crises titled *This Time Is Different*<sup>138</sup>. In an article for Bloomberg.Com, they stated that their empirical research on the history of financial crises and the relationship between growth and public liabilities supports the view that current debt trajectories are a risk to long-term growth and stability, with many advanced economies already reaching or exceeding the important marker of 90% of GDP<sup>139</sup>. Nevertheless, many prominent public intellectuals continue to argue that debt phobia is wildly overblown. Countries such as the U.S., Japan and the U.K. aren't like Greece, nor does the market treat them as such. In January 2010, in the *NBER Digest*, Rogoff and Reinhart also argued that debt level approaching 90% of GDP might be an indicative danger level<sup>140</sup>. Then, in February 2010, Reinhart testified before the U.S. Senate that their main finding was that across both advanced countries and emerging markets, high debt/GDP levels (90% and above) are associated with notably lower growth outcomes. Above 90%, median growth rates fall one percent, and average growth falls considerably more. In addition, for emerging markets, there appears to be a more stringent threshold for total external debt/GDP; when external debt reaches 60% of GDP, annual growth declines by about two percent and for higher levels growth-rates are roughly cut in half. Seldom do countries simply 'grow' their way out of deep debt burdens<sup>141</sup>.

However, Paul Krugman disputes the existence of a solid debt threshold or danger level, arguing that low growth causes high debt rather than the other way around<sup>142</sup>. He points out that the assertions made by Rogoff and Reinhart are based on a simple correlation in

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<sup>138</sup> Rogoff, Kenneth and Carmen Reinhart *THIS TIME IS DIFFERENT: Eight Centuries of Financial Folly* (2009) Princeton University Press: Princeton.

<sup>139</sup> Rogoff, Kenneth and Carmen Reinhart, *Reinhart and Rogoff: The Economy Can't Grow* (July 14, 2011) BLOOMBERG.COM <http://www.bloomberg.com/news/2011-07-14/too-much-debt-means-economy-can-t-grow-commentary-by-reinhart-and-rogoff.html> Accessed on July 25, 2011.

<sup>140</sup> Belsie, Laurent, *Growth in a Time of Debt* (April 2010). <http://www.nber.org/digest/apr10/w15639.html> . NBER Digest Online. Accessed on July 22, 2011.

<sup>141</sup> Reinhart, Carmen M. *Testimony before the Senate Budget Committee* (February 9, 2010) [http://budget.senate.gov/democratic/testimony/2010/SBC\\_Reinhart\\_February\\_9.pdf](http://budget.senate.gov/democratic/testimony/2010/SBC_Reinhart_February_9.pdf) Senate Budget Committee, United States Senate [website]. Accessed on July 25, 2011.

<sup>142</sup> Krugman, Paul, *Bad analysis at the Deficit Commission* (May 27, 2010) <http://krugman.blogs.nytimes.com/2010/05/27/bad-analysis-at-the-deficit-commission/> THE NEW YORK TIMES, The Opinion Pages: Conscience of a Liberal Blog Accessed on July 22, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

which causality could go in either direction<sup>143</sup> (or, in fact, both could even be driven by a third factor<sup>144</sup>). In other words, it is statistical association; not cause-and-effect. Given this, Krugman suspects that much of the rest of their result reflects reverse causation: He points out that in Europe, Japan, and the US this has been the case. Japan had low debt and fast growth before the 90s, high debt and slow growth since, but surely it was Japan's financial crisis (the popping of their real estate bubble and crash of the Nikkei Index) that both slowed growth and increased debt. Similarly, the onset of Eurosclerosis is what led both to slowing growth and higher debt in Europe.

In the US the only period of debt over 90% of GDP was after World War II when real GDP was falling, not because of debt problems, but because wartime mobilization was winding down and Rosie the Riveter was becoming a suburban housewife.<sup>145</sup> Further, Krugman states that Reinhart and Rogoff have not, as far as he can tell, made any effort to disentangle the causation.

Economists also debate the definition of public debt. Krugman argued in May 2010 that the debt held by the public is the right measure to use, while Reinhart has testified to the President's Fiscal Reform Commission that gross debt is the right figure. Certain members of the Commission are focusing on gross debt.<sup>146</sup> The Center on Budget and Policy Priorities (CBPP) cited research by several economists supporting the use of the lower debt held by the public figure as a more accurate measure of the debt burden, disagreeing with these Commission members<sup>147</sup>. Fed Chair Ben Bernanke stated in April 2010<sup>148</sup> that neither experience nor economic theory clearly indicates the threshold at

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<sup>143</sup> *ibid* and Krugman, Paul, *Debt And Transfiguration* (March 12, 2010)

<http://krugman.blogs.nytimes.com/2010/03/12/debt-and-transfiguration/>

THE NEW YORK TIMES, The Opinion Pages: Conscience of a Liberal Blog Accessed on July 22, 2011.

<sup>144</sup> Author's observation.

<sup>145</sup> Krugman, Paul, *Debt and Transfiguration* <http://krugman.blogs.nytimes.com/2010/03/12/debt-and-transfiguration/> THE NEW YORK TIMES Accessed on July 25, 2011.

<sup>146</sup> Krugman (May 27, 2010)

<sup>147</sup> Horney, James R., *Recommendation that president's fiscal commission focus on gross debt is misguided* (May 27, 2010) ([http:// www.cbpp.org/cms/index.cfm?fa=view&id=3197](http://www.cbpp.org/cms/index.cfm?fa=view&id=3197)

Center on Budget and Policy Priorities [website]. Accessed on July 22, 2011

<sup>148</sup> Bernanke, Ben S. Speech before the National Commission on Fiscal Responsibility and Reform: *Achieving Fiscal Sustainability* (April 27, 2010). <http://>



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

which government debt begins to endanger prosperity and economic stability. But given the significant costs and risks associated with a rapidly rising Federal debt, our nation should soon put in place a credible plan for reducing deficits to sustainable levels over time.

**IT'S AGGREGATE DEMAND STUPID! The Danger in the Hysteria Over the Debt**

It was best expressed by Cristina Romer in an April 17, 2010 article, in the *Wall Street Journal*: 'It's Aggregate Demand, Stupid'<sup>149</sup> The former Chair of President Obama's Council of Economic Advisers said that the reason unemployment remains so painfully high is clear: It's not the inadequacy or laziness of the workers or the long-standing mismatch between workers' skills and employers' needs. It's the old-fashioned Keynesian diagnosis: Too little demand in the economy<sup>150</sup>.

The diversion from solving the true, and urgent, problem at hand due to the current, phony debt-ceiling crisis, was best summarized by John Harvey of *Forbes* magazine:

Hence, the whole premise upon which these talks are based, i.e., that if we don't get deficit spending under control then we'll go bankrupt, is fundamentally flawed. In actuality, the real need right now is to stimulate aggregate demand by spending more. There is nothing standing between us and economic recovery but this. We have ample capacity to produce goods and services, business and finance costs are low, and there are plenty of idle resources. So why aren't firms hiring? Because they know damn well that they can't sell anything when we have almost 15 million unemployed workers<sup>151</sup>.

To the extent that job-creation, as opposed to deficit-reduction, is even being discussed, much of the focus, currently in fashion, about how to get firms to higher workers centers

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[www.federalreserve.gov/newsevents/speech/bernanke20100427a.htm](http://www.federalreserve.gov/newsevents/speech/bernanke20100427a.htm) Federalreserve.gov. Accessed on July 22, 2011.

<sup>149</sup> Romer, Christina, *It's Aggregate Demand, Stupid!* (April 17, 2010) THE WALL STREET JOURNAL <http://blogs.wsj.com/economics/2010/04/17/romer-its-aggregate-demand-stupid/> Accessed on July 22, 2011.

<sup>150</sup> *ibid.*

<sup>151</sup> Harvey, John T, *Dump the Debt Limit and Address the Real Problem* (July 23, 2011) FORBES, YAHOO NEWS.COM <http://news.yahoo.com/dump-debt-limit-address-real-problem-021216265.html> Accessed on July 25, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

around reducing regulations, cutting the employers' side of the payroll tax, or other inducements to get employers to hire workers is wittingly, or unwittingly, predicated on the erroneous idea that firms' demand for workers is a final demand. It is not. The firm's demand for factor-inputs, including labor, is a *Derived Demand*. That is, the firm demands factor-inputs only because there is demand for its output (a Direct Demand). Because there is direct demand for the product it produces, the firm demands factor-inputs to fill its orders and meet its final demand. With no direct demand, there is no derived demand. This gets to the heart of the argument made by Romer and Harvey (see above) that its aggregate demand that needs to be stimulated. That is, if direct demand is stimulated, then it follows that derived demand will also be stimulated. That is, to fill their orders, firms will hire workers, which will increase income, which, in turn, will increase tax revenues, reduce income support payments, and therefore reduce the deficit.

## **VII. WHERE DO WE GO FROM HERE? The Outlook for 2010-2012 and Beyond**

In the Introduction to this outlook, the ups-and-downs, or crosscurrents that have buffeted this recovery were noted. It was also noted these fits-and-starts reflect an economy struggling to achieve escape velocity, and finally break free of the gravitational pull of the aftermath of the popped housing and credit bubbles, and the 21st Century's first financial panic and subsequent deep recession. Even given the jobless recoveries characteristic of the Post Cold War Era, this has been a weak and halting recovery. And, as also noted, this recovery has followed no "ordinary" recession, and therefore, we are in anything but an "ordinary" recovery. And, at the time of writing, with the withdrawal of fiscal stimulus, from the winding down of the ARRA, the predicted double-dip in the housing market well underway, the severe spending cuts and tax increases by state governments to balance their budgets with the withdrawal of Federal support, and the uncertainty gripping the economy over the manufactured, and self-inflicted, looming default crisis, the downs seem to be dominating the ups as we move into the second half



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

of 2011, as a double-dip, as opposed to the infamous “soft patch”, appears to be the more likely scenario.

As has been noted throughout this outlook, the U.S. is faced with a severe lack of aggregate demand, and, as a consequence, the worst level of demand-deficit unemployment since the Great Depression. It has come on the heels of the first U.S. systemic banking panic since the 1930’s, in conjunction with the first collapse of a shadow banking system since 1907<sup>152</sup>, and the first succession of collapses in asset bubbles in housing and the stock market, in conjunction with unsustainable levels of household debt since the 1920’s<sup>153</sup>. The recent collapse of the housing and credit bubbles, which left households with unsustainable levels of consumer debt, resulted in what has been called a *Balance Sheet Recession*<sup>154</sup>. The Great Depression was a balance-sheet recession, as was the recession that followed the collapse of Japan’s real estate bubble in 1989. Balance sheet recessions are steeper and last longer than non-balance-sheet recessions, and they are followed by weaker recoveries. And, yet the current national debate is dominated by talk of spending cuts.

**POLITICAL STALEMATE AND ECONOMIC STAGNATION, OR WORSE?**

At the time of writing, as noted above, the U.S. was hurling toward what could be the first default on its debt in its history. It appears that an inflexible, ideologically-driven faction in the U.S. House of Representatives has been able to torpedo what appeared to be a resolution among the Republicans, Democrats, and the White House, that would have ended the U.S.’s manufactured crisis over raising the debt ceiling, at least twice. Even if a last-minute deal is reached, there has already been some lasting damage inflicted on the economy. The whole debate is focusing on the *wrong* deficit. At a time when unemployment is still above 9%, and the U.S. Economy is suffering from its worst

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<sup>152</sup> Bruner, ROBERT F. and Sean D. Carr, THE PANIC OF 1907: Lessons Learned from the Market's Perfect Storm (2007) John Wiley & Sons: New York

<sup>153</sup> White, Eugene N., The Great American Real Estate Bubble of the 1920s: Causes and Consequences (October 2008) National Bureau of Economic Research: Cambridge, Ma.

<sup>154</sup> Koo, Richard C., THE HOLY GRAIL OF MACROECONOMICS: Lessons from Japan's Great Recession (2009) John Wiley & Sons: New York





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

*deficit in aggregate demand* since the 1930's, now is not the time to be obsessed with the Federal deficit, by pulling spending out of the economy. This belt-tightening is being advocated just as U.S. GDP growth has decelerated over the first half of 2011, and job-growth has flat-lined. This seems to be a prescription for another recession. Against this backdrop, the next section presents the outlook for the U.S. Economy for 2011 and 2012.

**THE OUTLOOK FOR THE U.S. ECONOMY: 2011 AND 2012 AND BEYOND**

U.S. MACROECONOMIC FORECASTS FOR 2011 AND 2012— The University of Michigan's June update to their March 2011 forecast for 2011 and 2012 states:

The economy loses a little steam the first quarter of 2012, growing at a 2.6 percent pace as the temporary tax cuts are reduced, but growth then picks up to 3.2 percent during the balance of the year. Consumption and business fixed investment are the major sources of growth; a recovery in housing also plays a role. Government purchases, at the federal as well as the state and local level, continue to be a drag on growth<sup>155</sup>.

It has been argued throughout this outlook that housing is a critical driver of the business cycle and should be accorded more than just the aside "housing also plays a role". As noted above, Zandi<sup>156</sup> stated the problem quite clearly and succinctly, that the key to solving the problems in the economy, lie in solving the housing problem. And, as noted in Sub-Section C, Section VI, above, and as observed by the University of Michigan in their forecast summary: "Government purchases, at the federal as well as the state and local level, continue to be a drag on growth"

In the preface to the June update of their, April 2011 *World Economic Outlook* (WEO), the International Monetary Fund (IMF) sees a mild Slowdown in the Global Expansion, and they note that there are increasing Risks:

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<sup>155</sup> Research Seminar in Quantitative Economics, *The U.S. Economic Outlook for 2011–2012 Executive Summary: June 2011* (June 16, 2011) University of Michigan: Ann Arbor.

<sup>156</sup> Zandi (2011),



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Activity is slowing down temporarily, and downside risks have increased again. The global expansion remains unbalanced. Growth in many advanced economies is still weak, considering the depth of the recession. In addition, the mild slowdown observed in the second quarter of 2011 is not reassuring. Growth in most emerging and developing economies continues to be strong. Overall, the global economy expanded at an annualized rate of 4.3 percent in the first quarter, and forecasts for 2011–12 are broadly unchanged, with offsetting changes across various economies. However, greater-than-anticipated weakness in U.S. activity and renewed financial volatility from concerns about the depth of fiscal challenges in the euro area periphery pose greater downside risks. Risks also draw from persistent fiscal and financial sector imbalances in many advanced economies, while signs of overheating are becoming increasingly apparent in many emerging and developing economies. Strong adjustments—credible and balanced fiscal consolidation and financial sector repair and reform in many advanced economies, and prompt macroeconomic policy tightening and demand rebalancing in many emerging and developing economies—are critical for securing growth and job creation over the medium term<sup>157</sup>.

The emphasis in the outlook presented here is on the “greater-than-anticipated weakness in U.S. activity and renewed financial volatility from concerns about the depth of fiscal challenges in the euro area periphery pose greater downside risks”. Further, the argument presented throughout this outlook has been that rather than “prompter macroeconomic policy tightening and demand rebalancing in many emerging and developing economies” being the key to “securing growth and job creation over the medium term”, quite the opposite is true. That is, the belt-tightening that seems to be proceeding will, in fact, if not put the economy back into recession, will, at best, result in stagnation in growth.

Table 4 presents five, mid-year updated, macroeconomic forecasts for the U.S. economy for 2011 and 2012, as well as historical data for 2010. Table 5 presents the forecasters and their identifier as they appear in Table 4.

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<sup>157</sup> International Monetary Fund, *World Economic Outlook-UPDATE* (June 17, 2011) Washington, p. 1.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

<b>TABLE 4: Mid 2011 U.S. Macro Forecasts for 2011 and 2012</b>						
Real GDP	% CHANGE			Pct-Pt Diff	Pct-Pt Diff	
	2010	2011	2012	2010-11	2011-12	
<b>CBO</b> <sup>1</sup>	2.90	2.70	3.10	-0.20	<b>0.40</b>	
<b>IMF</b> <sup>2</sup>	2.90	2.50	2.70	-0.40	0.20	
<b>UMich</b> <sup>3</sup>	2.90	2.50	3.10	-0.40	0.60	
<b>Fair</b> <sup>4</sup>	2.90	3.17	4.08	0.27	0.91	
<b>BCEI</b> <sup>5</sup>	2.90	2.50	3.00	-0.40	<b>0.50</b>	
<b>AVERAGE</b>	<b>2.90</b>	<b>2.67</b>	<b>3.20</b>	<b>-0.23</b>	<b>0.52</b>	
Unemployment Rate	% LEVEL			Pct-Pt Diff	Pct-Pt Diff	
	2010	2011	2012	2010-11	2011-12	
<b>CBO</b>	9.60	9.40	8.40	-0.20	-1.00	
<b>IMF</b>	9.60			*	*	
<b>UMich</b>	9.60	9.00	8.70	-0.60	-0.30	
<b>Fair</b>	9.60	8.50	7.40	-1.10	-1.10	
<b>BCEI</b>	9.60	8.90	8.30	-0.70	-0.60	
<b>AVERAGE</b>	<b>9.60</b>	<b>8.95</b>	<b>8.20</b>	<b>-0.65</b>	<b>-0.75</b>	
CBO <sup>1</sup>	Jan 2011 Forecast, no update in July					
IMF <sup>2</sup>	Jun 2011 Updated Forecast					
UMich <sup>3</sup>	Jun 2011 Updated Forecast					
Fair <sup>4</sup>	Apr 2011 Updated Forecast					
BCEI <sup>5</sup>	Jul 10, 2011 Consensus Forecast					
*	No update available.					

**TABLE 5: Forecasters and Their Identifiers**

<b>IDENTIFIER</b>	<b>FORECASTER</b>
CBO	Congressional Budget Office
IMF	International Monetary Fund
UMich	University of Michigan
Fair	Ray C. Fair
BCEI	Blue Chip Economic Indicators

From the historical GDP data in the “2010” column, Real U.S. GDP grew by 2.90% in 2010. The average forecast for GDP-growth by the five forecasters in 2011 is 2.67%, and the average growth-rate of Real GDP forecasted for 2012 is 3.20%. The average forecast expects a 0.23 percentage-point (23 basis points) deceleration in the growth-rate in Real GDP between 2010 and 2011, and a 0.52 percentage-point (52 basis points) acceleration in the growth-rate in Real GDP between 2011 and 2012.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

For 2010, the U.S. Unemployment Rate (UR) averaged 9.60%. The average forecast from Table 4 expects the UR to average 8.95% for 2011, and 8.20% for 2012. That is, on average, the five forecasters expect a 0.65 percentage-point (65 basis points) decline in the UR between 2010 and 2011, and another 0.75 percentage-point (75 basis points) decline between 2011 and 2012.

In light of the acceleration in the slowdown of the recovery from late 2010, and into the first half of 2011, how do these five mid-year forecasts compare to their forecasts at the beginning of 2011? To look at how their forecasts may have changed, Table 6 presents the differences in their forecasts for Real GDP and the UR for 2011 and 2012 in early 2011, compared to their mid-year forecasts. In the Appendix to Section VI, Table VI-A 1 shows the early-2011 forecasts, and tables VI-A 2 a to d show the descriptive statistics for the early-2011 forecasts for GDP and the UR, Table VI-A 3 reproduces Table 4 above for the mid-year forecasts, and tables VI-A 4 a to d present the descriptive statistics for the mid-year forecasts.

<b>TABLE 6: Difference Between Mid- and Early-2011 U.S. Macro Forecasts for 2011 and 2012</b>				
	<b>Pct-Pt Diff</b>	<b>Pct-Pt Diff</b>	<b>Pct-Pt Diff</b>	
<b>Real GDP</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	
<b>CBO</b> <sup>1</sup>	0.10	0.00	0.00	
<b>IMF</b> <sup>2</sup>	0.10	-0.50	0.00	
<b>UMich</b> <sup>3</sup>	0.10	-0.60	0.20	
<b>Fair</b> <sup>4</sup>	0.10	-0.77	0.72	
<b>BCEI</b> <sup>5</sup>	0.10	-0.60	-0.30	
<b>AVERAGE</b>	<b>0.10</b>	<b>-0.49</b>	<b>0.12</b>	
	<b>Pct-Pt Diff</b>	<b>Pct-Pt Diff</b>	<b>Pct-Pt Diff</b>	
<b>Unemployment Rate</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	
<b>CBO</b>	0.00	0.00	0.00	
<b>IMF</b>	*	*	*	
<b>UMich</b>	0.00	0.20	0.20	
<b>Fair</b>	0.00	-0.03	0.08	
<b>BCEI</b>	0.00	-0.10	-0.10	
<b>AVERAGE</b>	<b>0.00</b>	<b>0.02</b>	<b>0.04</b>	



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

First, from Table 6, the 10 percentage-point (10 basis points) increase in the 2010 growth-rate in U.S. Real GDP reflects the annual revision to the historical data, which increased the U.S. Real GDP growth-rate from 2.80% to 2.90% in 2010. With regard to the forecasts for 2011 and 2012, on average, the five forecasters have lowered their mid-year forecast for Real GDP for 2011, compared to their early-2011 forecast, by 0.49 percentage points (49 basis points). However, the average mid-2011 forecast for 2012, for Real GDP, is actually higher by 0.12 percentage points (12 basis points), compared to their early-2011 forecasts.

On average, the mid-term forecasts increased, slightly, their expectations about the UR, compared to the early-2011 forecasts. On average, they expect the U.S. UR to be 0.02 percentage points higher than previously forecast for 2011, and 0.04 percentage points higher in 2012. The raised their forecast for the UR very slightly for 2011 and 2012.

As is clear from Table 4 and Table VII-A 1 (in the Appendix) all but one forecaster (the CBO) expected GDP-growth to be higher in 2011 than in 2010, in the earlier round of forecasts, but three forecasters expected lower GDP-growth in 2012, but still higher than in 2010. All expected the UR to decline in both 2011 and 2012, compared to 2010. But, for the mid-year forecasts all, except Ray C. Fair, expected lower GDP growth in 2011, compared to 2011, but all expected higher GDP-growth in 2012, compared to both, 2010 and 2011. All expected the UR to come down in both 2011 and 2012 in their mid-term forecasts, just as they did in their early 2011 forecasts. There was a wider range of forecasts for 2011, compared to 2012 (see tables VII-A 2a and 2b in the Appendix), as reflected in the higher Coefficient of Variation (CV) for the 2011 relative to the 2011 forecast in the early-year forecasts. However, for the mid-term forecasts, there seemed to be less certainty about the 2012 GDP forecast as the CV was higher for the 2012 forecast.

As discussed above, Table 6 summarizes the differences between the early- and mid-2011 forecasts by the five forecasters. As noted, on average, they reduced their forecast for GDP growth in 2011 in the mid-term forecast compared to their early 2011 forecast. However, they raised slightly, their forecast for 2012. This is likely predicated on the



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

“soft patch” view of the economy’s current path. That is, once the temporary effects of the disruption of supply chains in the auto industry and electronics, due to the earthquake and tsunami in Japan, have dissipated, and the boost from the decline in oil prices gets traction, the economy will resume growth. However, the view of the outlook is that this is more than a soft patch. As government stimulus, under the ARRA, is winding down, and the boosts to housing from the first-time homebuyers tax credit and the Fed’s QE1 Program, and the temporary boost to autos from the “Cash-for-Clunkers” Program all ended at the end of 2010, and with Federal withdrawal of support to the states, the life supports that were propping up the economy, have been withdrawn. And, as the Federal support of the economy has been withdrawn, economic growth has been decelerating, and job growth has flatlined.

Clearly, with the manufactured debt-ceiling crisis reaching the point of no return at the time of writing, even if an agreement is reached, it will likely take any Federal stimulus of the economy off the table. In fact, the debt-ceiling crisis and the mid-term elections, have both taken further fiscal stimulus off the table. Thus, the lack of aggregate demand (the worst since the 1930’s), which, in turn, has generated the highest and most persistent level of demand-deficient unemployment in seven decades, will persist into the foreseeable future. Therefore, the outlook foresees not only lower GDP growth in 2011, compared to 2010 (as does the average forecast for the mid-year forecasts), but also, lower growth in 2012 compared to 2011. It is more likely that the 0.52 percentage-point difference in the GDP-growth-rate between 2011 and 2012 (see Table 6), which represents the average of the five mid-year forecasts, will turn out to be closer to –0.52 percentage points. Likewise for the average mid-year forecasts for the UR for 2011 and 2012. It is more likely that the percentage-point differences for 2011 and 2012 would instead, have positive signs, rather than their actual negative signs. That is, it seems more likely that the UR will increase by +0.65 percentage points in 2011 and +0.75 percentage points in 2012. And, the likelihood of a double-dip recession increases as we move into the last half of 2011 and into 2012.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

The outlook concludes with a brief discussion of a couple of features of the current, balance sheet recession that will continue to inhibit recovery for the foreseeable future. The first is the set of conditions that produces a balance sheet recession, falling asset values and high, and unsustainable debt loads. The second feature is what is most probably the critical driver in producing an asset/credit bubble as the only path to an “economic expansion”, or as what has been used to characterize the illusory expansion over the first decade of this century: the “Mirage Economy”.

IT’S STILL AGGREGATE DEMAND STUPID! — As Christina Romer, former Chair of the president’s Council of Economic Advisers, put it: ‘It’s Aggregate Demand, Stupid’. She summed it up quite well:

... the reason unemployment remains so painfully high is clear: It’s not the inadequacy or laziness of the workers or the long-standing mismatch between workers’ skills and employers’ needs. It’s the old-fashioned Keynesian diagnosis: Too little demand in the economy<sup>158</sup>.

An often-cited recent *New York Times* article covered how companies are replacing workers with machines as the cost of workers, especially health-care costs, are going up while the cost of capital is relatively cheap. A sharp rebound in capital expenditures, in conjunction with little, or no growth, in the demand for labor, has only been observed once before (at least in the Post World War II Era): coming out of the 1981-82 Recession<sup>159</sup>. This is what economists call the *Substitution Effect*. Holding output constant, the firm substitutes the cheaper factor-input, in terms of its relative price, for the more expensive one. This improves the firm’s bottom line by reducing the cost of producing a given level of output. But, what is missing in the discussion is another part of the analysis from the microeconomics of the firm: the *Output Effect*. The Output Effect results from (as the factor-input combination is held constant), one of three outcomes:

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<sup>158</sup> Wessel, David, Romer: ‘It’s Aggregate Demand, Stupid’ (April 17, 2010) WALL STREET JOURNAL, WSJ.Com <<http://blogs.wsj.com/economics/2010/04/17/romer-its-aggregate-demand-stupid/>> Accessed on July 25, 2011.

<sup>159</sup> Rampell, Catharine, Companies Spend on Equipment, Not Workers (June 9, 2011) NEW YORK TIMES <<http://www.nytimes.com/2011/06/10/business/10capital.html>> Accessed on July 26, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

does the level of output increase (using more of both, capital and labor), decrease (using less of both factor-inputs), or stay the same (no change in the use of factor-inputs, given the input combination). However, while the Substitution Effect results in an improvement in the bottom line; the Output Effect is driven by the *Top Line*. If the firm is making sales, and bringing in revenue, its top line is growing, and this drives the Output Effect. That is, as the scale of output increases, more capital *and* labor would be used. This gets to the heart of the current problem afflicting the economy: Its Aggregate Demand stupid! If the firm had so many orders coming through the door it couldn't keep up with them, they would be running up-and-down the street grabbing bodies off the sidewalk to fill their orders. But, with little or no movement on the Top Line, the firm then concentrates on the Bottom Line exclusively; that, in turn, means focusing on the Substitution Effect with a vengeance to compensate for the lack of an Output Effect because of little, or no movement, on the Top Line. And, in the long run, it is the Top Line that is critical—if no one is buying your product, you go out of business.

The dominance of Cyclical, or Demand-Deficient, Unemployment over Structural Unemployment over the current cycle was affirmed by a study done by the Federal Reserve Bank of San Francisco in May 2011. They found cross-country evidence on the relative importance of cyclical and structural factors in explaining unemployment, including the sharp rise in U.S. long-term unemployment during the Great Recession of 2007-09. They found that about 75% of the forecast error variance of unemployment is accounted for by cyclical factors. They found that structural factors, accounted for the remaining 25%. For the U.S., from a long-term perspective, the long-term unemployment split between cyclical and structural factors is closer to 60%-40%, including during the Great Recession<sup>160</sup>.

Two sets of factors account for a good part of the Demand-Deficit Unemployment, which, in turn, is the result of a lack of aggregate demand: the Balance Sheet Recession produced by the popping of the housing bubble and households' accumulation of

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<sup>160</sup> Chen, Jinzhu, Prakash Kannan, Prakash Loungani, and Bharat Trehan, *New Evidence on Cyclical and Structural Sources of Unemployment* (May 2011) Working Paper 2011-17, FEDERAL RESERVE BANK OF SAN FRANCISCO: San Francisco





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

unsustainable levels of debt, and not only the skewed personal distribution of income, but also, the skewed *Functional Distribution* of Income. They are now briefly discussed.

*Falling Housing Prices and High Debt Loads*— As noted throughout this outlook, depressing aggregate demand through the Great Recession, and the current weak recovery is the significant hit to the balance sheets of households, as well as, non-incorporated businesses. With the double-dip in housing, as noted, well underway, housing prices are continuing to fall. And, as pointed out in the Harvard housing study, it is the modest and lower-priced homes that are falling most steeply, and at an accelerating rate<sup>161</sup>. Even though households have brought their debt loads down (that is, until 2011Q1, when that trend reversed), they are still at historically high levels. There have been only two times in the past 100 years when households' debt loads exceeded 100% of GDP: 1929 and 2006<sup>162</sup>.

Ultimately, it could be said that: It's household debt stupid! All that one hears these days is about the government's debt, and its "out-of-control" spending. But the bigger problem, and the source of a significant long-term drag on the economy is a different kind of budget shortfall: private debt.

As noted above, 2006 was the first time since 1929 that household debt exceeded 100% of GDP. This was largely due to many households using their homes as ATM's during the housing bubble of the last decade. And, as has been noted, more than once, throughout this outlook, the sheer scale of today's household debt epidemic means that it could be a persistent drag on efforts to stimulate broader growth in the economy and to reduce unemployment, which currently stands at 9.1%. In fact, the scope of household debt is so daunting that it could produce America's own version of Japan's "Lost Decade" - a period following a real-estate bust in the early 1990s when Japan's economy hardly grew at all<sup>163</sup>. The Federal Reserve Bank of New York last month released figures showing overall U.S. household debt at an estimated \$11.5 trillion at the end of March

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<sup>161</sup> Harvard University (May 2011)

<sup>162</sup> Mian, Atif and Amir Sufi, *Household debt and macroeconomic fluctuations*(April 29, 2010) VOXEU.COM < <http://www.voxeu.org/index.php?q=node/4954> > Accessed on May 2010.

<sup>163</sup> See Koo (2009)



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

this year<sup>164</sup>-With falling housing values, and therefore falling asset values for households, and with historically high debt loads, and therefore liabilities, households' efforts to repair their balance sheets will truly be a long slog.

*The Functional Distribution of Income and Aggregate Demand*— Another feature that this recession, and recovery, share with the 1920's/1930's eras is the growing concentration of wealth and income which directly effects consumers' ability to buy the goods and services produced by the economy. There are several factors that have contributed to workers taking home a smaller and smaller share of the pie, including the decline of unions and therefore the decline in the bargaining power of labor, and increased competition from foreign workers. Similarly, over the last year or so, U.S. companies have made record profits, while unemployment has stayed high and wages have barely risen<sup>165</sup>. Further, since the 1980s, income for the richest 1% of Americans has exploded, while hardly budging at all for everyone else. Incredibly, this whole issue regarding the bifurcation of the U.S. Economy has been completely off the radar screen, and there's little sense that either the Obama administration or Congress plan to do much about this growing inequality. Indeed, any serious action to boost the economy and cut unemployment now seems to be off the table, especially, in light of the manufactured debt-ceiling crisis, and all sides now talking about spending cuts rather than stimulus<sup>166</sup>.

Critical to this trend in the functional distribution of income has been the larger and larger share going to profits, and therefore, smaller and smaller shares going to labor. From mid-2009 through the end of 2010, output per hour at U.S. Non-Farm businesses rose 5.2% as companies squeezed more from their existing workers. But the lion's share of that gain went to shareholders in the form of record profits, rather than to workers in

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<sup>164</sup> Roth, Zzachary, *Could private debt lead to our own 'Lost Decade'?* (June 8, 2011) THE LOOKOUT, YAHOO NEWS BLOG < [http://news.yahoo.com/s/yblog\\_thelookout/20110608/us\\_yblog\\_thelookout/could-private-debt-lead-to-our-own-lost-decade](http://news.yahoo.com/s/yblog_thelookout/20110608/us_yblog_thelookout/could-private-debt-lead-to-our-own-lost-decade) > Accessed on July 28, 2011.

<sup>165</sup> Roth, Zachary, *Workers' share of national income plummets to record low* (June 14, 2011) YAHOO NEWS.COM < [http://news.yahoo.com/s/yblog\\_thelookout/20110614/bs\\_yblog\\_thelookout/workers-share-of-national-income-plummets-to-record-low](http://news.yahoo.com/s/yblog_thelookout/20110614/bs_yblog_thelookout/workers-share-of-national-income-plummets-to-record-low) > Accessed on July 29, 2011.

<sup>166</sup> *ibid.*



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

the form of raises. Hourly wages, adjusted for inflation, rose only 0.3%, according to the Labor Department. In other words, companies shared only 6% of productivity gains with their workers. That compares to 58% since records began in 1947<sup>167</sup>. In the early stages of a recovery, unemployment is high, so workers usually have little bargaining power. But that's not what has happened during most of the recoveries of the last 60 years. Workers typically received at least half of productivity gains in the form of higher wages. Only in the recovery from the deep recession of the early 1980s, when inflation-adjusted hourly wages fell 0.4%, did workers do worse than they have in this recovery. Back then, though, inflation was much higher, in nominal terms, wages rose 5.7%, compared to 3.1% now<sup>168</sup>.

BEYOND 2012: The Bifurcation of the U.S. Economy and the Prospect of Stagnation—

In addition to the functional distribution of income, discussed above, there has also been a growing concentration of the personal distribution of income and wealth, and the two are connected. And, we have been here before. On the eve of the Great Depression, income and wealth, like now, was concentrated at the top with the vast majority of households using debt financing to maintain their consumption levels in the face of declining income. But, at some point, specifically 1929 and 2007-08, the level of debt was perceived to be no longer sustainable, and crisis ensued.

In November 2010, the International Monetary Fund (IMF) published a paper that investigated how high leverage and crises can arise as a result of changes in the income distribution. Their empirical investigation of the periods 1920-1929 and 1983-2008 found that both exhibited large increases in the income share of the rich (top 5%), a large increase in leverage for the remainder (the lower 95%), and, in each case, an eventual financial and real economic crisis<sup>169</sup>. Further, over both periods, the financial sector grew

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<sup>167</sup> WALL STREET JOURNAL, *Number of the Week: Workers Not Benefiting From Productivity Gains* (March 5, 2011) WJS BLOG < <http://blogs.wsj.com/economics/2011/03/05/number-of-the-week-workers-not-benefiting-from-productivity-gains/> > Accessed on April 5, 2011.

<sup>168</sup> *ibid.*

<sup>169</sup> Kumhof, Michael and Romain Rancière *Inequality, Leverage and Crises* (November 2010) International Monetary Fund: Washington, Abstract.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

significantly compared to the rest of the economy. For instance, from 1983 to 2008, the U.S. Financial Sector doubled its share to 8% of GDP.

However, it is not just the household sector that has taken on the characteristics of a two-tiered system. As discussed in detail in Sub-Section E of Section III, there has been a divergence in the fortunes of incorporated versus non-incorporated businesses in the U.S. Business Sector. It is the non-incorporated sector that has been hit the hardest by the financial crisis and subsequent deep recession. While for the incorporated sector, the U.S. domestic market is just part of their portfolio of consumer markets, for many firms in the non-incorporated sector, the U.S. Market is either their only consumer market, or their most important consumer market. Thus, while more than half of the incorporated sector's profits came from their overseas operations last year, those firms, mostly non-incorporated, that are solely, or largely, dependent on the U.S. Market have seen a significant fall in the demand for their products with the popping of the asset and credit bubbles, and rising, and persistently high, unemployment. In addition, like many households, they have had a significant hit to their balance sheets.



# **U. S. OUTLOOK APPENDIX**

**TABLE VII-A 1: Early 2011 U.S. Macro Forecasts for 2011 and 2012**

	<b>% CHANGE</b>			<b>Pct-Pt Diff</b>	<b>Pct-Pt Diff</b>
<b>Real GDP</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2010-11</b>	<b>2011-12</b>
<b>CBO<sup>1</sup></b>	2.80	2.70	3.10	-0.10	<b>0.40</b>
<b>IMF<sup>2</sup></b>	2.80	3.00	2.70	0.20	-0.30
<b>UMich<sup>3</sup></b>	2.80	3.10	2.90	0.30	-0.20
<b>Fair<sup>4</sup></b>	2.80	3.94	3.36	1.14	-0.58
<b>BCEI<sup>5</sup></b>	2.80	3.10	3.30	0.30	<b>0.20</b>
<b>AVERAGE</b>	<b>2.80</b>	<b>3.17</b>	<b>3.07</b>	<b>0.37</b>	<b>-0.10</b>
	<b>% LEVEL</b>			<b>Pct-Pt Diff</b>	<b>Pct-Pt Diff</b>
<b>Unemployment Rate</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2010-11</b>	<b>2011-12</b>
<b>CBO</b>	9.60	9.40	8.40	-0.20	-1.00
<b>IMF</b>	9.60	*	*	*	*
<b>UMich</b>	9.60	8.80	8.50	-0.80	-0.30
<b>Fair</b>	9.60	8.53	7.33	-1.08	-1.20
<b>BCEI</b>	9.60	9.00	8.40	-0.60	-0.60
<b>AVERAGE</b>	<b>9.60</b>	<b>8.93</b>	<b>8.16</b>	<b>-0.67</b>	<b>-0.78</b>
CBO <sup>1</sup>	January 2011 Updated Forecast				
IMF <sup>2</sup>	Jan 2011 Updated Forecast				
UMich <sup>3</sup>	Mar 2011 Updated Forecast				
Fair <sup>4</sup>	Jan 2011 Updated Forecast				
BCEI <sup>5</sup>	March 10, 2011 Consensus Forecast				
*	No update available.				

**TABLE VII-A 2a: EARLY-2011 FORECASTS**

<b>Summary Stats-2011 GDP Forecast</b>	
Coefficient of Variation	14.58
Mean	3.17
Standard Error	0.21
Median	3.10
Mode	3.10
Standard Deviation	0.4619
Sample Variance	0.2133
Kurtosis	3.1201
Skewness	1.4925
Range	1.2406
Minimum	2.7000
Maximum	3.9406
Sum	15.8406
Count	5
Confidence Level(95.0%)	0.5735

**TABLE VII-A 2c: EARLY-2011 FORECASTS**

<b>Summary Stats-2011 UR Forecast</b>	
Coefficient of Variation	4.12
Mean	8.93
Standard Error	0.18
Median	8.90
Mode	N/A
Standard Deviation	0.3682
Sample Variance	0.1356
Kurtosis	0.2535
Skewness	0.4543
Range	0.88
Minimum	8.53
Maximum	9.40
Sum	35.73
Count	4
Confidence Level(95.0%)	0.5859

**TABLE VII-A 2b: EARLY-2011 FORECASTS**

<b>Summary Stats-2012 GDP Forecast</b>	
Coefficient of Variation	8.97
Mean	3.07
Standard Error	0.12
Median	3.10
Mode	N/A
Standard Deviation	0.2755
Sample Variance	0.0759
Kurtosis	-1.5789
Skewness	-0.4144
Range	0.6600
Minimum	2.7000
Maximum	3.3600
Sum	15.3600
Count	5
Confidence Level(95.0%)	0.3421

**TABLE VII-A 2d: EARLY-2011 FORECASTS**

<b>Summary Stats-2012 UR Forecast</b>	
Coefficient of Variation	6.82
Mean	8.16
Standard Error	0.28
Median	8.40
Mode	8.40
Standard Deviation	0.5562
Sample Variance	0.3093
Kurtosis	3.8658
Skewness	-1.9562
Range	1.1750
Minimum	7.3250
Maximum	8.5000
Sum	32.6250
Count	4
Confidence Level(95.0%)	0.8850

**TABLE VII-A 3: Mid 2011 U.S. Macro Forecasts for 2011 and 2012**

	<u>% CHANGE</u>			<u>Pct-Pt Diff</u>	<u>Pct-Pt Diff</u>
	Real GDP	2010	2011	2012	2010-11
<b>CBO</b> <sup>1</sup>	2.90	2.70	3.10	-0.20	<b>0.40</b>
<b>IMF</b> <sup>2</sup>	2.90	2.50	2.70	-0.40	0.20
<b>UMich</b> <sup>3</sup>	2.90	2.50	3.10	-0.40	0.60
<b>Fair</b> <sup>4</sup>	2.90	3.17	4.08	0.27	0.91
<b>BCEI</b> <sup>5</sup>	2.90	2.50	3.00	-0.40	<b>0.50</b>
<b>AVERAGE</b>	<b>2.90</b>	<b>2.67</b>	<b>3.20</b>	<b>-0.23</b>	<b>0.52</b>
	<u>% LEVEL</u>			<u>Pct-Pt Diff</u>	<u>Pct-Pt Diff</u>
Unemployment Rate	2010	2011	2012	2010-11	2011-12
<b>CBO</b>	9.60	9.40	8.40	-0.20	-1.00
<b>IMF</b>	9.60			*	*
<b>UMich</b>	9.60	9.00	8.70	-0.60	-0.30
<b>Fair</b>	9.60	8.50	7.40	-1.10	-1.10
<b>BCEI</b>	9.60	8.90	8.30	-0.70	-0.60
<b>AVERAGE</b>	<b>9.60</b>	<b>8.95</b>	<b>8.20</b>	<b>-0.65</b>	<b>-0.75</b>
CBO <sup>1</sup>	Jan 2011 Forecast, no update in July				
IMF <sup>2</sup>	Jun 2011 Updated Forecast				
UMich <sup>3</sup>	Jun 2011 Updated Forecast				
Fair <sup>4</sup>	Apr 2011 Updated Forecast				
BCEI <sup>5</sup>	Jul 10, 2011 Consensus Forecast				
*	No update available.				



**TABLE VII-A 4a: MID-2011 FORECASTS**

<i>Summary Stats-2011 GDP Forecast</i>	
Coefficient of Variation	10.82
Mean	2.67
Standard Error	0.13
Median	2.50
Mode	2.50
Standard Deviation	0.2892
Sample Variance	0.0836
Kurtosis	3.0922
Skewness	1.8025
Range	0.6670
Minimum	2.5000
Maximum	3.1670
Sum	13.3670
Count	5
Confidence Level(95.0%)	0.3591

**TABLE VII-A 4c: MID-2011 FORECASTS**

<i>Summary Stats-2011 UR Forecast</i>	
Coefficient of Variation	4.13
Mean	8.95
Standard Error	0.18
Median	8.95
Mode	N/A
Standard Deviation	0.3697
Sample Variance	0.1367
Kurtosis	1.1386
Skewness	0.0000
Range	0.9000
Minimum	8.5000
Maximum	9.4000
Sum	35.8000
Count	4
Confidence Level(95.0%)	0.5883

**TABLE VII-A 4b: MID-2011 FORECASTS**

<i>Summary Stats-2012 GDP Forecast</i>	
Coefficient of Variation	16.23
Mean	3.20
Standard Error	0.23
Median	3.10
Mode	3.10
Standard Deviation	0.5186
Sample Variance	0.2690
Kurtosis	3.4355
Skewness	1.6471
Range	1.3753
Minimum	2.7000
Maximum	4.0753
Sum	15.9753
Count	5
Confidence Level(95.0%)	0.6440

**TABLE VII-A 4d: MID-2011 FORECASTS**

<i>Summary Stats-2012 UR Forecast</i>	
Coefficient of Variation	6.83
Mean	8.20
Standard Error	0.28
Median	8.35
Mode	N/A
Standard Deviation	0.5598
Sample Variance	0.3133
Kurtosis	2.5865
Skewness	-1.4368
Range	1.3000
Minimum	7.4000
Maximum	8.7000
Sum	32.8000
Count	4
Confidence Level(95.0%)	0.8907

**VOLUME 2**  
**Current Conditions and Outlook for**  
**the Connecticut Economy:**  
**2010-2012**

**July 2011**

## EXECUTIVE SUMMARY: CONNECTICUT ECONOMIC OUTLOOK

Prepared by Sarah York, CCT Economist, CT Dept. of Labor

**State Workers' Bargaining Agreement Goes Down**— The Governor has said that he will need to eliminate 7,500 state employees to balance the budget because of state unions' rejection of the concessions agreement. Connecticut economists have estimated that, through multiplier effects, the state's economy could lose another 3,000 jobs, or more. The deal would have provided \$1.6 billion in savings for government over two years. Its defeat now results in a \$700 million shortfall in the first year of the state's new budget, and a \$900 million deficit in the second year.

**CURRENT CT ECONOMIC CONDITIONS: Spring 2011**— Over the last part of 2010 and into 2011, the U.S. recovery in jobs, particularly in private-sector jobs, began gathering momentum. In contrast, Connecticut's job recovery seems to be losing momentum since job growth peaked in the second quarter of 2010. In the last quarter of 2010, the state's economy created 643 net, new jobs, down from the peak 1,427 jobs created in 2010Q2. Then, in the first quarter of 2011, the job creation rate fell to one-tenth that of the previous quarter. Between January and March 2011, Connecticut only added 43 new jobs. Clearly, the specter of another 7,500 jobs being cut due to the failure of the bargaining agreement between the Governor and the unions will only further sap the state's fledgling job recovery.

**READING THE SIGNALS: What is the Economy Telling Us?**— At all levels of economic activity, from the single household, business establishment, and government agency up to the major aggregations in the economy such as the household sector, business sector, and government sector, there are two major perspectives in which quantitative variables can be viewed: stocks and flows. *Stocks* measure the *assets* owned, and *liabilities*, or claims against those assets. Subtracting liabilities from assets yields *net worth*. This is reflected in a *balance sheet*. *Income-and-expenditures* statements measure resources flowing into an organization (e.g., household, business, government), known as



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

*income*, and the outflow of resources known as *expenditures*, which are *Flow* concepts. Income minus expenditures yields *net income*. Flows, such as Income and expenditures, are measured over time (e.g., per month, per quarter, etc.). In order to assess the economy's state from the flow perspective, we must read the signals the economy is sending us about its ability to produce output, generate income, and support spending. And, as was done at the national economy level in Volume 1, to assess Connecticut's economy, these signals, known as *economic indicators*, are organized within the categories of major economic activities, and within the aggregate demand framework. And, just as at the national level, the major categories of economic activity, at the state level, include growth and output, resource utilization (in the physical sense), and labor market activity, which gauge the use of human resources by the economy.

GROWTH AND OUTPUT— At the state level, GDP measures the dollar value of all current period production of goods and services those goods and services produced within the borders of the state (e.g., Connecticut), whether or not the productive assets used are locally owned, owned out-of-state, or foreign owned. However, at the state level, GDP is not available on a quarterly basis. A higher frequency, and more current indicator of output, at the state, regional, and local levels is *earnings by industry* and *non-farm earnings*. Earnings-by-industry, like GDP, is a geographic-location concept, as opposed to personal income, which is a residence-based concept.

REAL ECONOMIC OUTPUT: Gauging Its Performance Over the Current Cycle— Connecticut's real, non-farm earnings peaked at \$135.540 billion in 2007Q1. Earnings then fell to \$124.361 billion at the trough of the recent recession in 2010Q1. This represents an \$11.179 billion dollar decline in earnings, or an 8.25% decline over eight quarters. This compares to a 2.46% decline over the 2001-03 Recession, a 4.64% decline over the 1989-92 Recession, and a 1.95% decline over the 1981-83 Recession. From the trough of the last state-defined recession (based on the behavior of non-farm employment) in 2010Q1, earnings-growth had recovered somewhat, increasing by 2.67% between 2010Q1 and 2011Q1.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

CONNECTICUT'S REAL ECONOMIC OUTPUT: Some Longer-Term Trends— From a longer-term perspective, there appears to be a significant slowdown in Connecticut's real output after the end of the Cold War. During the Cold War, an important part of Connecticut's economic base, like for most, especially sub-national economies, is its export base. Especially during the Cold War, a significant part of Connecticut's export base was made up of defense-related manufacturing in which the principal export was defense goods. With the end of the Cold War, the defense-related part of Connecticut's export base collapsed. It, along with the popping of New England's 1980's real estate bubble, and later the reorganization and downsizing of another important part of its export base, insurance, played a major role in bringing about Connecticut's Great Recession, which lasted 46 months, from February 1989 to December 1992, based on the peak and trough of the level of the non-farm employment series.

LABOR MARKETS: Current Conditions, Context, and Implications— Between 2009Q4 and 2010Q4, nine of Connecticut's major NAICS sectors (two-digit level) added nearly 16,000 net new jobs, while 10 sectors had a net loss of 8,000 jobs. The result: 8,000 net new jobs were added to Connecticut's economy. Nearly 27% (4,164) of the net new jobs added to the state's economy were in health care and social assistance (HCSA). Growth was about evenly split between the health care services and social services sub-sectors. Growth was broadly distributed throughout the health care services sub-sector, but concentrated in family services and vocational rehab under the social services sub-sector. The hospital sub-sector had modest growth. Twenty-eight percent, or 2,247, of the jobs lost in Connecticut's economy between 2009Q4 and 2010Q4, were in the information sector. Further, this sector also had the steepest decline at 6.6%. Telecommunications accounted for 92% of all the net, job losses in the information sector.

BUSINESS CONDITIONS— The Business Scorecard seems to be sending the same signals about the state's economy as the other indicators discussed up to this point. The pattern suggests a clear deceleration of economic activity over the first four months of 2011. The net rising in January, with 7 out of eight indicators down, was a strongly negative 75% (see the Business Scorecard webpage on the State Department of Labor's website). Then,



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

in February, five indicators turned positive, and the net rising jumped to +38%. Since February, the net rising has declined from +25% in March (as manufacturing hours declined) to +14% in April (as manufacturing hours, the CMPI, and housing permits declined, with no data in for exports), reflecting the deceleration of economic activity in 2011. The Business Scorecard seems to reflect the trajectory of the overall economy, which, in turn, reflects a rapidly slowing economy.

HOUSEHOLDS: Consumer Spending Support— Based on the U.S. Bureau of Economic Analysis (BEA) release of state personal income for the first quarter of 2011 (2011Q1), state personal income growth accelerated to 1.8% in the first quarter of 2011, from 0.8% in the fourth quarter of 2010. Over that same period, Connecticut's personal income (PI) grew by 1.95%, on a quarter-to-quarter (QTQ) basis, which exceeded the national growth rate. Connecticut PI minus transfer payments (PI-Transfers) grew at an even faster 2.30% rate. On a year-to-year (YTY) basis, Connecticut quarterly personal income (QPI) grew by 4.74%, and PI-Transfers grew by an even stronger 4.89%. Transfer payments actually decreased by 0.06% in 2011Q1, on a QTQ basis, and grew much more slowly than either QPI or PI-Transfers, increasing 3.91% in 2011Q1, on a YTY basis.

**THE STATES' FISCAL CRISES AND CONNECTICUT**— Connecticut's budget crisis is, of course, not happening in a vacuum. Well publicized crises have resulted in many states going after state workers' bargaining rights, such as New Jersey, Ohio, Wisconsin, Maine, and other states, and still other states taking a less hostile approach to labor in solving their budget problems, such as California, Massachusetts, and New York. This, of course, has all been the result of the worst recession since the 1930s, which followed the collapse of a housing bubble and subsequent financial panic, and has caused the steepest decline in state tax receipts on record. State tax collections, adjusted for inflation, are now 12% below pre-recession levels while the need for state-funded services has not declined. As a result, even after making very deep spending cuts over the last several years, states continue to face large budget gaps. This will have a significant impact on the national economy because states and localities do much of the heavy lifting in our federalist system. Although the Federal Government raises more



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

revenue, states and localities undertake more spending on domestic goods and services (that is, spending net of intergovernmental grants and national defense). They outspent the Federal Government in nine of the last 10 FYs and in most years since World War II. The exception was 2009, when Federal expenditures spiked in response to the Great Recession. Now, due to the budget-cutting mentality that has gripped Washington, state and local governments face the withdrawal of Federal support as just budget gaps widen.

**STATE BUDGETS IN THE FACE OF DWINDLING FEDERAL SUPPORT—** Fiscal year 2012 is shaping up as states' most difficult budget year on record. Thus far some 45 states and the District of Columbia are projecting budget shortfalls totaling \$125 billion for FY 2012. While states are anticipating significant shortfalls in the coming year, their options for addressing those shortfalls are dwindling. Federal assistance for states, which has been enormously helpful in allowing states to avert some of the most harmful potential budget cuts, will be largely gone by the end of FY 2011.

The *American Recovery and Reinvestment Act of 2009* (ARRA) directed more than \$280 billion to states and localities, including roughly \$135 billion in flexible funds. Under ARRA, National income and federal grants are estimated to have reached a historic peak in nominal terms and as a share of GDP. Nevertheless, ARRA covered at most 40% of state budget shortfalls; and most payments will expire next year, while revenue is not expected to recover for another two to three years because of standard lags in rehiring and reinvestment. States and localities must therefore increase taxes or cut spending to balance their books. Those actions can harm vulnerable populations and short circuit a national economic recovery. States and localities are the nation's largest employer — responsible for one out of seven jobs — and in most years they contribute a third percentage point in real annual GDP growth. In 2009, however, their contribution was negative. Since the start of the recession, local governments have cut 241,000 jobs, and surveys suggest as many as 481,000 more cuts may be coming.

**CONNECTICUT'S BUDGET SHORTFALL—** In a monthly report to Governor Dannel P. Malloy, Connecticut Comptroller Kevin Lembo said revenues exceeded expectations



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

in fiscal year 2011, but the State still would have faced a deficit if Connecticut had not relied on \$739.6 million in Federal stimulus money; which is now winding down. In addition, another \$103.2 million came from the budget reserve fund; and \$114.9 million from other non-general fund sources; and an assessment on electric ratepayers.

The steepest decline in general revenue over the 2000-03 recession was the 8.01% YTY drop in August 2002. However, the decline in Connecticut's general revenue over the 2008-10 Recession was much steeper. In October 2009, the state's general revenues were down by 13.93%, compared to October 2008. The steeper drop in general revenue reflects the much steeper decline in the economy, both at the national and state levels, over the recent recession, compared to the state's 2000-03 recession (or, the 2001 recession at the national level).

**THE BUDGETARY AND ECONOMIC IMPACT OF THE DEFEAT OF THE COLLECTIVE-BARGAINING AGREEMENT**— With the defeat of the agreement between Governor Dannel P. Malloy and the State Employees Bargaining Agent Coalition (SEBAC) by the union membership (though 57% of the membership voted yes, a majority vote wasn't enough to pass it), which would have provided \$1.6 billion in savings for government over two years, results in a \$700 million shortfall in the first year of the state's new budget, and a \$900 million hole in the second year. The Governor said he is now pressing ahead with plans to lay off approximately 6,500 state employees and make the wide-ranging budget cuts that are needed to balance the new, two-year, \$40.1 billion state budget without the anticipated \$1.6 billion in labor savings.

Connecticut economists have estimated that through multiplier effects, the state's economy could lose another 3,000 jobs or more based on applying a multiplier of 1.39 to the pending state government job losses. This means that for every single job lost, another four-tenths of a job would be lost as well. Other economists contend that the multiplier is even higher and that the total number of jobs lost could top out at 12,000 to 16,000 by the time the multiplier effects ripple through the economy and play out their full impact.





**HOUSING AND CONNECTICUT'S RECOVERY**— With the fiscal stimulus winding down, the end of the second round of quantitative easing (QE2), and with Home Affordable Modification Program (HAMP) having come to an end in late 2010, the resumption of bank foreclosures after “Robo-Foreclosures” moratorium, and no policy in sight to seriously address the ongoing foreclosures and distressed sales, a rebound in the housing market appears to be very remote. And, as has been previously noted, though Connecticut did not participate in the housing bubble to the extent that other states and regions did, it nevertheless, has been seriously impacted by the housing bust, and in particular with the mortgage-foreclosure crisis. And, although it is, by far, not the worst state, just how serious the real estate problem is underscored by the findings of a national study that shows that it would take more than 10 years to clear up all the pending foreclosures in Connecticut.

**WHERE DO WE GO FROM HERE? The Outlook for 2010-2012 and Beyond**— Looking at the two-year base period for Connecticut's short-term industry-employment forecast, 2008Q4-2010Q4, Connecticut employment declined by 66,225. The goods-producing sector lost 29,323 jobs, and, unique to this past recession in the post-World War II era, the private services sector had a net loss of 32,744. The government sector had a net loss of 3,588 jobs. The forecast expects a net gain of 15,170 jobs over the 2010Q4-2012Q4 period due to a slowing of the economic recovery's momentum as a result of reduced fiscal stimulus, and even spending cuts, in conjunction with states' further layoffs, tax increases, and spending cuts to balance their budgets, and in the case of Connecticut in particular, the implementation of Plan B due to the defeat of the bargaining agreement, as well as continued stress in the housing market, including some further price declines and mortgage defaults. The forecast does expect the return to growth in the private services sector over the 2009Q4-2010Q4 period to continue into the 2010Q4-2012Q4 forecast period and add 18,000 net new jobs. Though its losses should abate considerably, it is expected that the goods-producing sector will shed another 4,000 jobs. Given the newly implemented spending cuts and tax increases, as well as some 7,500 layoffs in the new budget for Connecticut, it is expected that government, at all levels, will eliminate another 4,000 jobs over the forecast period.



## I. INTRODUCTION: State Workers' Bargaining Agreement Goes Down

At the time of writing, the biggest impending impact on the state's economy is the defeat, by the membership vote, of the agreement reached between the Governor and the state's unions' leadership. The final tally was in on Friday, June 25<sup>th</sup>. Even though 57% of all state union workers voted to approve the deal, four bargaining units rejected it, and since according to the bylaws, if two or more of the 15 bargaining units reject the deal, then the agreement goes down. Union leaders announced that they were "tabling their decision for 30 days" to explore ways to avoid thousands of layoffs<sup>170</sup>.

The Governor has said that he will need to eliminate 7,500 state employees to balance the budget because of state unions' rejection of the concessions agreement. Connecticut economists have estimated that, through multiplier effects, the state's economy could lose another 3,000 jobs, or more<sup>171</sup>. Alissa DeJonge, Director of Research for the Connecticut Economic Resource Center (CERC) estimates that a multiplier of 1.39 would be applied to the pending state government job losses. This means that for every single job lost, another four-tenths of a job would be lost as well<sup>172</sup>. Fred Carstensen, Director of the Connecticut Center for Economic Analysis (CCEA), believes that DeJonge's multiplier effect may be conservative. He estimates that the total number of jobs lost could top out at 12,000 to 16,000 by the time the multiplier effects ripple through the economy and play out their full impact<sup>173</sup>.

The deal would have provided \$1.6 billion in savings for government over two years. Its defeat now results in a \$700 million shortfall in the first year of the state's new budget, and a \$900 million deficit in the second year.

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<sup>170</sup> WTNH.COM, *Unions could re-vote on concession deal* (Tuesday, 28 Jun 2011) < <http://www.wtnh.com/dpp/news/politics/unions-could-re-vote-on-concession-deal> > Accessed on June 28, 2011.

<sup>171</sup> Daddona, Patricia, *Economists say if state workers are laid off, the ripple effect is likely to be harsh* (June 25, 2011) THE DAY < <http://www.theday.com/article/20110625/NWS12/306259967/-1/NWS> > Accessed on June 28, 2011.

<sup>172</sup> *ibid*

<sup>173</sup> *ibid*



## II. CURRENT CT ECONOMIC CONDITIONS: Spring 2011

As noted in Volume 1-THE U.S. ECONOMIC OUTLOOK TO 2012, this has been no “ordinary” recession. The U.S. experienced its first systemic banking panic since the 1930’s, the first collapse of a shadow banking system since 1907<sup>174</sup>, and the first succession of collapses in asset bubbles in housing and the stock market, in conjunction with unsustainable levels of household debt since the 1920’s<sup>175</sup>. The recent collapse of the housing bubble, in conjunction with unsustainable levels of consumer debt, resulted in what has been called a *Balance Sheet Recession*<sup>176</sup>. The Great Depression was a balance-sheet recession, as was the recession that followed the collapse of Japan’s real estate bubble in 1989. Balance sheet recessions are steeper and last longer than non-balance-sheet recessions, and they are followed by weaker recoveries.

With household’s paying down their debt, the liabilities side of the balance sheet is being addressed, however, debt levels are still historically high. Further, the asset side is still deteriorating, as housing prices continue to fall—especially for households at, or below, the median income, as modest-priced homes are experiencing the steepest declines. This was one of the findings of the report released by Harvard University’s Joint Center for Housing Studies in June<sup>177</sup>. And, as noted in Part C, Section II, in Volume 1, the double-dip in the housing sector has been underway since the end of 2010.

Further, housing and construction are important drivers of the business cycle, and their strong multiplier-effects are not there for this recovery. As noted above, housing plays several distinct and critical roles in the economy with each role generating its own independent, and distinct set of multiplier effects on output, income, and employment.

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<sup>174</sup> Bruner, ROBERT F. and Sean D. Carr, THE PANIC OF 1907: Lessons Learned from the Market's Perfect Storm (2007) John Wiley & Sons: New York

<sup>175</sup> White, Eugene N., The Great American Real Estate Bubble of the 1920s: Causes and Consequences (October 2008) National Bureau of Economic Research: Cambridge, Ma.

<sup>176</sup> Koo, Richard C., THE HOLY GRAIL OF MACROECONOMICS: Lessons from Japan's Great Recession (2009) John Wiley & Sons: New York

<sup>177</sup> Jiont Center for Housing Studies of Harvard University, THE STATE OF THE NATION’S HOUSING-2011 (June 2011) Graduate School of Design, John F. Kennedy School of Government: Cambridge, MA.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Housing straddles, at least, three separate markets: the asset market, the property market, and the durable goods market, each with its separate set of spending multipliers.

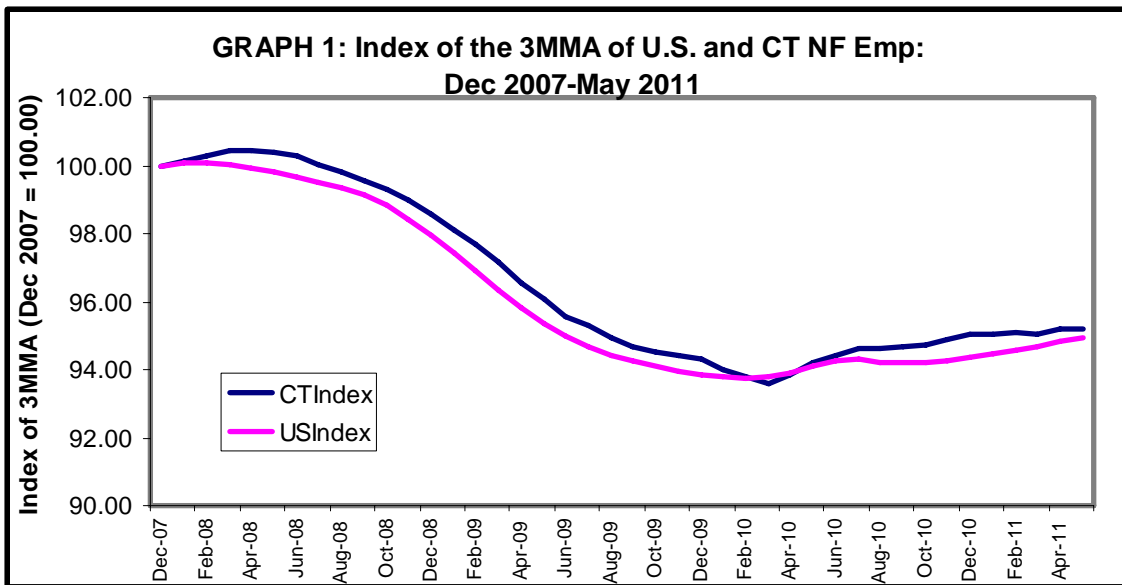
Connecticut did not participate in the housing bubble to the extent that even some other New England states did, and certainly not to the extent of the epicenter areas like Phoenix, Las Vegas, and Miami. However, some parts of the state have had serious problems with sub-prime mortgages. Nevertheless, Connecticut's downturn has been shorter than that for the U.S. for the first time in the post-Cold War era. Though, on September 10, 2010, the National Bureau of Economic Research designated December 2007 as the peak of the previous expansion, U.S. employment peaked in February 2008, whereas Connecticut's non-farm employment did not turn down until one month later in March. Further, Connecticut's employment turned around in January 2010, one month before the turnaround in U.S. jobs. And, though both the U.S. and Connecticut job recoveries have been less than spectacular, Connecticut's job growth began at a much stronger pace than that for the U.S. However, as the struggling recovery approached the mid-point of 2011, Connecticut and the Nation seem to be converging. Graph 1 tracks an index of the three-month moving average (3MMA) of non-farm employment. The index is a simple ratio constructed by dividing the value at each observation by the value for December 2007. Thus, for both the U.S. and Connecticut index, the value equals 100.00 at December 2007. The 3MMA is used for Connecticut because of the volatility of the jobs numbers at the monthly frequency, especially after the states' discretion in the establishment survey was essentially removed starting in 2010. Control of the jobs survey has now been centralized to Washington. This has resulted in some very volatile monthly numbers at the state level. So, to smooth out this volatility, Graph 1 tracks the index of the 3MMA. To put the U.S. on the same footing, it is also the 3MMA index of non-farm employment. In addition, due to the ramp-up, then drop in temporary workers hired for the 2010 Census, the U.S. total non-farm employment numbers have also been quite volatile over 2010.

Over the last part of 2010 and into 2011, the U.S. recovery in jobs, particularly in private-sector jobs, began gathering momentum. In contrast, Connecticut's job recovery seems to



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

be losing momentum since job growth peaked in the second quarter of 2010. In the last quarter of 2010, the state’s economy created 643 net, new jobs, down from the peak 1,427 jobs created in 2010Q2. Then, in the first quarter of 2011, the job creation rate fell to one-tenth that of the previous quarter. Between January and March 2011, Connecticut only added 43 new jobs. As can be seen from Graph 1, after the 3MMA in Connecticut’s non-farm jobs passed above the U.S. 3MMA after March 2010, Connecticut’s index remains above that of the U.S. until the beginning of 2011 when it begins to decline and converse with the U.S.

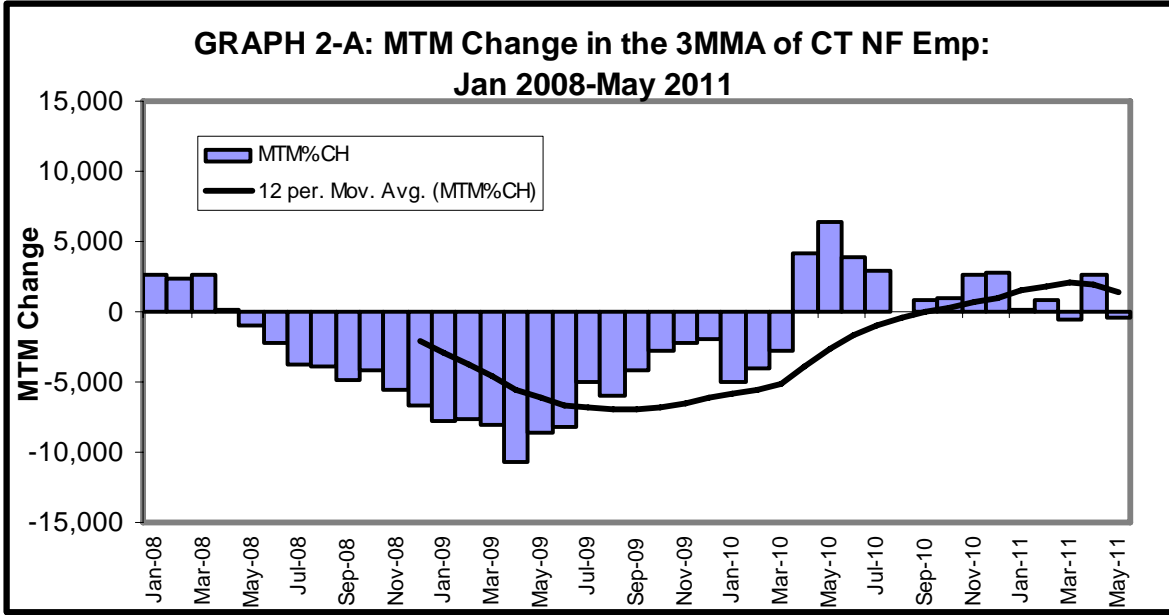


SOURCE: U.S. BLS, CTDOL-Research, and author’s calculations.

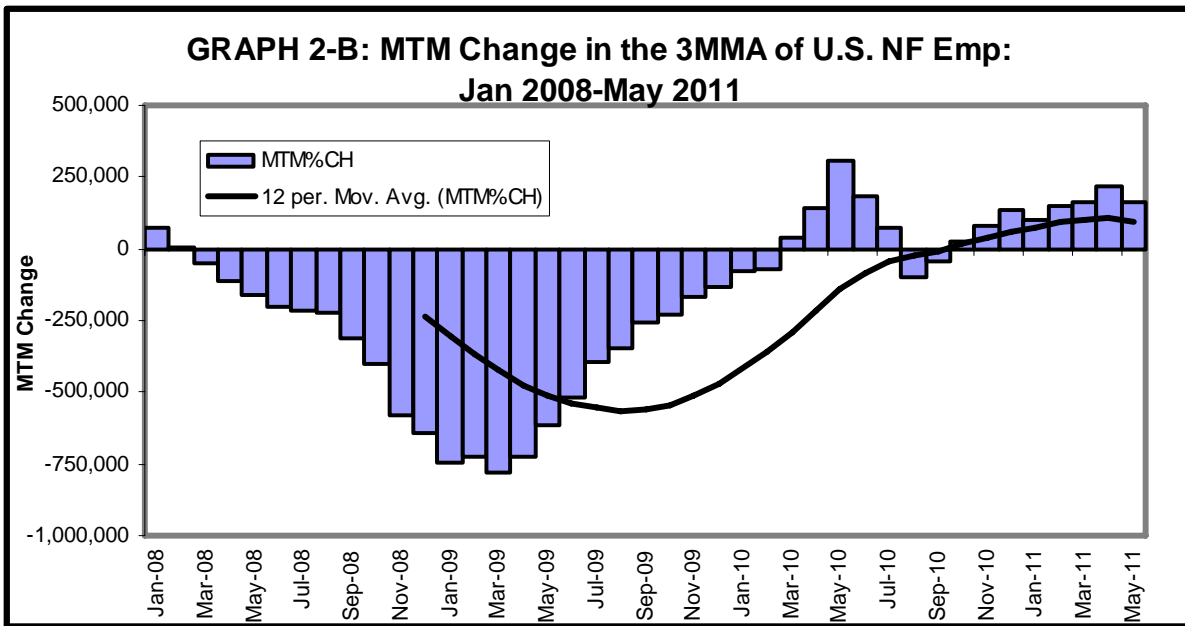
The slowdown in job growth at both the state and national levels can be clearly seen in graphs 2-A and 2-B, which track the month-to-month (MTM) in the level of the 3MMA of non-farm employment for Connecticut (Graph 2-A) and the U.S. (Graph 2-B). The loss of momentum is even more clearly observed by tracking the 12MMA of the monthly changes in the 3MMA superimposed on the MTM changes in both graphs 2-A and 2-B. Clearly, the specter of another 7,500 jobs being cut due to the failure of the bargaining agreement between the Governor and the unions (see the INTRODUCTION, above) will only further sap the state’s fledging job recovery.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: CTDOL-Research.



SOURCE: U.S. BLS.



## A. READING THE SIGNALS: What is the Economy Telling Us?

The methodology used in Volume 1 to assess the current state of the U.S. Economy was replicated and applied here to assess the current state of the Connecticut economy. In order to organize our thoughts in assessing where Connecticut's economy is in the spring of 2011 and where it might be going, the signals sent by the economy are categorized by major macroeconomic functions and activities in the form of macroeconomic indicators. At all levels of economic activity, from the single household, business establishment, and government agency up to the major aggregations in the economy such as the household sector, business sector, and government sector, there are two major perspectives in which quantitative variables can be viewed: stocks and flows. *Stocks* measure the *assets* owned, and *liabilities*, or claims against those assets. Subtracting liabilities from assets yields *net worth*. This is reflected in a *balance sheet*. Balance sheets are recorded at a point in time (e.g., December 31, 2010).

The remainder of this section will focus on the *flow-concepts*. *Income-and-expenditures* statements measure resources flowing into an organization (e.g., household, business, government), known as *income*, and the outflow of resources known as *expenditures*. Income minus expenditures yields *net income*. Income and expenditures are measured over time (e.g., per month, per quarter, etc.).

In order to assess the economy's state from the flow perspective, we must read the signals the economy is sending us about its ability to produce output, generate income, and support spending. And, as was done at the national economy level in Volume 1, to assess Connecticut's economy, these signals, known as *economic indicators*, are organized within the categories of major economic activities, and within the aggregate demand framework. And, just as at the national level, the major categories of economic activity, at the state level, include growth and output, resource utilization (in the physical sense), and labor market activity, which gauge the use of human resources by the economy.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

In addition, we can read the signals being sent by the economy that conveys information about the major sectors of the economy and the indicators of activity in each sector. Aggregate demand (AD) is composed of four major sectors, which can be expressed as follows:

$$AD = C + I + G + (X-M) \quad (1.)$$

In equation (1), consumer-spending activity (C) is the component of AD from the household sector, business-sector investment demand is denoted by “I” and “G” represents the demand for goods and services by the government sector, and finally, exports (X) minus imports (M) equals net exports (X-M), the net demand in the foreign, or trade sector. However, the trade sector at the state level includes exports outside the state, whether to other parts of the U.S., or to other countries.

First, the current readings on the indicators of growth and output are introduced. Next, the state economy’s use of physical resources is examined, followed by an analysis of the economy’s use of its human resources (labor markets), followed by the two, major private-sector, domestic components of aggregate demand (AD) beginning with current business conditions, then turning to households and consumer spending.

## **B. GROWTH AND OUTPUT**

This section focuses on the indicators of state growth and output. The first indicator tracked in assessing the U.S. economy, in Volume 1, was *gross domestic product* (GDP), which is defined as the dollar value of all current period production of goods and services. And, since GDP is a geographic location concept, it measures those goods and services produced within the territorial boundaries of the U.S., regardless of the country of ownership. At the state level, GDP measures the dollar value of all current period production of goods and services those goods and services produced within the borders of the state (e.g., Connecticut), whether or not the productive assets used are locally owned, owned out-of-state, or foreign owned. However, at the state level, GDP is not available





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

on a quarterly basis. State GDP is calculated on an annual basis, and there is a one-year lag in the release of the data. A higher frequency, and more current indicator of output, at the state, regional, and local levels are *earnings by industry* and *non-farm earnings*. Earnings by industry, like GDP, is a geographic-location concept, as opposed to personal income, which is a residence-based concept<sup>178</sup>.

*Earnings by industry* is the sum of wage and salary (W&S) disbursements, supplements to W&S, and proprietors' income for all industries. *Non-farm earnings* is earnings by industry minus farm earnings<sup>179</sup>. Non-farm earnings can be used as a proxy for measuring output at the sub-national level because of the accounting identity reflecting the different sides of GDP (in this case, state GDP). To produce the output side of GDP, the economy uses factor inputs (land, labor, and capital) to produce that output. These factor inputs, in turn, receive factor payments, or *income*. Thus, at least in theory, this accounting relationship can be described by the expression:

$$\text{State GDP (OUTPUT)} = \text{State Generated Income (FACTOR PAYMENTS)} \quad (2.)$$

In reality, there are some differences between the two sides. Beyond a statistical discrepancy, GDP is recorded using *accrual accounting* methods and income is on a *cash-based* (or, its flip-side, *dispersal*) accounting system. Nevertheless, these differences are not enough to prevent the use of non-farm earnings as a proxy for the state's quarterly output. To estimate real output, the non-farm earnings series is deflated by the quantity index for U.S. personal consumption expenditures.

*Industrial production* is another measure of growth and output of the economy. But, GDP and industrial production are based on different methodologies. GDP is calculated on a net output basis (i.e.; value added). It excludes the double counting of the intermediate

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<sup>178</sup> Brown, Robert L., Overview of the Bureau of Economic Analysis: Regional Accounts at the BEA, U.S. BEA, Washington, Presented on April 3, 2008.

<sup>179</sup> U.S. BEA, *SQ5N Personal income by major source and earnings by major NAICS industry, EARNINGS, NON-FARM*, <http://www.bea.gov/regional/definitions/nextpage.cfm?key=Earnings,%20nonfarm> Accessed on June 29, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

inputs of purchased goods and services that are used to produce final output. Whereas, industrial production is calculated on a gross output basis that includes the intermediate inputs of purchased goods and services used in the production of final output. In this analysis, the *manufacturing industrial production index* (IPI) is used rather than the total IPI. In addition to leaving out utilities that can be influenced by the weather rather than the underlying forces driving the economy, manufacturing, despite its decline in importance in the U.S. economy, still has a significant direct effect, and wide secondary and tertiary ripples throughout the economy. With that in mind, the indicator developed at the state level to track Connecticut's manufacturing output is the *Connecticut manufacturing production index* (CMPI).<sup>180</sup> Subsection B discusses the CMPI.

**REAL ECONOMIC OUTPUT: Gauging Its Performance Over the Current Cycle**

Graph 3 tracks Connecticut's real non-farm earnings from 1980Q1 to 2011Q1. It is clear from the trend suggested by the behavior of earnings that the growth in earnings coming out of the 1981-83 and 1989-92 recessions was much stronger than the growth after the 2000-03 recession. And, the decline is steeper over the 2008-10 state recession than it was over the 1981-83 and 2000-03 recessions. Connecticut's real, non-farm earnings peaked at \$135.540 billion in 2007Q1. Earnings then fell to \$124.361 billion at the trough of the recent recession in 2010Q1. This represents an \$11.179 billion dollar decline in earnings, or an 8.25% decline over eight quarters. This compares to a 2.46% decline over the 2000-03 Recession, a 4.64% decline over the 1989-92 Recession, and a 1.95% decline over the 1981-83 Recession. From the trough of the last state-defined recession (based on the behavior of non-farm employment) in 2010Q1, earnings-growth had recovered somewhat, increasing by 2.67% between 2010Q1 and 2011Q1.

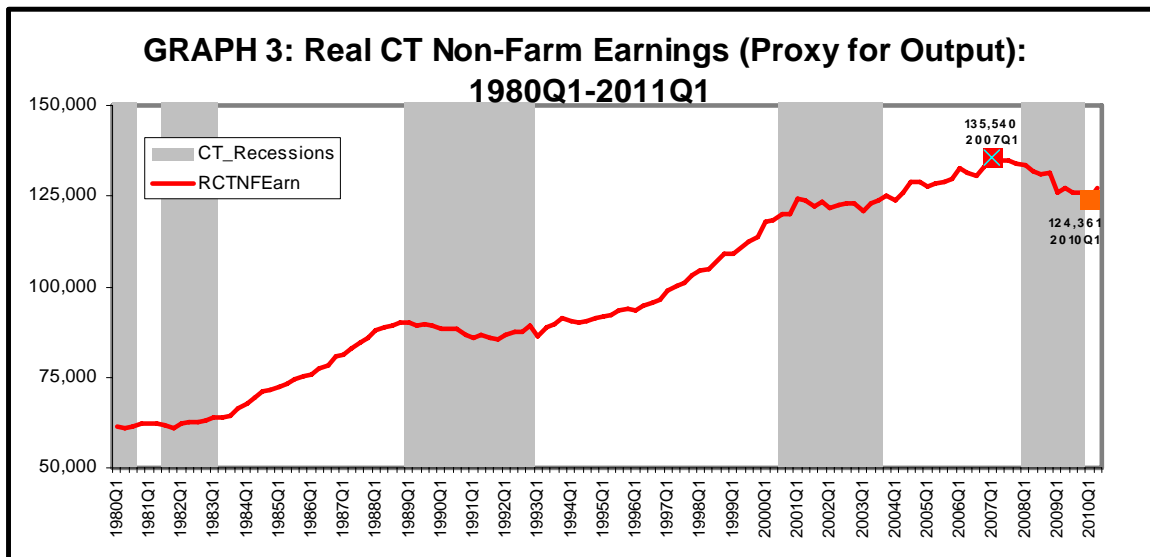
Graph 4 presents the quarter-to-quarter (QTQ) and year-to-year (YTY) percent change in Connecticut's real non-farm earnings over the current cycle, beginning in 2007Q1 and through the last quarter of available data, 2011Q1.

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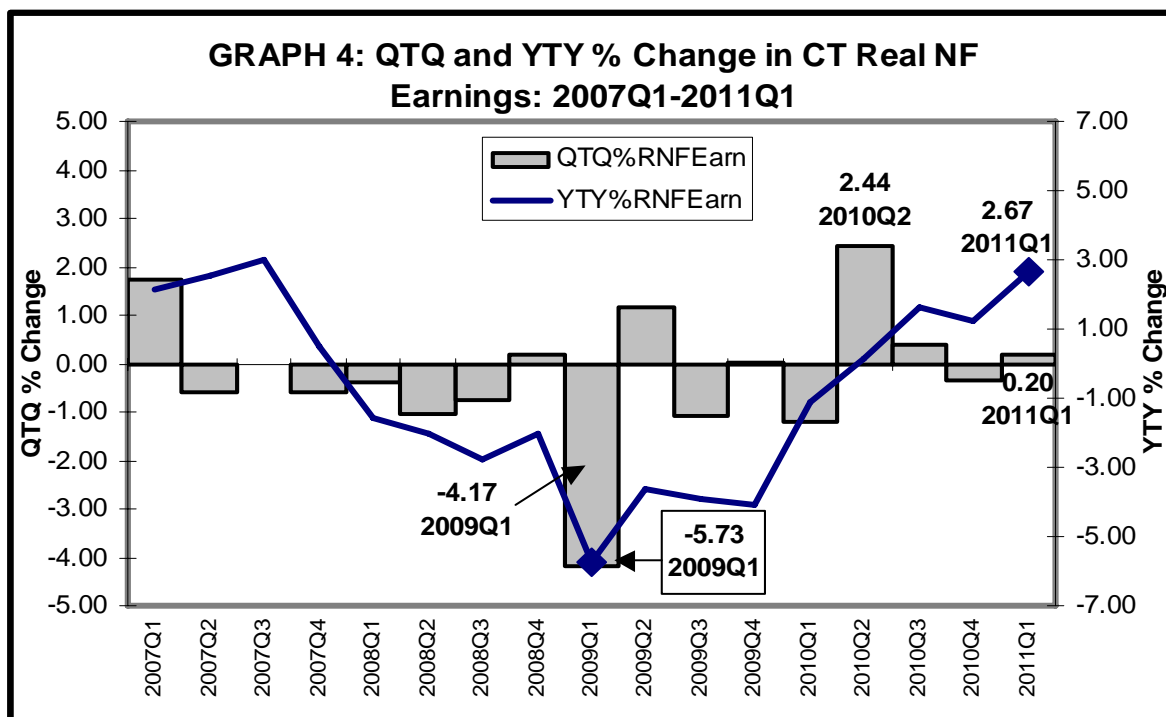
<sup>180</sup> See the *2011 Business Sector Economic Scorecard* page on the Connecticut Department of Labor's website at < <http://www1.ctdol.state.ct.us/lmi/SCbusinesses.asp> > Assessed on June 29, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BEA and calculations by CTDOL-Research.



SOURCE: U.S. BEA and calculations by CTDOL-Research.

On both a QTQ (not annualized) and YTY basis, the percent changes in Connecticut's non-farm earnings declined by their steepest level in the first quarter of 2009, one quarter



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

after the financial panic in the fourth quarter of 2008. Quarter-to-quarter earnings declined by 4.17%, and YTY, they declined by 5.73%. After recovery in 2010Q1, real non-farm earnings growth jumped by 2.44% in 2010Q2. And, though, on a YTY basis, earnings grew by a strong 2.67%, the QTQ growth rate has been weak, and even declined by 0.36% in the fourth quarter of 2010. In the first quarter of 2011, earnings grew by a weak 0.20%.

**TABLE 1: CT Income/Output Measures: Peak-to-Trough-2008-10 Recession**

<b>CONNECTICUT WORK-BASED INCOME/JOBS MEASURES</b>						
		<b>LAST PEAK</b>	<b>No. of Qtrs to 2010Q1</b>	<b>DECLINE to 2010Q1</b>	<b>% DECLINE to 2010Q1</b>	<b>Compounded Ann Rate</b>
<b>Real Income/Emp</b>			<b>Qtrs</b>	<b>(\$ Million)</b>		
<b>CT QCEW CWS 2008Q1</b>			8	-5,237	-5.32	-2.70
<b>CT QCEW Emp* 2008Q1</b>			8	-118,606	-6.99	-3.56
<b>CT NF Earn 2007Q1</b>			12	-11,179	-8.25	-2.83

SOURCE: U.S. BEA and CTDOL-Research.  
\*"DECLINE" measures the number of jobs lost for CT QCEW Employment, not the dollar decline.

Table 1 summarizes the behavior of selected major indicators of output and income for the state's economy over the 2008-10 recession. What is striking about the data in Table 1 is that the indicators of income, generated by the output produced by Connecticut's economy, show that income did not decline as steeply as did job losses. Covered wages and salaries (CTQCEW\_CWS) declined by 2.70% over eight quarters, and real non-farm earnings (CTNFEarn) declined by 2.83% over 12 quarters, but UI-covered employment (CTQCEWEmp) declined by 3.56% over eight quarters. This implies that middle-to-lower income workers took the bigger hit over the recent crisis/recession.

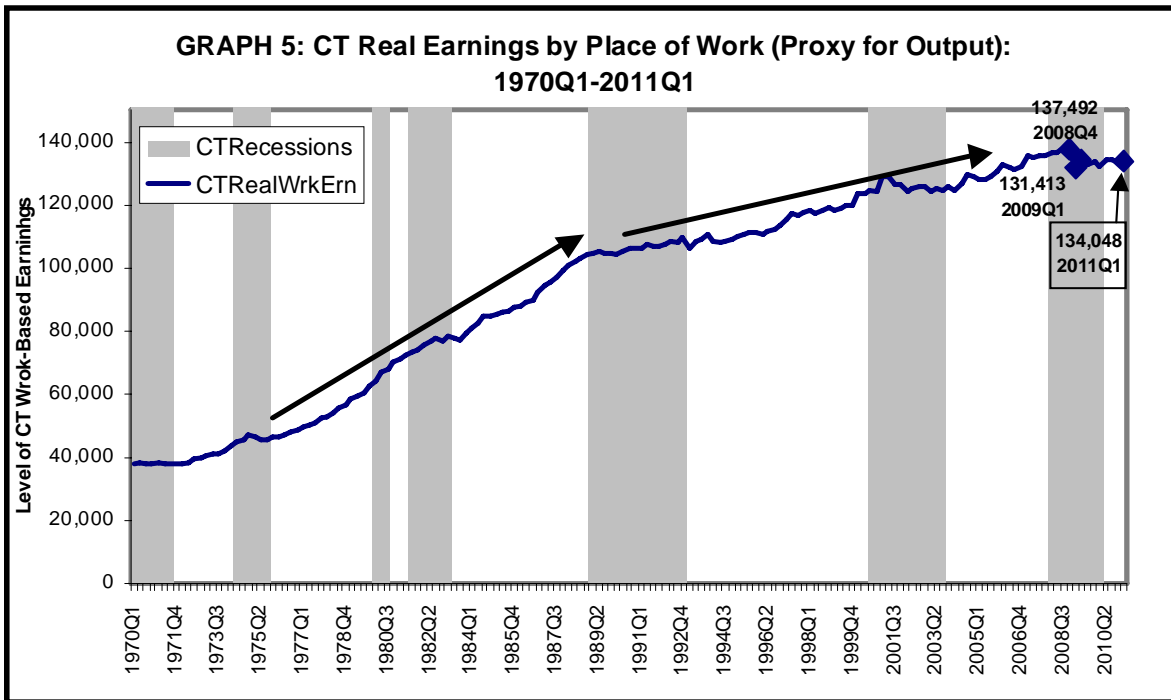
**CONNECTICUT'S REAL ECONOMIC OUTPUT: Some Longer-Term Trends**

In order to take a look at some longer-term trends in Connecticut's real output, Graph 5 tracks a slightly more expanded concept of output, earnings by place of work rather than the narrower non-farm earnings (although Connecticut's agricultural sector is smaller than that of most other states). Graph 5 tracks the expanded proxy for the state's output from 1970Q1 to 2011Q1. To obtain real earnings by place of work (work-based earnings), like non-farm earnings, the series was deflated by the personal consumption



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

expenditures (PCE) quantity index to obtain the real work-based earnings series. Connecticut's recessions are shaded in gray on the graph.



SOURCE: U.S. BEA and calculations by CTDOL-Research.

The first thing to note on Graph 5 with regard to the current cycle is that real work-based earnings peaked at \$137.492 billion in 2008Q4, three quarters after the peak in the non-farm employment series, and in the quarter following the financial panic that gripped the U.S. and the World in September 2008. By the third quarter of 2009, Connecticut's proxy for real output had declined by 4.42% to \$131.413 billion. Between the trough in 2009Q3 and the last period of available data, 2011Q1, real work-based earnings had recovered somewhat, growing by 2.01% over the first six quarters of the recovery in output to \$134.048 billion, but that still left real work-based earnings 2.50% below its peak in the fourth quarter of 2008.

From a longer-term perspective, there appears to be a significant slowdown in Connecticut's real output after the end of the Cold War. During the Cold War, an important part of Connecticut's economic base, like for most, especially sub-national economies, is its export base. Especially during the Cold War, a significant part of



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

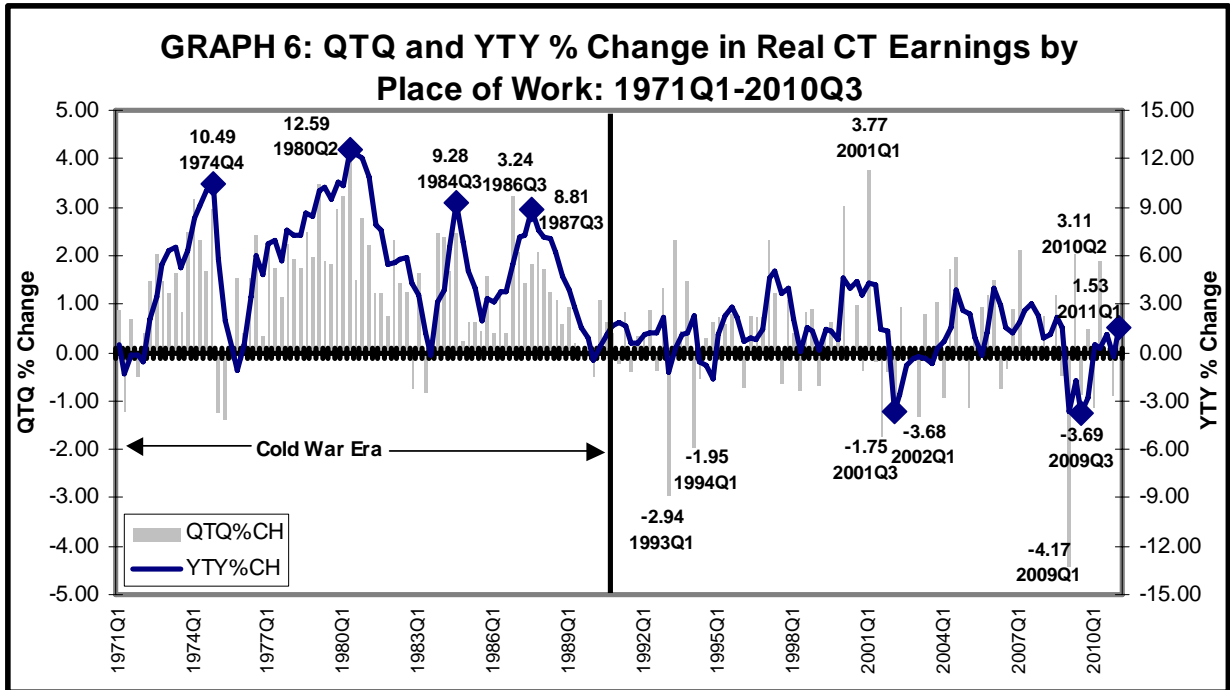
Connecticut's export base was made up of defense-related manufacturing in which the principal export was defense goods. With the end of the Cold War, the defense-related part of Connecticut's export base collapsed. It, along with the popping of New England's 1980's real estate bubble, and later the reorganization and downsizing of another important part of its export base, insurance, played a major role in bringing about Connecticut's Great Recession, which lasted 46 months, from February 1989 to December 1992, based on the peak and trough of the level of the non-farm employment series.

As the bold, black arrows on Graph 5 highlight, there is a significant slowdown in the growth of the real work-based earnings series (the proxy for real output). The line representing the time-series of real work-based earnings increases steeply from the beginning of recovery in 1975Q2 until the second quarter of 1989, just before Connecticut went into its Great Recession. From that point on, the line takes on a much flatter slope. This slowdown in the growth-rate of real output stands out even more in Graph 6. Graph 6 shows the quarter-to-quarter (QTQ) and year-to-year (YTY) percent-change in Connecticut's real work-based earnings from 1971Q1 to 2011Q1. The graph is divided into two regions: the Cold War and post-Cold War.

The first thing that stands out is the dramatic differences in both, the QTQ and YTY growth-rates in Connecticut's real work-based earnings during and after the Cold War. In four separate quarters, in the Cold-War region of Graph 6, the YTY growth-rate in real work-based earnings exceeded 8%, and in two quarters, it exceeded 10% (+12.59% in 1980Q2 and +10.49% in 1974Q4) The highest post-Cold War YTY growth rate was +5.05% in 1997Q2.



CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012



SOURCE: U.S. BEA and calculations by CTDOL-Research.

Though there were some strong QTQ growth rates in Connecticut’s real output in the post-Cold War era (+3.77% in 2001Q1 and +3.11% in 2010Q2), the steepest declines, both QTQ and YTY, have all been in the post-Cold War era. Quarter-to-quarter percent declines in Connecticut’s real work-based earnings have occurred at least six times. Further, over the recent recession, the proxy for the state’s real output had its steepest QTQ percent decline over the entire 40-year range of data (-4.17% in 2009Q1). There is a similar pattern for the YTY percent changes. While the quarterly, YTY percent changes only exceeded 5% once in the post-Cold War era, the YTY percent decline exceeded 3% only twice over the entire 40-year period (-3.68% in 2002Q1 and -3.69 in 2009Q3).



## C. LABOR MARKETS: Current Conditions, Context, and Implications

### REVISING THE RECESSION

After the 2011 benchmark of Connecticut’s non-farm employment series, the nature of the state’s March 2008-January 2010 recession changed from what pre-benchmarked data had indicated. One factor that played a role in the 2011 benchmark was the increased role of the centralization of the Current Employment Statistics (CES) Program to the U.S. Bureau of Labor Statistics (BLS) in Washington. Essentially, the discretion of the local labor market analysts and labor economists was taken away. This has resulted in a 2011 benchmark that was larger than previous benchmarks had been when state analysts had more discretion to intervene. Further, with other changes in methodology, also introduced in 2010, the month-to-month jobs numbers are now much more volatile at the state level, and especially for a smaller state like Connecticut. The results of Connecticut’s benchmark on changing the characteristics of the recent recession are reflected in Table 2.

**TABLE 2: Pre- and Post-BM CT. Recession Characteristics**

	<b>BM CT NF Emp 2008-10 RECESSION</b>	<b>Pre-BM CT NF Emp 2008-10 RECESSION</b>
<b>LENGTH</b>	22 Months	21 Months
<b>JOBS LOST</b>	119,200	103,400
	<b>BM CT NF Emp 2010 RECOVERY</b>	<b>Pre-BM CT NF Emp 2009 RECOVERY</b>
<b>LENGTH (To Dec 2010)</b>	11 Months	12 Months
<b>JOBS REGAINED (To Dec 2010)</b>	25,300	5,300
<b>Job Deficit</b>	93,900	98,100

SOURCE: CTDOL-Research.

As can be seen in Table 2, the post-benchmarked (BM) data show a 22 month recession as opposed to a 21 month pre-BM recession duration. In addition, job losses increased from 103,400 to 119,200 after benchmarking. Though the post-BM recession is a more severe one than the pre-BM data indicated, the recovery, through December

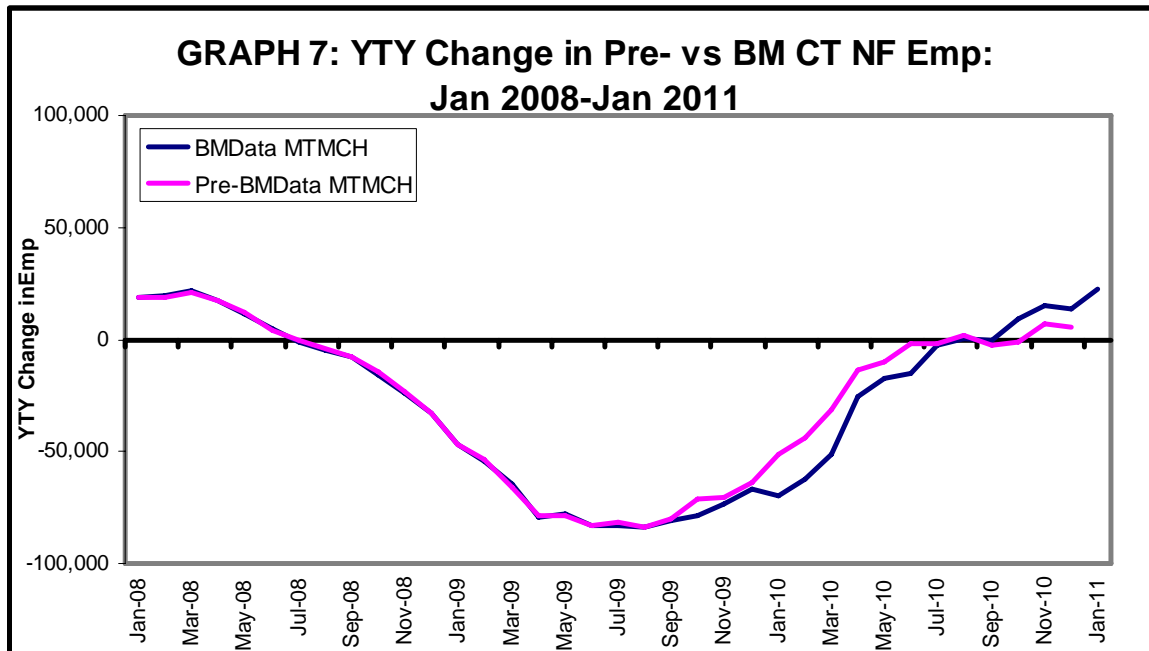




**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

2010, was much stronger. Post-BM data show a much stronger recovery of 25,300 jobs, compared to the much weaker 5,300 pre-BM recovery in jobs. The post-BM data show a jobs deficit of 93,900 jobs, as of December 2010, as opposed to a deficit of 98,100 jobs based on pre-BM data.

Graph 7 shows the pre- and post-BM tracks of the YTY, monthly change in Connecticut's non-farm employment from January 2008 to January 2011.



SOURCE: CTDOL-Research

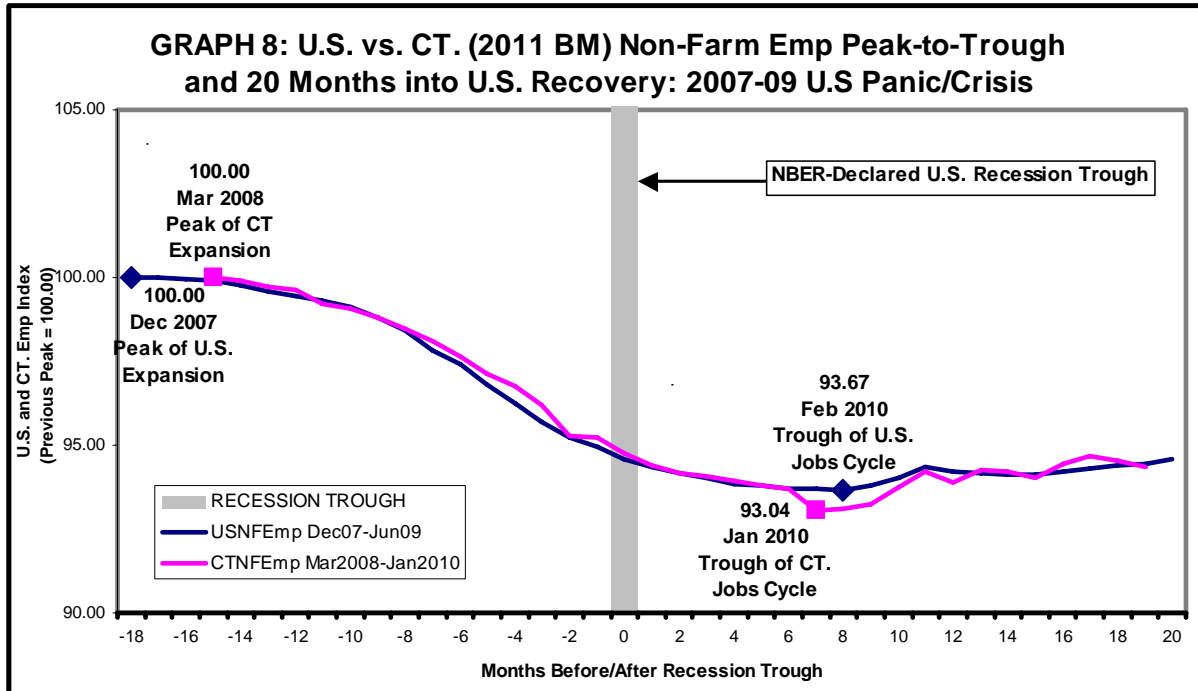
### THE CURRENT CYCLE IN CONTEXT

To put Connecticut's recent recession and recovery into context, Graph 8 tracks the U.S. and Connecticut non-farm employment series from the U.S. peak of the last expansion, through the NBER-declared trough of the recent recession, to 20 months into recovery from the official end of the recession. An index of employment levels has the value of 100.00 at the peak of employment over the previous expansion. The trough of the recession is equal to time-period zero, with months before as negative, and months after as positive. Unlike in previous post-Cold War downturns, the U.S. went into recession in December 2007, Connecticut did not go into recession until March 2008 (based on non-farm employment). Further, Connecticut's job market turned around in January 2010, the



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

U.S. followed in February, again a post-Cold War first. And, though, on a relative basis, Connecticut suffered steeper job losses than the U.S., Connecticut's recovery has been stronger.

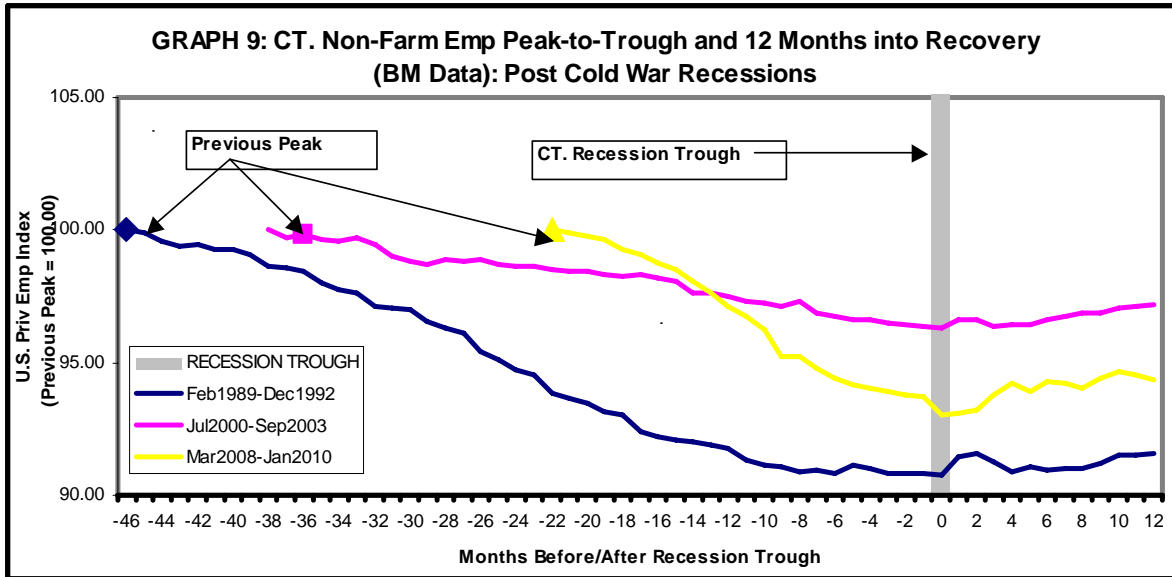


SOURCE: U.S. BLS, CTDOL-Research, and calculations by CTDOL-Research.

Graph 9, using the same type of indexing system used for Graph 8, compares the behavior of Connecticut's non-farm employment over the current cycle to that of the previous two post-Cold War cycles. As is clear from Graph 9, Connecticut's employment contracted for 46 straight months over its Great Recession from February 1989 to December 1992. And, though employment declined for 36 months over the 2000-03 recession, the decline was not as steep as 1989-92 or the recent recession.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: U.S. BLS, CTDOL-Research, and calculations by CTDOL-Research.

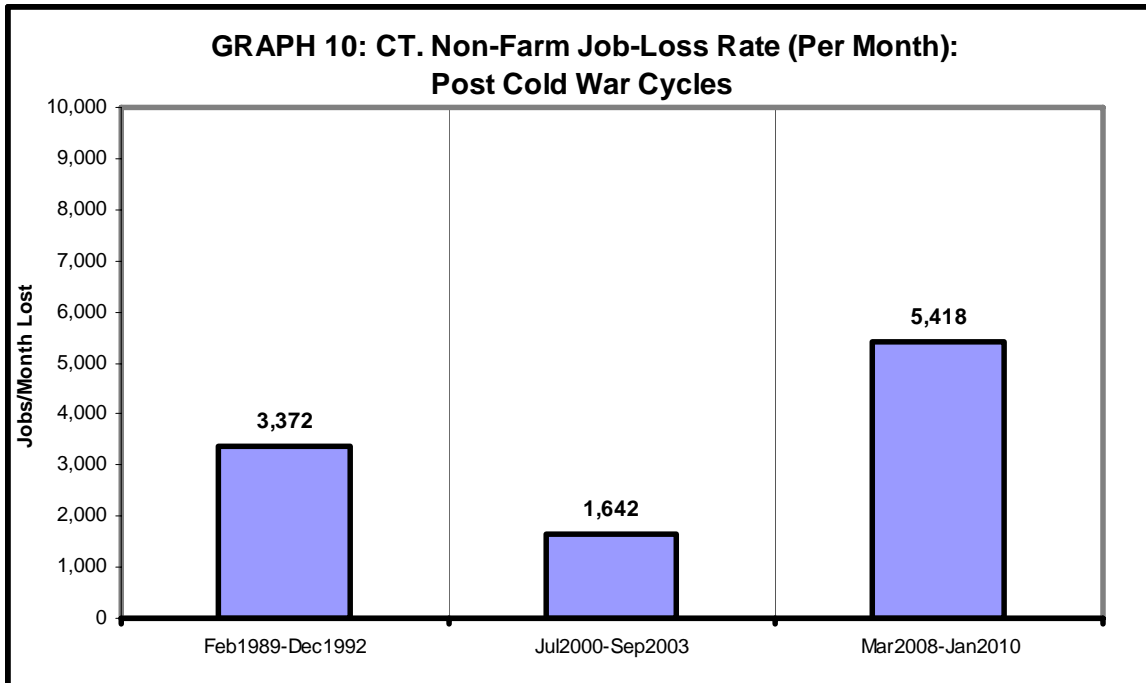
In fact, though the March 2008-January 2010 recession, at 22 months duration, was the shortest of the three post-Cold War recessions, it was the steepest. This is apparent in Graph 10. Over the Great Recession, Connecticut’s economy shed jobs at a rate of 3,372 jobs per month. Between July 2000 and September 2003, the state lost jobs at a rate of 1,642 jobs per month. However, over the recent recession, between March 2008 and January 2010, Connecticut lost jobs at a rate of 5,418 jobs per month. Given the job-loss rate of the recent recession, Graph 11 shows how many jobs would have been lost in each of the post-Cold War recessions had they been as long as the Great Recession, but had a job loss rate equal to that of the most recent recession. If both conditions held, Connecticut would have lost one-quarter million jobs over the recent recession.

**THE FIRST YEAR OF CONNECTICUT’S JOB RECOVERY**

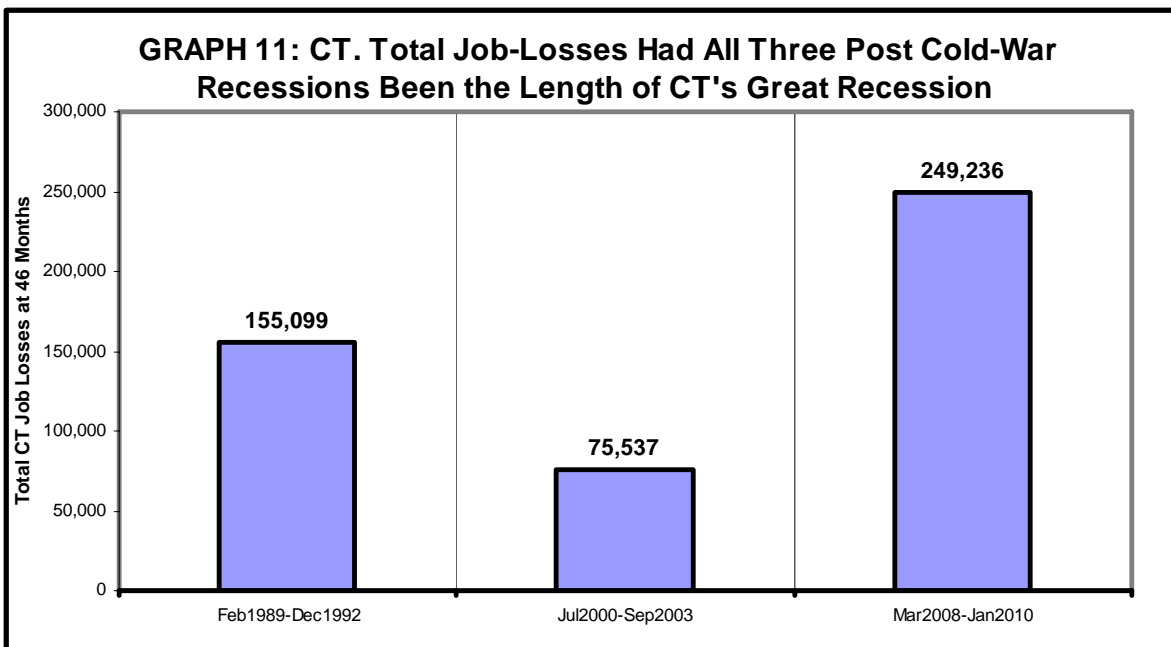
To assess the performance of Connecticut’s job growth over the first year of recovery, 2010, the following discussion draws on the employment data from the Quarterly Census of Employment and Wages (QCEW), which is the unemployment insurance (UI) tax database from which the Establishment Survey that produces the non-farm employment series is taken.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: CTDOL-Research and calculations by CTDOL-Research.



SOURCE: U.S. BLS, CTDOL-Research, and calculations by CTDOL-Research.

**Sectors That Added Jobs Between 2009Q4 and 2010Q4**

Between 2009Q4 and 2010Q4, nine of Connecticut's major NAICS sectors (two-digit level) added nearly 16,000 net new jobs, while 10 sectors had a net loss of 8,000 jobs.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

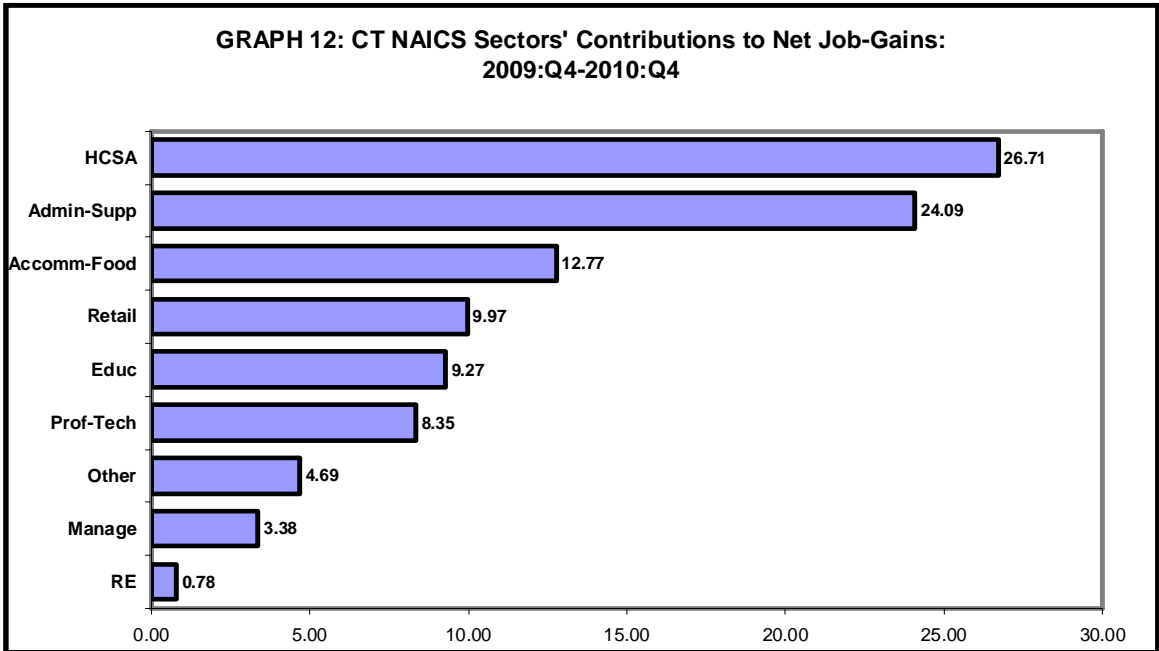
The result: 8,000 net, new jobs were added to Connecticut's economy. Graph 12 depicts the nine NAICS sectors that added jobs between 2009Q4 and 2010Q4 ranked in order of their relative contribution. Nearly 27% (4,164) of the net new jobs added to the state's economy were in health care and social assistance (HCSA). Growth was about evenly split between the health care services and social services sub-sectors. Growth was broadly distributed throughout the health care services sub-sector, but concentrated in family services and vocational rehab under the social services sub-sector. The hospital sub-sector had modest growth.

Administrative and support and waste management (Admin and Support) sector was the next largest contributor to job gains. This sector accounted for 24% (+3,756) of Connecticut's net, new jobs between 2009Q4 and 2010Q4. In addition, Admin and Support grew by 4.9%, the strongest growth of any sector. Further, 94% of the jobs created in Admin and Support were in employment service, which is largely temporary help. This reflects the changing structure of the economy where the flexibility of employing contingent workers has grown significantly over the last two decades. The large swings in the hiring and firing of temporary help, over expansions and recessions, has greatly increased the amplitude of the employment cycle for the Admin and Support sector over the business cycle.

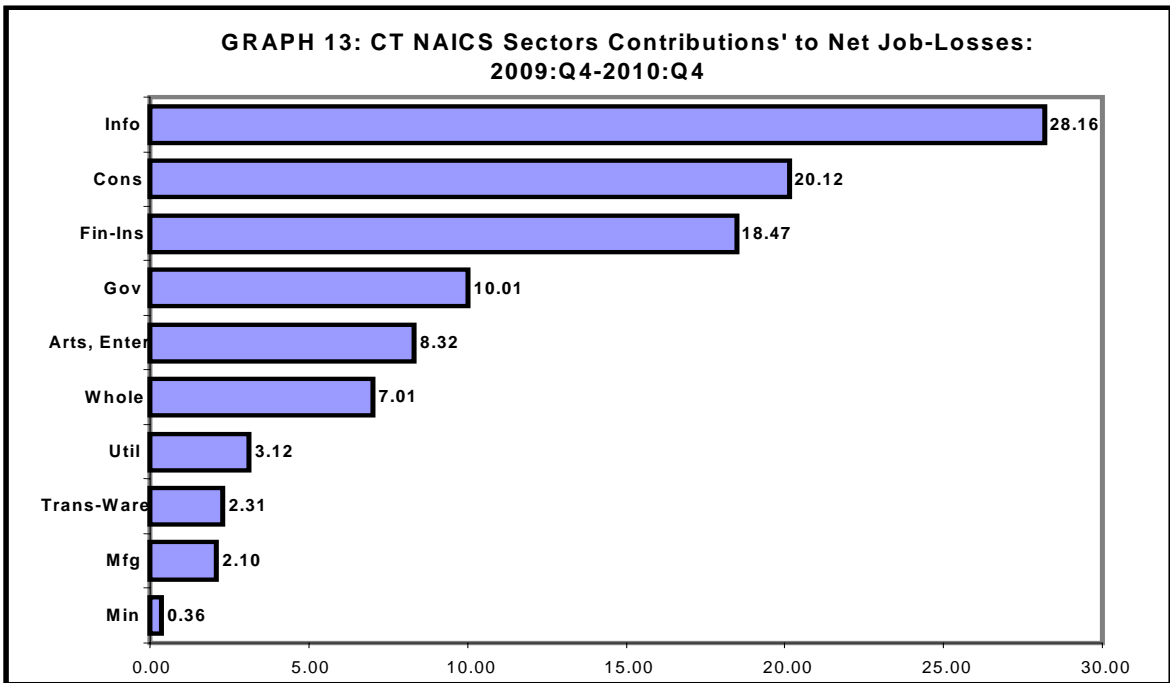
Accommodation and food services accounted for 12.77%, or 1,991 net, new jobs. Virtually all of the growth was concentrated in food services and drinking places. Retail (+1,555), education (+1,445), and professional, scientific, and technical services (Prof-Tech) (+1,302) each added more than 1,000 net, new jobs to Connecticut's economy. Eighty-seven percent of the job growth in the retail sector was in food and beverage stores. Ninety-one percent of the job growth in education was in colleges and universities (both, public and private).



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: CTDOL-Research



SOURCE: CTDOL-Research.

Most of the remainder of the new jobs in the education sector were in junior colleges (+547) and other schools and instruction (+384). Virtually all of the net, new jobs created in the Prof-Tech sector were in computer systems design and related services. Eighty percent of Connecticut's jobs in this industry are in custom computer programming



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

services and computer systems design services. Over the last two decades, computer systems has increased from 13.04% of the jobs in the Prof-Tech Sector in 1990 to nearly 24% in 2010.

**Sectors That Eliminated Jobs Between 2009Q4 and 2010Q4**

Graph 13 ranks the 10 sectors that had a net subtraction in jobs between 2009Q4 and 2010Q4. Twenty-eight percent, or 2,247, of the jobs lost in Connecticut's economy between 2009Q4 and 2010Q4, were in the information sector. Further, this sector also had the steepest decline at 6.6%. Telecommunications accounted for 92% of all the net, job losses in the information sector. The only industries in this sector with positive job growth were motion picture and sound recording industries (+129) and broadcasting (except Internet) (+258).

Construction, hit hard by the popping of the housing bubble, shed another 1,606 jobs between 2009Q4 and 2010Q4, which accounted for 20% of all jobs lost. Construction also had the second steepest decline in jobs (-4.70%). Two other sectors accounted for more than 10% of job losses: finance and insurance shed 1,474 jobs, and accounted for 18.5% of job losses, and government lost 799 jobs, and accounted for 10% of job losses. Virtually all job losses in the finance and insurance sector were in the insurance sub-sector. This sub-sector's losses were partially offset by gains in securities, commodity contracts (+750) and funds and trusts (+555). Government job losses, reflecting the state and local fiscal crises, were all in state and local government.

**IS THE STATE'S ECONOMY LOSING STEAM IN 2011?**

Since the second quarter's QCEW data were not yet available, at the time of writing, to discuss the state economy's economic performance over the first five months of 2011, this section draws on the Current Employment Statistics (CES) data, and switches from quarterly to monthly data. Over the first five months of 2011 (measured December 2010 to May 2011), Connecticut's economy added 3,900 net, new jobs, seasonally adjusted. However, over the first five months of 2010, the state's economy added 8,100 jobs.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Clearly, Connecticut, along with the U.S., has seen the fledging recovery's pace losing momentum coming into the first half of 2011.

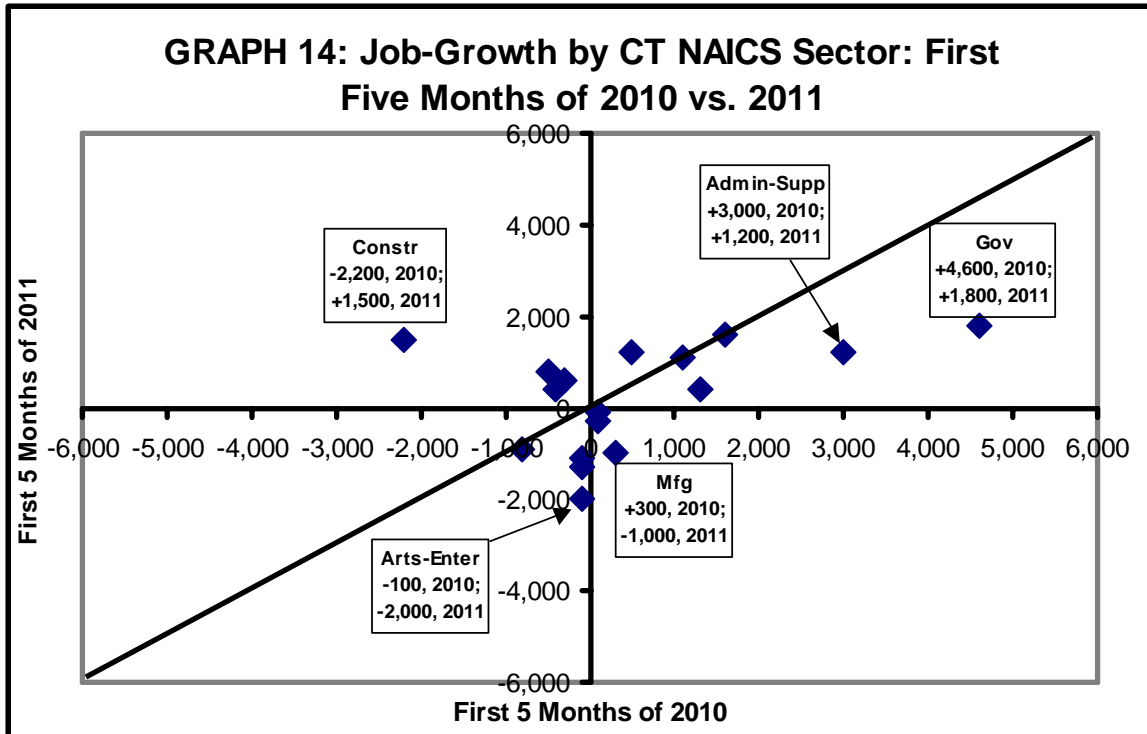
Graph 14 plots Connecticut's job changes over the first five months of 2010 on the horizontal axis, and the job-changes for the first five months of 2011 on the vertical axis, for the major, two-digit NAICS sectors. The 45-degree reference line represents those instances where the job change in 2010 was exactly equal to the job change in 2011 over the first five months of the year. Sectors that fall in the Northeast (NE) quadrant of Graph 14 had job growth in both, the first five months of 2010 and the first five months in 2011. Sectors in the Northwest (NW) quadrant had job losses in 2010, but job growth in 2011. Sectors in the Southwest (SW) quadrant had job losses in both 2010 and 2011. Finally, sectors in the Southeast (SE) quadrant had an increase in jobs over the first five months of 2010, but then had job losses over the first five months of 2011. Table 3 presents the complete list of NAICS sectors and their job growth over the first five months of 2010 and 2011, and the difference between the two, with some "outliers" flagged.

The first thing to note in Graph 14 is that there are two sectors that fall exactly on the 45-degree line: retail, which added 1,600 jobs over the first five months of 2010, and added the same number of jobs over the first five months of 2011. Health care and social assistance (HCSA) added 1,100 new jobs over both periods in 2010 and 2011. Finance and insurance is close to the line. This sector lost 800 jobs over the first five months of 2010, and 900 jobs over the comparable period in 2011. Before continuing, the biggest surprise turnaround for 2011 should be noted. Construction added 1,500 net, new jobs to Connecticut's economy between December 2010 and May 2011. This is particularly surprising given the double-dip in housing. However, significant infrastructure projects underway in Connecticut have, apparently more than offset the drag on construction activity from the continued problems in the housing market.





CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012



SOURCE: U.S. BLS and calculations by CTDOL-Research.

**TABLE 3: First Five Months Growth**

SECTOR	2010	2011	Difference
<b>Cons</b>	<b>-2,200</b>	<b>1,500</b>	<b>3,700</b>
<b>Mfg</b>	<b>300</b>	<b>-1,000</b>	<b>-1,300</b>
Whole	-500	800	1,300
Ret	1,600	1,600	0
Trans-Util	-100	-1,300	-1,200
Info	-400	400	800
FinIns	-800	-900	-100
RE	100	-300	-400
Prof-Tech	500	1,200	700
Manage	100	-100	-200
Admin-Supp	3,000	1,200	-1,800
Educ	1,300	400	-900
HCSA	1,100	1,100	0
Acom-Food	-100	-1,100	-1,000
Arts-Enter	-100	-2,000	-1,900
Other	-300	600	900
Gov	4,600	1,800	-2,800

SOURCE: U.S. BLS and CTDOL-Research



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

However, construction's surprise turnaround, as encouraging a sign as that is, was not enough to offset those sectors that either grew in 2010, and then declined in 2011, declined in 2010, and then accelerated that decline in 2011, or grew strongly in 2010, and then had a significant deceleration in that growth going into 2011. Other NW quadrant sectors (job declines in 2010, but job growth in 2011) include wholesale trade, information, and other services (see Table 3).

Turning to the NE quadrant, sectors that had job growth in both 2010 and 2011, though it added jobs in both 2010 and 2011, the largest contributor to the deceleration in Connecticut's job growth over the first five months of 2011, compared to 2010, was government. Boosted by the temporary hires for the Census, government grew by 4,600 the first five months of 2010. However, without the boost from temporary Census workers, government only added 1,800 workers, which includes the tribal casinos, over the first five months of 2011. That represents a deceleration by 2,800 of job growth in 2011, compared to 2010 (see Table 3). Also in the NE quadrant, but below the 45-degree line, the job growth for administration and support declined from 3,000 in 2010 to 1,200 in 2011, resulting in 1,800 fewer jobs created in 2011, compared to 2010. The growth in education jobs decelerated dramatically from 2010 to 2011. The education sector added 1,300 jobs over the first five months of 2010 that decelerated to a much weaker addition of 400 jobs over the first five months of 2011.

From the SW quadrant, sectors that had job losses in both 2010 and 2011, the job losses in arts and entertainment accelerated to -2,000 over the first five months of 2011, compared to -100, for the same period in 2010. Thus, job losses were higher by 1,900 in 2011. Accommodation and food services and transportation and warehousing each shed 1,000 or more jobs in 2011 compared to 2010. Manufacturing, in the SE quadrant, went from adding 300 jobs in the first five months of 2010 to shedding 1,000 in the first five months of 2011.

Despite the encouraging turnaround in construction job growth, sectors that added significant job growth to Connecticut's economy in 2010 have had a significant



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

deceleration in their growth rates over the first five months of 2011. In addition, sectors that shed jobs over the first five months of 2010 had an acceleration of those losses over the first five months of 2011. And, other sectors, such as manufacturing went from adding jobs in 2010 to subtracting jobs in 2011. These appear to be the critical factors that drove the deceleration in Connecticut's non-farm job growth over the first five months of 2011.

## **D. BUSINESS CONDITIONS**

### **MANUFACTURING ACTIVITY OVER THE CURRENT CYCLE**

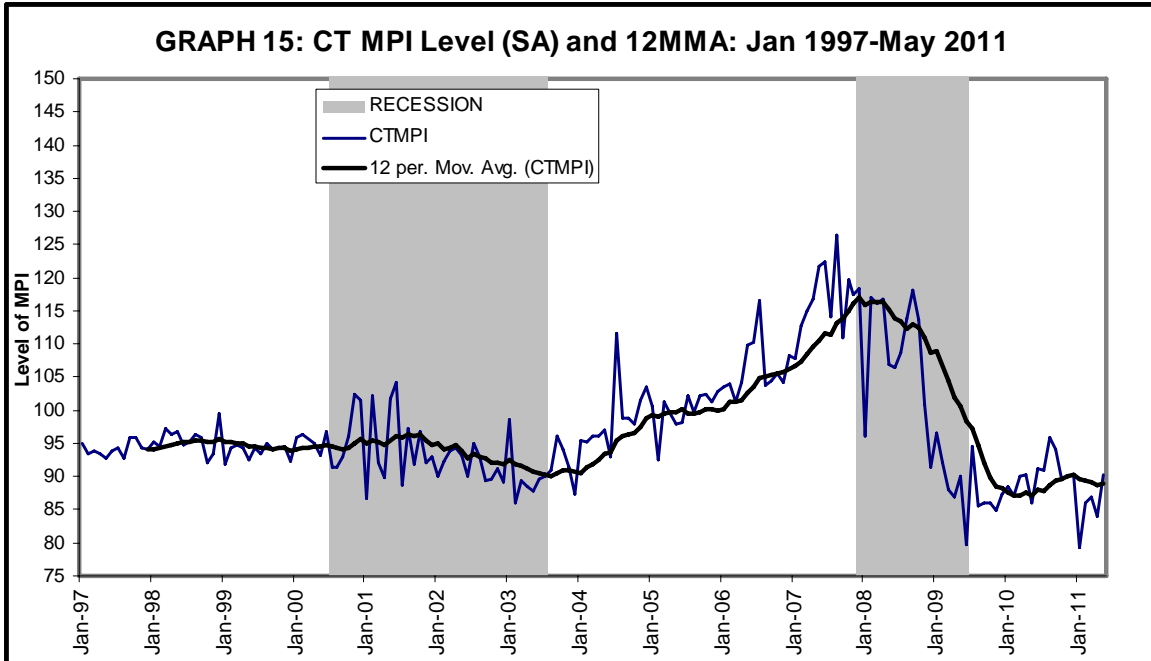
As noted in the introduction to subsection A, above, industrial production is calculated on a gross output basis that includes the intermediate inputs of purchased goods and services used in the production of final output. In what follows, the manufacturing industrial production index (IPI) is used rather than the total IPI, specifically, the indicator developed at the state level to track Connecticut's manufacturing output, the *Connecticut manufacturing production index* (CMPI), is tracked.

The *Connecticut manufacturing production index* (CMPI) and the 12-month moving average (12MMA) of the seasonally adjusted series, is plotted in Graph 15, on a monthly basis, from January 1997 to May 2011, the last period of available data.

With release of the May CMPI the trend in Connecticut's manufacturing output has been down for the first half of 2011. After bottoming in February 2010, during the recent recession, the 12MMA of the CMPI then showed a steady increase in the state's manufacturing output until December 2010. From December until May 2011, the 12MMA of CMPI has declined in four of the five months of 2011, at the time of writing. Between its peak in December 2007, and its trough in February 2010, the 12MMA of the CMPI declined by 25.53% over the 27-month period. From the trough in February 2010, the 12MMA of the CMPI recovered by 3.72% until December, but from December 2010 to May 2011, the 12MMA of the CMPI has declined again by 1.40%.



CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012



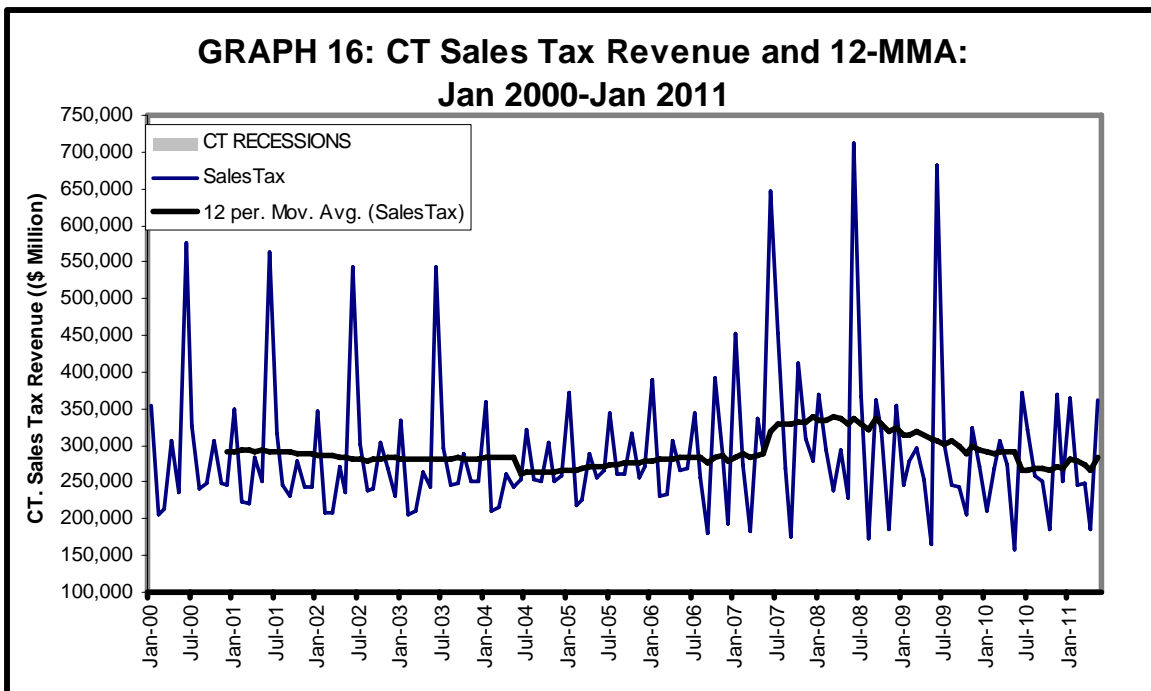
SOURCE: CTDOL-Research.

Compared to Connecticut's 2000-03 recession, the decline in manufacturing activity was much steeper over the recent crisis/recession. With the onset of Connecticut's July 2000-September 2003 recession, the 12MMA of the CMPI peaked in October 2001, and then proceeded to decline for 22 months, until August 2003, one month before the turnaround in jobs (which had peaked in July 2000). Manufacturing activity, measured by the 12MMA of the CMPI contracted by 6.49%, which translates into a 3.60% compounded, annualized decline over the 22-month period of contraction. Conversely, over the recent 2008-10 recession, the 12MMA of the CMPI contracted by 25.53% over the 27-month period between December 2007 and February 2010. That translates into a much steeper 12.28% compounded, annualized contraction in manufacturing output over the recent crisis/recession. As noted above, since the secondary peak in manufacturing activity in December 2010, the 12MMA of the CMPI has declined again by 1.40% through May 2011, the most recent available period of data at the time of writing.

### RETAIL SALES ACTIVITY OVER THE CURRENT CYCLE

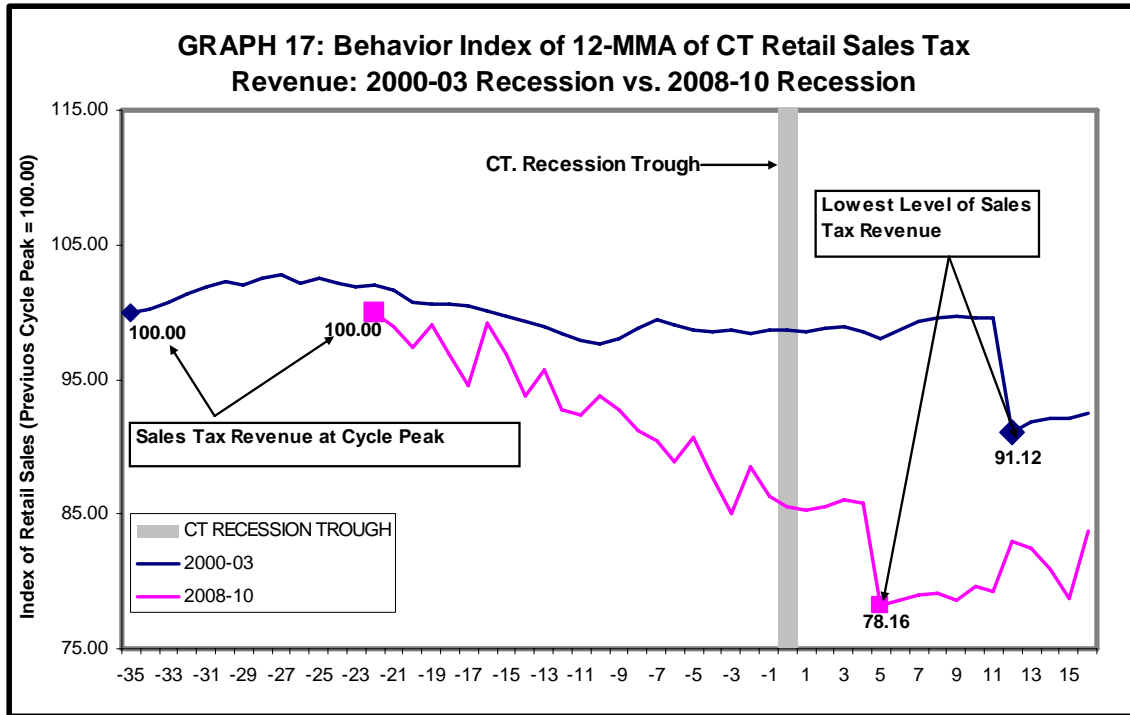
A good proxy for retail activity at the state level is the behavior of retail sales and use tax revenues. Graph 16 tracks monthly Connecticut's sales tax revenue. To smooth out the volatility of the series, a 12MMA is superimposed on the monthly sales tax revenues series, which covers the period from January 2000 to May 2011. The 12MMA begins to decline after peaking at \$340.133 million in December 2007. Sales tax revenue then declined until June 2010 at \$265.166 million, which represents a 22% decline. From June 2010 to May 2011, the latest available data, sales tax revenue climbed by 5.13% to \$284.261 million.

Graph 17 compares the track of the 12MMA of Connecticut's sales revenue over the current cycle to that of the 2000-03 cycle.



SOURCE: Boston Federal Reserve Bank, New England Economic Indicators

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

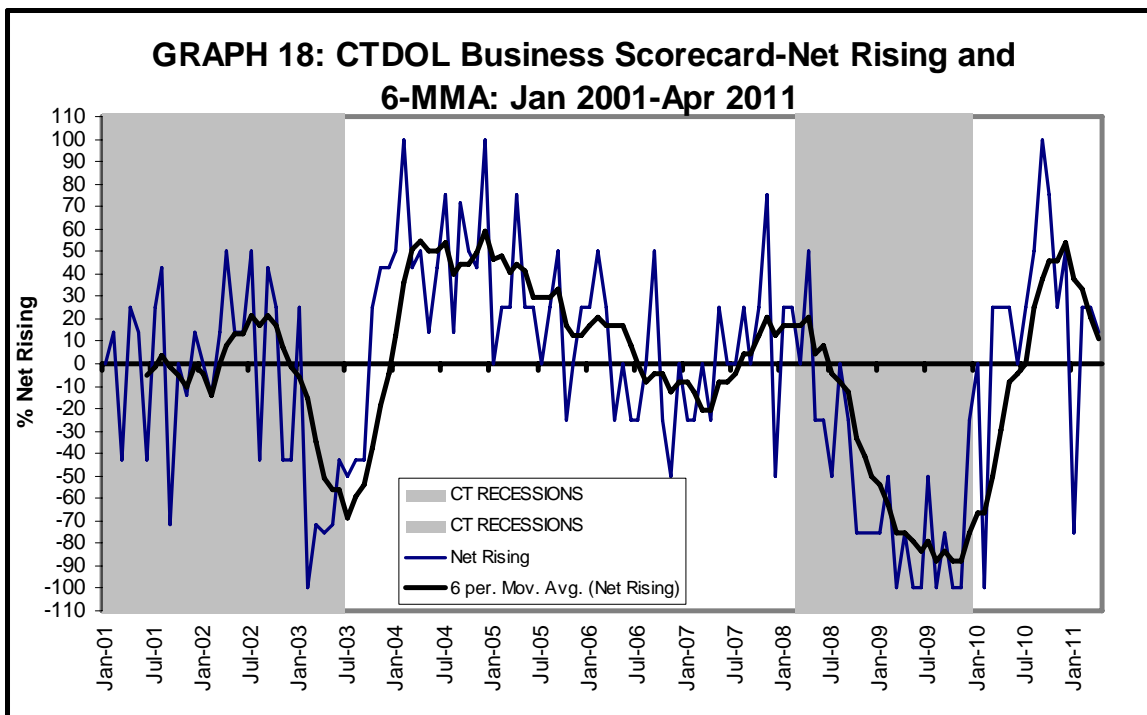


SOURCE: Boston Federal Reserve, New England Economic Indicators.

Graph 17 constructs an index of revenue for each cycle, which is just the ratio of all other month's values to the value at the peak of each cycle. Thus, July 2000 equals 100.00 for the 2000-03 cycle, and March 2008 has an index value of 100.00 for the current cycle. The horizontal axis measures the number of months before and after the trough for each cycle. What stands out in Graph 15 is that the decline in the 12MMA of Connecticut's sales tax revenue over the 2008-10 state recession was much steeper than that over the 2000-03 recession. The 12MMA of sales tax revenue declined by 11.36% between July 2000 and June 2004, but, as noted above, declined by 22% between March 2008 and June 2010. This implies that retail activity declined by twice as much over the 2008-10 crisis/recession, as it did over the 2000-03 recession. In addition, from Graph 15, it appears that retail activity has been much more volatile over the current cycle, even in the 12MMA.

### OVERALL BUSINESS ACTIVITY OVER THE CURRENT CYCLE

The *Business Scorecard* component of the Connecticut Economic Scorecard (on the Labor Market Information webpage, of the Connecticut Department of Labor's website<sup>181</sup>), has done a fairly good job of tracking the state's business cycle over the last two cycles. However, even though the *Business Scorecard* seems to fairly closely track the state's business cycle, it will, obviously, be at least another decade before enough history will have passed before any serious assessment of its tracking ability can be made. And even then, any results would still be preliminary. Having noted that, it may still be of interest to see what the Business Scorecard may be indicating about overall business activity in Connecticut's economy over the current cycle.



SOURCE: CTDOL-Research

From Graph 16, the Business Scorecard seems to sending the same signals about the state's economy as the other indicators discussed up to this point. The pattern suggests a clear deceleration of economic activity over the first four months of 2011. The net rising

<sup>181</sup> The *Connecticut Economic Indicators Scorecard*, which includes the Business Scorecard, can be found at: <http://www1.ctdol.state.ct.us/lmi/Scorecardv3.asp>. Accessed on July 1, 2011.

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

in January, with 7 out of eight indicators down, was a strongly negative 75% (see the Business Scorecard webpage on the State Department of Labor's website). Then, in February, five indicators turned positive<sup>182</sup>, and the net rising jumped to +38%. Since February, the net rising has declined from +25% in March (as manufacturing hours declined) to +14% in April (as manufacturing hours, the CMPI, and housing permits declined, with no data in for exports), reflecting the deceleration of economic activity in 2011. The Business Scorecard seems to reflect the trajectory of the overall economy, which, in turn, reflects a rapidly slowing economy.

### **E. HOUSEHOLDS: Consumer Spending Support**

Consumer spending represents the largest share of aggregate demand (AD) at the national level, and it is equally important, if not more so at the state, regional, and local levels. Critical to the ability of Connecticut's households to support spending in the state's local economies is the level and growth of their personal income. This subsection turns to a discussion of the ability of the state's consumers to generate income growth by spending, at least part, of their income on the purchases of local goods and services.

Based on the U.S. Bureau of Economic Analysis (BEA) release of state personal income for the first quarter of 2011 (2011Q1), state personal income growth accelerated to 1.8% in the first quarter of 2011, from 0.8% in the fourth quarter of 2010.<sup>183</sup> Over that same period, Connecticut's personal income (PI) grew by 1.95%, on a quarter-to-quarter (QTQ) basis, which exceeded the national growth rate. Connecticut PI minus transfer payments (PI-Transfers) grew at an even faster 2.30% rate. On a year-to-year (YTY) basis, Connecticut quarterly personal income (QPI) grew by 4.74%, and PI-Transfers grew by an even stronger 4.89%. Transfer payments actually decreased by 0.06% in 2011Q1, on a QTQ basis, and grew much more slowly than either QPI or PI-Transfers, increasing 3.91% in 2011Q1, on a YTY basis.

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<sup>182</sup> Air cargo tons, tourism, air passengers, and the CMPI, were all up, YTY, while housing permits and gaming revenue were down, while there was no change in manufacturing hours (see Scorecard webpage).

<sup>183</sup> U.S. Bureau of Economic Analysis, *State Personal Income: First Quarter 2011* (June 22, 2011).





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

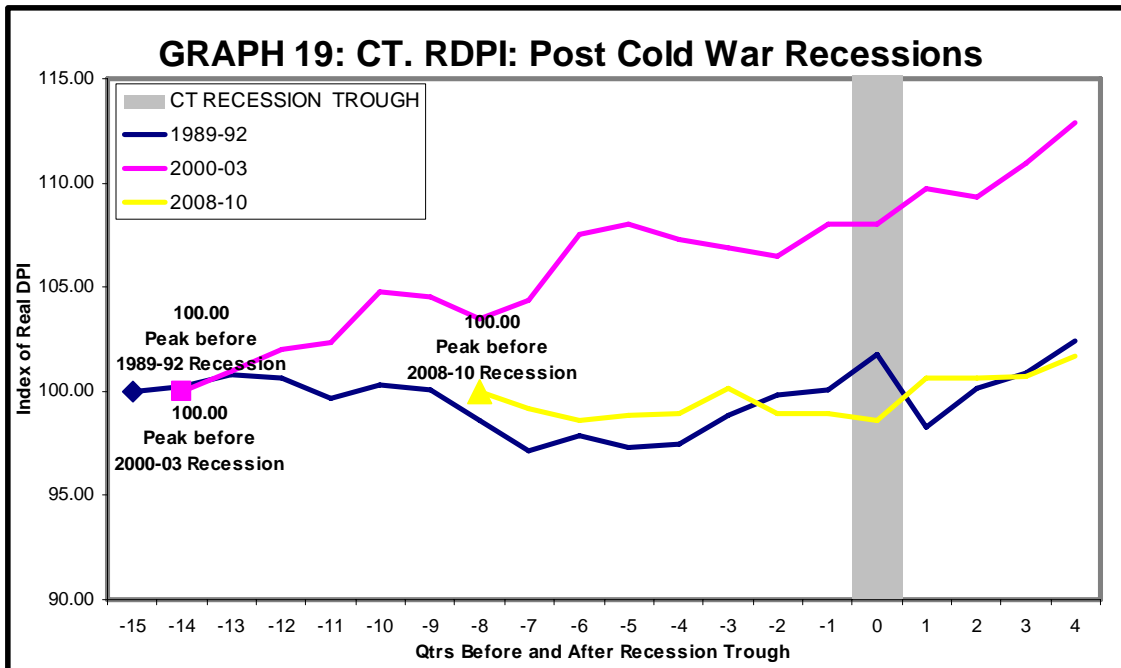
After adjusting for changes in the price level with the personal consumption expenditures (PCE) price index, real CT QPI grew by 0.99% in 2011Q1, on a QTQ basis, and by 3.12%, on a YTY basis. Real PI-Transfers grew by 1.33% (QTQ) and 3.36%, compared to 2010Q1. Real transfer payments declined by 1.01% (QTQ) in 2011Q1, and grew by 3.26%, on a YTY basis. Critical for supporting consumer spending is not just income, but disposable income, or more specifically, disposable personal income (DPI). DPI is defined as income minus taxes, plus transfers. DPI can be expressed as:

$$\text{DPI} = \text{PI} - \text{Taxes} + \text{Transfers} \quad (3.)$$

It is DPI that consumers will have to spend, whether on necessities, or discretionary spending. Graph 19 tracks an index constructed to track the behavior of real DPI (deflated by the PCE price index) over Connecticut's post-Cold War recessions. The trough in the non-farm employment series is represented as the period (quarter) zero and marked by the gray bar. Quarters before the trough have a minus sign, and quarters following the trough are designated with a plus sign. Connecticut's real DPI actually increased over the 2000-03 recession. This was not the case for the 1989-92 recession. Real DPI contracted from 15 quarters through 8 quarters before the trough in the state's non-farm employment series, as indicated on Graph 19. Then, it actually turned up and peaked at the trough, turned down briefly, and then began climbing again after the first quarter after the trough.

Over the current cycle, Connecticut's real DPI peaked eight quarters before the trough in non-farm employment. It declined, but then grew slightly and then peaked three months before the trough. It then declined and bottomed out at the trough.





SOURCE: U.S. BEA and calculations by CTDOL-Research.

It has since, recovered and, in the first quarter of 2011 (four quarters after the trough in Graph 19) it was 1.68% higher than it was at its previous peak (Quarter –8 in Graph 19). Save a couple quarters before the trough, Connecticut’s real DPI has held up better over the recent recession when compared to the 1989-92 recession. As is also apparent in Graph 19 is that Connecticut’s real DPI did not hold up as well, in either 1989-92 or 2008-10, as it did over the 2000-03 recession.

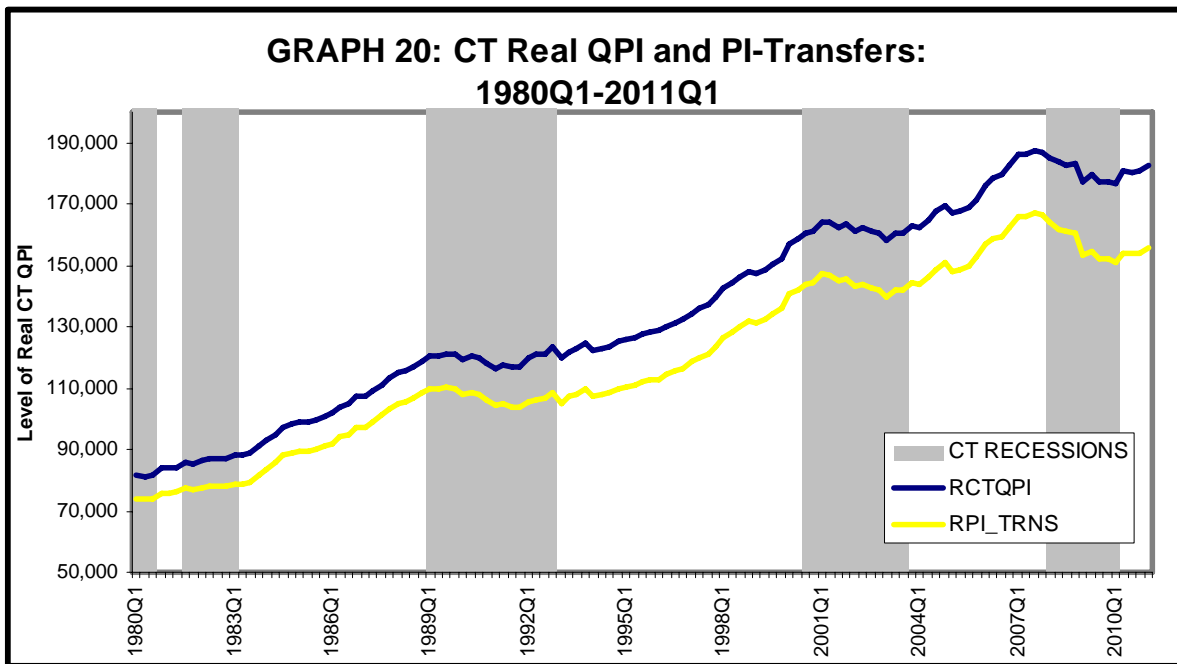
As indicated in Equation (3.), DPI is not just PI minus taxes, but also PI plus transfer payments. And, transfer payments played a critical role in supporting the level of DPI over the recent recession, although their effects are beginning to wane as the effects of the *American Recovery and Reinvestment Act (ARRA)* and extensions of unemployment insurance and other social safety-net payments are winding down. After peaking at an annualized rate of \$1.504 billion in 2009Q4, transfer payments to Connecticut residents under the ARRA have declined to \$337 million (\$0.337 billion) in the first quarter of 2011<sup>184</sup>. Graph 20 illustrates the importance of transfer payments in cushioning the decline in PI over the recent recession. Graph 20 tracks Connecticut’s real QPI and PI-

<sup>184</sup> U.S. BEA, Table 1: Net Effect of ARRA on Personal Current Transfer Receipts (June 22, 2011)



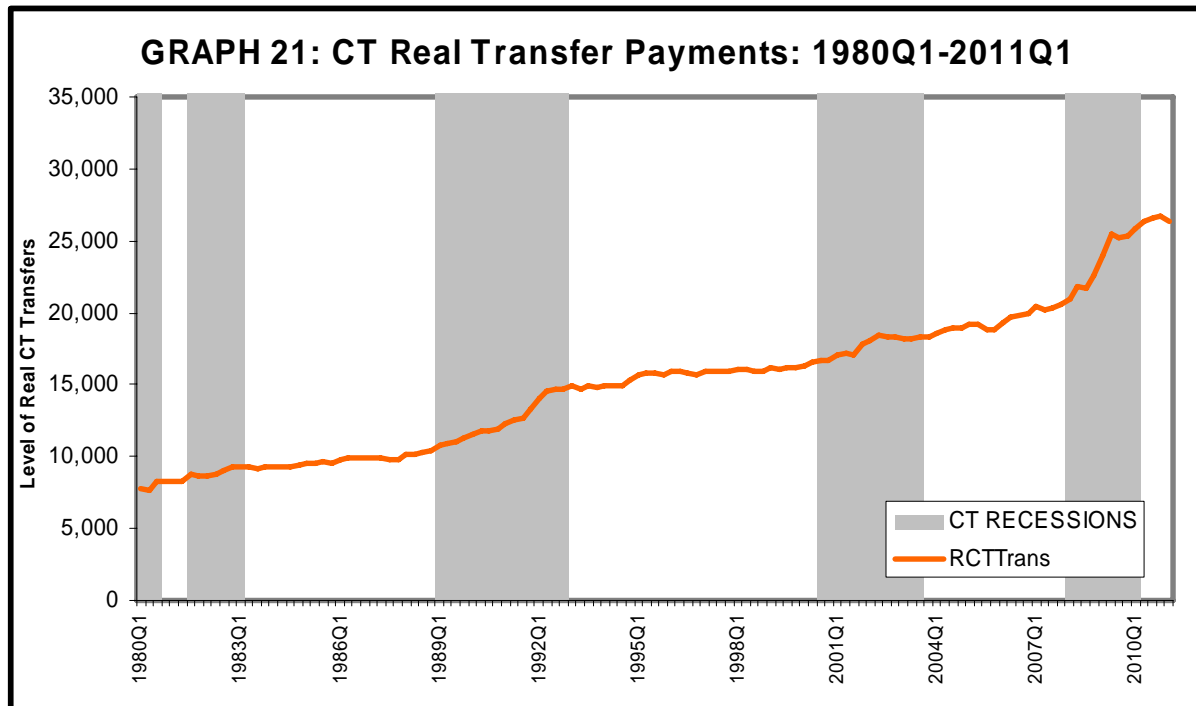
**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Transfers from 1980Q1 to 2011Q1. It is quite clear that, especially when comparing the recent recession to past recessions, the divergence between the two series over Connecticut's business cycles since 1980 was the greatest over the 2008-10 recession. It also can be seen that, the greater divergence is due to the much steeper decline in the real PI-Transfers series over the recent recession, compared to the decline in real QPI, and compared to its own decline in past cycles, back to 1980. This is reinforced in Graph 21. Graph 21 tracks real transfer payments from 1980Q1 to 2011Q1. The steep climb in transfer payments as Connecticut's economy entered the 2008-10 recession is quite apparent. Clearly, Connecticut's real QPI, and, in particular, its real DPI, has been supported by significant increases in transfer payments over the current cycle. Though that is true to some extent in all cycles, it has especially been true over the recent cycle. Thus, as bad as the economy has been, it would have been a lot worse without this income support.



SOURCE: U.S. BEA and calculations by CTDOL-Research.





SOURCE: U.S. BEA and calculations by CTDOL-Research.

### III. THE STATES' FISCAL CRISES AND CONNECTICUT

The biggest impending impact on the State's economy is the member-vote defeat of the agreement reached between the Governor and the State's union leadership, as noted earlier in the introduction to this volume of the outlook. This would imply that the Governor would implement his Plan B to close the state's approximately \$3.4 billion budget deficit for the fiscal year (FY) beginning July 1st. Malloy's two-year, \$40 billion budget calls for \$1 billion in labor savings in each of the next two fiscal years. He has also proposed raising taxes by a total of \$1.5 billion in the first year and has indicated that he does not want to raise any more taxes in light of the rejection of the labor concessions

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

deal<sup>185</sup>. Malloy instead says he will impose as many as 1,000 layoffs above the 5,500 previously announced<sup>186</sup>.

Connecticut's budget crisis is, of course, not happening in a vacuum. Well publicized crises have resulted in many states going after state workers' bargaining rights, such as New Jersey, Ohio, Wisconsin, Maine, and other states, and still other states taking a less hostile approach to labor in solving their budget problems, such as California, Massachusetts, and New York. This, of course, has all been the result of the worst recession since the 1930's, which followed the collapse of a housing bubble and subsequent financial panic, and has caused the steepest decline in state tax receipts on record. State tax collections, adjusted for inflation, are now 12% below pre-recession levels while the need for state-funded services has not declined<sup>187</sup>. As a result, even after making very deep spending cuts over the last several years, states continue to face large budget gaps. This will have a significant impact on the national economy because states and localities do much of the heavy lifting in our federalist system. Although the Federal Government raises more revenue, states and localities undertake more spending on domestic goods and services (that is, spending net of intergovernmental grants and national defense). They outspent the Federal Government in nine of the last 10 FYs and in most years since World War II. The exception was 2009, when Federal expenditures spiked in response to the Great Recession<sup>188</sup>. Now, due to the budget-cutting mentality that has gripped Washington, state and local governments face the withdrawal of Federal support as just budget gaps widen.

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<sup>185</sup> NEWS 8, WTNH, *Malloy: 'Plan B' if no union givebacks* (25 Mar 2011) <<http://www.wtnh.com/dpp/news/politics/malloy%3A-%27plan-b%27-if-no-union-givebacks->> Accessed on July 1, 2011.

<sup>186</sup> Pazniokas, Mark, *Cities and towns win, state employees lose in budget deal* (June 30, 2011) CT MIRROR <http://ctmirror.com/story/13139/cities-win-state-employees-lose-budget-deal> Accessed on July 1, 2011).

<sup>187</sup> McNichol, Elizabeth, Phil Oliff, and Nicholas Johnson, STATES CONTINUE TO FEEL RECESSION'S IMPACT (Updated February 10, 2010) Center on Budget and Policy Priorities: Washington, p. 1.

<sup>188</sup> Gordon, Tracey, *State and Local Finances: Where We're Going* (January 31, 2011) STATE TAX NOTES, Brookings Institution: Washington, p. 339.



## A. STATE BUDGETS IN THE FACE OF DWINDLING FEDERAL SUPPORT

Fiscal year 2012 is shaping up as states' most difficult budget year on record. Thus far some 45 states and the District of Columbia are projecting budget shortfalls totaling \$125 billion for FY 2012. While states are anticipating significant shortfalls in the coming year, their options for addressing those shortfalls are dwindling. Federal assistance for states, which has been enormously helpful in allowing states to avert some of the most harmful potential budget cuts, will be largely gone by the end of FY 2011<sup>189</sup>.

The *American Recovery and Reinvestment Act of 2009* (ARRA) directed more than \$280 billion to states and localities, including roughly \$135 billion in flexible funds. Under ARRA, National income and federal grants are estimated to have reached a historic peak in nominal terms and as a share of GDP. Nevertheless, ARRA covered at most 40% of state budget shortfalls; and most payments will expire next year, while revenue is not expected to recover for another two to three years because of standard lags in rehiring and reinvestment.<sup>190</sup> States and localities must therefore increase taxes or cut spending to balance their books. Those actions can harm vulnerable populations and short-circuit a national economic recovery. States and localities are the nation's largest employer — responsible for one out of seven jobs — and in most years they contribute one-third of a percentage point (33 basis points) to real annual GDP growth. In 2009, however, their contribution was negative. Since the start of the recession, local governments have cut 241,000 jobs, and surveys suggest as many as 481,000 more cuts may be coming<sup>191</sup>.

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<sup>189</sup> McNichol, Elizabeth, Phil Oliff, and Nicholas Johnson, STATES CONTINUE TO FEEL RECESSION'S IMPACT (Updated February 10, 2010) Center on Budget and Policy Priorities: Washington, p. 1

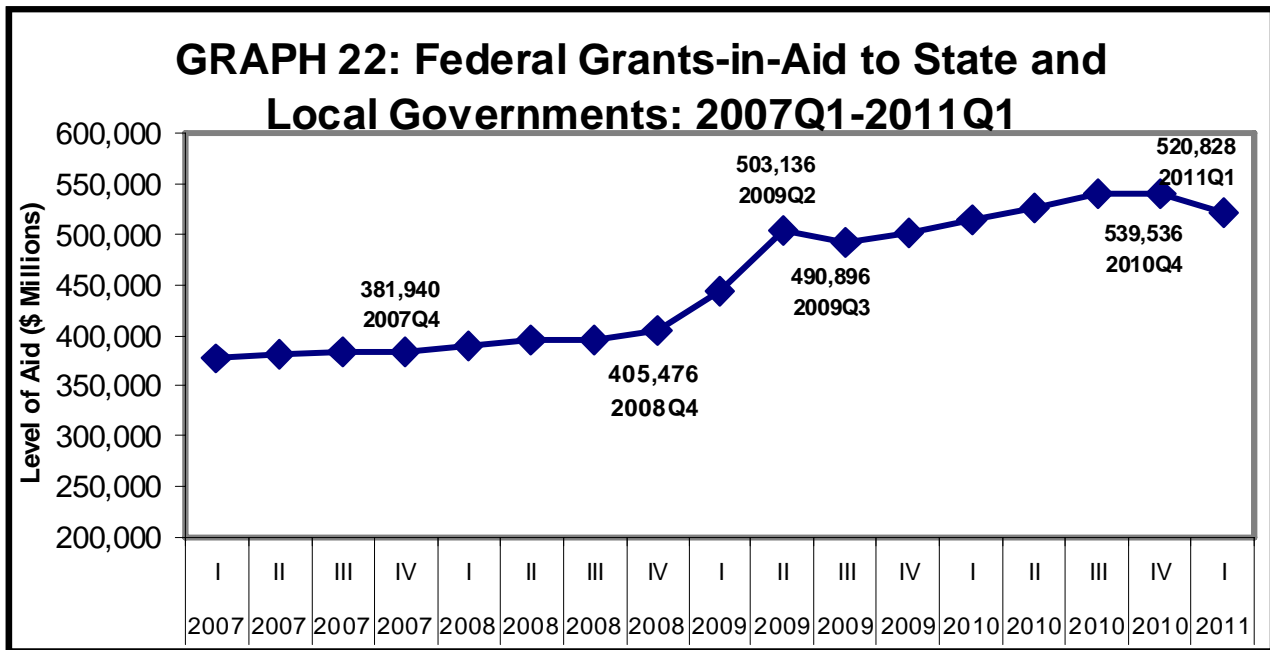
<sup>190</sup> Gordon, Tracey, *State and Local Finances: Where We're Going* (January 31, 2011) STATE TAX NOTES, Brookings Institution: Washington, pp. 340-341.

<sup>191</sup> *ibid*, p. 340.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Graph 22 tracks Federal grants-in-aid to the states from the first quarter of 2007 (2007Q1) to 2011Q1. At the peak of the last national expansion, 2007Q4, Federal grants-in-aid to the states was \$381.940 billion. As the economy began to slip into recession over 2008, Federal grants-in-aid to the states increased to \$405.476 billion in the fourth quarter of 2008, a 6.16% increase, by the quarter following the collapse of Lehman Brothers, the nationalization of AIG, and the financial panic. By 2009Q2, two quarters after the financial crisis, Federal grants-in-aid to the states had jumped to \$503.136 billion, a 24.09% increase. But, the next quarter, 2009Q3, grants-in-aid to the states actually fell by 2.43% to \$490.896 billion. From then on, the level of aid gradually increased until it peaked in 2010Q4 at \$539.536 billion. However, in the first quarter of 2011, grants-in-aid to the states fell again by 3.47% to \$520.828 billion.



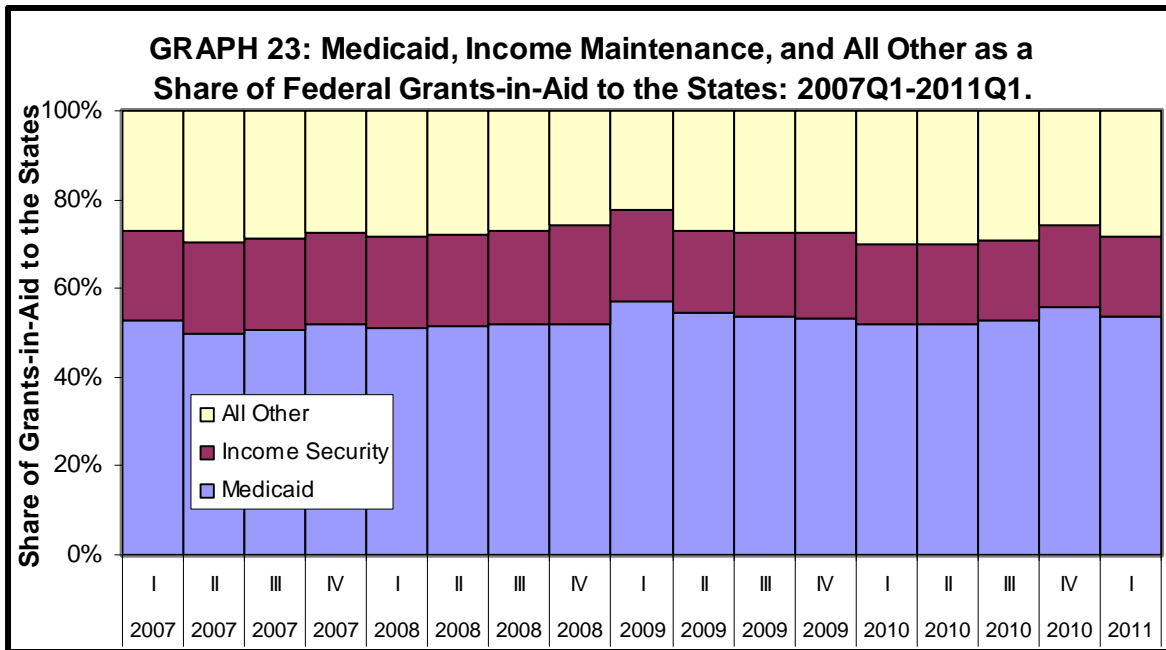
SOURCE: U.S. BEA

From Graph 23 it can be seen that Medicaid played a significant role in Federal grants-in-aid to the states. Over the 17-quarter period from 2007Q1 to 2011Q1, Medicaid accounted for, on average, 52.71% of the total amount of Federal grants-in-aid to the states, which in turn accounted for, by far, the largest share of any category. Its highest share was in 2010Q4, when it accounted for 56% of all Federal grants-in-aid to the states.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Medicaid was more than double the share of income security, which fell from 20% of grants-in-aid from 2007Q1 to 18.11% in 2011Q1, and on average, accounted for 19.71% of Federal grants-in-aid to the states over the 17-quarter period. In fact, all other categories of grants-in-aid only accounted for, on average, 27.57%, or half the share of grants-in-aid to the states as Medicaid over the 2007Q1-2011Q1 period.



SOURCE: U.S. BEA and calculations by CTDOL-Research.

The increase in Medicaid demand, of course, has been driven by the recession. As layoffs mounted and spells of unemployment increased dramatically over the recent recession, and into the current, fledging, recovery, more and more became eligible for Medicaid, putting further stress on already stretched state budgets.

## **B. CONNECTICUT’S BUDGET SHORTFALL**

On July 1, 2011, Connecticut Comptroller Kevin Lembo issued his statement on the state’s budget. He stated that after the state repealed planned borrowing of \$646.1 million, he projected a general fund surplus of \$85.5 million for fiscal year 2011.





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

However, he warned that the surplus would have been more than \$1 billion deficit had the state not relied on significant one-time financial fixes<sup>192</sup>. According to the Comptroller's statement, the surplus projection is an increase of \$51.8 million over last month's projection due to unanticipated revenue gains in the income tax, insurance companies' tax and oil companies' tax. Further, the \$85.5 million general fund surplus has largely been accounted for going forward. Lembo cautioned against viewing the year-end "surplus" with any sense of relief, particularly after Moody's Investors Service recently revised the state's financial outlook to negative – although Moody's maintained the State's Aa2 rating. Unemployment also remains historically high, while foreclosures continue to grow<sup>193</sup>.

In a monthly report to Governor Dannel P. Malloy, Lembo said revenues exceeded expectations in fiscal year 2011, but the State still would have faced a deficit if Connecticut had not relied on \$739.6 million in Federal stimulus money; which is now winding down. In addition, another \$103.2 million came from the budget reserve fund; and \$114.9 million from other non-general fund sources; and an assessment on electric ratepayers<sup>194</sup>.

The magnitude of Connecticut's decline in tax revenues over this cycle compared to the 2000-03 recession can be seen in Graphs 24-A, 24-B, and 24-C. To smooth out the volatility in the series, Graph 24-A compares the YTY percent change in the 12-month moving average (12MMA) of Connecticut's general revenues with the 12MMA of the state's income tax revenues over the current cycle and the 2000-03 recession.

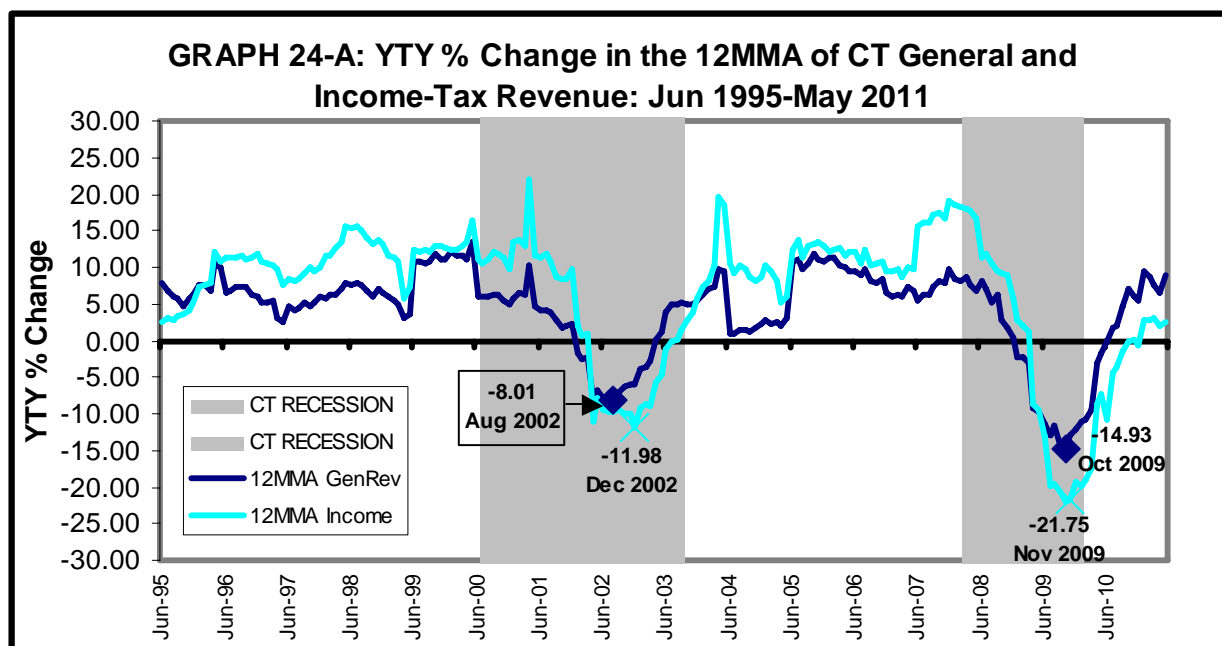
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<sup>192</sup> Lembo, Kevin, COMPTROLLER LEMBO PROJECTS SURPLUS, BUT WARNS THERE IS REALLY A STRUCTURAL DEFICIT (July 1, 2011) Office of the Comptroller: Hartford

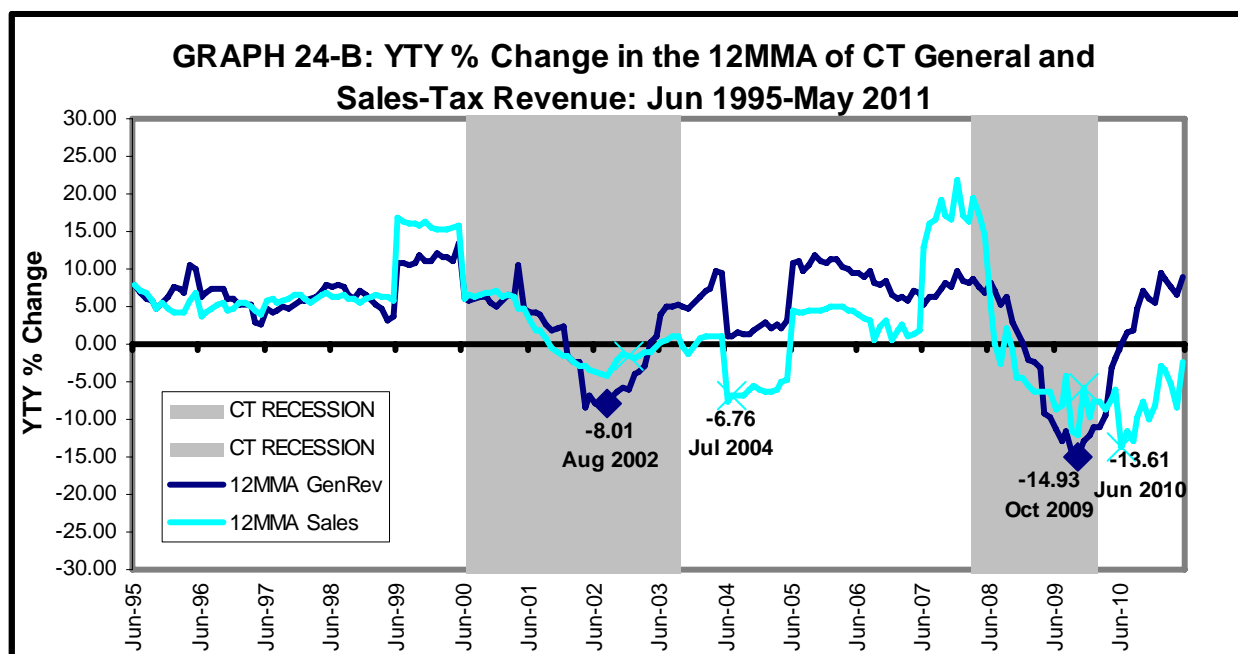
<sup>193</sup> *ibid.*

<sup>194</sup> *ibid.*





SOURCE: Boston Federal Reserve Bank, New England Economic Indicators



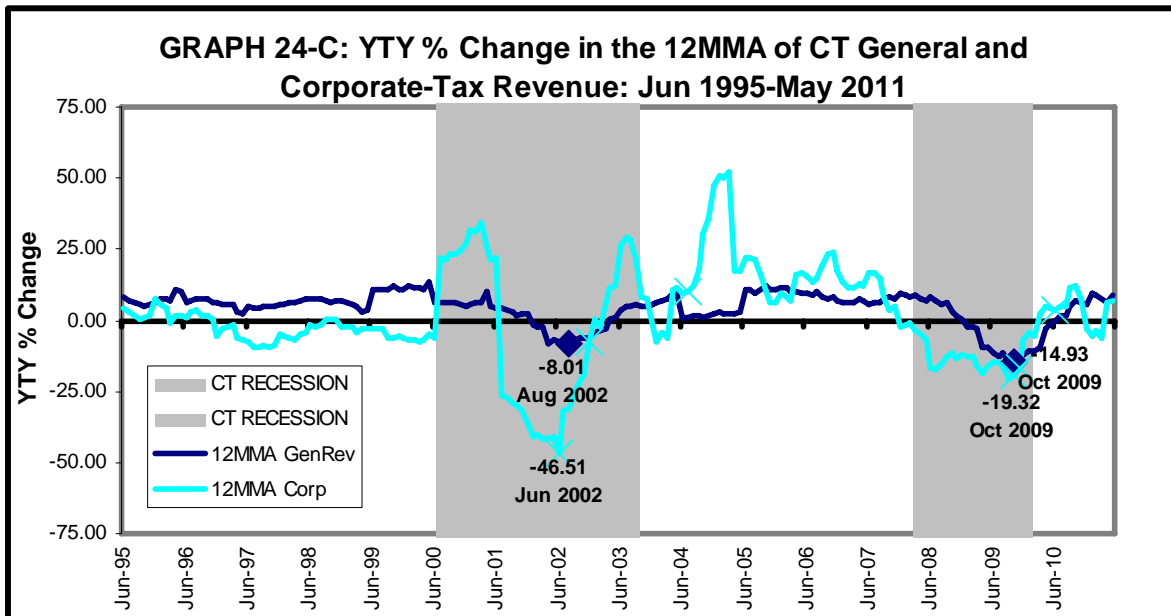
SOURCE: Boston Federal Reserve Bank, New England Economic Indicators.

The steepest decline in general revenue over the 2000-03 recession was the 8.01% YTY drop in August 2002. However, the decline in Connecticut's general revenue over the 2008-10 recession was much steeper. In October 2009, the state's general revenues were down by 14.93%, compared to October 2008. The steeper drop in general revenue reflects the much steeper decline in the economy, both at the national and state levels,



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

over the recent recession, compared to the state's 2000-03 recession (or, the 2001 recession at the national level).



SOURCE: Boston Federal Reserve Bank, New England Economic Indicators

In each of the three graphs, general revenue is compared to one of its three major sources. Graph 24-A compares the YTY growth rate of the 12MMA of general revenue to the 12MMA of the state's income tax revenue. Over both, the 2000-03 and 2008-10 recessions, Connecticut's YTY percent decline in income tax revenue was steeper than the decline in general revenue. In December 2002, the 12MMA of income tax revenue was down 11.98%, on a YTY basis, compared to -8.01% (in October 2009) for the 12MMA of general revenue. Reflecting the heavier job losses, and steeper declines in income, income tax revenue was down by 21.75% in November 2009, compared to November 2008.

The 12MMA of sales tax revenue has behaved somewhat differently over the two cycles. Graph 24-B compares the YTY percent changes in the 12MMAs of general revenues and sales tax revenue over the 2000-03 and 2008-10 recessions. Sales tax revenue, on a YTY basis, did not decline as steeply as general revenues over both, the 2000-03 and 2008-10 recessions, and there was a significant lag between the steepest YTY percent decline in



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

the 12MMA of sales tax revenue and the YTY percent decline in the 12MMA of general revenues over both recessions. The steepest YTY percent decline in sales tax revenue (-6.76%) actually occurred after the 2000-03 recession was over, and nearly two years after the steepest YTY percent decline in general revenues in July 2004. It behaved in a similar fashion over the recent recession. The steepest YTY percent-decline in the 12MMA of sales tax revenue, was the 13.61% decline in June 2010, five months after Connecticut's economy had recovered, and eight months after the 14.93% YTY decline in general revenues in October 2009.

The really interesting story here is the behavior of the 12MMA of Connecticut's corporate income tax. What is striking in Graph 24-C is the steep hit that Connecticut's corporate tax revenues took after the popping of the tech bubble after 2000. The 12MMA of corporate tax revenue was down by 46.51% in June 2002, compared to June 2001. This was five times the steepest YTY percent decline in the state's general revenues over the 2000-03 recession (see above). In contrast, over the recent recession, the steepest YTY percent drop in corporate tax revenues was only one-third as large as the drop over the 2000-03 recession, though slightly steeper than the steepest YTY decline in the 12MMA of general revenues over the recent recession. Both had their steepest YTY percent declines in October 2009. In October 2009, corporate tax revenues were down by 19.32%, compared to October 2008, and as noted above, general revenues were down by 14.93%. Of the three major sources of general revenue discussed, corporate tax revenues are the only source that declined more steeply over the 2000-03 recession, compared to the recent 2008-10 recession.

### **C. THE BUDGETARY AND ECONOMIC IMPACT OF THE DEFEAT OF THE COLLECTIVE-BARGAINING AGREEMENT**

With the defeat of the agreement between Governor Dannel P. Malloy and the State Employees Bargaining Agent Coalition (SEBAC) by the union membership (though 57% of the membership voted yes, a majority vote wasn't enough to pass it), which would



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

have provided \$1.6 billion in savings for government over two years, results in a \$700 million shortfall in the first year of the state's new budget, and a \$900 million hole in the second year<sup>195</sup>. The Governor said he is now pressing ahead with plans to lay off approximately 6,500 state employees and make the wide-ranging budget cuts that are needed to balance the new, two-year, \$40.1 billion state budget without the anticipated \$1.6 billion in labor savings<sup>196</sup>.

As noted in the introduction to this volume of the outlook (see Section I.

*INTRODUCTION: State Workers' Bargaining Agreement Goes Down*), Connecticut economists have estimated that through multiplier effects, the state's economy could lose another 3,000 jobs or more based on applying a multiplier of 1.39 to the pending state government job losses<sup>197</sup>. This means that for every single job lost, another four-tenths of a job would be lost as well<sup>198</sup>. Other economists contend that the multiplier is even higher and that the total number of jobs lost could top out at 12,000 to 16,000 by the time the multiplier effects ripple through the economy and play out their full impact<sup>199</sup>.

At the time of writing, Governor Malloy's administration had not yet agreed to a request from state employee union leaders to restart talks after the agreement deal failed. The Governor said he would need to know how they now plan to pass an agreement before any constructive talks could begin. Legislation passed during a special session of the Legislature in the last week of June gives union leaders until August 31st to ratify an agreement. If they do, the temporary, additional budget-cutting authority lawmakers granted Malloy would become moot<sup>200</sup>.

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<sup>195</sup> Daddona, Patricia, *Economists say if state workers are laid off, the ripple effect is likely to be harsh* (June 25, 2011) THE DAY: New London

<sup>196</sup> Haigh, Susan, *Malloy: No meeting yet with Conn. union leaders* (July 6, 2011) NEWS8 WTNH < <http://www.wtnh.com/dpp/news/politics/malloy-no-meeting-yet-with-union-leaders> > Accessed on July 6, 2011.

<sup>197</sup> Daddona, Patricia, *Economists say if state workers are laid off, the ripple effect is likely to be harsh* (June 25, 2011) THE DAY < <http://www.theday.com/article/20110625/NWS12/306259967/-1/NWS> > Accessed on June 28, 2011.

<sup>198</sup> *ibid*

<sup>199</sup> *ibid*

<sup>200</sup> Haigh, Susan, *Malloy: No meeting yet with Conn. union leaders* (July 6, 2011) NEWS8 WTNH < <http://www.wtnh.com/dpp/news/politics/malloy-no-meeting-yet-with-union-leaders> > Accessed on July 6, 2011.



## IV. HOUSING AND CONNECTICUT'S RECOVERY

As we move into the mid-point of 2011, the predicted double-dip in housing is playing itself out. As Mark Zandi, Chief Economist of Moody's Analytics, stated in the opening paragraph of a recent report:

It is hard to be enthusiastic about the economy's prospects as long as house prices are declining. A house is usually a household's most important asset; many small-business owners use their homes as collateral for business credit, and local governments rely on property tax revenues tied to housing values. Most worrisome is the risk that housing will resume the vicious cycle seen at the depths of the last recession, when falling prices pushed more homeowners under water—their loans exceeded their homes' market values—causing more defaults, more distress sales, and even lower prices. That cycle was broken only by unprecedented monetary and fiscal policy support<sup>201</sup>.

However, with the fiscal stimulus winding down, the end of the second round of quantitative easing (QE2), and with Home Affordable Modification Program (HAMP) having come to an end in late 2010<sup>202</sup>, the resumption of bank foreclosures after "Robo-Foreclosures" moratorium, and no policy in sight to seriously address the ongoing foreclosures and distressed sales, a rebound in the housing market appears to be very remote. And, as has been previously noted, though Connecticut did not participate in the housing bubble to the extent that other states and regions did, it nevertheless, has been seriously impacted by the housing bust, and in particular with the mortgage-foreclosure crisis. And, although it is by far, not the worst state, just how serious the real estate problem is, is underscored by the findings of a national study that shows that it would take more than 10 years to clear up all the pending foreclosures in Connecticut<sup>203</sup>.

On the face of it, the June report from RealtyTrac on the number of foreclosures in Connecticut for May 2011 looks encouraging. Properties with foreclosure filings in

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<sup>201</sup> Zandi, Mark, *To Shore Up the Recovery Help Housing* (May 25, 2011) Moody's Analytics, p. 1.

<sup>202</sup> Dennis, Brady, *U.S. foreclosure-prevention program fell short, Congressional Oversight Panel says* (December 14, 2010) WASHINGTONPOST.COM < <http://www.washingtonpost.com/wp-dyn/content/article/2010/12/14/AR2010121400203.html> > Accessed on July 5, 2011.

<sup>203</sup> Gombossy, George, *CT's Pending Home Foreclosures Will Take 10 Years To Process* (June 22, 2011) MFI-MIAMI.COM <http://www.mfi-miami.com/category/states/connecticut/> Accessed on July 7, 2011.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

Connecticut totaled 1,280 in May, down 1% compared with the 1,292 foreclosures in April. And, though Connecticut's foreclosure-decline in May was only one-half of the 2% decline nationally, the state has now seen 10 consecutive months of year-to-year (YTY) declines in filing activity. In fact, May's YTY decline in Connecticut was steeper when compared with the same month a year ago, plunging 39%. Nationally, the YTY decline in foreclosures for May was 33%. However, what appears to be an easing of foreclosures may be misleading.

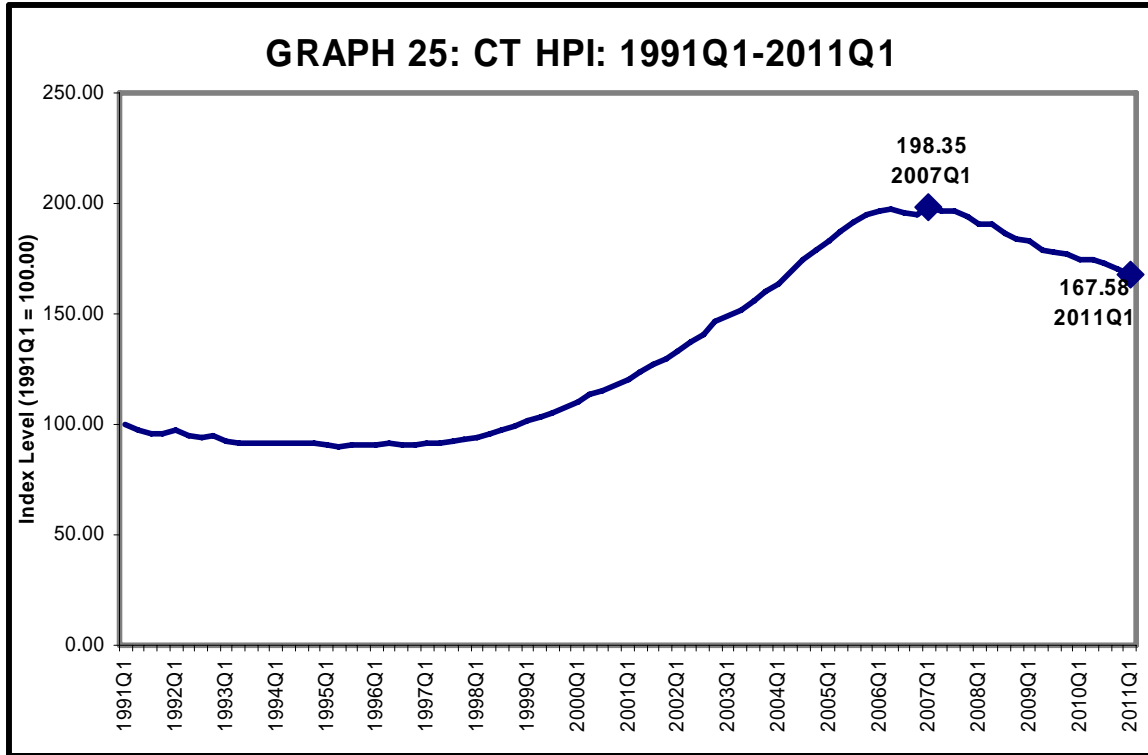
On an annual basis, Connecticut's foreclosure rate worsened in 2010 compared to 2009. In 2010, there were 21,705 foreclosure filings in Connecticut this was up 10.3% from the 19,679 foreclosure filings in 2009<sup>204</sup>. Until housing prices in Connecticut, like for the nation, stabilize, there is no basis for a recovery in the housing market, which in turn implies no sustained recovery in the economy, in general. Graph 25 tracks the Federal Housing Finance Agency's (FHFA) house price index (HPI) for Connecticut from the first quarter of 1991 (1991Q1) to 2011Q1, the last period of available data. Connecticut's HPI peaked in 2007Q1, one year before the peak in the state's non-farm employment series. Between 2007Q1, the peak in the state's housing prices, and the first quarter of 2011, Connecticut's housing prices declined by 15.51%. Further, between 2010Q4 and 2011Q1, the HPI for Connecticut fell by 1.56%. In addition to foreclosures and distressed sales, the overbuilding of housing units during the bubble has also contributed to keeping the state's house prices down. The oversupply of housing units contributing to the downward pressure on prices can be seen from Graph 26. Graph 26 shows the total number of net, new households, and the total net, new additions to the housing stock in Connecticut over the 2000's (2000-09), segmented into three sub periods, the pre-housing bubble period (2000-02), the housing bubble period (2002-06), and the housing bust period (2006-09). And, for comparison, the growth rates in households and housing units are also presented for the entire 2000-09 period.

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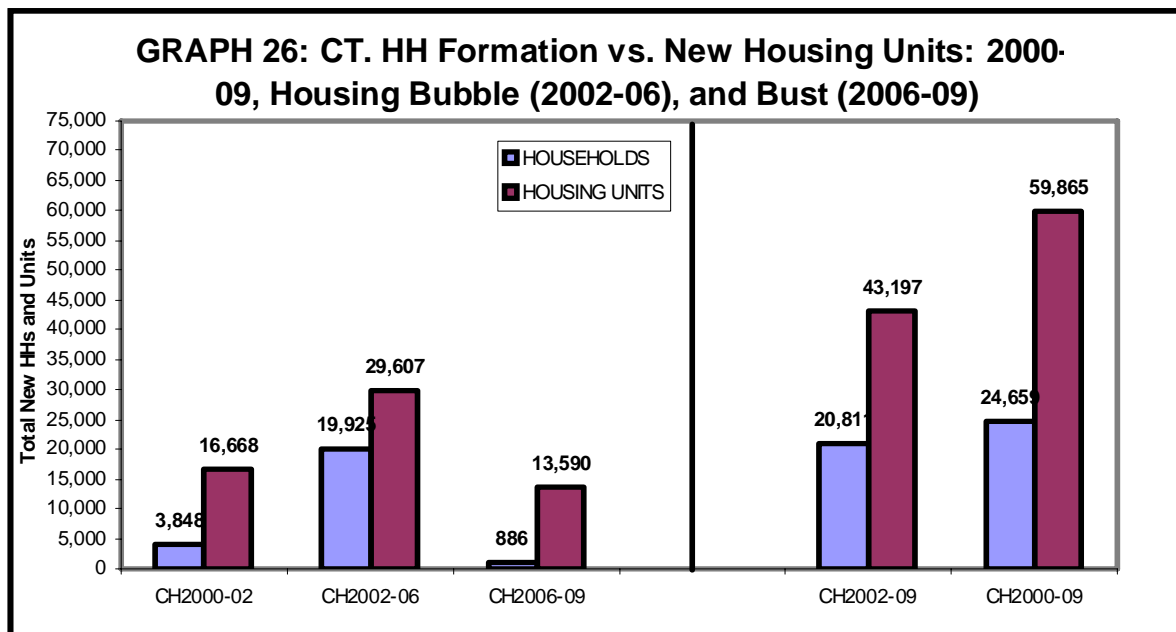
<sup>204</sup> Sun, Kolie, *State's Housing Market: a Long Road to Recovery* (July 2011) THE CONNECTICUT ECONOMIC DIGEST (16): 7, p. 2.



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**



SOURCE: FHFA.



SOURCE: U.S. Census-American Community Survey and 2000 Decennial Census.

Based on data from the U.S. Census Bureau’s American Community Survey annual data, and the 2000 Decennial Census, with slowing household formation in the face of the





**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

2001 recession, brought on by the popping of the tech bubble, Connecticut added 2,848 net, new households between 2000 and 2002 (further, the recession actually started in Connecticut in July 2000). But, due to the time-lag in starting construction on a new house, and its coming on line, 16,668 net new housing units came on line over the same period. Thus, there was a 4-to-1 ratio of new housing units to new households between 2000 and 2002. With the housing bubble inflating rapidly and driving the spending that fueled the 2001-2007 national recovery Connecticut added 19,925 net, new households between 2002 and 2006, or five times as many as between 2000 and 2002. However, over the same period, Connecticut also added 29,607 more net, new housing units. With the housing bust, financial panic, and subsequent steep economic contraction, Connecticut's new household formation collapsed to only 866 net, new households formed between 2006 and 2009, yet, 13,590 net, new housing units were added to the state's housing stock. Over the entire boom-bust cycle (2002 to 2009), Connecticut added 20,817 new households, but also added 43,197 new housing units, or two new housing units for every new household. And, over the entire 2000-09 period, Connecticut added 24,659 net, new households, but also added 59,865 net, new housing units, or 2.4 new housing units for every new household.

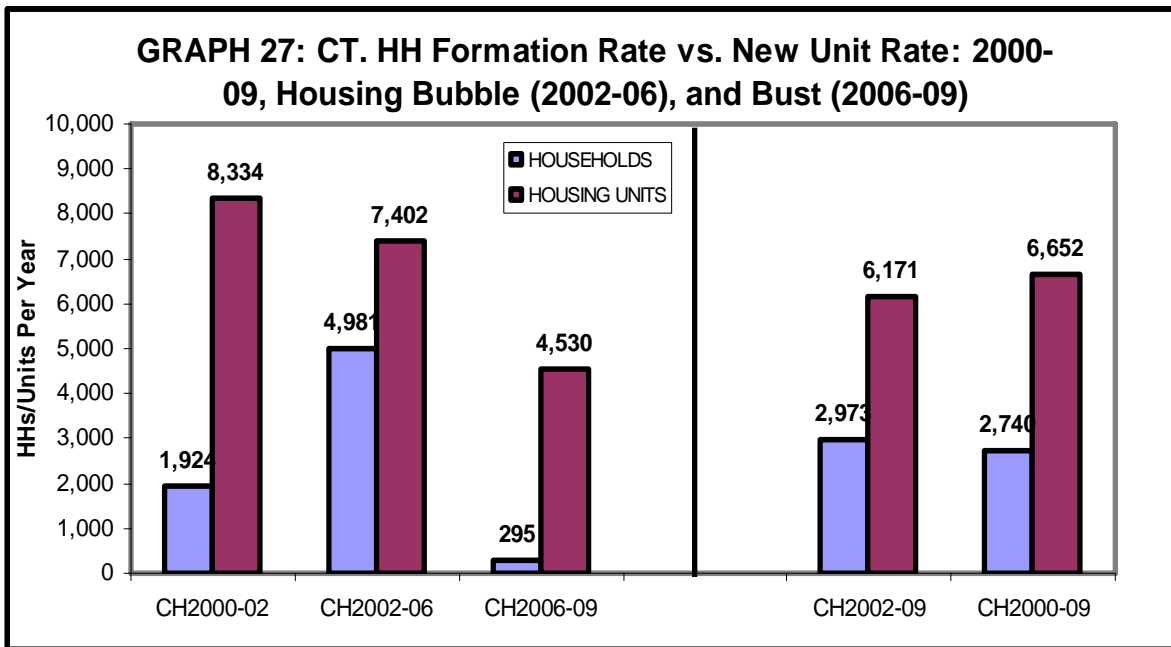
To put all segments discussed in Graph 26 on the same footing (compare apples-to-apples), Graph 27 looks at the annualized rates of household formation and net addition of housing units over the entire 2000-09 period and the selected segments discussed above. Graph 27 shows the annualized growth-rates in the number of net, new household formations, net new additions to the housing stock in Connecticut over the periods depicted in Graph 26: the 2000-09 period, and three sub periods, the pre-housing bubble period (2000-02), the housing bubble period (2002-06), and the housing bust period (2006-09).

From Graph 27, between 2000 and 2002, the number of annual net additions to Connecticut's housing stock outpaced the rate of household formation by more than 4-to-1, that is, 1,924 net, new households per year were being added to Connecticut's economy, but 8,334 net, new housing units were being added to the state's housing stock



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

each year. From 2002 to 2006, 7,402 new housing units per year were being added to Connecticut's housing stock, but only 4,981 new households were being formed each year over the housing bubble period. Over the post housing-bust, financial-panic, recession period, Connecticut's household formation rate fell to only 295 net, new households per year. Yet, over this same period (2006-09), the state was adding 4,530 net, new housing units per year. That translates into an annual rate of 15.36 new units for every new household formed between 2006 and 2009.



SOURCE: U.S. Census-American Community Survey and 2000 Decennial Census.

Over the entire housing boom-bust cycle (2002 to 2009), Connecticut was adding 6,171 net, new housing units per year, but there were only 2,973 new households being formed per year. And, looking at the entire 2000-09 period, Connecticut added new units at a pace of 6,652 units per year, while new households were only being formed at a rate of 2,740 per year. Why the focus on the relationship between household formation and the addition of new housing units to the housing stock? Because, unless there is an acceleration in the rate of new household formation in the state, it does not appear that housing prices will soon turn around. This, in turn, is because in the long run, for the supply of housing to be in line with the demand for housing, the rate at which new



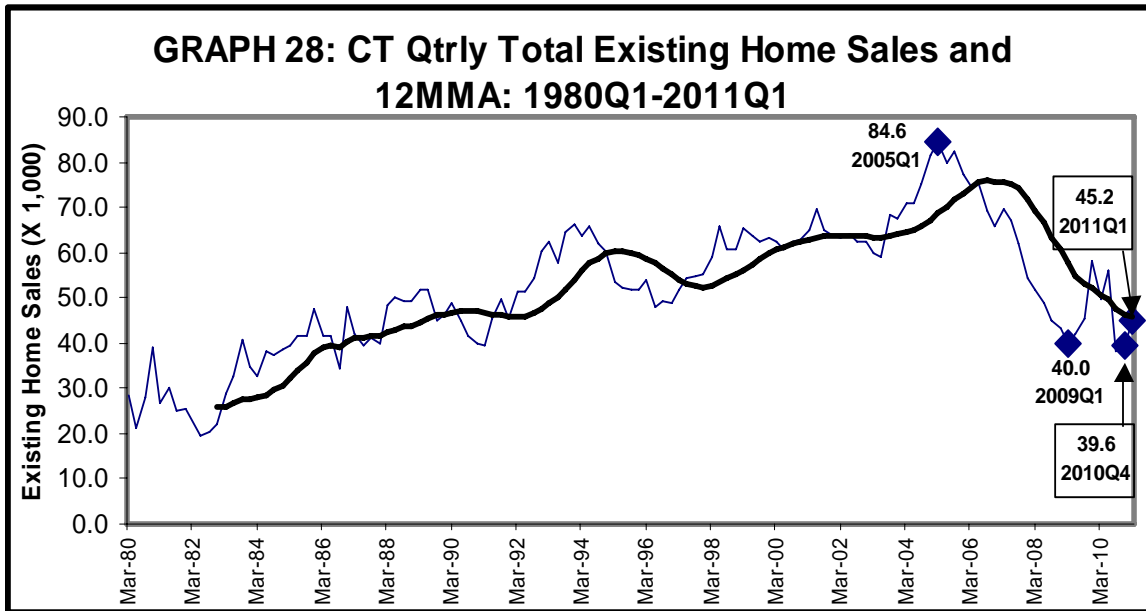
**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

housing units are supplied on the market must be in line with the rate at which new households are being formed.

Finally, Graph 28 looks at the quarterly existing home sales levels, and the 12-month moving average (12-MMA), for Connecticut from 1980Q1 to 2011Q1. The highest level for existing home sales for Connecticut, over the entire range of data, was at the peak of the housing bubble. In 2005Q1, 84,600 homes changed hands in Connecticut. By 2009Q1, existing home sales had dropped to 40,000, a 52.72% decline over the four-year period. Through the last half of 2009, and into the first half of 2010, there was a modest rebound in existing home sales, boosted by the First-Time Homebuyer's Tax Credit. However, with the end of the tax credit, and the winding down of HAMP (see above), the double-dip in housing began at the end of 2010. And, this is reflected in Connecticut's existing home sales numbers. After the second quarter of 2010, Connecticut's existing home sales fell again, this time bottoming out at an even lower 39,600 sales, or 53.17% below the 2005Q1 peak in home sales. In the first quarter of 2011, existing home sales had recovered somewhat to 45,200, but this may have also reflected an increase in distressed sales, as the largest banks resumed their foreclosure activity after their temporary moratorium in light of the "Robo-Foreclosure" scandal. Further, the 2011Q1 sales number was still 46.57% below the 2005Q1 peak, and from a longer-term perspective, the 12-MMA, which started to decline after 2007Q1, is still continuing on a downward trajectory.

Again, to repeat the observation made by Mark Zandi, and quoted at the beginning of this section: "It is hard to be enthusiastic about the economy's prospects as long as house prices are declining".





SOURCE: Boston Federal Reserve Bank, New England Economic Indicators.

## V. WHERE DO WE GO FROM HERE? The Outlook for 2010-2012 and Beyond

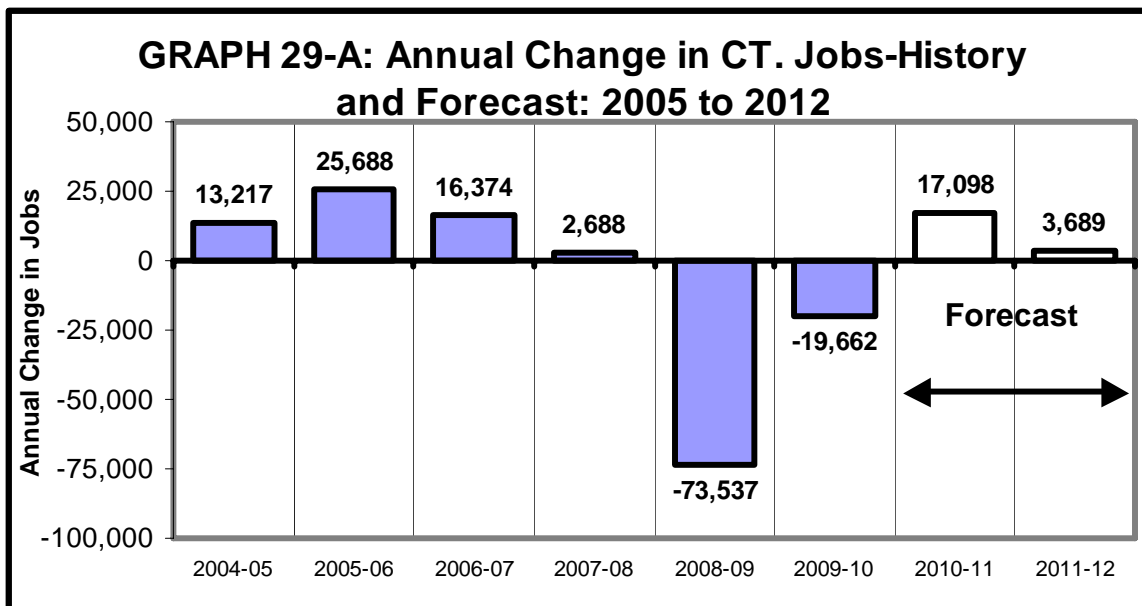
The failure of the agreement between the Governor and the state unions' leadership to pass a vote by the membership raises the specter of the Governor's implementing Plan B. He has already indicated that 6,500 (originally 7,500) layoff notices will go out by the beginning of the new fiscal year, which begins July 1<sup>st</sup>. As discussed in the introduction (see Section I- INTRODUCTION: State Workers' Bargaining Agreement Goes Down), multiplier effects from the layoff of state workers could result in additional job losses in the state's economy in both the public and private sectors. The forecast that follows was completed before the union vote was taken. However, the possibility that the vote could result in a defeat of the agreement was considered. And, Government was adjusted in the detailed forecast to reflect possible effects of Governor Malloy's Plan B being implemented. Nevertheless, with the defeat of the agreement, in conjunction with national events (e.g., the end of QE2, the brinkmanship on the debt ceiling, the slowing national economy, etc.) and international events (e.g., the resurgence of the European

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

debt crisis centered around Greece, slowing growth in China, etc.), as modest as the forecast may be, even given the downward adjustment to the detailed forecast, it still may be a bit optimistic.

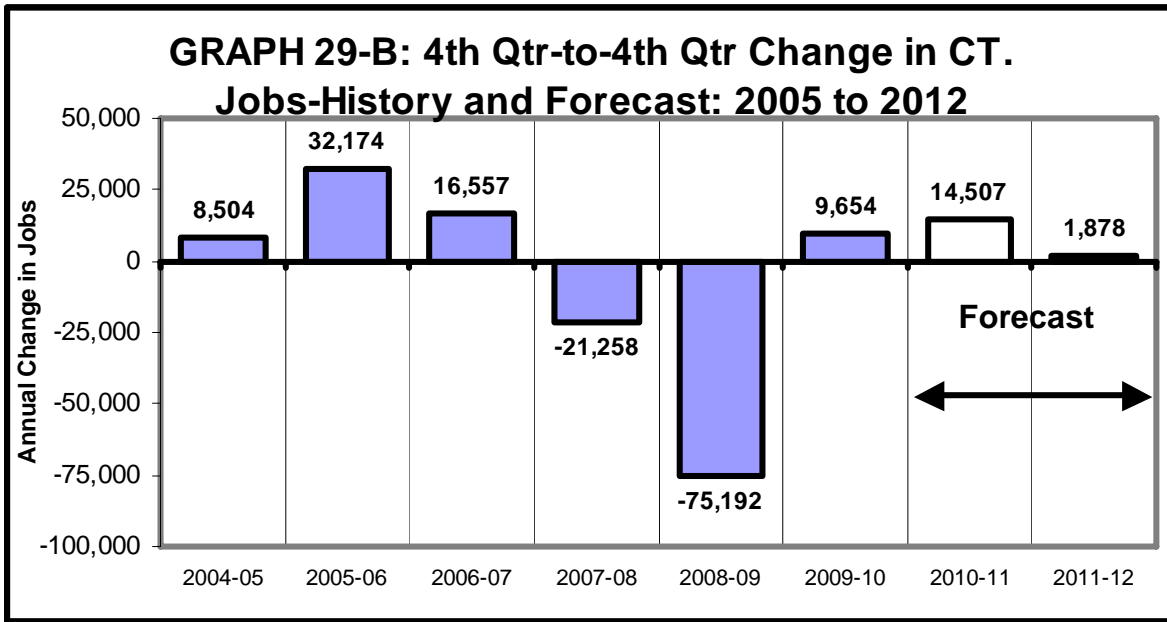
Graph 29-A shows Connecticut’s annual job growth over the 2005-10 historical period, and the 2010-12 forecast horizon. Graph 29-B presents the fourth quarter-to-fourth quarter (4<sup>th</sup> Qtr-to-4<sup>th</sup> Qtr) of Connecticut’s job growth over the 2005-10 historical period and the 2010-12 forecast period.

Graph 29-A depicts the deceleration in the annual growth of Connecticut’s jobs from the peak growth of 25,688 jobs in 2006 over the last expansion into 2008, when annual job growth was flat. With the onset of panic and recession in 2008, Connecticut’s economy shed 73,537 jobs, on an annual basis. The state then lost another 19,662 jobs in 2010. The forecast expects that Connecticut’s economy will add jobs for the first time since 2008, on an annual basis, in 2011. However, after adding 17,098 jobs in 2011, the forecast calls for a significant deceleration in annual job growth in 2012, which will result in the state only adding 3,689 net, new jobs, for a total of 20,787 total, net new jobs over the two-year, 2010-12 forecast horizon, on an annual basis.



SOURCE: CTDOL-Research





SOURCE: CTDOL-Research

Turning to the forecast on a 4<sup>th</sup> Qtr-to-4<sup>th</sup> Qtr basis, from Graph 29-B, the effects of the recent panic and steep recession are also evident. As on an annual basis, job growth over the last expansion also peaked in 2006, the state's economy added 32,174 jobs between 2005Q4 and 2006Q4. However, on a 4<sup>th</sup> Qtr-to-4<sup>th</sup> Qtr basis, job growth turned negative in 2008. Between 2007Q4 and 2008Q4, Connecticut lost 21,258 jobs. Of course, 2008Q4 followed the financial panic in September 2008. Then, between 2008Q4 and 2009Q4, the state's economy lost 75,192 jobs, recovering somewhat by gaining back a modest 9,654 jobs over the 2009Q4-2010Q4 period (see Graph 29-B). The forecast on a 4<sup>th</sup> Qtr-to-4<sup>th</sup> Qtr basis predicts a similar scenario over the two-year forecast period as that for the annual forecast. The forecast expects, on a 4<sup>th</sup> Qtr-to-4<sup>th</sup> Qtr basis, that Connecticut's economy will add 14,507 net, new jobs between 2010 and 2011. And, as is expected on an annual basis, 4<sup>th</sup> Qtr-to-4<sup>th</sup> Qtr job growth is expected to slow significantly in 2012, to an increase of 1,878 jobs between 2001Q4 and 2012Q4.

Turning to Table A-1 in the Appendix, and looking at the two-year base period for Connecticut's short-term industry-employment forecast, 2008Q4-2010Q4, Connecticut employment declined by 66,225. The goods-producing sector lost 29,323 jobs, and,

**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

unique to this past recession in the post-World War II era, the private services sector had a net loss of 32,744. The government sector had a net loss of 3,588 jobs. After adjusting the detailed quarterly forecast to reflect State and Local job-losses from the implementation of Plan B, the above projected 16,385 new jobs was scaled down to a net gain of 15,170 jobs over the 2010Q4-2012Q4 period. Not only does this reflect the slowing of the economic recovery's momentum as a result of reduced fiscal stimulus, and even spending cuts, in conjunction with state's further layoffs, tax increases, and spending cuts to balance their budgets, and, as noted above, in the case of Connecticut in particular, the implementation of Plan B due to the defeat of the bargaining agreement, as well as continued stress in the housing market, including some further price declines and mortgage defaults. The forecast does expect the return to growth in the private services sector over the 2009Q4-2010Q4 period to continue into the 2010Q4-2012Q4 forecast period and add 18,000 net new jobs. Though its losses should abate considerably, it is expected that the goods-producing sector will shed another 4,000 jobs. Given the newly implemented spending cuts and tax increases, as well as some 7,500 layoffs in the new budget for Connecticut, it is expected that government, at all levels, will eliminate another 4,000 jobs over the forecast period.

## **VI. RISKS TO THE FORECAST**

There are significant downside risks to the forecast. Though there are signals from the GDP numbers and the May U.S. jobs report, that the fledging recovery is losing momentum, and it is clear that the states' budget crises and their responses to them have exerted a significant drag on the recovery. It was one of the factors cited by BEA as contributing to the deceleration of GDP-growth in the first quarter. With further Federal help to the states now off the table, this drag on the recovery will intensify. Another potential factor that could cut the fledging recovery short is if the push to cut Federal spending is implemented too aggressively and too soon, we could repeat our own history in 1937, when we went back into depression, and Japan's budget-balancing in 1997, which sent them into a steep contraction. In each case, the U.S. and Japan were trying to recover from balance-sheet recessions. Of particular concern, at the time of writing, is



**CURRENT CONDITIONS AND OUTLOOK FOR THE  
U.S. AND CONNECTICUT ECONOMIES: 2010-2012**

significant downside risk posed by political brinksmanship with the U.S. debt ceiling. A U.S. default on its bonds would be nothing short of a disaster for the U.S. and World economies.

If U.S. exports grow strongly over the 2010Q4-2012Q4 period, then the forecast would be overly pessimistic. Further, if the decline in the price of oil proves to be sustainable, then that drag on the economy would be removed. Since there are no close substitutes, an oil price increase acts like a tax increase. And, it acts as a regressive tax increase as it hits middle and lower income earners harder than it does upper income earners. A decline in oil prices acts like a progressive tax decrease.

A lower dollar, due to U.S. (and Japanese) interest rates below those of Europe, is good for stimulating exports and economic growth, however, in addition to speculation, the declining dollar also plays a role in the increase in oil prices. Which affect dominates will determine whether or not a lower dollar stimulates growth, or stifles growth. Further, with the end of the Fed's QE2 policy, the dollar could rise somewhat, dampening export growth. Finally, without a recovery in the housing market, which is not likely to happen over the forecast horizon, and, with another fiscal stimulus pretty much off the table, and without our reorientation toward export-driven growth, our recovery will be slow and halting, and subject to being short-circuited.





# **CT OUTLOOK APPENDIX**

**TABLE A-1: CT. Non-Farm Employment: History and Forecasts**

NOTE: Non-Farm Employment (Not SA)

NOTE: New Table Format

**FINAL CONTROL FORECASTS: May 11, 2011**

INDUSTRY	HISTORICAL			FORECAST NUMERICAL CHANGES			PERCENT CHANGES			
	2006:Q4	2008:Q4	2010:Q4	2012:Q4	CH06-08	CH08-10	CH10-12	%CH06-08	%CH08-10	%CH10-12
<b>TOTAL</b>	<b>1,717,038</b>	<b>1,701,407</b>	<b>1,634,289</b>	<b>1,648,559</b>	<b>-15,631</b>	<b>-67,118</b>	<b>14,270</b>	<b>-0.91</b>	<b>-3.94</b>	<b>0.87</b>
*PNC's	24,314	14,593	13,701	16,767	-9,720	-893	3,066			
<b>CT QCEW EMPLOYMENT</b>	<b>1,692,724</b>	<b>1,686,814</b>	<b>1,620,588</b>	<b>1,631,792</b>	<b>-5,911</b>	<b>-66,225</b>	<b>11,204</b>	<b>-0.35</b>	<b>-3.93</b>	<b>0.69</b>
<b>GOODS PRODUCING</b>	<b>262,995</b>	<b>248,551</b>	<b>219,228</b>	<b>215,256</b>	<b>-14,444</b>	<b>-29,323</b>	<b>-3,972</b>	<b>-5.49</b>	<b>-11.80</b>	<b>-1.81</b>
<b>MINING</b>	<b>749</b>	<b>747</b>	<b>581</b>	<b>600</b>	<b>-1</b>	<b>-166</b>	<b>19</b>	<b>-0.18</b>	<b>-22.26</b>	<b>3.27</b>
<b>CONSTRUCTION</b>	<b>68,964</b>	<b>63,300</b>	<b>52,246</b>	<b>50,816</b>	<b>-5,664</b>	<b>-11,055</b>	<b>-1,430</b>	<b>-8.21</b>	<b>-17.46</b>	<b>-2.74</b>
<b>MANUFACTURING</b>	<b>193,282</b>	<b>184,503</b>	<b>166,401</b>	<b>163,840</b>	<b>-8,779</b>	<b>-18,102</b>	<b>-2,561</b>	<b>-4.54</b>	<b>-9.81</b>	<b>-1.54</b>
Durable Goods	145,151	141,969	127,839	125,761	-3,182	-14,130	-2,078	-2.19	-9.95	-1.63
Non-Durable Goods	48,131	42,534	38,562	38,079	-5,597	-3,972	-483	-11.63	-9.34	-1.25
<b>SERVICE PROVIDING</b>	<b>1,429,575</b>	<b>1,437,437</b>	<b>1,401,105</b>	<b>1,416,108</b>	<b>7,862</b>	<b>-36,332</b>	<b>15,003</b>	<b>0.55</b>	<b>-2.53</b>	<b>1.07</b>
<b>Wholesale Trade</b>	<b>68,237</b>	<b>68,531</b>	<b>63,337</b>	<b>63,917</b>	<b>295</b>	<b>-5,195</b>	<b>580</b>	<b>0.43</b>	<b>-7.58</b>	<b>0.92</b>
Durable Goods	31,987	30,940	28,773	28,514	-1,047	-2,167	-259	-3.27	-7.00	-0.90
Non-Durable Goods	22,289	23,290	20,949	21,158	1,001	-2,341	209	4.49	-10.05	1.00
e-Wholesaling	13,961	14,301	13,615	14,245	341	-687	631	2.44	-4.80	4.63
<b>Retail Trade</b>	<b>196,985</b>	<b>190,245</b>	<b>184,656</b>	<b>185,721</b>	<b>-6,741</b>	<b>-5,589</b>	<b>1,065</b>	<b>-3.42</b>	<b>-2.94</b>	<b>0.58</b>
Consumer Durables	53,451	49,797	45,910	45,694	-3,654	-3,887	-216	-6.84	-7.81	-0.47
Consumer Non-Durables	133,747	130,995	129,645	130,811	-2,752	-1,350	1,166	-2.06	-1.03	0.90
Non-Store Retailers	9,787	9,452	9,101	9,217	-335	-351	116	-3.42	-3.71	1.27
<b>Transportation and Warehousing</b>	<b>53,853</b>	<b>53,054</b>	<b>49,286</b>	<b>48,950</b>	<b>-799</b>	<b>-3,769</b>	<b>-335</b>	<b>-1.48</b>	<b>-7.10</b>	<b>-0.68</b>
Transportation	26,776	26,903	25,474	25,928	127	-1,429	454	0.47	-5.31	1.78
Distribution and Warehousing	27,077	26,151	23,812	23,022	-926	-2,339	-790	-3.42	-8.95	-3.32
<b>Utilities</b>	<b>6,616</b>	<b>6,875</b>	<b>6,341</b>	<b>5,934</b>	<b>260</b>	<b>-535</b>	<b>-407</b>	<b>3.93</b>	<b>-7.78</b>	<b>-6.41</b>
<b>Information</b>	<b>37,009</b>	<b>36,643</b>	<b>31,773</b>	<b>31,194</b>	<b>-366</b>	<b>-4,870</b>	<b>-578</b>	<b>-0.99</b>	<b>-13.29</b>	<b>-1.82</b>
Electronic Media (Except Internet)	19,856	20,936	18,588	18,870	1,080	-2,348	281	5.44	-11.21	1.51
Internet-Based Electronic Media	4,395	2,210	2,014	1,814	-2,185	-197	-200	-49.71	-8.90	-9.93
Print Media and Other Information Services	12,758	13,496	11,171	10,511	739	-2,326	-660	5.79	-17.23	-5.91
<b>Finance and Insurance</b>	<b>124,191</b>	<b>121,969</b>	<b>115,244</b>	<b>113,300</b>	<b>-2,222</b>	<b>-6,724</b>	<b>-1,944</b>	<b>-1.79</b>	<b>-5.51</b>	<b>-1.69</b>
Finance	53,816	52,068	49,966	49,107	-1,748	-2,102	-859	-3.25	-4.04	-1.72
Insurance	65,511	65,244	60,255	58,834	-267	-4,989	-1,421	-0.41	-7.65	-2.36
Funds, Trusts, and Other Financial Vehicles	4,864	4,657	5,023	5,359	-207	366	336	-4.26	7.86	6.70
<b>Real Estate and Rental and Leasing</b>	<b>21,141</b>	<b>20,210</b>	<b>19,084</b>	<b>18,263</b>	<b>-931</b>	<b>-1,126</b>	<b>-821</b>	<b>-4.40</b>	<b>-5.57</b>	<b>-4.30</b>
Real Estate	14,553	14,261	13,884	13,491	-292	-377	-393	-2.00	-2.64	-2.83
Rental and Leasing	6,588	5,949	5,199	4,771	-639	-749	-428	-9.70	-12.60	-8.23
<b>Professional, Scientific, and Technical Services</b>	<b>93,369</b>	<b>91,574</b>	<b>86,759</b>	<b>87,506</b>	<b>-1,795</b>	<b>-4,815</b>	<b>748</b>	<b>-1.92</b>	<b>-5.26</b>	<b>0.86</b>
<b>Management of Companies and Enterprises</b>	<b>26,129</b>	<b>28,455</b>	<b>27,690</b>	<b>29,137</b>	<b>2,327</b>	<b>-766</b>	<b>1,447</b>	<b>8.90</b>	<b>-2.69</b>	<b>5.23</b>
<b>Admin and Support/Waste Manage/Remediation</b>	<b>89,413</b>	<b>82,974</b>	<b>80,476</b>	<b>81,915</b>	<b>-6,439</b>	<b>-2,498</b>	<b>1,439</b>	<b>-7.20</b>	<b>-3.01</b>	<b>1.79</b>
<b>Educational Services</b>	<b>172,622</b>	<b>180,370</b>	<b>180,769</b>	<b>185,228</b>	<b>7,748</b>	<b>399</b>	<b>4,459</b>	<b>4.49</b>	<b>0.22</b>	<b>2.47</b>
<b>Health Care and Social Assistance</b>	<b>248,342</b>	<b>263,215</b>	<b>269,809</b>	<b>280,287</b>	<b>14,873</b>	<b>6,594</b>	<b>10,478</b>	<b>5.99</b>	<b>2.51</b>	<b>3.88</b>
Hospitals	64,113	67,752	68,005	68,663	3,638	253	658	5.67	0.37	0.97
Health Care Services and Facilities	139,906	146,256	149,899	154,975	6,349	3,643	5,076	4.54	2.49	3.39
Social Assistance	44,322	49,207	51,905	56,649	4,885	2,698	4,743	11.02	5.48	9.14
<b>Arts, Entertainment, and Recreation</b>	<b>42,841</b>	<b>43,097</b>	<b>39,943</b>	<b>39,709</b>	<b>256</b>	<b>-3,154</b>	<b>-233</b>	<b>0.60</b>	<b>-7.32</b>	<b>-0.58</b>
<b>Accommodation and Food Services</b>	<b>112,241</b>	<b>112,158</b>	<b>112,074</b>	<b>113,579</b>	<b>-84</b>	<b>-84</b>	<b>1,506</b>	<b>-0.07</b>	<b>-0.07</b>	<b>1.34</b>
<b>Other Services</b>	<b>58,240</b>	<b>57,899</b>	<b>57,287</b>	<b>57,890</b>	<b>-341</b>	<b>-613</b>	<b>603</b>	<b>-0.59</b>	<b>-1.06</b>	<b>1.05</b>
<b>Government</b>	<b>78,346</b>	<b>80,169</b>	<b>76,581</b>	<b>73,577</b>	<b>1,823</b>	<b>-3,588</b>	<b>-3,004</b>	<b>2.33</b>	<b>-4.48</b>	<b>-3.92</b>
Federal Government	5,927	6,104	6,060	5,475	177	-44	-586	2.99	-0.72	-9.66
State Government	29,554	30,083	28,025	26,979	529	-2,058	-1,045	1.79	-6.84	-3.73
Local Government	42,866	43,982	42,496	41,123	1,116	-1,486	-1,373	2.60	-3.38	-3.23
<b>UNKNOWN</b>	<b>155</b>	<b>826</b>	<b>255</b>	<b>429</b>	<b>671</b>	<b>-571</b>	<b>174</b>	<b>432.90</b>	<b>-69.13</b>	<b>68.10</b>

\*PNC's = Presumed Not Covered. This represents employment reflected in the Establishment Survey, but not picked up by the ES-202 UI-Tax Base File, such as College/University Student Workers. Since student workers are such a large component of PNC's, their numbers are greatest in the first and fourth quarters.

Italicized = Reallocation of Tribal Leisure Employment from Arts-Rec to Local Government.

SOURCE: Connecticut Department of Labor, Office of Research