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May 7, 2007

## **Memorandum**

**To:** Honorable John Morgan, Comptroller of the Treasury  
Honorable David Goetz, Commissioner of Finance and Administration  
Honorable Dale Sims, Treasurer  
Honorable Riley Darnell, Secretary of State

**From:** Kevin Krushenski, Senior Legislative Research Analyst  
Keith Boring, Associate Legislative Research Analyst

**Date:** 5/7/2007

**Re:** Economic Report to the Governor

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As required by TCA §9-4-5202, the State Funding Board (the Board) shall secure estimates of economic growth from the Tennessee econometric model published by The University of Tennessee's Center for Business and Economic Research (CBER) in its annual Economic Report to the Governor each year. The Report provides an overview of the current estimates of economic growth statistics, such as nominal personal income growth and employment growth. TCA §9-4-5202 also prescribes the Board to comment on the "reasonableness" of CBER's estimate of nominal personal income growth in Tennessee. The Comptroller's Office of Research assists the Board by evaluating current economic conditions and trends via outside forecasts.

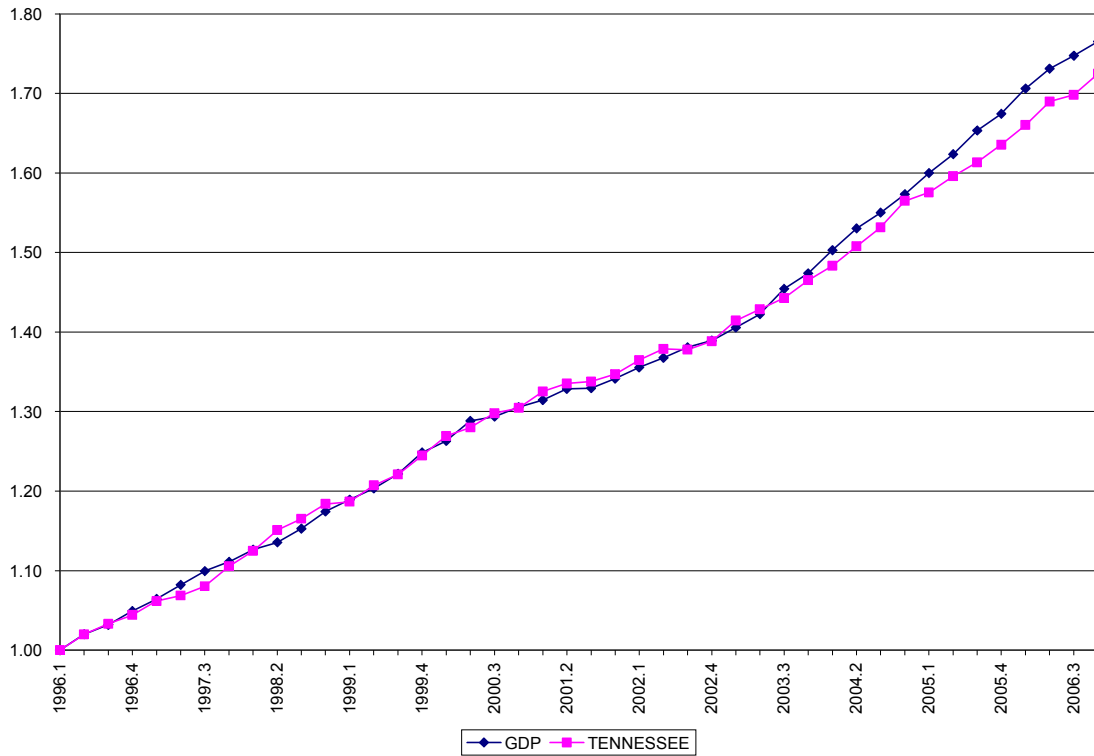
*Overall Conclusion:* Based upon a review of various economic forecasts and other trends in the world economy, CBER's projections of 5.5 percent nominal personal income growth for 2007 appear reasonable.

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## Forecast Comparisons

Historically, growth in Tennessee personal income has closely followed growth in United States gross domestic product (GDP). Exhibit 1 shows the relationship between relative growth in Tennessee personal income as it compares to the relative growth in U.S. GDP over the past decade.

**Exhibit 1: Relative Growth of Selected Economic Indicators**



Source: United States Bureau of Economic Analysis, [www.bea.gov](http://www.bea.gov), accessed 4/10/07

Because the relationship between the indicators is close and few other agencies produce estimates of growth in Tennessee Personal Income, for the purposes of this commentary we will compare the GDP estimates produced by CBER with the GDP estimates produced by other economic forecasting agencies.

The U.S. economy experienced solid real GDP growth in 2006 of 3.3 percent. This is slower than previous years and is mainly accounted for by the contraction of the residential housing sector.<sup>1</sup> This is in line with last year's CBER projection of 3.4 percent.

Projections by leading forecasting agencies for this year vary slightly. As Exhibit 2 shows, on average, economists forecast 2.6 percent real GDP growth for the U.S., lower than CBER's forecast of 2.8 percent. Economists seem confident of sustaining the moderate current quarterly GDP growth and project little change

<b>Exhibit 2: Forecast Comparison: 2007 Real GDP Growth</b>		
<b>Agency</b>	<b>Rate</b>	<b>Forecast Date</b>
Fannie Mae	2.7%	Mar-07
Wachovia	2.7%	Feb-07
Philadelphia FBR	2.8%	Feb-07
Northern Trust	2.2%	Mar-07
<b>CBER</b>	<b>2.8%</b>	<b>Jan-07</b>
<b>Forecast Average</b>		<b>2.6%</b>
Source: Fannie Mae, Wachovia, Federal Reserve Bank of Philadelphia, and Northern Trust		

in the growth rate of economic output throughout 2007.<sup>2</sup> Real residential investment, which has tapered off since the end of the 4th quarter of 2005, continues to be a predominant reason for the economic growth slowdown.

## Potential Macroeconomic Influences

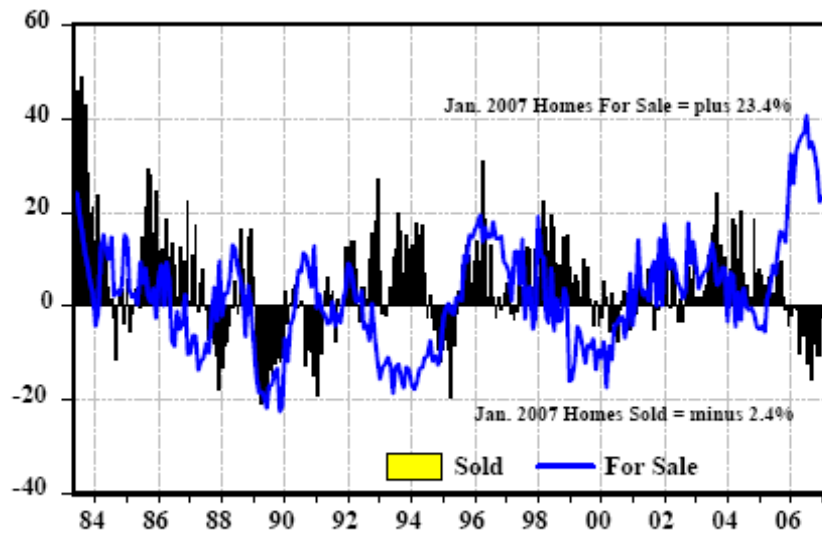
### Housing Market

The housing boom from the early half of the decade cooled substantially over the past year. As previously mentioned, many economists believe that the residential housing sector accounted for both the substantial growth in the economy as well as the recent economic moderation. As Exhibit 3 shows, the year over year percent change in number of homes for sale remains at levels not seen in decades. This is a combination of both the pace at which homes sold in the prior periods as well as the inability of residential homes currently on the market to sell.

<sup>1</sup> "Gross Domestic Product: First Quarter 2006," Bureau of Economic Analysis, U.S. Department of Commerce, April 28, 2006.

<sup>2</sup> Mark Vitner, "Bernanke's Semiannual Economic Outlook", Wachovia Economics Group, February 14, 2007.

**Exhibit 3: Year over Year Single Family Home Sales and Units for Sale**  
 Single-Family Homes\*: Y/Y % Sold vs. Y/Y% For Sale



\* Combined new and existing

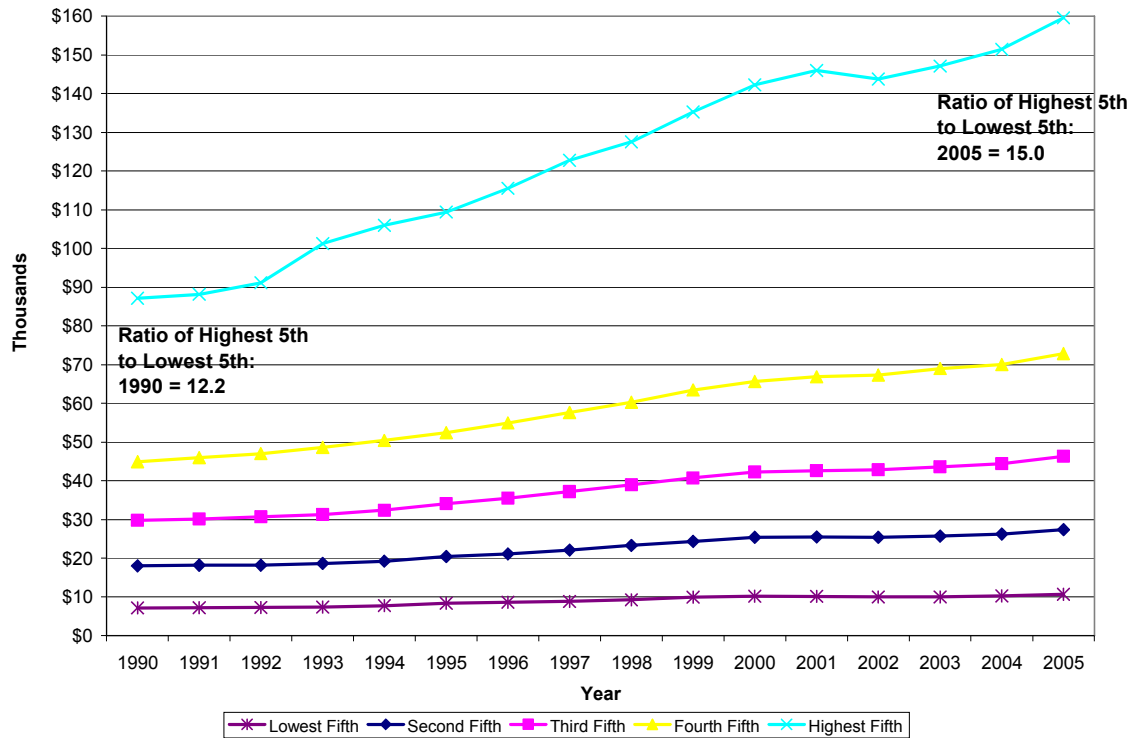
Source: Three Quarters of Below-Potential Growth and Counting, Northern Trust, U.S. Economic & Interest Rate Outlook, March, 13, 2007

This trend could impact multiple areas of the Tennessee economy. Generally, as residential housing investment slows, new starts slow along with the demand for construction inputs, making business construction investment more attractive as prices on construction inputs drop. This may make the recent construction inflation on capital investments at the state level more manageable. However, in the current housing investment cycle, the demand from foreign, growing economies on construction inputs may not allow the input price moderation to occur. This scenario could seriously impact sales of construction materials and expectations for economic growth.

### The Income Gap

Recent news and economic reports focused on the increasing gap in earnings between the richest Americans and the rest. Top tier earners have realized historic gains in income over the past few decades. As Exhibit 4 shows, the ratio of the highest quintile of earners' average income to the lowest quintile of earners' average income increased from slightly over twelve to one to fifteen to one in a period of fifteen years. As CBER observed in the Economic Report, this also created an increased concentration of income for these top earners at the expense of all other earners.

### Exhibit 4: Mean Household Income Received by Each Fifth of Earners



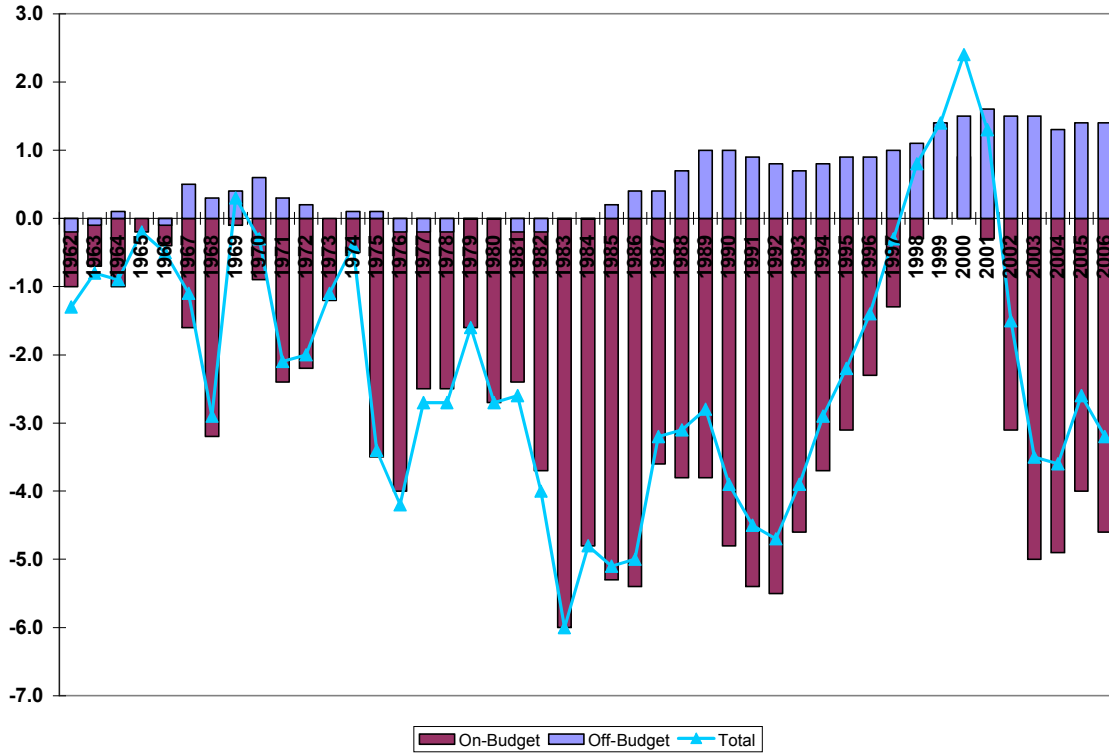
Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplements

Economists and social scientists offer mixed theories about the cause and impact of such wealth concentration, but most agree that additional research is needed. Practical theories suggest that such a concentration of wealth results in a smaller pool of consumers with disposable income available to invest in goods and services. To the extent that this causes disruption by lowering demand for goods and services, the economy could become unstable.

### Federal Budget and Trade Deficit

The federal budgetary issues began to create a groundswell of interest in recent years. Repetitive deficit spending at all-time nominal highs spawned the Fiscal Wakeup Tour across America by a group sponsored by the Concord Coalition. The panelists focused on explaining the magnitude of the structural problem within our federal budget. As Exhibit 5 shows, the federal government spent substantially more than it collected every year since 2001 and almost every year prior to that, but as a percent of GDP, current deficit spending remained below early 1980s levels.

**Exhibit 5: Federal Surplus or Deficit as a Percent of GDP, Fiscal Years 1962 – 2006**

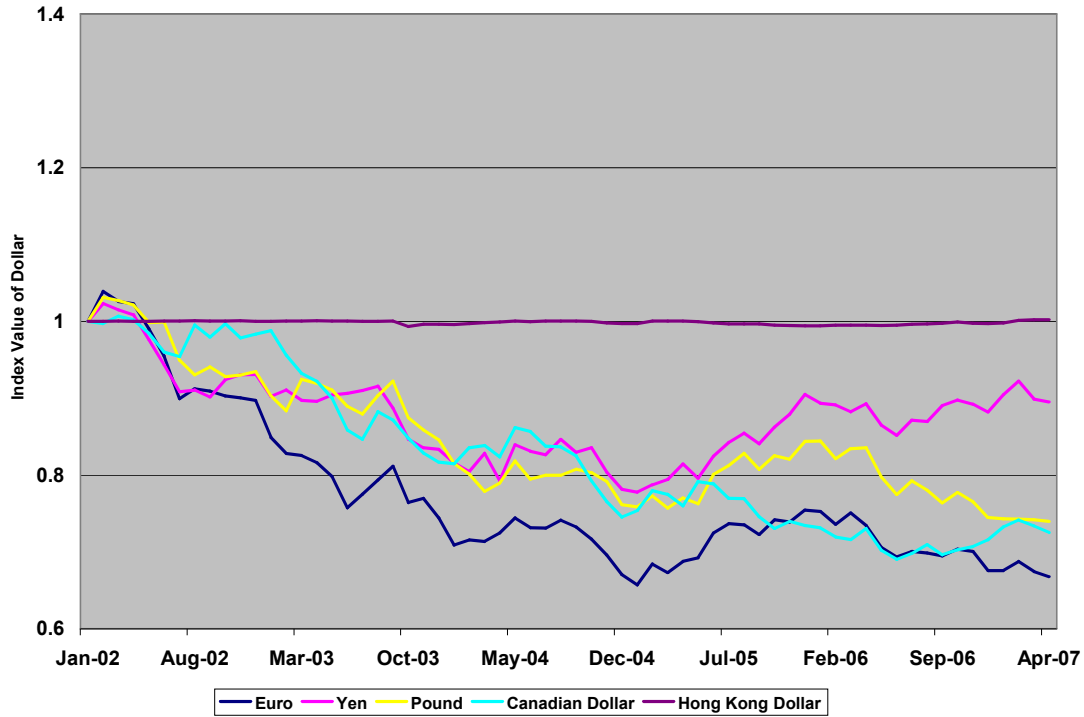


Source: Historical Tables, Budget of the United States Government, Fiscal Year 2007, Table 1.2

Absent structural changes to taxes and entitlement spending, the federal budget faces an even more negative outlook. As the Baby Boomer generation approaches retirement, spending on medical technologies and prescription drugs stand to increase while the worker to retiree ratio drops, forcing fewer people to support a system used by more people.

The United States began importing more goods than it exports over the past decade. This is referred to as a trade deficit. This deficit increased from \$28.5 billion in January 2002 to \$58.4 billion in February 2007. It peaked in August 2006 and moved back down based in part on the strengthening of goods exporting. As Exhibit 6 shows, United States exports became more attractive as the value of the dollar fell relative to the nation’s major trading partners except China.

## Exhibit 6: Currency Exchange Value Indexed to January 2002



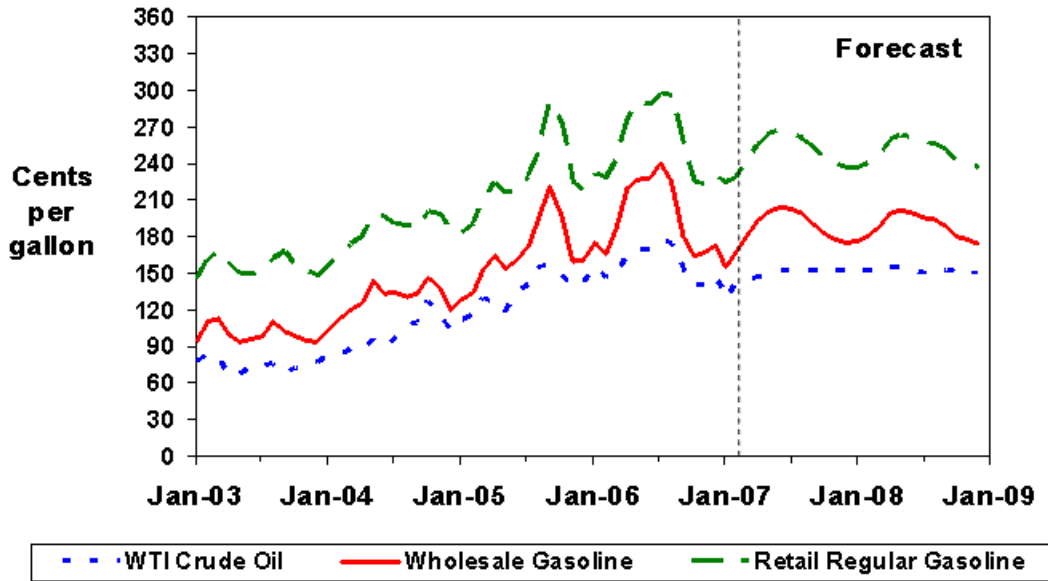
Source: Historical Currency Exchange Rates, FXHistory, Oanda Corporation, [www.oanda.com](http://www.oanda.com), April 25, 2007.

To the extent that the dollar remains at such a level then United States' exports remain an attractive alternative. Such a scenario may encourage goods producers and manufacturers to reinvest in operations, staffing and technology.

### Oil Prices

Oil prices continued to be affected by increasing global demand and other international political issues. Continued Middle Eastern problems contribute to increasing oil prices. Some relief followed after the summer driving season as oil and gas prices dipped dramatically between September and the middle of November. However, as Exhibit 7 shows, high gas price levels returned and projections for the 2007 summer driving season appear to trend upward. (Relief may be found in 2008 based upon current EIA projections, but this report does not focus on projections beyond 2007.)

**Exhibit 7: Gasoline Price Outlook for 2007**



Source: U.S. Department of Energy, Energy Information Administration, Short-Term Energy and Summer Fuels Outlook, March 2007

The Energy Information Administration (EIA) anticipates summer 2007 gas prices to top out at \$2.87 in nominal prices compared to \$2.98 per gallon in July 2007.<sup>3</sup> While sustained high oil and gas prices should not be characterized as spikes, oil and gas price increases negatively impact the U.S. economy by reducing the demand for domestically produced goods and services. This results in increasing the payments to foreign countries for oil which might lead to lower production of goods and services domestically.<sup>4</sup> Such a scenario could result in layoffs in goods producing industries. Economies like Tennessee's that still maintain a higher than average manufacturing workforce would be most heavily affected.

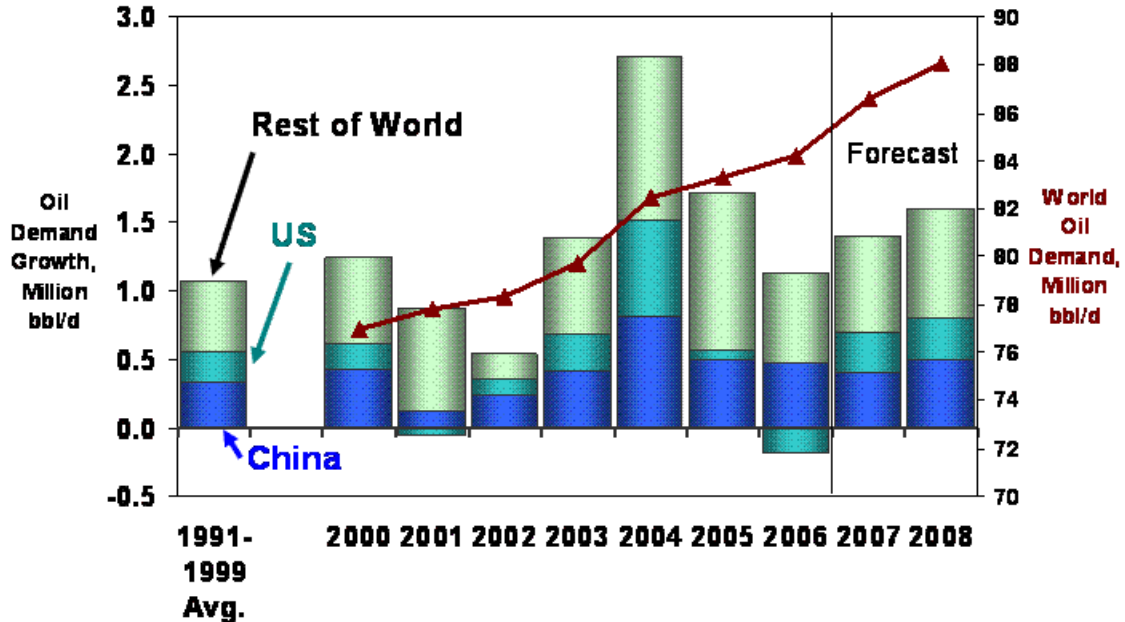
Continued demand at current levels in the United States coupled with increasing demand in booming Asian economies, such as China and India, foretell of future price increases absent technological changes. As Exhibit 8 shows below, total oil consumption is projected to increase despite a reduction in demand from the U.S. in the previous year.

<sup>3</sup> "Short-Term Energy and Summer Fuels Outlook," U.S. Department of Energy, Energy Information Administration, April 2007.

<sup>4</sup> Keith Sill, "The Macroeconomics of Oil Shocks," *Business Review*, Philadelphia Federal Reserve, Q1 2007, p.28.



**Exhibit 8: Oil Consumption Growth History and Forecast**



Source: U.S. Department of Energy, Energy Information Administration, Short-Term Energy and Summer Fuels Outlook, March 2007

### **Business Investment and Inflation**

Capital investment declined in two of the last three quarters and economists see no major change in the near future. While corporate profits approach near-record highs, companies seem intent on buying back their own stock rather than spending in historically conventional manners. Most economists don't expect business investments to increase dramatically in the coming quarter through increasing capital spending.<sup>5</sup> Neither do they foresee a large drop in capital spending: only nine percent of CEOs expect capital spending to decrease in the next six months according to the CEO Business Roundtable's first quarter survey. The CEO Economic Outlook Survey also found that 44 percent of CEOs anticipate increasing capital spending in 2007 which is down from the 50 percent level of 2006.<sup>6</sup> In addition, inflation concerns appear to have eased recently as Federal Reserve Chairman, Ben Bernanke, hinted that the Federal Reserve may hold interest rates unchanged for an extended period of time and also noted that growth and inflation are manageable.

CEOs predict the employment picture to remain strong with 78 percent of surveyed corporate executives anticipating employment levels to either increase or remain the same.<sup>7</sup> However, this is a slight reduction from the previous year's survey. If the

<sup>5</sup> Caroline Baum, "Corporate Investment Has a Bad Case of the Blues," <http://bloomberg.com>, April 4, 2007.

<sup>6</sup> "Leading U.S. CEOs See Economy in a Stable Growth Position for Next Six Months," First Quarter 2007 CEO Economic Outlook Survey Results, [www.businessroundtable.org](http://www.businessroundtable.org), March 7, 2007.

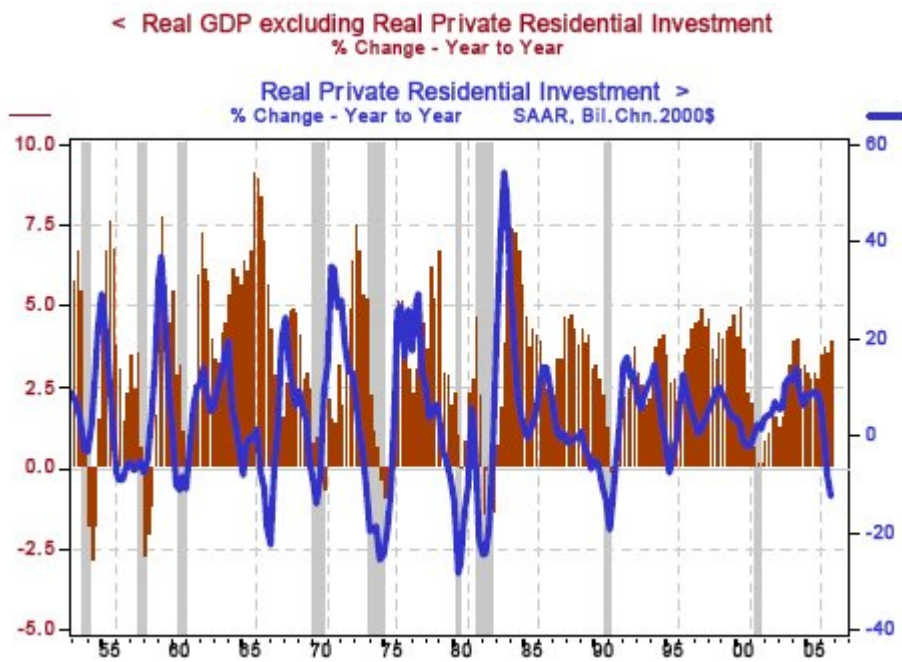
<sup>7</sup> Mark Vitner, "Bernanke's Semiannual Economic Outlook", [Wachovia Economics Group](http://WachoviaEconomicsGroup.com), February 14, 2007.

residential construction sector continues its decline and business construction prospects do not materialize as anticipated, then construction employment may not register expected gains and reduce overall employment gains.

### **Summary**

The economy appears to be settling into a manageable growth pattern. Policy makers should continue to be aware of the threats to the construction sector and residential construction in particular. As Exhibit 9 shows below, almost every recession in the past 50 years was preceded by a year over year collapse in real private residential investment.

**Exhibit 9: Year over Year GDP and Residential Investment Comparison, 1953 – 2006**



Source: Three Quarters of Below-Potential Growth and Counting, Northern Trust, U.S. Economic & Interest Rate Outlook, March, 13, 2007

Continued languishing of the housing sector, sustained high oil and gasoline prices and inflation combined with a concentration of wealth may ultimately have a negative impact on the consumer market and thus consumption-based taxes. Based upon this review, CBER's projection of 5.5 percent nominal personal income growth for 2007 appears reasonable.