

## Executive Summary

### The U.S. Economy

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The U.S. economy has been in a recession since December of 2007 as the housing bubble deflates, access to credit has been extremely limited, and uncertainty and pessimism has made consumers and producers cut back. Inflation-adjusted gross domestic product (GDP), the most popular measure of economic activity, grew only 1.2 percent in 2008, the fourth consecutive year of slowing growth. Most sectors of the economy experienced either sluggish or negative growth. Consumption, which accounts for roughly two-thirds of GDP, grew only 0.3 percent, reflecting a decline of 4.3 percent in the consumption of durable goods such as appliances and automobiles. Residential fixed investment (housing) fell 21 percent in 2008, even larger than the 18 percent drop in 2007. Business investment grew at only 1.9 percent, buoyed by continued strong growth in structures. A weak dollar contributed to decreased imports (3.1 percent) and increased exports (6.4 percent). While inflation was a concern during the first half of the year, decreased demand has begun to push prices down. By December of 2008, the Consumer Price Index (CPI) was 0.1 percent lower than it was a year earlier. Falling prices and weak demand have caused employers to cut back, laying off workers and furloughing many more. Unemployment averaged 5.8 percent in 2008. Economic conditions deteriorated significantly as the year came to a close. In December, all 50 states saw their unemployment rates increase, the first time this happened since records have been kept.

Economic activity is projected to decrease over the course of 2009 as we endure one of the most severe recessions since the Great Depression. We expect inflation-adjusted GDP to decrease by 2.5 percent in 2009. All sectors are expected to shrink, highlighted by sharp reductions in investment by both households and businesses due to a substantial contraction in credit availability. Residential investment will shrink by another 21 percent while businesses reduce investment by 15 percent. Consumption spending will decrease by 0.9 percent as stagnant incomes, a weak labor market, and limited access to credit cause consumers to save. Weak economic conditions across the globe will reduce the flow of international trade as well. U.S. imports and exports are expected to decrease by 9.6 and 7.0 percent, respectively. Since interest rates are already extremely low, the federal government will look towards government spending to help boost the economy. As this report goes to print, a massive fiscal stimulus bill is being debated in Congress. Some form of increased spending will almost surely be passed. As such, we expect a large increase in government spending in 2009, with federal expenditures rising by 3.2 percent. Growth should resume in the middle of the year or by 2010 as credit markets begin to thaw and confidence in financial markets is renewed. Unfortunately, there are no signs of a turnaround at this early point of 2009.

### The Tennessee Economy

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#### **Current Economic Conditions**

Statewide economic conditions deteriorated markedly over the course of 2008. The unemployment rate rose, income growth slowed and jobs contracted for the year. The

unemployment rate peaked at 7.9 percent in December and averaged 6.4 percent for the year; the unemployment rate stood at 4.7 percent in 2007. Nonfarm jobs fell 0.6 percent in 2008 compared to growth of 0.5 percent

in the previous year. And nominal personal income saw growth of only 3.7 percent, about 70 percent of growth in the previous year. Based on the trajectory of the national economy, expect conditions to deteriorate further through at least the first half of the year.

Tennessee's unemployment rate rested at a recent low of 4.5 percent in the first quarter of 2007, but has drifted up each quarter since then. The number of unemployed people has surged in recent quarters, including a 79.9 percent increase in the second quarter of last year. Labor market weakness has contributed to a shrinking statewide labor force in the third quarter of last year and a falling labor force participation rate as the year progressed.

Not surprisingly, the rising unemployment rate has been accompanied by significant job losses. After growing in each quarter of 2007, seasonally-adjusted nonfarm jobs began contracting in the first quarter of 2008. Most broad sectors of the economy are now in decline, aside from education and health services and government. Setbacks in manufacturing have accounted for most of the overall nonfarm job losses.

Seasonally-adjusted personal income growth was in the red in the third and fourth quarters of 2008, the first time income has contracted in recent history (i.e., dating back to the second quarter of 2005). Wage and salary income is weakening as jobs contract, with overall wage and salary income falling in the second and fourth quarters of last year. As with overall personal income, there is no period in recent history with declines in wage and salary income.

As income growth has weakened, so to have taxable sales. After growing 4.1 percent in 2007, taxable sales declined 1.6 percent in 2008. The state's sales tax is performing worse than the national average, as is the case with the sales tax in many other states in the southeast.

### **Short-Term Economic Outlook**

Tennessee's fate depends on the path taken by the global and national economies in the months ahead. Unfortunately, there is no sign of a bottom to the current cycle. To the

contrary, by all accounts economic conditions are deteriorating at a more rapid pace. One good indicator is payroll employment for the national economy: 1.9 million of the 2.6 million jobs lost nationwide in 2008 were in the final four months of the year. A turnaround is expected in the third quarter as monetary policy, a second fiscal stimulus package and improved housing market conditions lift the economy from bottom. But there are concerns that the economy's rebound will be delayed until the end of the year or early 2010. Stronger statewide growth than that predicted here is possible, though highly unlikely given current conditions.

Nonfarm jobs in Tennessee are expected to fall at least 2.2 percent this year and be down 0.3 percent in 2010. The state's manufacturing sector will suffer a 6.0 percent setback in 2009 and further losses of 3.8 percent next year. The unemployment rate will rise steadily over the year and reach a peak of 9.8 percent in the first quarter of next year. The annualized unemployment rate will be 8.9 percent this year and 9.6 percent in 2010.

Nominal personal income will see growth of only 0.7 percent in 2009, improving to 2.8 percent growth next year. Because deflation is expected for this year, inflation-adjusted income will actually grow at a faster rate than nominal income. There is no modern precedent for this expected phenomenon. Nominal taxable sales will continue their slide, yielding a decline of 4.5 percent in 2009 and rebounding with 2.3 percent growth in 2010. On a fiscal year basis, taxable sales should fall 5.1 percent this fiscal year and shrink 0.1 percent in the 2009/10 fiscal year.

### **Long-Term Outlook**

All eyes today are on the recession, looking for a bottom to the current downturn and a return to growth. Given the depth and breadth of the recession, this is no surprise. Short-run business cycles can have a significant impact on long-run economic growth. A good example is the early 1980s when the economy experienced back-to-back recessions. It took several years to eliminate the high levels of unemployment that were created as a result of these downturns. Long-term growth also

depends fundamentally on growth in the labor force, the educational attainment levels of the workforce, private investments that businesses put into the production process and public infrastructure and services that help grease the skids for the economy. Education is especially important to economic wellbeing: Tennessee counties with well-educated adult populations enjoy lower rates of unemployment, higher rates of job creation and higher levels of per capita income than their more poorly-educated counterparts.

Tennessee's growth dating back to 1998 has lagged the nation's pace of growth, both in terms of jobs and personal income. Tennessee's per capita personal income has also fallen relative to the national average. These trends are expected to continue into 2018. The state will see jobs grow 0.7 percent while the nation will see 0.8 percent job growth between 2008 and 2018 (compound annual growth rates). Tennessee's personal income growth will also trail the nation's rate of income growth in the years ahead. Unemployment rates for the state and the nation will stay at stubbornly high levels for several years to come, an unfortunate legacy of the current recession.

A long view of U.S. economic history confirms that the Great Depression is in some ways comparable to the current U.S. recession.

While we are not likely to see unemployment reach a quarter of the population, such as in the Great Depression, the loss of wealth seen in the credit crisis may be nearly as severe. The Federal Reserve has played a prominent role in each of the twentieth century recessions, but not always as a lifeline for markets. In fact, many recessions have been caused or worsened by restrictive monetary policy implemented by the Federal Reserve.

Increases in government spending have had inconsistent outcomes in periods of recession. The most effective anti-contraction spending has been financed with a federal budget deficit. In general, additional expenditures by the federal government financed through increased taxation have had a negative effect on the economy.

Perhaps the most important lesson of the recessions of the twentieth and twenty-first centuries is that each has resulted from a unique set of circumstances and has been resolved through a unique set of actions or inaction. However, the business cycle has proved to be an immovable feature of capitalism. As we move forward attempting to resolve the current credit crisis and accompanying recession, unique tools will once again be required to engineer an economic turnaround.

## Population

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The 2010 Census will determine over \$3 trillion in federal government outlays over the next 10 years. Because official Census counts will be used by many federal agencies for distributing funds to state and other governments through the state, there are obvious and important financial consequences to ensuring all state residents are correctly tallied in 2010. The number and geographic distribution of the population can also have important political implications, since Census counts form the basis for allocating congressional seats. Clearly, the 2010 Census will be critical in establishing the number of people residing in the state of Tennessee.

While the Census provides a full count of the population every 10 years, it is also important to have estimates of what future population counts will be. In the coming years there are many demographic changes that will be facing Tennessee and the nation as a whole, including the aging of the Baby Boom generation, increases in life expectancy, changes in the fertility rate, and migration. Using population projections, we forecast the total population, by age and sex, for all counties in the state of Tennessee from 2000 to 2020.

The statewide population total for Tennessee in 2005 was just under 6 million people, making it the 16th most populous state in

the U.S. including the District of Columbia. In 2010, the population is projected to be 6.2 million, rising to 6.8 million in 2020. While Tennessee is growing, the rate at which it has grown has changed. From 1990 to 2000 the annual rate of growth was 1.7 percent—slightly higher than the national average of 1.3 percent over the same time period. From 2000 to 2020, both the state and the nation’s growth will slow to an annual rate of 1 percent. Compared to the 1990s when every county saw at least modest population gains, just

over 20 percent of counties will see population declines between 2000 and 2020. The declines will mostly occur in the population under age 65; while only 2 counties in the state will see decreases in the over-65 population between 2000 and 2020, nearly 40 percent of counties will see declines in the under-18 population, and nearly 30 percent will see losses in the 18-64 age group. The changing age structure of the population will present unique opportunities and challenges for Tennessee in the next decade.