



# Burgundy Book

A report on economic conditions in the Memphis zone

First Quarter 2013

The Memphis zone of the Federal Reserve comprises northern Mississippi, northeastern Arkansas, and western Tennessee and a total population of approximately 3.1 million people, including the 1.3 million who live in the Memphis MSA.

## Business contacts expect little change in local conditions during next three months

By Kevin L. Kliesen, *Business Economist and Research Officer*

Labor market conditions in the zone were generally weaker than for the nation in the fourth quarter of 2012. For example, in the Memphis MSA, nonfarm employment growth was fairly flat and the unemployment rate remains above the nation's rate. Business contacts expect continued slow growth of employment in the first quarter of 2013, but stronger growth of average weekly earnings.

Manufacturing conditions continued to improve, reflecting solid employment growth in Tennessee in the fourth quarter. Business contacts recently surveyed were relatively upbeat, reporting increases in new orders.

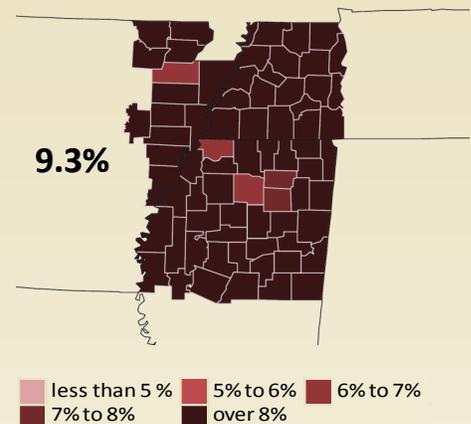
As in most areas of the Eighth District, home building activity remains well above last year's pace, shown by double-digit gains in single-family building permits. Also, in the Memphis MSA, new and existing home sales in the fourth quarter were well above the nation's roughly 11 percent increase. At the same time, house prices across the zone were fairly flat, noticeably less than the nation's 7.1 percent increase.

The latest data indicate that per capita personal income growth for Arkansas, Mississippi, and Tennessee outpaced the nation's growth during the third quarter. Similar to other areas of the District, household mortgage and credit card balances edged lower on a per capita basis in the fourth quarter, though the declines were generally smaller than for the nation. At the same time, per capita auto debt balances rose sharply in the fourth quarter and, for the most part, exceeded the nation's increase by significant margins.

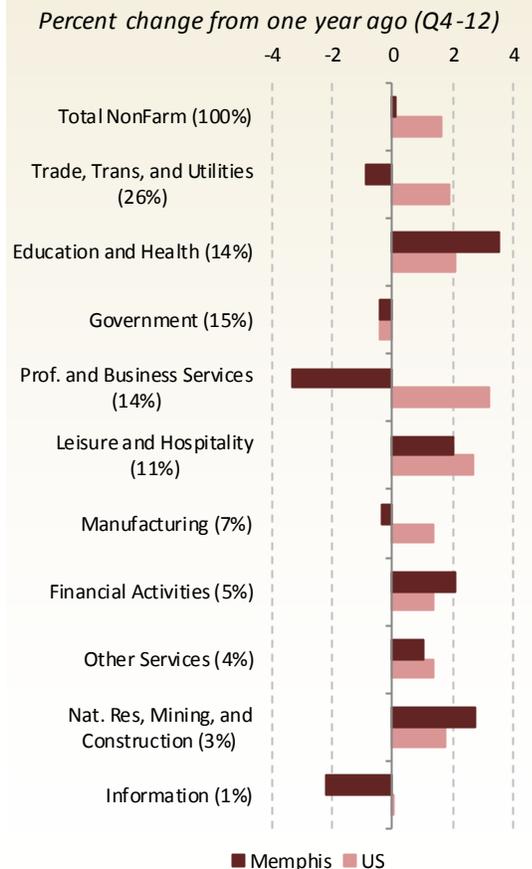
Loan delinquency rates for banks in the Memphis zone were similar to other US peer banks, though there was healthy improvement in asset quality reported by Arkansas and Tennessee banks. For the most part, bankers in the zone continue to see soft loan demand.

### Data Snapshot

#### County unemployment rates (SA, Q4-12)



#### Nonfarm payroll employment by industry



## How to read this report

Unless otherwise noted, **city names** refer to the metropolitan statistical areas (MSAs), which are geographic areas that include cities and their surrounding suburbs, as defined by the Census Bureau.

**Statistics for the Memphis zone** are based on data availability and are calculated as weighted averages of either the 73 counties in the zone or the three MSAs. As of 2012, approximately 53 percent of the zone’s labor force was located in an MSA. Specifically: 44 percent in Memphis, 4 percent in Jackson, and 4 percent in Jonesboro; 47 percent of the zone’s labor force was located in non-metropolitan areas.

**Arrows in the tables** are used to identify significant trends in the data. The direction of the arrow indicates the sign (up/down) and the color indicates the economic significance (green = good, red = poor). Arrows appear only when the change from the previous quarter is greater than 1 standard deviation. For example, the standard deviation of the change in the U.S. unemployment rate is 0.4 percent. If the U.S. unemployment rate declined from 8.4 percent to 8.2 percent, no arrow would appear; but if it declined from 8.4 percent to 7.9 percent, a green down arrow would appear in the table.

Selected **variable definitions** are located in the appendix.

**Selected quotes** from business contacts are generally verbatim, but some are lightly edited to improve readability.

For more information contact the St. Louis office:

Charles Gascon  
charles.s.gascon@stls.frb.org

Media inquiries:  
mediainquiries@stls.frb.org

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## Join our Panel of Business Contacts

The anecdotal information in this report was provided by our panel of business contacts, who were surveyed between February 1 and February 15.

If you’re interested in becoming a member of our panel, follow this link to complete a trial survey:

<http://research.stlouisfed.org/beigebooksurvey/>

Or email us at [beigebook@stls.frb.org](mailto:beigebook@stls.frb.org).

*Views expressed do not necessarily reflect official positions of the Federal Reserve System.*

## Employment Growth Slow in Memphis and Jackson; Jonesboro Shows Improvement

By Charles S. Gascon, Senior Research Support Coordinator

*“In the short run, there continues to be a wait-and-see approach that has caused some delays on capital purchases and hiring decisions.”*

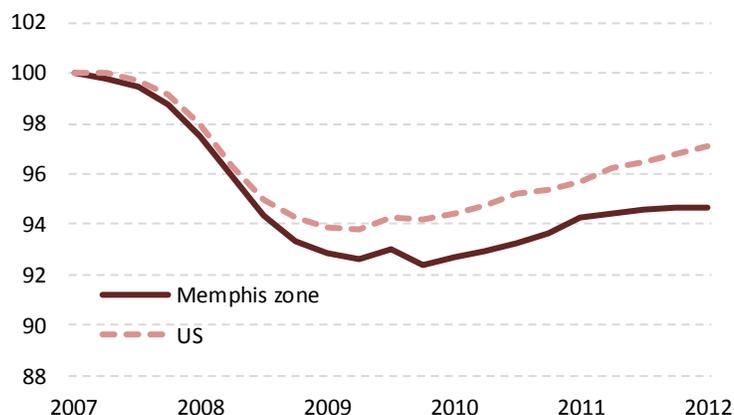
— Memphis area lawyer

*“As a small business I unfortunately cannot afford healthcare requirements for full-time employees. Part-time workers are not sufficient for my work load or continuity during projects.”*

— Memphis area designer

### Labor market recovery has slowed relative to the nation

Nonfarm payroll employment, SA (Index 2007=100)



Source: BLS.

- The recovery in nonfarm employment is still trending below the nation (see chart). Weakness is most prevalent in the Memphis MSA, where employment growth was 0.1 percent and the unemployment rate remains elevated (see table).
- Slow employment growth is expected to continue through the first half of 2013. Three-quarters of business contacts plan on keeping employment unchanged through mid-2013.
- The one bright spot on the map is Jonesboro, where the unemployment rate is 7 percent (see table and cover). Moreover, employment growth is robust at 3 percent thanks to strong growth in service-sector employment.
- While unemployment rates in Memphis and Jackson remain elevated, both declined significantly in the fourth quarter. In fact, both now are at their lowest level since the first quarter of 2009.
- December data indicate strong growth in average weekly earnings across the Memphis zone. In all three MSAs, year-over-year growth topped the national rate of about 2 percent. Anecdotal evidence from business contacts indicates wage growth will continue at least through the first half of 2013.

	Memphis	Jackson	Jonesboro, AR	US
Unemployment rate (Q4-12) (%)	8.6 ▼	8.2 ▼	7.0	7.8
Nonfarm employment (Q4-12)	0.1 ▼	1.2	3.0 ▲	1.6
Goods-producing sector	0.6 ▲	0.3	-1.2	1.5
Private service-providing sector	0.2 ▼	1.9	4.9 ▲	2.2
Government sector	-0.4	0.3 ▼	0.4	-0.4

Note: Unless otherwise noted, values are percent change from one year ago. Arrows indicate a significant ( $\pm 1$  standard deviation) change from the previous quarter. See appendix for notes and sources.

## Manufacturing Conditions in the Memphis Zone Are Positive

By David Lopez, Senior Research Associate

*“Market prices in our industry are heavily influenced by direct import competition from China. Our business outlook is heavily influenced by [the] current exchange rate with China.”*

— Northeast Arkansas manufacturer

*“Increased focus on operational efficiencies will probably lead to decreased employment... Current low inventory levels limit our ability to lower direct labor payroll costs.”*

— Northeast Arkansas manufacturer

- Manufacturing conditions in the Memphis zone were positive in the first part of 2013. The majority of Memphis manufacturers surveyed reported an increase in new orders.
- Similarly, conditions for the next quarter are generally upbeat. Survey contacts expect new orders and capacity utilization to increase.
- Manufacturing employment growth in Tennessee outpaced the nation’s (see table). Durable goods manufacturing employment was the primary driver, contributing 2.8 percentage points to this overall growth rate; nondurable goods employment added the remaining half a percentage point.
- Memphis manufacturing employment declined slightly in the fourth quarter but showed signs of a reversing trend. Survey contacts expect employment to remain unchanged in the first half of 2013.
- The recession, however, hit Tennessee strongly and caused a sharp contraction in manufacturing employment. The largest decline, in 2009, was 16 percent (see chart).
- The economic recovery reversed this trend, spurred by changes in the durable goods manufacturing sector. Meanwhile, nondurable goods finally had a positive impact on total employment growth in the most recent quarter.

### Tennessee's manufacturing employment has recovered steadily since the 2007-09 recession

Percent change from one year ago



Source: BLS.

	Memphis	Tennessee	Mississippi	US
Manufacturing employment (Q4-12)	-0.4	3.3	2.0	1.2
Durable goods	2.0	4.7	2.9	1.8
Nondurable goods	-3.0	1.2	0.4	0.3
Manufacturing earnings (Q3-12)	--	8.3 ▼	7.3	5.4
Durable goods	--	14.7 ▼	11.7	7.5
Nondurable goods	--	-0.6	-1.0	1.7

Note: Values are percent change from one year ago. Arrows indicate a significant ( $\pm 1$  standard deviation) change from the previous quarter. See appendix for notes and sources.

## 2012 Closes with Modest Gains in Real Estate Market

By Li Li, Research Associate

*“With the influx of new manufacturing jobs, the North Mississippi rental market has edged to 100% occupancy.”*

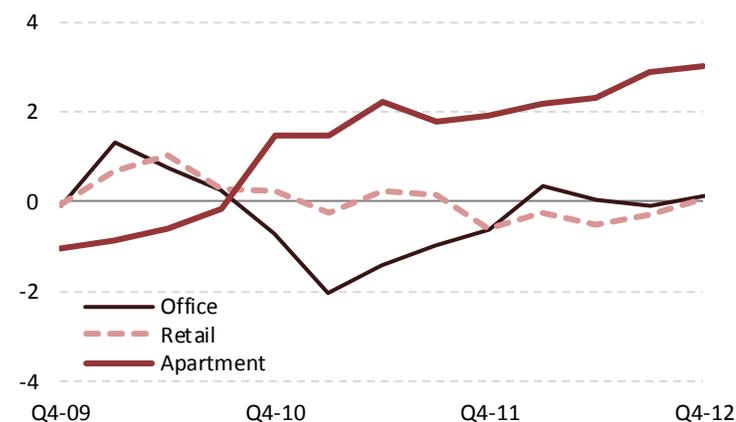
— Memphis area realtor

*“Residential real estate values have not decreased very much in this area, which has kept the local economy relatively stable. We are presently seeing an increase in commercial building, which I attribute to stable real estate values.”*

— Jackson area banker

### Apartment asking rent rises relative to other sectors

Percent change from one year ago, Memphis



Source: Reis.com.

- Residential real estate conditions improved in Memphis. New and existing home sales in 2012 increased by 16 percent compared with 2011. With stronger demand, the fall of home prices began to subside in Jackson and stopped in Memphis (see table).
- The real estate market in Memphis is generally underperforming the nation: Home price growth is lower, while vacancy rates for apartment, office, and retail are higher.
- The apartment market continued to outperform the other segments. In the fourth quarter, asking rent increased by 3 percent, while the vacancy rate declined by 100 basis points to 9 percent, on a year-over-year basis.
- The retail real estate market in Memphis had a slight gain. Compared with the same period last year, the vacancy rate dropped to 12.7 percent (see table). Looking forward, a retail developer commented that he was optimistic about the outlook in 2013.
- Commercial and industrial construction in Memphis is picking up. A contact reported that there are several new medical buildings and renovation projects under way in downtown Memphis. Another contact in Memphis reported that several million new square feet will be added in the industrial sector.

### Non-residential market (Memphis, Q4-12)

	Apartment	Office	Retail
Vacancy rate (%)	9.0	23.2 ▲	12.7
Asking rent	3.0	0.1	0.1
<i>Percent change from one year ago</i>			

Source: Reis.com.

### Residential market (Q4-12)

	Memphis	Jackson	Jonesboro	US
CoreLogic Home Price Index	0.0	-1.5	1.6	7.4 ▲
Single-family building permits	33.7	18.3	33.9	24.3
New and existing home sales	16.1	--	--	11.1

Note: Values are percent change from one year ago. Arrows indicate a significant ( $\pm 1$  standard deviation) change from previous quarter. See appendix for notes and sources.

## Uncertainty May Be Restraining Household Purchases

By Bryan Noeth, *Policy Analyst*

*“The indecisiveness as to what will happen, could happen, or is happening tends to cause consumers to take a wait-and-see attitude.”*

— Memphis area auto dealer

### Auto debt continues to grow

Auto debt per capita, dollars



Source: FRBNY Consumer Credit Panel, Equifax.

- Per capita income continued to increase across the Memphis zone states. Year-over-year incomes increased by around 3 percent.
- Mortgage deleveraging continued in the Memphis zone. Individuals decreased their average mortgage debt outstanding by 1.9 percent over the year. This marks about four years of sustained mortgage deleveraging.
- The percent of mortgage balances seriously delinquent continued on a downward trend. The fourth-quarter rate for the zone was 3.3 percent, well below the national rate of 4.9 percent.
- Consumers decreased their credit card debt levels by 2.8 percent over the year. Balances are now down 26 percent since 2007. However, the rate of decline has slowed over the past year. Additionally, the percentage of seriously delinquent credit card balances continues to improve and was down 3.8 percentage points from 2007.
- Consumers took on more auto debt, continuing the upward trend that began in the second quarter of 2010 (see chart).

	Memphis Zone	Arkansas	Mississippi	Tennessee	US
Per capita personal income (Q3-12)	--	3.2	3.3	2.9	2.5
Per capita debt balances (Q4-12)					
Mortgage	-1.9	0.4	-0.7	-2.0	-2.9
Credit card	-2.8	-3.1	-0.9	-3.0	-3.4
Auto loan	10.4	10.2	11.2	7.8	7.1
90+ day delinquency rates (Q4-12) (%)					
Mortgage	3.3	3.0	3.6 ▼	2.8	4.9 ▼
Credit card	9.6	8.6	8.6	8.7	10.0
Auto loan	4.7	2.6	5.3	3.6 ▼	3.7 ▼

Note: Unless otherwise noted, values are percent change from one year ago. Arrows indicate a significant ( $\pm 1$  standard deviation) change from the previous quarter. See appendix for notes and sources.

## Banking Conditions Improve, but Bankers Still Wary

By Michelle Neely, *Economist*

*“Most bankers continue to have concerns about interest margins but are still projecting higher profits and lower past dues in 2013.”*

— Northeast Arkansas banker

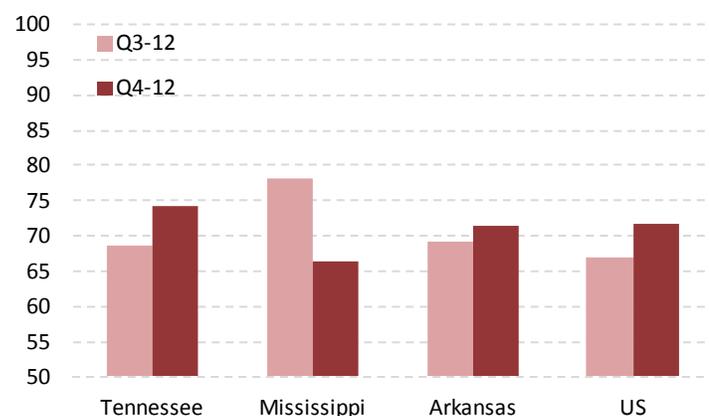
*“Loan growth remains weak and the investment opportunities are limited based on yields in the market. Banks’ challenges will be to not overreach on credit quality and interest rate risk.”*

— Memphis area banker

- Profitability measures rose substantially for banks in Arkansas, Mississippi, and Tennessee in 2012. Return on average assets increased 10 basis points in Arkansas, 16 basis points in Mississippi, and 76 basis points in Tennessee from year-end 2011 levels. Average ROA in all states but Arkansas, however, still trail the U.S. peer bank average (see table).
- Earnings rebounded despite flat or declining net interest margins in these states. Large reductions in funds set aside to cover nonperforming loans accounted for higher profits, a trend seen elsewhere in the District and the nation.
- Asset quality improved in the fourth quarter at Arkansas and Tennessee banks but deteriorated somewhat in Mississippi. A 37-basis-point increase in the ratio of nonperforming loans to total loans at Mississippi banks can be traced to an uptick in delinquent commercial and residential real estate loans.

### Arkansas, Tennessee banks up reserves for delinquent loans

Loan loss reserve coverage ratio, percent



Source: FRED.

Banking performance (Q4-12)	Tennessee	Mississippi	Arkansas	8th District	US Peer Banks
Return on average assets	0.80 ▲	0.89	1.18	0.93	0.97 ▲
Net interest margin	3.89	4.03	4.19	3.90	3.87
Nonperforming loans / total loans	2.54 ▼	2.56 ▲	2.80	2.32 ▼	2.59 ▼
Loan loss reserve coverage ratio	74.36	66.30	71.40	79.89	71.78

Note: Values are percentage points. Arrows indicate a significant ( $\pm 1$  standard deviation) change from the previous quarter. See appendix for notes and sources.

## Drought Misses Mississippi Delta; Crop Insurance Alleviates Effect in Tennessee

By Brett Fawley, Senior Research Associate

*“Most of our producers expect yields to be adversely impacted 20 to 25%. Prices are better for commodities. Overall net income with most larger producers will be diminished by 8 to 10% from previous years.”*

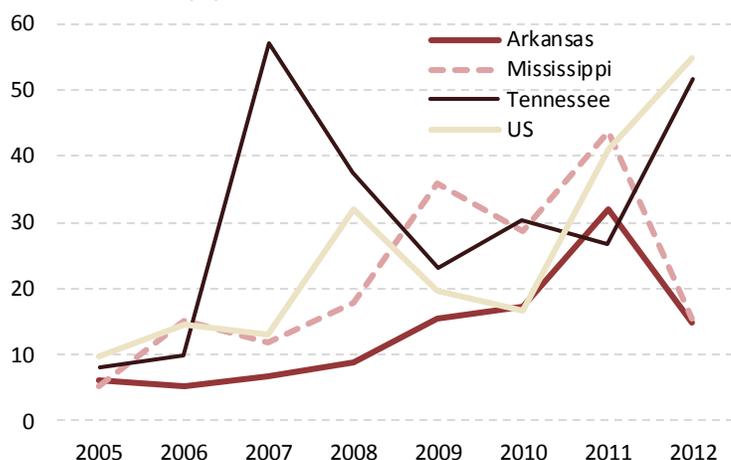
— Tennessee agricultural banker

*“Our region was not affected by the drought and we are currently harvesting one of the best yielding crops in quite some time. This fact along with the above normal commodity prices will have an incredible positive impact on the farming situation in our area.”*

— Mississippi agricultural banker

### Drought had highly disparate effect on farm income

Federal insurance payout, dollars/net acre insured



Source: FCIC.

- Higher local prices partially offset declines in crop production. The dollar value of corn production in Tennessee and rice production in Mississippi declined by 5 percent, relative to double digit declines in production by volume.
- Federal crop insurance covered roughly 60 percent of the acres planted in Arkansas, 70 percent in Mississippi, and 50 percent in Tennessee. Through early March, the Federal Crop Insurance Corporation has paid out \$72 million to Arkansas farmers, \$54 million to Mississippi farmers, and \$127 million to Tennessee farmers. Payments to Tennessee farmers are twice that paid on the 2011 crop, but payments to Mississippi and Arkansas are \$90 to 100 million lower.
- Ag. bankers surveyed indicated that farm income, spending, and loan demand exceeded expectations in the fourth quarter.
- Farmers in the zone’s states planted 14 to 30 percent more winter wheat in 2012 than in 2011, although the number of acres planted remained 13 to 40 percent below the peak levels of 2008.
- Coal production in the zone’s states was slightly lower in 2012 than in 2011. In the most recent quarter, coal production was down 54.8 percent in Arkansas, down 25.1 percent in Mississippi, and up 4 percent in Tennessee relative to a year ago (see left table).

	Arkansas	Mississippi	Tennessee	US
<b>Natural resources (Q4-12)</b>				
Mining and logging employment	2.8	-1.4	---	3.2 ▼
Coal production	-54.8	-25.1	4.0 ▲	-10.2 ▼
<b>Crop production (2012)</b>				
Corn	67.5	38.5	-15.3	-12.8
Cotton	3.4	-20.8 ▼	-10.2	9.2
Rice	22.9 ▲	-13.6	---	7.9 ▲
Sorghum	75.0	4.4 ▼	---	15.2
Soybean	7.6	25.0	15.9	-2.5

Note: Values are percent change from one year ago. Arrows indicate a significant (± 1 standard deviation) change from the previous quarter. See appendix for notes and sources.

### Memphis zone Ag. bankers' expectations Q1-13 vs. Q1-12

Loan demand	138
Available funds	133
Loan repayments	113
Farm income	100
Capital expenditure	89

Note: Values reported using a diffusion index. See appendix for notes and sources.

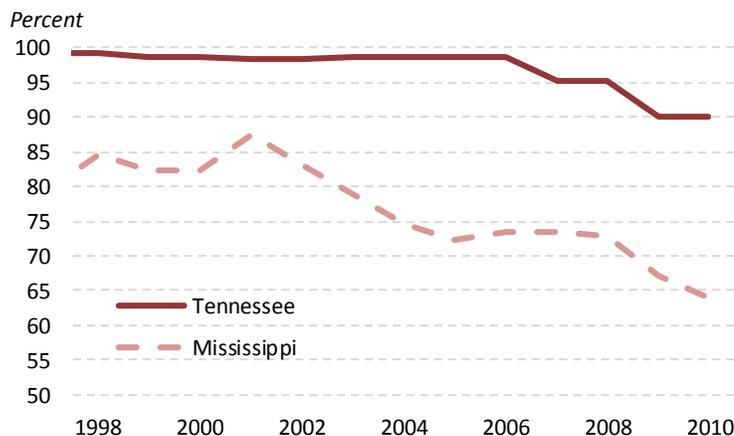
# Unfunded Liabilities Offer Stark Contrast Between Tennessee and Mississippi

By Lowell R. Ricketts, Senior Research Associate

*“The sense of uncertainty about where federal fiscal policy is going affect not only us but our sources of revenue.”*

— Memphis area nonprofit

## Pension funding levels have deteriorated; TN stabilizes in 2010 while MS continues to weaken



Source: PEW Center on the States.

- State tax revenue continued to grow for both Mississippi and Tennessee in the third quarter, although at a slower rate than the nation (see table). Positive growth in general sales tax, which encompasses close to half of overall tax revenue for both states, contributed the most to the total increase.
- Tennessee’s total tax revenue grew significantly more slowly in the third quarter compared with the second due to weaker gains in sales tax revenue and negative growth in tax revenue derived from other sources. The 98 percent increase in personal income tax revenue is deceiving. Personal income tax revenue carries a very small share (around 1.7 percent) of overall revenue and its small base leads to significant volatility.
- Mississippi and Tennessee differ greatly in terms of funding for public sector pensions (see chart). Tennessee had maintained funding levels close to 100 percent up until the recent recession. In contrast, pension funding for Mississippi has been on the decline since 2002. Mississippi reached a historic low of 64 percent funding in 2010, while Tennessee’s public sector pensions stabilized at 90 percent funded.
- Federal government payrolls fell for both Mississippi and Tennessee and remained unchanged for the Memphis MSA. This trend matched that of the nation and other District states.

	Memphis	Tennessee	Mississippi	US
Tax revenue (Q3-12)	--	1.6 ▼	1.0	2.8
Personal income	--	98.0 ▲	0.7	4.3
Corporate income	--	12.1	-2.1	6.9
General sales	--	2.4 ▼	2.4	3.3
Other sources	--	-3.0 ▼	-0.5	-0.3 ▼
Government employment (Q4-12)	-0.4	0.1 ▼	-0.8	-0.4
Federal	0.0	-2.1	-0.6	-1.5
State	0.0	-1.1 ▼	0.1	-0.1
Local	-0.6	1.0	-1.2	-0.3

State Government Bond Ratings	
<b>Mississippi</b>	
Moody's	S&P
Aa2	AA
<b>Tennessee</b>	
Moody's	S&P
Aaa	AA+

Note: Values are percent change from one year ago. Arrows indicate a significant ( $\pm 1$  standard deviation) change from the previous quarter. See appendix for notes and sources.

## Cover Page

### Sources

*Bureau of Labor Statistics*

Unemployment rate, nonfarm payroll employment.

## Labor Markets

### Table Sources

*Bureau of Labor Statistics*

Unemployment rate. Nonfarm employment and contributions by sector.

### Notes

**Goods-producing sector** comprises the manufacturing and natural resources, mining, and construction sectors.

**Private service providing sector** includes the following sectors: Trade, Transportation, and Utilities; Information; Financial Activities; Professional and Business Services; Education and Health Services; Leisure and Hospitality; and Other Services.

**Unemployment rate** data are seasonally adjusted.

## Manufacturing

### Table Sources

*Bureau of Labor Statistics*

Manufacturing employment: total, durable, and nondurable goods.

*Bureau of Economic Analysis*

Manufacturing earnings: total, durable, and nondurable goods.

### Notes

**Durable goods manufacturing sector** is defined by the Bureau of Labor Statistics as industries with a NAICS classification code of 321 (Wood Product Manufacturing); 327 (Nonmetallic Mineral Product Manufacturing); 331 (Primary Metal Manufacturing); 332 (Fabricated Metal Product Manufacturing); 333 (Machinery Manufacturing); 334 (Computer and Electronic Product Manufacturing); 335 (Electrical Equipment, Appliance, and Component Manufacturing); 336 (Transportation Equipment Manufacturing); 337 (Furniture and Related Product Manufacturing); and 339 (Misc. Manufacturing).

**Nondurable goods manufacturing sector** is defined by the Bureau of Labor Statistics as industries with a NAICS classification code of 311 (Food Manufacturing); 312 (Beverage and Tobacco Product Manufacturing); 313 (Textile Mills); 314 (Textile Product Mills); 315 (Apparel Manufacturing); 316 (Leather and Allied Product Manufacturing); 322 (Paper Manufacturing); 323 (Printing and Related Support Activities); 324 (Petroleum and Coal Products Manufacturing); 325 (Chemical Manufacturing); and 326 (Plastics and Rubber Products Manufacturing).

**Manufacturing earnings** is the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income less contributions for government social insurance.

In the **contributions to employment chart**, bars represent the respective contribution of each sector to the area's total employment as a percent change from one year ago, while the line represents the net percent change from one year ago in total employment.

## Real Estate and Construction

### Table Sources

*CoreLogic*

Home price index, including distressed sales.

*Census Bureau*

Year-to-date single-family building permits.

*National Association of Realtors*

Year-to-date new and existing home sales.

### Notes

**Asking rent** is the publicized asking rent price. Data are in current dollars.

**Vacancy rate** is the percentage of total inventory physically vacant as of the survey date, including direct vacant and sublease space.

**New and existing home sales** consists of single-family home sales.

## Household Sector

### Table Sources

*Equifax based on authors' calculations*

All figures are based on a 5 percent sample of individual credit reports. Balances are geographical averages of various debt categories. The mortgage category includes first mortgages and home equity installment loans, but home equity lines of credit are omitted. Auto loans include those financed by finance company or bank loans. Credit cards are revolving accounts at banks, bankcard companies, national credit card companies, credit unions, and savings and loan associations.

*Haver Analytics*

Per capita income.

*Census Bureau*

Homeownership rates.

### Notes

**The CredAbility Index** is a quarterly measure of the financial condition of the average consumer. The scores are defined as follows: 90-100 implies excellent or secure, 80-89 implies good or stable, 70-79 implies weakening or at risk, 60-69 implies distressed or unstable, and 59 or below implies emergency or crisis.

**Delinquency rates** are calculated as the percentage of payments past due by more than 90 days, weighted by the dollar value of the loan.

**Homeownership rates** are the proportion of households in each area that are owners. It is calculated by dividing the number of households that are owners by the total number of occupied households.

## Banking and Finance

### Table Sources

*Federal Financial Institutions Examination Council*

Return on average assets: USL15ROA. Net interest margin: USL15NIM. Nonperforming loans: USL15NPTL. Loan loss reserve/Total loans: USL15LLRTL. Net loan losses/Average total loans: USL15LSTL.

Note: The data available in the table can be found in FRED.

### Notes

**Loan loss provisions** are expenses banks set aside as an allowance for bad loans.

**Nonperforming loans** are those loans managers classify as 90 days or more past due or nonaccrual, which means they are more likely to default.

**Loan loss coverage ratio** is loan loss reserves divided by nonperforming loans.

**US peer banks** are those commercial banks with assets of less than \$15 billion.

Due to the seasonal nature of bank return on average assets and net interest margin, the **arrows** in the table denote significant changes from one year ago.

## Agriculture and Natural Resources

### Table Sources

*Federal Reserve Bank of St. Louis Survey of Agricultural Credit Conditions*

Agriculture Bankers' expectations of loan demand, available funds, loan repayment rates, farm income, and capital expenditures are relative to one year ago. Respondents can answer "increase," "decrease," or "no change."

The diffusion index was created by subtracting the percent of bankers that responded "decrease" from the percent that responded "increase" and then adding 100. Index values from 0 to 99 indicate overall expectations of decreasing values; index values from 101 to 200 indicate overall expectations of increasing values; and an index value of 100 indicates an even split.

*Energy Information Administration (EIA)*

Coal production.

*Bureau of Labor Statistics (BLS)*

Mining and logging employment.

*USDA*

Crop production.

## Public Sector

### Table Sources

*Bureau of Labor Statistics*

Government employment: federal, state, and local. Private nonfarm employment.

*Census Bureau*

Tax revenue: total, personal income, corporate income, general sales, and other sources.

*Pew Center on the States*

Public sector pensions.

### Notes

Approximately 0 percent of Tennessee's (25 percent of Mississippi's) **tax revenues** come from income taxes, 61 percent (44 percent) from sales tax, and 9 percent (5 percent) from corporate income taxes. The remaining tax revenues are from other sources.

**Required contribution** is the annual amount state actuaries recommend that states contribute to retirement funds in order to fully fund those promises over the long term.

**Unfunded liability** is an outstanding financial obligation that is not covered by state financial assets.