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New Dallas Fed Indicator Tracks Texas Retail Sales

By Jesus Cañas and Keith R. Phillips

While many of the same forces shape the Texas and U.S. economies, important structural differences sometimes put the two on different paths. In the first eight months of 2008, for example, jobs grew at an annual pace of 2.1 percent in Texas but declined 0.6 percent in the U.S.

The employment data suggest Texas has been outperforming the nation this year. However, it's best to look at a variety of indicators to get a wider view of the economic landscape.

Retail sales can tell us a lot about what's going on in an economy, largely because consumer spending represents more than two-thirds of U.S. gross domestic product. At the state level, where broadly based economic data are harder to come by, retail sales can provide crucial information on economic conditions.

Analysts used to rely on monthly state retail sales data from the U.S. Department of Commerce, which based its estimates on a survey of retailers. But the federal agency stopped publishing the series in 1996.

Currently, the Texas Comptroller of Public Accounts generates retail sales estimates based on tax forms required for both taxable and nontaxable sales. The comptroller's data come out quarterly, limiting their usefulness as a barometer of current economic conditions. Using city tax rebates and other data, we attempt to improve the series by making it monthly. The Dallas Fed's Texas retail sales estimate suggests that consumer spending has held up better in Texas than in the rest of the nation.

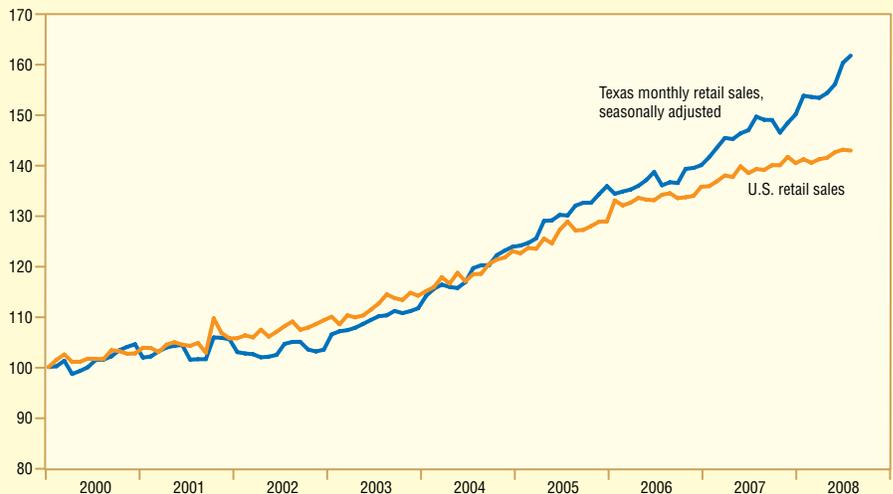
From December to August, estimated retail sales increased at an annual rate of 10.1 percent in the state, compared with 0.8 percent for the nation (*Chart 1*). Much of the growth for Texas and the U.S. took place in May, June and July, reflecting both the sharp rise in energy prices and the impact of government stimulus checks.

Looking at Retail Sales

Texas retail sales totaled \$371 billion in 2007, according to the comptroller. The two largest categories were general merchandise

Chart 1
Retail Sales Stronger in Texas Than Nation

Retail sales index, January 2000 = 100



SOURCES: Census bureau for U.S. retail sales; authors' calculations for Texas monthly retail sales.

stores at \$71.4 billion and motor vehicle sales at \$67.9 billion. Together, they made up about 38 percent of retail sales. Adding food and beverages, the third-largest category, gives us about half the state's retail sales (*Chart 2*).

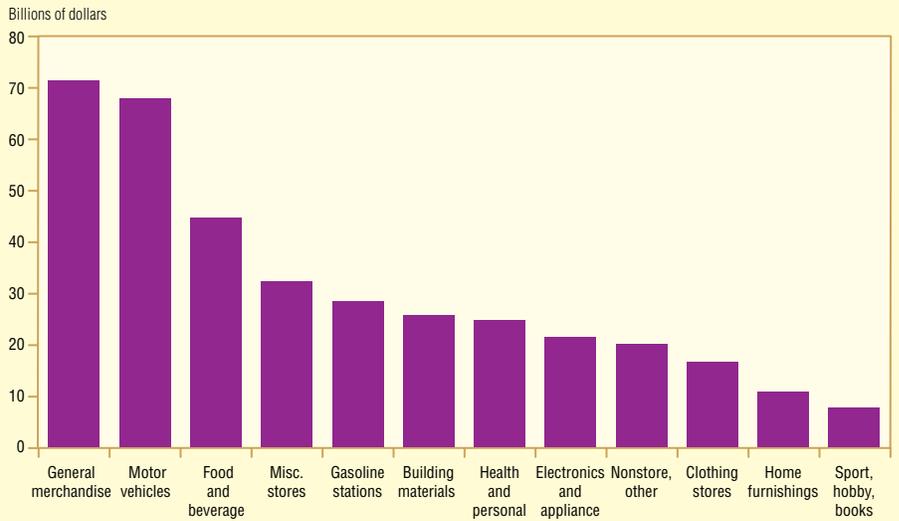
We use the existing retail sales data to construct a monthly indicator. To build a long-term, consistent database, we adjust for a shift in 1997 from the U.S. Standard Industrial Classification (SIC) to the North American Industry Classification System (NAICS). Most important, we restore the subcategory of eating and drinking places to retail sales for each quarter, giving us a continuous series since 1978.

We distribute quarterly retail sales among the months in each quarter by using monthly measures as a guide.¹ The best—and most direct—measure is sales tax rebates from the state to cities. Businesses send sales tax collections to the comptroller's office, which separates cities' sales taxes from the state's receipts and returns them to the cities.

The rebates are a product of retail sales and tax rates. We take into account tax changes to make sure our measure reflects variations in taxable sales, not rates. Rebates generally reflect sales with a two-month lag, so we adjust the data accordingly.

The rebates have a strong but imperfect relationship with retail sales. One weakness is that food and prescription drugs aren't taxed, so city sales tax rebates

Chart 2
General Merchandise, Autos Represent Largest Share of Texas Retail Sales



SOURCE: Texas Comptroller of Public Accounts, 2007 data.

don't reflect this spending.

We find two other monthly measures useful in estimating monthly retail sales—employment in retail trade and the combined consumer price indexes for Houston and Dallas–Fort Worth. These series are seasonally adjusted to focus more directly on trend and business cycle relationships.

We find a strong relationship between movements in quarterly retail sales and adjusted sales tax rebates, retail employment and Houston/D–FW CPI. For example, all

four measures weakened in 2001 (*Chart 3*). Sales tax rebates and retail employment remained weak until early to mid-2003, when the Texas economy began to turn up. Retail sales followed a similar pattern, remaining soft until early 2003.

Texas Retail Sales

Texas entered 2008 with economic activity slowing to a pace below its long-term trend but well above the national average.² The housing sector was healthier than the national average, high-tech had held up fairly well over the previous 12 months and the Texas energy sector was booming.

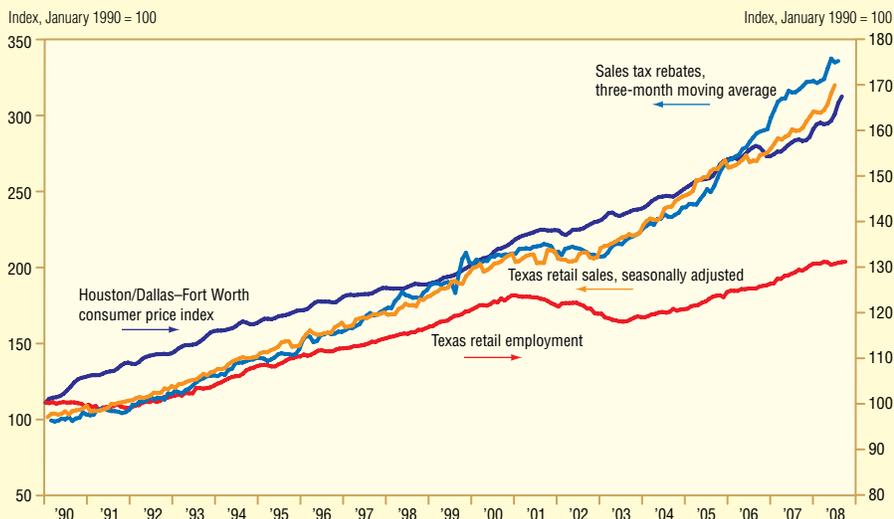
High energy prices are a net benefit to Texas' economy, so it's likely that the state's consumers, expecting growth to continue, spent more and saved less of their stimulus checks. The retail sales data we estimate not only support the notion that Texas is growing faster than the nation but also suggest Texas consumers feel confident enough to increase spending.

The data imply that consumer confidence in Texas likely hasn't fallen as much as official surveys indicate. The Conference Board Consumer Confidence Index for the west south central region, which includes Texas, Arkansas, Louisiana and Oklahoma, declined 21 percent in the first eight months of 2008.

Some of the strength in retail sales in Texas and the nation has been due to inflation. The U.S. price deflator for retail

(Continued on back page)

Chart 3
Several Monthly Indicators Correlated With Retail Sales



SOURCES: Bureau of Labor Statistics for retail employment and Houston/Dallas–Fort Worth CPI; Texas Comptroller of Public Accounts for rebates; authors' calculations for Texas monthly retail sales.

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goods rose at an annual pace of 3.3 percent though August. Taking inflation into account, annualized growth in real retail sales was 6.6 percent in Texas and -2.5 percent nationally.

This overview suggests that a monthly estimate of Texas retail sales should prove highly useful in analyses of the state economy. Our new measure fills a void that has existed since the Commerce Department ended its monthly estimates 12 years ago.

The Texas comptroller's retail sales figures couldn't fully replace the Commerce data because of their quarterly release and significant lag. For example, the Dallas Fed's Texas Leading Index, which includes retail sales, had to be adjusted to account for the loss of the Commerce indicator.

Up-to-date data are necessary to make better decisions in business and policymaking. As of mid-October, our monthly retail sales estimates were available through August, while the comptroller's quarterly series ended in the first quarter.

Producing current economic indicators often requires substantial capital and human investment. Our model minimizes the burden by making projections based on available quarterly retail sales and other measures.

For the first eight months of 2008, Texas' monthly retail sales were healthy, especially compared with U.S. economic trends. More recently, the nation has felt the impact of a severe financial crisis.

How will Texas fare in the final months of 2008 and into 2009? Analysts interested in the Texas economy and where it's headed can now monitor retail sales activity monthly. Our Texas retail sales estimate will be available on the Dallas Fed website under Regional Data Resources at www.dallasfed.org/data/resources.html.

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Notes

We thank Mack Lindsey at the Texas Comptroller of Public Accounts for providing retail sales data on eating and drinking places in Texas and its major markets and for answering questions about Texas quarterly retail sales.

¹ The procedure we used is called best linear unbiased interpolation and extrapolation. See "Best Linear Unbiased Interpolation, Distribution, and Extrapolation of Time Series by Related Series," by Gregory C. Chow and An-loh Lin, *The Review of Economics and Statistics*, vol. 53, no. 4, 1971, pp. 372-75.

² See "Texas Economy Feels National Pinch," by Laila Assanie and Raghav Virmani, Federal Reserve Bank of Dallas *Southwest Economy*, no. 4, 2008.



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