



# HoustonBusiness

*A Perspective on the Houston Economy*

FEDERAL RESERVE BANK OF DALLAS • HOUSTON BRANCH • SEPTEMBER 2006

## Houston Economy Eases Off the Throttle

*Houston continues to grow strongly, but at significantly slower rates than a year ago. Last year's rapid rates were probably unsustainable, and reduced growth rates are most likely the result of the local economy running into significant labor and capacity constraints.*

**A** variety of indicators are pointing to a slower expansion in Houston. Employment growth, the unemployment rate, the Houston Purchasing Managers Index and the Dallas Fed's Metro Business-Cycle Indexes all indicate a slackening pace over the first half of 2006.

How can this be? Houston stands at the epicenter of a tremendous expansion in oil and gas exploration and development. The price of oil has pushed above \$70 per barrel in recent weeks; the price of natural gas has been over \$6 per thousand cubic feet; the number of working rigs in the United States has expanded by more than 250, or 18 percent, since last December; and shortages of oil-related skills and equipment are widely reported.

Two possible explanations for the slowdown are immediately evident. One is the shortage of skills and equipment

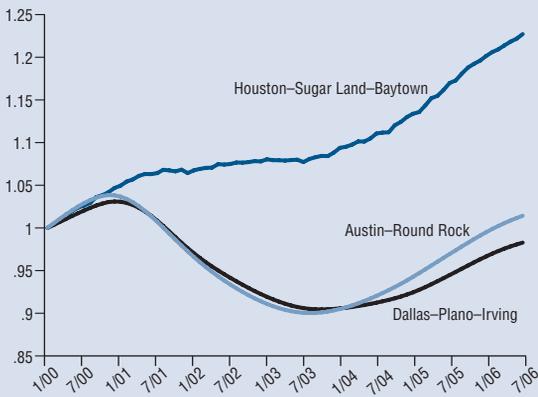
just mentioned. The early stages of any economic expansion typically are marked by easy growth, as businesses simply reemploy the workers and capital left idle by the previous downturn. But as new levels of peak activity are reached, additional employees have to be trained and new skills developed. More factories and machinery have to be added and can only be produced on a schedule of months and years. The initial rapid pace of growth naturally falls back as the expansion matures.

Although the Houston metro area has been pushing hard to record levels of economic activity since early 2004, it is now facing stiff competition for jobs and other resources from regional rivals like Dallas and Austin. In recent months, these cities have completed their recovery from the 2001 technology downturn and are now seeking additional resources for their own expansions to new economic highs (*Figure 1*).

The other explanation for Houston's slowdown could be the slower pace of the U.S. economy. Growth in gross domestic product (GDP) fell

**Figure 1**  
Coincident Economic Activity for Texas Metro Areas

Index, January 2000 = 1



SOURCE: Federal Reserve Bank of Dallas.

from an unsustainable 5.6 percent in the first quarter to only 2.9 percent in the second. The slowdown was widespread across sectors, perhaps affecting that half of Houston's economy not tied directly to oil.

This article is a brief description of Houston's economic deceleration, based on a variety of measures. We will look for clues to the source of weaker growth, both in its timing and in the local economic sectors that have led the slowdown.

### Job Growth

Table 1 contains quarterly growth rates for employment in

remained healthy through the second quarter at a 2 percent annual rate, twice that of the U.S. economy. However, total employment shows a steady deceleration since second quarter 2005, when job growth was running at an annual rate of 5.4 percent. With the exception of one weak quarter, goods employment has remained strong. The first-quarter weakness was primarily due to construction. Manufacturing is the one goods sector with a pattern of slow deceleration, similar to that of the local economy as a whole. Oil and gas, the sector for which the complaints of tight

labor markets and capacity shortages are heard most often, has continued to add jobs at a 5 percent annual rate.

Private services, which make up about two-thirds of Houston's jobs, have led the slowdown. Moderation in the pace of job growth has been widespread throughout the service sector, finally reaching even business and professional services, a major contributor to Houston's job growth in the past two years. Government is a relatively small sector in Houston and has contributed little to overall job growth during the past 12 months.

The household survey for Houston also shows the local economy steadily pulling back on the throttle. Job growth fell from 5.7 percent annualized in second quarter 2005 to 1.8 percent in second quarter 2006. Labor force growth was pushed up dramatically by Katrina evacuees in third quarter 2005, as was the number of workers unemployed. The local economy appeared to quickly regain its form, however, absorbing the unemployed at 20 percent annual rates in the following two quarters. In second quarter 2006, however, the number of unemployed workers actually rose. The unemployment rate has barely changed over the past five months, after falling steadily in the months following the hurricanes.

The bottom of Table 1 shows the GDP growth rate in recent quarters. The stop-and-start pattern seen here for the U.S. bears little resemblance to the gradual, sustained moderation in local job growth experienced in Houston.

### The Purchasing Managers Index

Figure 2 compares the recent behavior of the U.S. and Houston Purchasing Managers Indexes (PMIs).<sup>2</sup> In these in-

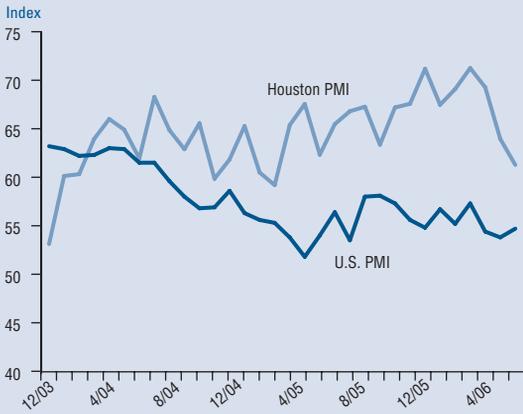
**Table 1**  
Employment Growth in Houston  
(Quarterly percent change at annual rates)

	2005:Q2	2005:Q3	2005:Q4	2006:Q1	2006:Q2
<b>Establishment employment</b>					
Total	5.4	3.9	2.7	2.1	2.0
Goods	5.5	6.4	3.9	.6	5.7
Oil and gas	6.0	6.0	4.8	4.5	5.1
Construction	2.8	8.5	8.1	-3.0	11.3
Manufacturing	7.5	4.8	.4	2.2	1.7
Private services	5.3	3.9	2.8	2.9	1.2
Business and professional services	6.6	8.0	5.5	6.9	2.0
Government	5.7	.4	1.1	1.1	.5
<b>Household employment</b>					
Employment	5.7	4.5	1.1	3.0	1.8
Labor force	2.5	7.1	0	1.4	1.8
Unemployment	-4	.6	-20.3	-22.3	1.2
<b>U.S. GDP</b>	3.3	4.2	1.8	5.6	2.9

NOTE: Based on quarterly average of seasonally adjusted monthly data.

SOURCES: Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

**Figure 2**  
Houston and U.S. Purchasing Managers Indexes Compared



SOURCES: Houston Association of Purchasing Managers; author's calculations.

dexes, a value of 50 or more indicates expansion and less than 50 indicates contraction. The U.S. index has steadily indicated expansion, moderating to a value near 55 since the middle of last year. Houston, however, recorded month after month of boom-time PMI values, topping 70 in January and since moderating to values near 60. Although tremendous economic strength is still present in the local economy according to these numbers, expansion of new orders peaked in November, production in January and employment in April (*Figure 3*). The timing for a decline in new orders and production seems counter to the way the U.S. economy would influence Houston; the U.S. experienced a very strong first quarter, with

slower growth arriving in the second quarter.

Further, if weakness in the U.S. economy is being transmitted to Houston, it should imply shorter lead times and higher inventories. *Figure 4* shows that lead times remained quite high through July, however, and inventories are stable or declining. These measures indicate that any shortages in personnel and capacity probably continued through the recent months of more moderate growth. This doesn't look like a signal of shrinking demand, but an increasingly difficult struggle to maintain growth at high levels.

### Conclusion

Houston continues to grow strongly, but at significantly slower rates than a year ago.

Last year's rapid rates were probably unsustainable, and reduced growth rates are most likely the result of the local economy running into significant labor and capacity constraints. Labor shortages of professional and craft workers have been reported for some time, and now even entry-level workers are

hard to find. Difficulty in lining up construction contracts and the high cost of these contracts, if available, have been continuing complaints. The local deceleration seems to be timed differently from the current U.S. slowdown, and U.S. weakness does not seem to have been transmitted to Houston, as long lead times and low inventories continue to be reported.

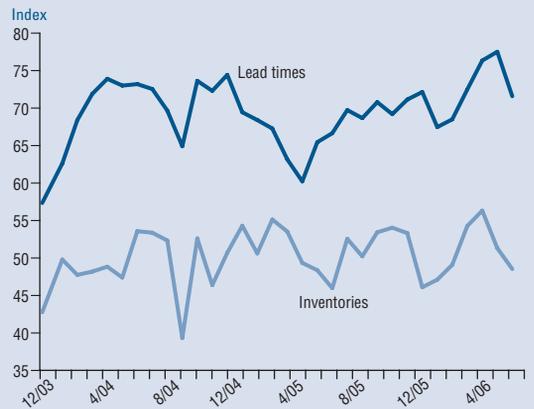
—Robert W. Gilmer

*Gilmer is a vice president of the Federal Reserve Bank of Dallas.*

### Notes

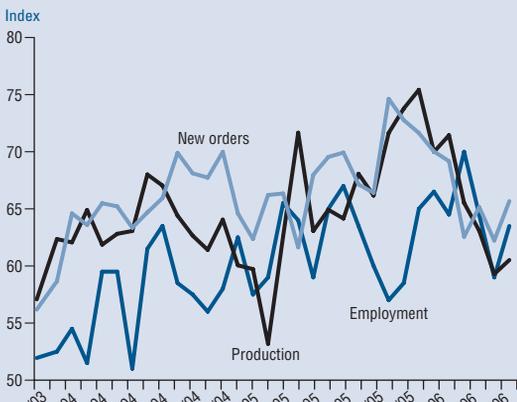
- <sup>1</sup> The establishment data used here are seasonally adjusted by the Federal Reserve Bank of Dallas and have been given a preliminary rebenchmark that raised local job growth from 1.8 percent to 2.1 percent in the first quarter of this year. The second quarter is still unbenchmarked. The construction data shown in the table contain a small number of farm and forestry jobs.
- <sup>2</sup> The figures for the PMI shown here are different from those published for Houston. First, this index is based only on the five series used in the U.S. index (production, employment, lead times, finished goods inventories and new orders or purchases), not the seven series used in the published Houston index. Tests indicated a need to seasonally adjust three of the five Houston series—production, new orders and lead times. To produce the overall PMI, the same weights were applied to the five Houston series as are used in the U.S. index.

**Figure 4**  
Lead Times and Inventories Don't Indicate Growing Slack in the Local Economy



SOURCES: Houston Association of Purchasing Managers; author's calculations.

**Figure 3**  
New Orders, Production and Employment All Slow This Year



SOURCES: Houston Association of Purchasing Managers; author's calculations.

**H**ouston continues to grow rapidly but has slowed from autobahn to open highway speeds. Between February and July of this year, Houston's 12-month growth rate slipped from 3.4 percent to 2.5 percent. The seasonally adjusted growth rate ticked up from 5.1 to 5.2 percent in July. The goods sectors continue to lead local growth, especially construction and oil- and gas-related activity. Slower expansion is based primarily in a widespread slowdown in services.

#### Retail and Auto Sales

Houston retailers reported solid results for August, after a lackluster July. Both department stores and furniture stores saw a nice pickup in sales. The annual sales tax holiday contributed to these results but becomes less important each year in Houston.

A 17.7 percent drop in truck and SUV sales in July compared with 12 months earlier pulled overall Houston auto sales down 9.2 percent. The weak comparison owes much to the extraordinary incentives that were being offered last July: employee discounts for everyone.

#### Real Estate

Houston existing home sales in July improved 3.3 percent compared with July of last year. New home sales are up 8 percent through the first half of 2006. Local permitting activity fell in July, after rising 18.6 percent year-to-date through June.

The industrial sector is the most active real estate in Houston. Although the vacancy rate

and lease rates were both unchanged in the second quarter, the sector absorbed over a million net square feet. Another million square feet is under construction.

#### Energy Prices

The price of light, sweet crude oil was in a range of \$72–\$77 per barrel, with the high end representing all-time high crude prices in nominal dollars. Contributing to high and volatile prices were strong gasoline demand, the shutdown of Prudhoe Bay production, and geopolitical fears stemming from Iraq, Iran, North Korea, Nigeria and the Israel–Lebanon conflict.

Gasoline demand was up about 2 percent from last year, despite high pump prices. Wholesale prices were volatile, peaking at near \$2.45 per gallon following a series of refinery outages, but fell back to near \$2 in late August with crude prices easing and the end of the driving season in sight.

The price of natural gas had fallen as low as \$5.18 in early July but recovered to \$6 and higher on the basis of a long-lasting heat wave. It briefly moved to \$7 and \$8 per thousand cubic feet on the basis of tropical storm activity that never developed. Storage inventories continue to build and are now at 2.8 trillion cubic feet, or 14 percent above normal.

#### Refining and Petrochemicals

Most of the major petrochemical chains report solid demand and good profitability. Butadiene demand is strong. Ethylene demand has bounced back, with significant help from resumed exports. High domestic prices due to feedstock and limited capacity after the hurricanes had pushed the U.S. out of international markets. The decline in natural gas prices and the run-up in oil prices have reopened export markets for U.S. ethylene.

Refiners report that the conversion from MTBE to ethanol and to low-sulfur diesel encountered few problems. Refiners' margins were strong throughout the period—near \$15 per barrel. Capacity utilization on the Texas and Louisiana Gulf Coast rose above 96 percent in early August.

#### Oil Services and Machinery

Oil services and machinery continues to expand rapidly despite recent weakness in natural gas prices. The domestic rig count added more than 100 working rigs in six weeks, and two-thirds were added in Texas. The percentage of rigs drilling for oil instead of natural gas has shifted only slightly in favor of oil, and lower natural gas prices have given operators a little more leverage in negotiating day rates for land rigs. Day rates have flattened out, but not fallen.



For more information or copies of this publication, contact Bill Gilmer at (713) 483-3546 or [bill.gilmer@dal.frb.org](mailto:bill.gilmer@dal.frb.org), or write Bill Gilmer, Houston Branch, Federal Reserve Bank of Dallas, P.O. Box 2578, Houston, TX 77252. This publication is also available on the Internet at [www.dallasfed.org](http://www.dallasfed.org).

The views expressed are those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Dallas or the Federal Reserve System.