After years of growth that was the envy of most states, the Texas economy has fallen into the pack. Hit hard by the 2001 recession, Texas was thrown off its usual course by a severe downturn in high-technology industries that led to widespread job losses, many in high-paid positions.

Texas emerged from recession in mid-2003, nearly a year and a half after the U.S. economy did. While Texas job growth has begun to accelerate, it remains relatively weak, and a fast-growing industry to propel growth faster than the nation’s has yet to step forward.

The Texas economy has been evolving from resource-based industries toward more knowledge-based industries for several decades. If the shrinking influence of the state’s energy sector was ever in doubt, those thoughts should be put to rest by the industry’s muted response to the recent spike in oil and natural gas prices.

High-tech firms became the important driver of growth in the 1990s, absorbing the state’s low-cost real estate and plentiful labor pool. Texas was attractive to firms that wanted to grow quickly, and a new boom was born. But for some reason, many of the industries that grew faster than

(Continued on page 2)
national average during the boom years have contracted faster as well. Not only have many firms failed to fully recover, but a similar Texas resurgence is unlikely in industries such as semiconductors and telecommunications.

An economic rebound is under way, but growth remains below the state’s long-term trend and is likely to continue sluggish, by Texas standards, in the short run. The Texas economy is likely to grow faster than the nation’s eventually, but it is hard to see the driver of that growth at this time. Once again, the state has found itself looking for industries in search of a good place to grow.

**A Timid Texas Recovery**

Texas employment and output growth was consistently stronger than the nation’s throughout the 1990s. But over the past year and a half, state job growth has been roughly the same as or slightly less than that of the United States (Chart 1). Employment in Texas grew at a tepid 1.3 percent annualized rate in the
first five months of 2004. During the same period, U.S. employment increased at a 2.2 percent pace.2

The U.S. recovery began in early 2002. The Federal Reserve Bank of Dallas’ Texas Coincident Index suggests that the Texas economy resumed expansion in the third quarter of 2003 (Chart 2). But because Texas’ annual job growth rate was roughly 1 percent faster than the U.S. rate during the 1990s, recent job growth—about the same pace or slightly slower than the nation’s—puts Texas further below its trend than the nation (Chart 3).

**Why Has Recent Growth Been So Weak?**

While the 1990s boom was stimulated by strong growth in high-technology industries, all sectors of the economy joined the party, adding jobs at a faster pace than the rest of the country. The high-tech sector stimulated demand for business services and spurred rapid construction of offices, manufacturing facilities and homes.

Chart 4 shows the pattern of Texas employment as a percentage of U.S. employment for major industries over the past few years. When the ratio is rising, Texas is adding jobs at a faster pace than the nation. When the ratio is falling, job growth in Texas is slower than in the rest of the country.

During the 1990s, all sectors of Texas’ economy added jobs faster than the nation. Between 1991 and 2000, Texas employment grew nearly 1 percent per year faster than the nation. During that period, Texas had a slightly smaller share of fast-growing industries. Most of the state’s stronger growth was attributable to Texas firms’ growing faster than their national counterparts.

The downturn has been as broad based as the boom. Since 2001, many sectors of the Texas economy, including services, transportation and non-high-tech manufacturing, have been declining or growing at about the same pace as their national counterparts. Chart 5 takes a closer look at the past few years. The educational and health services sector has been increasing relative to the nation. Government (federal, state and local) is also adding jobs at a faster rate in Texas than in the rest of the country. But the bulk of the economy continues to lose ground slightly compared with the nation.

**Shrinking Energy Industry.** One factor contributing to Texas’ relative weakness compared with past recessions is the shrinking importance of the energy industry. In the 1970s and 1980s, Texas’ business cycle was dominated by the energy industry, entering recession only when oil prices dropped. Most U.S. recessions have been preceded by a spike in energy prices. High oil and natural gas prices restrain Texas output for some industries as well, but the Lone Star State’s energy industry has typically surged, contributing to relative strength in the state.3

Energy employment and drilling activity have increased only modestly...
despite oil prices reaching $42 per barrel and natural gas prices topping $7 per million Btu. The energy industry’s relatively weak response has been caused by two factors. First, while these prices appear high, they are not high by historical standards after adjusting for inflation. The market does not expect current and futures prices to be sustainable. Second, the energy industry has contracted both in Texas and in the United States. There is not much oil or natural gas that can be drilled affordably onshore in the lower 48 states. As a consequence, the industry looks to less expensive and more productive places elsewhere in the world to drill.

**Excess Supply of Real Estate.** The Texas construction sector responded to the high-tech boom by building more rapidly than the rest of the country in the 1990s, particularly in high-tech-intensive areas such as Austin and Dallas. Real estate demand contracted sharply during the high-tech bust, leaving an excess supply of nonresidential real estate, particularly in the high-tech areas.

Construction employment fell in 2002 and 2003. Continued homebuilding, stimulated by low mortgage rates, has led to a slight expansion in construction employment in 2004—up an annualized 0.8 percent so far this year. Despite the slight pickup, Texas construction job growth considerably lags national construction employment, which is up at a nearly 5 percent annual rate this year.

Texas land remains plentiful, while regulation and construction costs are low compared with other parts of the country. These traits are part of what makes the state attractive to business, because it makes it easier for firms to expand rapidly. The ability to build quickly also increases the likelihood that excess supply will follow an economic downturn.

Market conditions are not nearly as overbuilt as they were following the tax-incentive-spurred boom of the early 1980s, but the excess supply of real estate, particularly apartments, offices and industrial space, signals slower growth in the near term. Dallas, once again, has the highest office-vacancy rate in the country. It will take time for the excess capacity to be absorbed and for building to resume.

The housing market is showing early signs of softening, with slower sales growth and rising inventories of new construction. This slowing is expected to continue if mortgage rates or construction costs rise. The state’s favorable demographics contribute to a healthy housing market because the relatively young population creates new households faster than an economy with older demographics. But the housing market will need a pickup in employment growth to remain strong. In the near term, the construction sector is not expected to contribute as much to the state’s expansion as it has in the past few years.

**Decline in Manufacturing Jobs.** Manufacturing in Texas is on the mend but...
has been underperforming the rate of job growth that occurred in the 1990s. The state’s factories added workers at a faster pace than the United States during the 1990s expansion. Initially during the recession, manufacturers in Texas shed jobs at about the same rate as in the nation. Recently, however, the state has diverged slightly from this trend (Chart 6). Texas manufacturers continued to reduce employment, replacing workers with productivity-enhancing equipment or shifting production overseas. Manufacturing jobs are down just over a 1 percent annualized rate so far this year; U.S. factories have added workers at a 1.4 percent annual rate since January.

A number of the state’s manufacturing industries continue to decline relative to their national counterparts, including apparel, wood, paper and printing, and high-tech firms, such as computers and electronics. Hours worked in manufacturing, which was much higher than in the nation during the expansion, has been on a downward trend since the late 1990s and recently dipped below its U.S. counterpart. There are a number of reasons for continued job losses and changes in the industrial mix in Texas.

Although the state remains a low-cost center of the United States, the region is facing increased competition from low-cost labor in other countries. While this trend has been apparent for several decades, global integration accelerated in the 1990s because the North American Free Trade Agreement and other trade pacts further opened the markets of important trading partners, such as Mexico and China.

An increasingly global economy allows firms to reduce costs and increase efficiency, providing higher quality products to consumers at the same or lower prices. For example, the apparel industry has been drastically reducing domestic production for most of the past decade.

As countries increase global integration, there is typically a shift in the industry mix within each country; resources are shifted to products or services that each country produces most efficiently—the product in which it has a comparative advantage. During the transition, adjustments can bring job losses or slower job growth in some industries.

Because firms are using more capital than labor to produce the same output, during this expansion it will take a higher level of output to produce the same level of job growth. That hasn’t occurred yet.

High Tech Lagging During the Recovery. Texas has the second largest share of the nation’s high-tech employment, so it is not surprising that the economy was deeply affected by the shock to technology firms. Nationwide, the sector has begun a very slow recovery, but job growth remains weak. As shown in Chart 7, employment job losses in the high-tech sector were significant, with some industries losing many or all of the jobs added during the ’90s. Texas lost more than 10 percent of high-tech employment from January...
2001 through the end of 2003. Slight job growth has emerged recently.

Chart 8 looks more closely at the Texas high-tech sector and its performance relative to the nation. Most sectors of high tech grew faster in Texas than in the nation, and most have been weaker in Texas than in the rest of the country since the recession. Between 1991 and 2000, the state’s high-tech industry added jobs at about 1.9 percent per year faster than in the nation. A small portion of that growth came from the state’s larger share of fast-growing high-tech industries. But most of it (1.6 percent) occurred because Texas high-tech industries grew faster than their national counterparts.

During the downturn, Texas high-tech employment fell about 2 percent per year faster than national high-tech firms. The comparatively worse job performance of Texas firms was mostly due to their shedding workers at a faster rate than similar firms across the country. Only a small amount of the state’s comparative weakness was because Texas has a larger share of slow-growing industries.

Chart 9 shows the job performance of high-tech industries in the four states with the largest share of the nation’s high-tech employment. Texas added high-tech jobs at a faster pace than any of the other states. Texas also lost jobs at a faster pace than most states during the downturn.

Changes in Texas’ high-tech production do not preclude a strong rebound in high-technology industries, but a rebirth of this sector will look very different from the 1990s boom. The high-tech bust occurred for a number of reasons, including overzealous expectations for growth, changing regulations and the competitive forces that drove the need for productivity increases. These factors likely have led to permanent changes.

In the semiconductor industry, for example, during the 1990s boom the state benefited from the construction of large manufacturing facilities (see Chart 9). Some of this production has been permanently shuttered as producers look for ways to lower costs by moving facilities overseas. Other producers are using productivity-enhancing technologies that allow increased production without significant hiring or construction.

**Changing Export Markets**

The market for Texas exports dipped sharply in mid-2000 but recovered strongly, recently returning to the level achieved prior to the economic downturn (Chart 10). In the first quarter of 2004, Texas exports grew at the fastest pace in two years—faster than U.S. export growth. The strong rebound of Texas exports is a positive signal for the expansion. A closer examination of our trading partners illustrates the changing nature of the Texas economy.

Because Texas is one of the nation’s largest states, it is not surprising that it is a top exporter. In 2002, Texas became the No. 1 exporting state, a feat accomplished in part because of producers’ flexibility; the mix of goods being exported and the state’s trading partners have changed since the 1990s.

Mexico has always been an important trading partner for Texas, but trade with Mexico dipped along with the Mexican economic decline and the maquiladoras’ reduced competitiveness. Forty-six percent of Texas exports went to Mexico in late 2000. Despite a first-quarter increase in trade volume to Mexico, the country now accounts for just 41 percent of Texas’ export consumption.

Recent growth in Texas exports has been driven by tremendous growth of exports to China and other Asian countries. Today, Asia consumes 25 percent of Texas exports. Texas ships more than 11 percent of all U.S. exports to China, up from 5 percent in 1998 (after the Asian financial crisis). Products shipped to Asia consist primarily of computers, chemicals and industrial machinery. Agricultural commodities are another fast-growing sector in Texas exports to China.

**Short-Term Outlook: Not the Leader of the Pack**

Each business cycle is unique, but this one has been particularly so for Texas. For a quarter century, Texas recessions have been accompanied by
slumping oil prices and recovery has been driven by a rebounding energy industry. Today’s Texas economy has diversified and become more like the nation’s. With an industrial structure more similar to the rest of the country, today’s non-energy-driven recovery is harder to interpret from the perspective of the state’s past experience. It seems surprising that Texas’ economic rebound has not been faster. For now, a number of indicators suggest that economic growth is picking up, but that weakness remains.

The slow growth of personal income relative to the rest of the country is troubling. Chart 11 shows the ratio of Texas income as a percentage of U.S. income over the past 30 years. When the percentage is rising, income growth in Texas is faster than in the rest of the country. The percentage declined only during the 1980s energy bust, after the Texas economy contracted following a sharp drop in oil prices. The recent period is unusual because the share flattened and then declined slightly, suggesting that the state remains weak relative to the rest of the country’s income gains.

The state’s recent subpar growth is not necessarily indicative of a long-term trend but is expected to persist for the short term, and it is unclear how long the short term will be. Relatively weak Texas job growth is expected to continue throughout 2004.

The Dallas Fed’s Texas Leading Index suggests that employment gains will accelerate slightly in the second half, ending 2004 with an increase of nearly 2 percent. While that is a healthy improvement from the job losses posted last year, it is still much slower than the growth rates posted during the 1990s and slower than forecasts for U.S. job growth.

Texas job growth will likely surpass the national average once again, but it is possible that when strong growth occurs, the state may have lost a bit of the edge it has had over the rest of the country.

Many factors contribute to historically strong economic growth in Texas. The state has a young, fast-growing labor force and favorable business climate, including a relatively low cost of living, low construction costs, and favorable government taxation and regulation. These factors make the state a good location for firms looking to expand quickly.

Positive attributes remain in place, but the state may have lost some of its comparative advantage as a low-cost base for economic expansion. Firms are looking overseas to diversify operations and cut costs. The state’s fast-growing labor force may slow a little if job creation weakens because rapid immigration from other states and other countries is endogenous with a fast-growing job base—workers are attracted by job growth.

Retaining a favorable business climate with smart and efficient government is essential to ensuring that the foundation for starting and building business and spurring strong growth remains. Increases in taxation or regulation that are not perceived to improve the quality of living and doing business in Texas will be harmful to future economic expansion.

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Notes

The author thanks Frank Berger, Keith Phillips, Pia Orrenius, D’Ann Petersen, Jason Saving, Mark Guzman, Steve Brown and Mine Yücel for economic insights and analysis. Priscilla Caputo, Anna Berman and Matthew Garibaldi provided research assistance.


2 The recent gap between Texas and U.S. job growth may be ephemeral. The pattern of past data revisions suggests that it is likely this difference will narrow or disappear. It is also possible that the gap could be reversed. (See page 19 of this issue for a discussion of the challenges of interpreting regional economic data.) In any case, the Texas recovery has been unusually weak.