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# Southwest Economy

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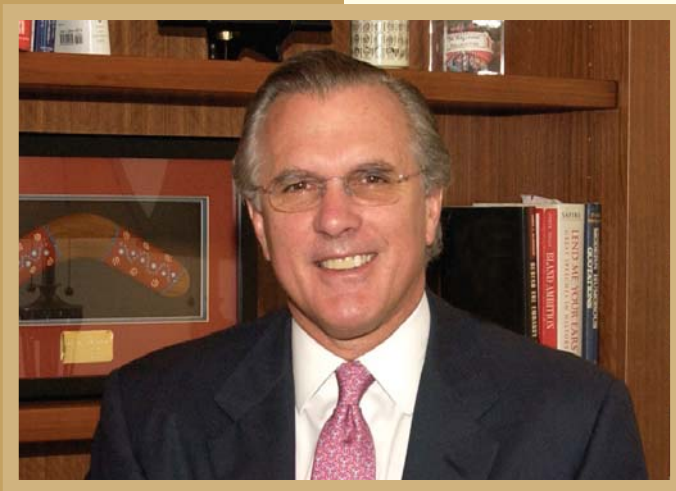
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On the Record:  
W. Michael Cox

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# President's Perspective



*"By focusing on fundamental reforms, Mexico's economy will grow faster and stronger, providing greater opportunities for Mexicans to learn, work, innovate and compete in the global marketplace."*

I keep a watchful eye on Mexico. Part of the reason is my upbringing, which included several years as a boy living in Mexico City. And part of it is my job: Understanding Texas' economy requires an appreciation of Mexico's. The two are joined at the hip.

I am encouraged by much of what I see in Mexico. Its economy has been growing strongly for three years now. Inflation has declined to about 3 percent, its lowest level in 30 years. Public sector debt is no longer rising. More than a decade ago, Mexico quit the fool's errand of trying to fix the value of its currency, and a free-floating peso has been a source of stability, not only in Mexico but in South Texas as well.

Investors look favorably on these signs of stability, and they are offering Mexico access to capital at lower interest rates and for longer terms than at any time in memory. Mexico's government, limited to short-term debt in 1995, is now able to issue 20-year fixed-rate bonds, denominated in pesos.

Mexico is reaping the rewards of two decades of economic reform. The country reduced barriers to trade and investment, freed its central bank from political influence and privatized banks and other state-run businesses. By 1994, 80 percent of government-owned firms had been sold off.

Despite these accomplishments, Mexico continues to rank among the world's least competitive nations. Here are some reasons:

- More than half of adult Mexicans drop out before reaching secondary school. Per-pupil spending has increased 20 percent since 1996, but Mexico's education system needs more than money. It needs better administration, updated curricula and teaching techniques. Just as important, the economy needs to provide the incentives for students to work hard and finish school—namely, an efficient labor market to enter when they graduate.
- Mexico's complex labor regulations are among the world's most rigid, imposing significant disincentives to operating in the formal sector. As a result, the informal sector includes about half of Mexico's labor force and most of the country's entrepreneurs. They do not bother with tax and labor regulations. Being on the fringes, however, limits access to capital, restricts opportunities to grow businesses and hinders innovation.
- Mexican legal institutions are outdated and ineffective. Too many government institutions are susceptible to corruption, eroding public confidence in Mexico's ability to enforce contracts, property rights and the rule of law.

I know many Mexicans share my concerns about the need to address the country's structural and institutional shortcomings—both economic and legal. By focusing on fundamental reforms, Mexico's economy will grow faster and stronger, providing greater opportunities for Mexicans to learn, work, innovate and compete in the global marketplace.

A stylized, handwritten signature in brown ink that reads "Richard W. Fisher".

Richard W. Fisher  
President and CEO  
Federal Reserve Bank of Dallas



# Texas Housing: A Boom with No Bubble?

By D'Ann M. Petersen

**A**merica's red-hot housing market has recently started to cool. U.S. single-family home sales are below last year's, residential construction activity has slowed, and rapid price escalation has waned in many parts of the country.

Not so in Texas. Housing activity remains strong in the state, with new construction and overall sales running ahead of last year's records. In addition, home-price increases in major metros show signs of picking up speed.

Why is the state bucking the national trend? What metros are the strongest? Will Texas' housing demand continue upward? How vulnerable is Texas to slowing sales and falling prices? In answering these questions, it's helpful to examine the factors that led to the state's housing boom and the risks on the horizon.

In essence, Texas' housing market has been driven by economic fundamentals—affordability, new residents and economic growth. Although demand remains strong, the state hasn't seen price increases as large as those stirring fears of housing bubbles in many parts of the country. As a result, the risk of a sudden collapse of the Texas housing market is low.

## Thriving Through the Downturn

Texas' housing market has been on an upswing. Both new construction and existing home sales have set records each of the past five years (*Chart 1*). The housing market even flourished during the technology bust of 2001–03, which brought other segments of the construction industry to a standstill.<sup>1</sup> Housing demand was especially strong in 2005, when new construction and existing home sales both jumped more than 10 percent from the previous year.

Although housing has also been strong in other parts of the country, Texas has been responsible for a growing share of new U.S. construction. Texas ranked

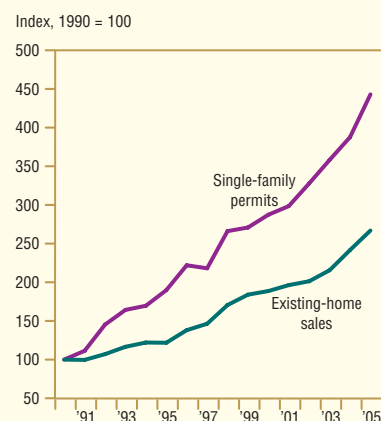
either second or third among states in single-family homebuilding for six years and held the top spot in 2000. Last year, it trailed only Florida. The pace of homebuilding remains brisk even after taking into account Texas' large population. The state's share of U.S. homebuilding rose from 4.8 percent in 1990 to almost 10 percent in 2005—a substantial increase.

This strength can also be seen in the state's metros. Houston and Dallas–Fort Worth were among the top five U.S. metros in single-family permits issued each of the past six years (*Table 1*). In 2005, Houston was third and Dallas–Fort Worth fourth. Austin also ranked high last year, despite its much smaller population.

New construction can divert buyers from existing homes. Yet sales of previously owned houses still account for a large share of Texas' market. In 2005, for example, the volume of existing homes sold exceeded new homes by 38 percent. Texas' share of total U.S. existing-home

*Although housing has also been strong in other parts of the country, Texas has been responsible for a growing share of new U.S. construction.*

**Chart 1**  
**Texas Housing on the Upswing**

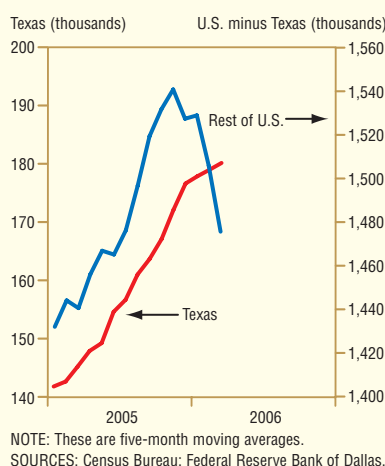


SOURCES: Census Bureau; Texas A&M Real Estate Center; Federal Reserve Bank of Dallas.



*According to the Beige Book, Texas sales of both new and existing homes in the first few years of the decade were driven largely by first-time homebuyers.*

**Chart 2**  
**Single-Family Building Permits Fall in U.S., Rise in Texas**



sales was 7.5 percent, putting the state third behind California's 8.5 percent and Florida's 7.7 percent.

So far in 2006, the Texas housing industry appears to be holding its own, in sharp contrast to signs of waning demand elsewhere in the country. Through March, single-family permits continued to rise in Texas, while they declined at the national level (*Chart 2*). Anecdotal evidence confirms Texas' strength. According to the Dallas Fed's Beige Book, an anecdotal report on Texas economic conditions, builders reported that new-home sales and traffic continued rising in first quarter 2006.

Metrostudy—a housing market research firm that provides new-home data for large urban areas—shows first-quarter closings surging from year-ago levels, rising 20.3 percent in Austin, 14.7 percent in Dallas–Fort Worth, 13.8 percent in Houston and 10.4 percent in San Antonio. In addition, sales of single-family existing homes in Texas were up 8.4 percent in first quarter 2006 compared with first quarter 2005, while same-period sales declined an average 2 percent nationally.

### Driving Texas' Housing Boom

In the early years of this decade, falling mortgage rates fueled housing demand in both Texas and the U.S. The national average for a 30-year fixed-rate loan fell from over 8 percent in mid-2000 to under 6 percent in 2003.

At the same time, lenders offered new types of mortgages that made it easier and less expensive to buy a home.<sup>2</sup> These include interest-only loans and mortgages with low initial payments that rise later in the term.<sup>3</sup> With stock market gains tepid, real estate became an attractive investment nationwide.

According to the Beige Book, Texas sales of both new and existing homes in the first few years of the decade were driven largely by first-time homebuyers. With mortgage rates low, it became almost as cheap to buy a home as it did to rent. After dipping to 63.4 percent in 2002, the Texas home-ownership rate rose to 65.5 percent in 2004, allowing the state to gain

**Table 1**  
**Top Markets for Single-Family Permits**

MSA	Permits 2005	Ranking						
		2005	2004	2003	2002	2001	2000	
Atlanta–Sandy Springs–Marietta	60,952	1	1	1	1	1	1	
Phoenix–Mesa–Scottsdale	53,964	2	2	2	2	3	3	
Houston–Baytown–Sugar Land	51,134	3	4	4	4	4	5	
Dallas–Fort Worth–Arlington	49,322	4	3	3	3	2	2	
Chicago–Naperville–Joliet	36,728	5	5	5	5	5	6	
Las Vegas–Paradise	30,358	6	6	7	7	7	8	
Tampa–St. Petersburg–Clearwater	27,425	7	10	11	11	13	17	
Orlando	26,520	8	7	9	13	11	14	
Washington–Arlington–Alexandria	25,315	9	8	6	6	6	4	
Miami–Fort Lauderdale–Miami Beach	23,076	10	9	8	8	12	12	
Austin–Round Rock	17,076	18	21	37	38	45	26	

SOURCE: Census Bureau.

ground on the national rate (*Chart 3*).

Even as mortgage rates edged up in 2005, a rebounding Texas economy helped stoke the fires of homebuilding and buying. Employment rose 3.1 percent last year, Texas' best showing since 2000. Every major metro and sector contributed to the gains—a change from the previous year. Austin led the state in job growth as its high-tech sector began to revive, and San Antonio was close behind. Houston's economy expanded rapidly, fueled by demand for oil-related services. Dallas, the hardest-hit metro during the downturn, made great strides in 2005, almost doubling its rate of job growth. And Texas' border metros prospered as a strong peso boosted retail sales and Mexico's expanding maquiladora sector led to job gains on the Texas side.

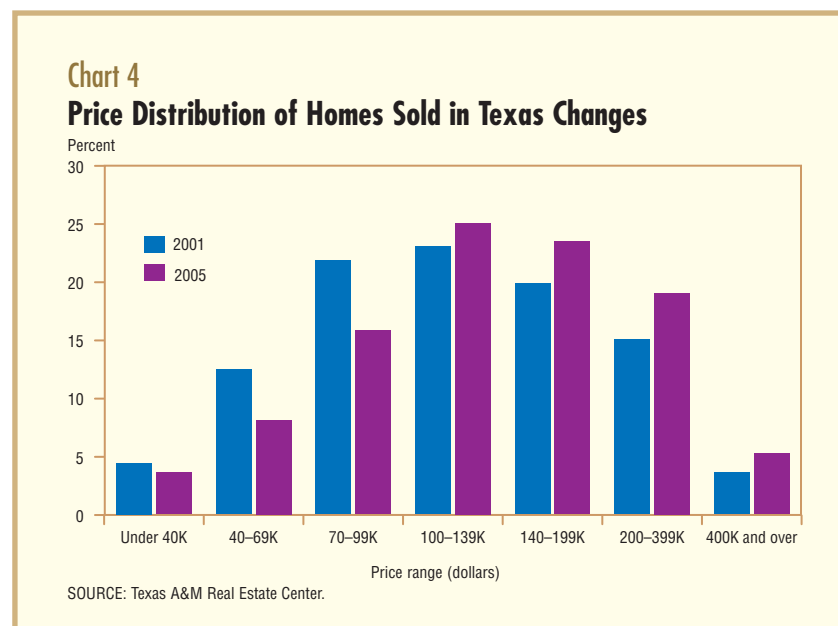
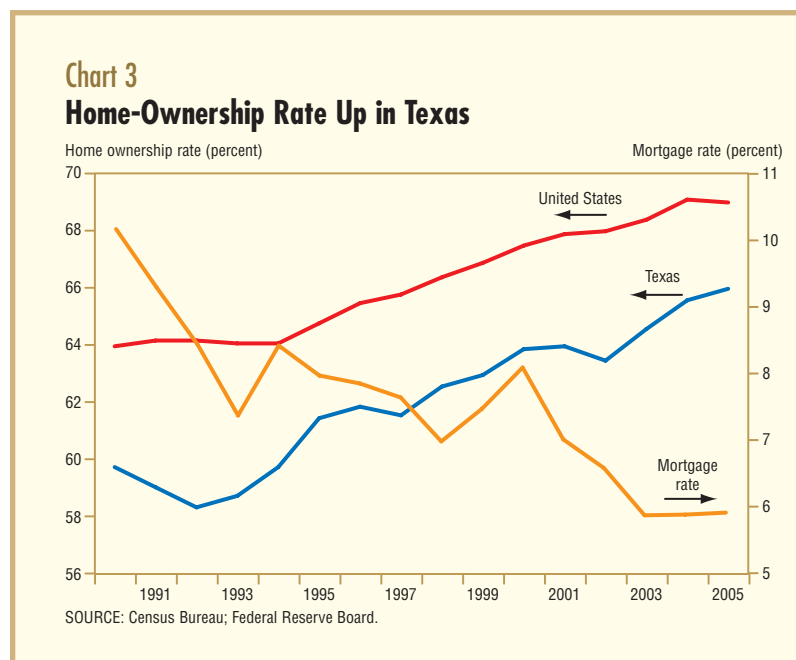
The strengthening Texas economy and the state's cost-of-living advantages attracted new residents and businesses, which added to already strong housing demand. Domestic migration to Texas rose from 36,923 in 2004 to 51,067 in 2005. At the same time, California, Massachusetts, New Jersey, New York and other states with elevated home prices lost some population to out-migration.

The characteristics of Texas homebuyers have begun to shift. First-time buyer demand, which had carried the market for several years, ebbed in 2005, and Beige Book contacts reported a pickup in relocation and move-up buyers. The price distribution of existing-home sales changed between 2001 and 2005, reflecting increased demand for pricier homes by families with prior home ownership and less demand for the inexpensive houses favored by first-time buyers (*Chart 4*).<sup>4</sup>

## Prices Slow to Rise

Barely a day passes without media comment on the U.S. housing-price boom and the possibility of an impending bust. And with good reason. From 2001 to 2005, the average U.S. median sales price for a single-family home surged 40 percent to \$219,000. By year-end 2005, the National Association of Home Builders–Wells Fargo Housing Opportunity Index, which measures the share of homes within reach of median-income families, fell to 2.3 percent in the Los Angeles area, 5.7 percent in New York City and 13.7 percent in the Miami area.

Texas didn't participate in the housing-



price boom. Its median home price was \$136,300 in 2005, up a modest 14 percent from 2001. As prices at the national level rose, Texas' relative affordability increased. The Housing Opportunity Index stood at roughly 60 percent in the Dallas, Houston and Austin areas, well above the nation's 41 percent.

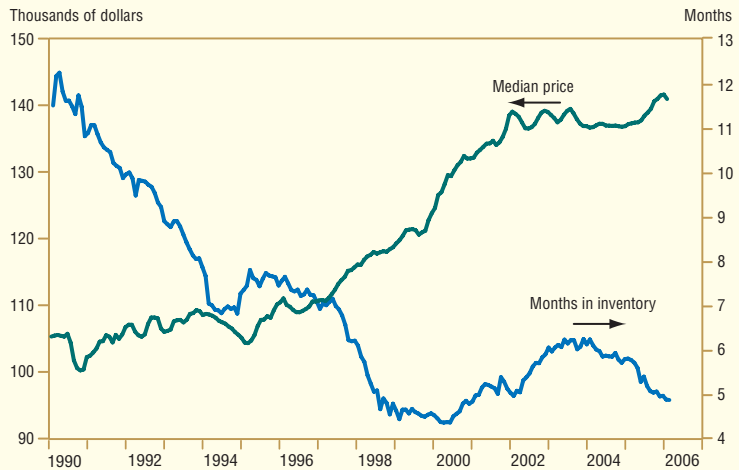
The key reason Texas didn't experience the huge price gains of California, Florida and other states is ample supply. Texas has a low population density, with plenty of open land around its major metros. Moreover, barriers to construction are

relatively few. The Texas market presents a marked contrast to such areas as the Pacific Coast, where tight supplies of vacant land and tougher zoning make building difficult. In Texas, the ready availability of land and low entry costs attract homebuilders, creating a competitive marketplace that helps keep a lid on price increases.

With the Texas economy sluggish and high-tech industries languishing through 2003 and into 2004, housing demand got a boost from low mortgage rates, but not enough to strain home supply. Existing home inventories rose from 4.3 months of

Chart 5

### Shrinking Inventories of Existing Homes Push Up Prices in Texas Single-Family Market



*The risk of a housing price correction appears much smaller in Texas than in other areas of the U.S.*

sales in mid-2000 to 6.2 in early 2004, while new homes were being added to the housing stock.

As the economy improved dramatically in 2005, new and existing-home sales picked up because of faster job growth, move-up buyers, and migrants from the West Coast and other regions. As demand ran ahead of supply, existing-home inventories began shrinking, retreating to a four-year low of 4.8 months by early 2006 (Chart 5).

Texas' existing-home prices remained relatively flat from mid-2001 through 2004—a time when U.S. prices were soaring. Yet, over the six months ending in March 2006, the state's median existing-home price, adjusted for inflation, rose slightly, while the national average fell (Chart 6).

Signs of scattered price increases are showing up in the new-home market as well. Although data are limited, homebuilders say they're raising prices where local economies are growing rapidly, including El Paso, Austin and San Antonio. Rising construction costs may also contribute to upward pressure on prices. Texas homebuilders cite higher energy prices and shortages of material and labor, partly due to hurricane rebuilding efforts. Despite increased construction activity, builders say overall inventories remain at reasonable levels, although the stock of unsold homes has risen for the

lower-priced homes favored by first-time buyers.

### Texas-Sized Bubble?

The risk of a housing price correction appears much smaller in Texas than in other areas of the U.S. While prices are high relative to per capita income in California, Florida, New York and even the nation as a whole, the price-to-income ratio remains flat in Texas, suggesting houses are more affordable here (Chart 7). The PMI Mortgage Insurance Co.'s U.S. Market Risk Index—a measure of vulnerability to future price declines—ranks Texas' five major metros in the bottom 15, far below cities on the East and West coasts. San Diego, Santa Ana and Riverside, Calif.; Nassau-Suffolk, N.Y.; and Boston fill the index's top five spots.

Despite its recent strength, the housing market in Texas faces several challenges. Long-term mortgage rates have moved up, making buying more expensive and dampening the first-time market. Further increases could dull demand in other price ranges as well. As rates rise, consumers who purchased homes with adjustable-rate mortgages are beginning to see higher monthly payments. Families unable to afford the higher payments could lose their homes to foreclosure, adding to inventories and slowing price increases.

Moreover, higher costs may lessen

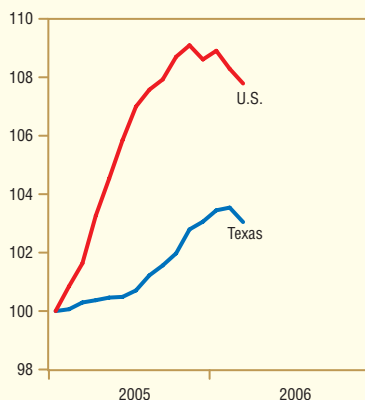
homebuilders' zeal. Construction materials are becoming more expensive, and the hurricane rebuilding now getting under way may mean shortages and still higher prices. Elevated energy prices, while good for Texas overall, could add to the cost of building and maintaining a home.

Additionally, the labor market may get tighter. Workers are migrating to hurricane-damaged areas, and it is unclear how immigration reform will affect access to workers. (Undocumented workers make up 14 percent of all those employed in construction occupations, according to the Pew Hispanic Center.)

Despite the challenges, the housing market should fare better in Texas than in many other parts of the country. While many business contacts' year-end 2005 forecasts predicted lower starts and sales this year, demand has yet to slacken much. Last year's strong homebuilding and home-buying activity continued through the first quarter of 2006. Beige Book contacts in the housing industry are positive in their outlooks, especially with the recent pickup in job growth and anecdotal reports of growing in-migration. Even if rising mortgage rates subdue Texas home demand in 2006, the state's housing industry can still look forward to one of its best years on record.

**Chart 6**  
**Texas Outpaces U.S. Average in Real Median Price Gains for 6-Month Period**

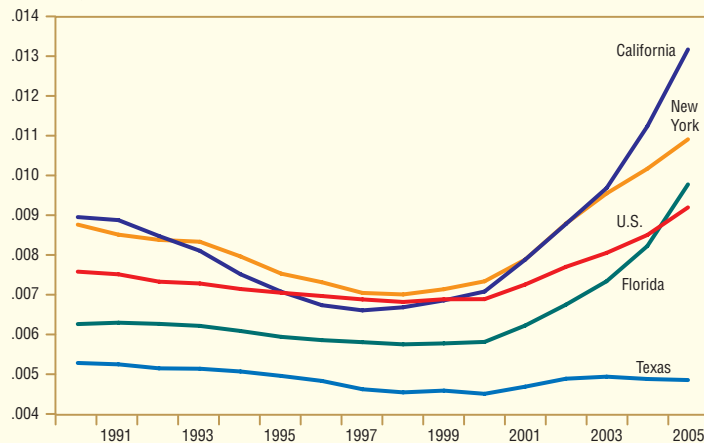
Index, January 2005 = 100



NOTE: These are four-month moving averages.  
SOURCES: Texas A&M Real Estate Center; Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

**Chart 7**  
**Texas Housing Market Relatively Affordable**

Affordability ratio



NOTE: The affordability ratio is the housing price index (indexed to 1983) divided by per capita personal income.  
SOURCES: Office of Federal Housing Enterprise Oversight; Bureau of Economic Analysis; Federal Reserve Bank of Dallas.

Texas' strengthening economy and cost advantages over other parts of the country appear to be bolstering housing demand in the Lone Star State. Over the long term, strong housing fundamentals are likely to persist. Compared with the nation as a whole, the state offers a faster-growing, younger and more diverse population. It also has a central location and warm weather. All these factors portend a rising rate of home ownership in coming years.

*Petersen is an associate economist in the Research Department of the Federal Reserve Bank of Dallas.*

## Notes

The author thanks Anna Berman for research assistance and David Brown of Metrostudy for sharing housing data and other useful information. Keith R. Phillips provided helpful comments.

<sup>1</sup> "Empty Spaces: Are Texas Office Markets on the Road to Recovery?" by D'Ann Petersen, Federal Reserve Bank of Dallas *Southwest Economy*, March/April 2005.

<sup>2</sup> "Making Sense of Elevated Housing Prices," by John V. Duca, Federal Reserve Bank of Dallas *Southwest Economy*, September/October 2005.

<sup>3</sup> "Has the Housing Boom Increased Mortgage Risk?" by Jeffery W. Gunther and Robert R. Moore, Federal Reserve Bank of Dallas *Southwest Economy*, September/October 2005.

<sup>4</sup> A new federal rule that allows a tax-free capital gain of \$500,000 when selling a house may have contributed to increased out-of-state investment in Texas housing.

## Globalization and Public Policy

Dallas Fed chief economist W. Michael Cox discusses how the increasing integration of the world economy goes hand-in-hand with sound money, efficient regulation and other policies that promote economic growth and freedom.

**Q: What do you mean by globalization?**

**A:** The term describes the freer movement of goods, services, people and ideas across international borders. It's been going on all around us for quite some time, but it has accelerated in the last decade or two.

Trade between countries as a percent of gross world product has risen from just 15 percent in 1986 to nearly 27 percent today. As a percent of gross world product, the stock of foreign direct investment has nearly quadrupled since 1986, and the stock of portfolio investment is up by a multiple of eight.

We're not only seeing more trade and investment but also more personal contacts. In 1950, just one visitor arrived in another country for every 100 residents. By the mid-1980s, there were six; today, the number is double that.

Global communication is where we see some of the biggest advances. The spread of the Internet, e-mail, computers and cell phones connects an increasingly multilingual global economy. Since 1991, international telephone traffic has more than tripled, while cell phone subscribers have grown from virtually zero to 1.8 billion people—30 percent of the world's population—and Internet users will soon top 1 billion.

This rapid globalization is changing the way the U.S. economy works. So we have to change our thinking. The old analytical models and policy rules are no longer adequate in a world where geographic and political barriers are no longer economic barriers. When Richard Fisher became Dallas Fed president in 2005, he shifted our research focus to globalization. Over the past year or so, the economics team has begun to delve into various aspects of globalization. It's an exciting



new research world, and there is much to learn, with potentially new guideposts for the conduct of monetary policy.

**Q: How does globalization influence economic performance?**

**A:** Globalization affects economies in two broad ways. The first largely involves the private sector, where self-interest and incentives lead companies and individuals to efficiently produce what consumers want. Globalization means more competition, greater specialization and expanding markets, which increase productivity and spark innovation. They, in turn, raise living standards. Adam Smith became the father of modern economics by bringing the world this brilliant insight in his book *The Wealth of Nations*.

The second way globalization raises living standards—less heralded though no less important—is by disciplining the public sector. Because globalization entails greater mobility for factors of production, it puts governments in direct competition for the planet's productive resources—capital,

labor, businesses and ideas. Nations that run their economies more effectively will benefit by attracting more of those resources; those that shackle the private sector will see key factors of production drain away.

**Q: Can you measure globalization's impact on public policies?**

**A:** Economic performance is influenced by how governments raise taxes, spend money, regulate business, treat investment, encourage innovation, enforce the rule of law and protect property rights through the judicial system. Policies regarding money and inflation, international trade and investment, immigration, energy, education and labor—they, too, have an impact on the economy. And don't forget the issue of stability—the consistency of policies over time.

Researchers at the World Bank, the Fraser Institute, Harvard University, the Heritage Foundation, Transparency International and other think tanks have done excellent work in rating nations on a wide range of policies. Harvard's Institute for Strategy and Competitiveness, for example, tells us that the United States, the Netherlands and Singapore offer the best environment for innovation, while Bangladesh, Peru, Nigeria and Romania are the worst.

With all these data, we can probe for links between globalization and policy. The management consulting firm A.T. Kearney and *Foreign Policy* magazine publish a globalization index, ranking roughly 60 countries from least to most globalized. The U.S. comes in fourth, behind Singapore, Switzerland and Ireland. Iran comes in last.

**Q: And you found?**

**A:** In general, the countries that are more globalized tend to pursue better economic policies. They don't do it because they're more enlightened, although they may well be. They do it because it is the way to hold



*“Rapid globalization is changing the way the U.S. economy works. So we have to change our thinking.”*

and attract the mobile factors of production that will make their economies more competitive, spur growth and job creation, and improve their living standards.

**Q: Can you give us a specific example?**

**A:** Inflation. From 2001 to 2003, the most globalized quarter of nations had average annual inflation of just 2.3 percent. The average inflation rate rose to 3.1 percent for the second group, 6.2 percent for the third group and 10 percent for the least globalized quarter. This is no accident. The much-respected Economic Freedom of the World index, developed by the Fraser Institute, shows that more-globalized nations tend to pursue sounder monetary policies.

Inflation is largely a monetary phenomenon, but globalization changes the economic environment in which central banks operate. Money is probably the most mobile factor of production—it can now cross borders with a click of a computer mouse. Open capital and foreign exchange markets allow investors to move funds quickly in search of the highest rates of return, *net of inflation*. Nations that don't want to lose out wisely toe the line by adopting new anti-inflationary policies.

**Q: What about other public policies?**

**A:** Globalization raises the bar. The world's most globalized nations tend to have fewer restrictions on international trade, more open capital markets, fewer and better-administered regulations, a more favorable corporate tax environment and better policies to promote innovation.

Where you find the greatest degree of globalization, you also find policies that support more accountability in the private and public sectors, courts that recognize property rights and enforce the rule of law, governments that are run more effectively and are less corrupt, and government policies that tend to be more stable.

The pattern is remarkably regular—step by step, as countries become more

globalized, they are more likely to pursue the policies that contribute to successful market economies. Of course, there is a chicken-and-egg question of whether globalization improves public policy or nations with better policies are more successful at globalization. It's probably both.

**Q: Are all policies positively linked to globalization?**

**A:** An important exception is labor policies. In general, labor market flexibility doesn't improve with globalization, although the United States and other countries at the very top of the globalized rankings tend to have better policies, with the fewest restrictions on hiring and firing.

The United States doesn't penalize companies when workers lose their jobs, while employers in many other countries face significant burdens. The cost of giving advance notice, severance and other penalties, measured in terms of workers' pay, is 165 weeks in Brazil, 112 weeks in Turkey, 90 weeks in China and 79 weeks in India. The importance of nimble labor markets in today's increasingly interconnected world is still something policymakers in many countries must learn.

Other exceptions involve fiscal policy. Government transfers and subsidies become more common as nations become more globalized, and personal income taxes become more burdensome as well. The most globalized nations have had some success in reducing the size of government. Beyond that, though, governments tend to get bigger as nations become more globalized.

Why does fiscal policy tend to worsen with globalization? There are no definite answers, but the explanation might be as simple as factor mobility. When immigration laws prevent workers from voting with their feet, governments can tax individuals, then use the money for transfers and subsidies to attract more mobile resources. Such policies aren't sustainable in the long term, and many governments need to get their fiscal act under control.



We don't know about some other policies—immigration, energy and education, for example. Indicators on these don't exist. On balance, though, the world does have the answer about globalization, factoring in both the private and public sectors.

**Q: So why are so many people in America and elsewhere uneasy about globalization?**

**A:** It's partly because globalization, like new technology, brings economic change. Whether we're talking about innovation or opening markets, economic change creates anxiety because it means some jobs, companies and industries will fade while others rise to take their place.

It's also because globalization isn't well understood. People often can see the downside of globalization—in, say, lost jobs—but even when they see an economy growing strongly with low inflation, they don't necessarily attribute the good times to globalization.

Using data from the World Bank and Fraser Institute, we can show that, for the world as a whole, per capita income and economic freedom have both been increasing as globalization has spread in recent decades. We should celebrate, not denigrate, globalization because it generally reflects better government policies, leading to higher living standards and freer people.

*A more detailed exploration of this topic can be found in “Racing to the Top: How Global Competition Disciplines Public Policy” in the Dallas Fed’s 2005 annual report. It’s available on the Bank’s web site at [www.dallasfed.org](http://www.dallasfed.org).*

## Two Views on How Texans Are Doing

Texas employment grew by 3 percent last year, adding to job gains of 2 percent in 2004. The healthy demand for labor has shown up in Texans' paychecks, with real wages increasing between 1 and 2 percent from 2003 to 2005.

These trends are consistent with the behavior of state earnings over the last decade or so. Both firm- and household-based data show wages to be procyclical—rising strongly during the economic boom of the late 1990s and falling after the 2001 recession. Wages bottomed out in 2003 before starting their rebound in 2004 (*Chart A*).

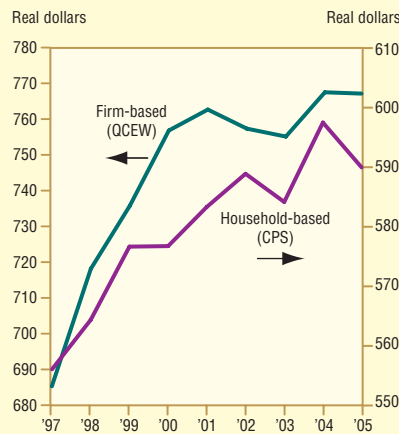
While the two measures of wages move together over the business cycle, they indicate very different earnings levels. The firm-based data show the average weekly wage in Texas was \$767 in 2005, compared with the household data's median weekly wage of \$590.

The discrepancies hold up in comparisons with U.S. wage levels. While firm-based wages in Texas were 98 percent of the national average in 2005, household-based earnings were only 91 percent of the U.S. level (*Chart B*).

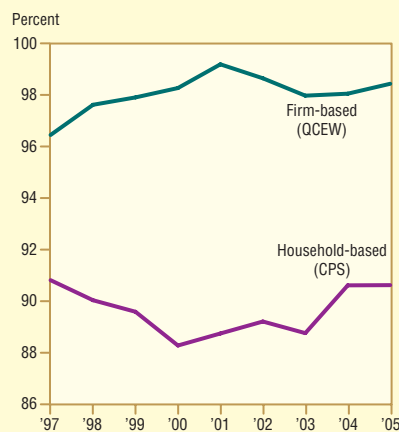
The two measures offer contrasting views of Texans' earning power. One shows the state's wages are relatively high and have virtually converged to national levels. The other suggests lower wage levels that lag further behind the nation.

The differences arise from data sources and methodology. Firm-based wage data, compiled by the Bureau of Labor Statistics from state unemployment insurance records, are drawn from quarterly reports by business establishments on employment and wages of full- and part-time workers. These Quarterly Census of Employment and Wages (QCEW) statistics exclude workers not covered by unemployment insurance—many of the self-employed, most agricultural workers on small farms, all members of the armed forces, most railroad employees, some domestic help, most student workers at

**Chart A**  
**Two Measures of Texans' Weekly Pay**



**Chart B**  
**Texans' Pay as a Share of U.S.**



NOTE: Texas data deflated using CPI-U South; U.S. data deflated using CPI-U; 2005 QCEW wage based on first three quarters.  
SOURCES: Current Population Survey and Quarterly Census of Employment and Wages, Bureau of Labor Statistics.

schools and employees of small nonprofit organizations. The data also don't capture those working off the books, some of them illegal immigrants.

Household-based median weekly wages are annual averages of monthly responses in the BLS' Current Population Survey (CPS). These data cover only full-

time wage and salary workers, so they don't pick up all those left out of the establishment data. They do, however, include all sectors and those working off the books, such as some household employees, farm and construction laborers, and some undocumented immigrants.

The household-based wage reports *median*, not *average*, earnings. Because income inequality is greater in Texas than in many other states, median wages are farther below average wages.<sup>1</sup> The household earnings are also depressed because individuals typically underreport their earnings. If those working off the books—and others excluded from the establishment data—earn relatively low incomes, the household wage measure would be reduced even more.

Although the establishment and household data may indicate different wage levels, both show recent gains, reflecting Texas' improving economic performance. Increases in these measures would likely be greater if they included fringe benefits, such as health insurance and retirement benefits.

Over longer periods, wages are an important gauge of living standards. In Texas, where workers typically earn less than the U.S. average, observers closely follow changes in earnings for signs of ebbing or convergence. Closing the gap with the U.S. doesn't hinge on individuals' raises, but rather on changes in the state's economic structure that replace relatively low-wage jobs with more highly paid, highly skilled ones.

—Pia Orrenius and Anna Berman

## Note

<sup>1</sup> "Pulling Apart: A State-by-State Analysis of Income Trends," by Jared Bernstein, Elizabeth McNichol and Karen Lyons, Washington, D.C.: Center on Budget and Policy Priorities and Economic Policy Institute, January 2006, available at [www.epinet.org/studies/pulling06/pulling\\_apart\\_2006.pdf](http://www.epinet.org/studies/pulling06/pulling_apart_2006.pdf).

# Border Benefits from Mexican Shoppers

By Jesus Cañas, Roberto Coronado and Keith Phillips

**A**long the U.S.–Mexico border from Brownsville to San Diego, more than 665,000 people cross from one country to the other every day to work, study, visit family and shop. U.S. citizens travel into Mexico to find bargains, have dinner, get a haircut and go to the dentist. Mexicans venture north to buy items ranging from groceries to high-end fashions.

The Mexican shoppers are big business for U.S. cities on or near the border. Unlike retailers in most interior U.S. cities, stores in Laredo, El Paso, Nogales and other border towns are actually an export industry—in most years contributing to a U.S. trade surplus in cross-border shopping. The retail export industry provides employment for workers with low and moderate skills and helps explain why job growth in some areas along the border has been among the fastest in the nation since the 1980s.

Because cross-border shopping is so important to local economies, businesses, workers and community leaders are interested in such issues as the size of retail activity, its impact on the local economy and the factors that determine its growth. Researchers have studied the close link between the value of the peso and the ebb and flow of cross-border retailing. Another, more recent concern is the impact on retailing of more stringent border controls resulting from America's campaign against terrorism.

These topics formed the core of a January conference in San Antonio that brought together scholars and industry experts on cross-border shopping activity. It was hosted by the Federal Reserve Bank of Dallas, through its San Antonio and El Paso branches, and cosponsored by the Federal Reserve Bank of Chicago's Detroit Branch and the International Council of Shopping Centers.

The presentations shed light on the status of cross-border shopping and identified factors that may shape its future.

## Cross-Border Shopping's Impact

Most sales to Mexican nationals are in cash, making it difficult to measure cross-border shopping activity along the U.S.–Mexico border. To produce an estimate, Banco de México conducts surveys at border crossing points, asking returning individuals how much they spent in the United States or Mexico. In most years, Mexican shoppers spend more money on the U.S. side of the border than U.S. shoppers spend on the Mexican side (*Chart 1*).

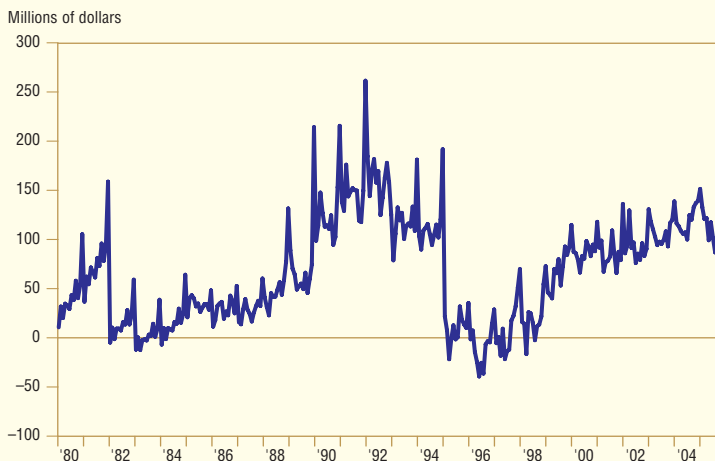
Dallas Fed assistant economist Roberto Coronado took a different approach to measuring cross-border shopping. He used local personal income and employment to estimate the purchasing power of local residents. If an area's retail sales are larger than what local residents are spending, the difference is likely due to shopping by Mexican nationals.<sup>1</sup>

Coronado estimated net exported retail sales for El Paso, Laredo, McAllen and Brownsville from the late 1970s to 2001. Mexicans accounted for \$2.3 billion a year

*The retail export industry provides employment for workers with low and moderate skills and helps explain why job growth in some areas along the border has been among the fastest in the nation since the 1980s.*

**Chart 1**

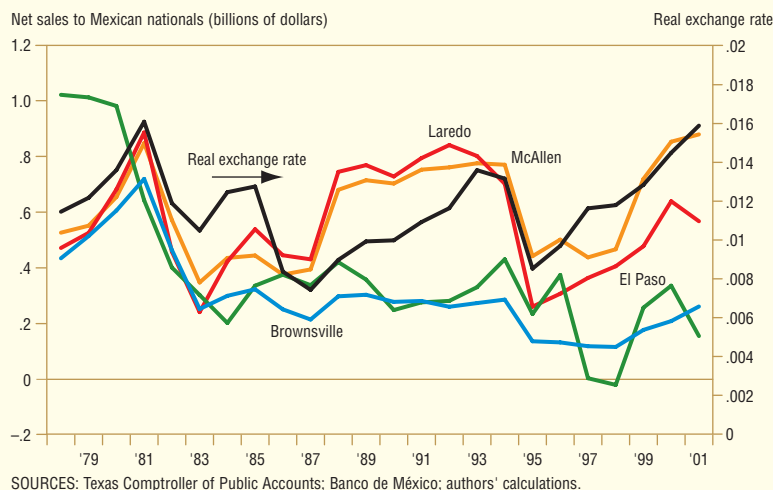
### U.S. Running Surplus in Cross-Border Shopping



NOTE: The trade balance is a six-month moving average.

SOURCE: Banco de México.

**Chart 2**  
**Peso Fluctuations Impact Border Retail Sales**



in retail spending—26.4 percent of total retail trade in the four border cities and about 2 percent of Texas' overall retail sales. Laredo depended most on cross-border business, with 51 percent of its retail sales going to Mexican shoppers. McAllen followed at 36 percent, Brownsville at 26 percent and El Paso at 11 percent.

Why the large differences? Coronado suggested two reasons. First, Laredo, McAllen and Brownsville get the bulk of their nonresident retail sales from the Mexican interior, mostly shoppers from Monterrey, the country's third-largest city. Second, El Paso is the biggest of the four Texas border cities, and therefore the size of Mexican spending relative to local spending is not as large.

Exchange-rate fluctuations can quickly make goods and services across the border either cheaper or more expensive for international shoppers. As a result, retail sales to Mexican nationals are sensitive to swings in the peso's value (*Chart 2*). The sensitivity, however, isn't uniform across the border cities. Coronado found that retail trade in Laredo, McAllen and Brownsville is highly affected by changes in the value of the peso, while the El Paso retail sector is not.

Suad Ghaddar, an economist with the Center for Border Economic Studies at the University of Texas–Pan American, estimated Mexican visitors' economic impact on South Texas' Rio Grande Valley at \$3

billion in 2004, including both direct and indirect spending.<sup>2</sup> These expenditures supported more than 64,000 jobs. On the California border, Ghaddar put Mexican nationals' total impact at about \$4.5 billion, supporting 67,000 jobs. Jobs tied to cross-border retail trade account for a large portion of employment in some areas—39 percent in California's Imperial County and 17 percent in Texas' Webb County, for example.

Alberta Charney, research economist with the University of Arizona's Economic and Business Research Center, concluded that direct spending by Mexican visitors to Arizona totaled \$963 million in 2001.<sup>3</sup> With ripple effects, the economic impact rose to nearly \$1.6 billion. The visitors came mostly from the adjacent Mexican state of Sonora, and 86 percent of the Mexican spending took place in the Arizona border counties of Pima, Santa Cruz, Yuma and Cochise.

In 2001, Charney conducted a year-long survey of Mexican visitors leaving Arizona at border ports of entry in San Luis, Lukeville, Sasabe, Nogales, Naco and Douglas and international airports in Phoenix and Tucson. She reported that 72 percent of the respondents gave shopping as the primary reason for their trip, followed by work, at 14 percent, and family visits, at 8 percent. All told, 41 percent of their shopping took place in department stores and 25 percent in grocery stores.

## Influences on Retailing

Coronado showed that the peso's value creates swings in U.S.–Mexico cross-border retailing. Jeff Campbell, a senior economist with the Federal Reserve Bank of Chicago, indicated the same is true on the U.S.–Canada frontier. According to Campbell, demand shocks from changes in the real exchange rate are more likely to impact the number of businesses than the number of employees per business.<sup>4</sup> His results highlight the turbulence created on international borders by large exchange-rate movements. For a given loss of employment, the effects on real estate, banking and other sectors are likely to be larger for shocks that put retailers out of business than for those that simply reduce retail employment.

John Hadjimarcou, a marketing and management professor at the University of Texas at El Paso, went a step further, studying not only the consequences of currency devaluations but also the impact of cross-border competition in the retail sector.<sup>5</sup> Out of a sample of 200 El Paso retailers, 176 completed a survey, with 54.5 percent indicating that at least half their sales were to Mexican nationals.

Hadjimarcou found that retailers concerned about exchange-rate fluctuations tailor their product mix to attract Mexican customers. He was surprised to learn, however, that El Paso retailers don't pay much attention to competitors on the Mexican side of the border. In a follow-up survey, he discovered this is because they believe the Mexican stores cannot offer the same quality, range of merchandise, atmosphere and prices.

Richard Adkisson, economics professor at New Mexico State University, focused on the U.S.–Mexico border in studying retail trade after implementation of the North American Free Trade Agreement in 1994.<sup>6</sup> Because NAFTA lowered trade barriers between the two countries, more U.S. products and retailers are available in Mexico, reducing the demand for retail goods on the American side of the border. Adkisson found a drop in retail sales of some items on the U.S. side under NAFTA, particularly groceries and furniture. Because a sharp peso devaluation occurred as NAFTA went into effect, however, it is difficult to determine whether the sales decline was due to NAFTA or the devaluation.



## Retailing in the Age of Terrorism

The terrorist attacks of Sept. 11, 2001, changed life along the U.S.–Mexico border. Tougher security measures have resulted in long waits at entry points and fewer crossers. The number of people traveling from Mexico into the U.S. declined from 290 million in 2000 to 253 million in 2002. The most recent data available show that number dropped to 242 million in 2004. While the number of people crossing has fallen 16.5 percent since 2000, retail trade along the border has actually increased since 9/11.

Tom Fullerton, economics professor at the University of Texas at El Paso and director of the Border Region Modeling Project, has developed an econometric model to measure the impact of 9/11 on El Paso's economy.<sup>7</sup> The results indicate that tighter border control has reduced some categories of cross-border bridge traffic, especially passenger vehicles. Retail sales grew over the same period, however, suggesting that fewer trips by Mexican nationals to El Paso may be offset by increased sales per shopper.

J. Michael Patrick, director of the Texas Center for Border Economic and Enterprise Development at Texas A&M International University, argued that 9/11 had a short-lived, negative impact on cross-border shopping. U.S. border retail sales grew 3.7 percent in 2001, he said, even though northbound traffic by foot fell 17.9 percent and by vehicle 24.4 percent between September and November 2001.

Patrick pointed to other factors with the potential for long-term impact, such as the US-VISIT program, which checks the digital fingerscans and photos of those seeking visas against a database of known criminals and suspected terrorists. When the visitor arrives at the port of entry, the fingerscans are used to verify that person is the same one who received the visa. Entry procedures have been fully implemented since the end of last year, with few major problems. Exit procedures, however, are still being tested. Although the government touts the program as a way to enhance security and facilitate legitimate travel and trade, many worry it will adversely affect the border economy.

Patrick expects retailing along the U.S. border to continue growing, driven mostly by healthy population increases in the region. This growth could be significantly

hampered, however, if US-VISIT exit procedures are inefficient. Patrick estimates that a 10 percent decline in northbound crossings due to US-VISIT would reduce retail sales in Texas border cities by \$760 million, or 2.2 percent.

## The Future of Cross-Border Retailing

Deborah Fowler of Texas Tech University, Frances Ortiz Schultschik of the San Antonio Convention and Visitors Bureau, Greg Souquette of H-E-B Grocery Co., Ted Omohundro of Prime Retail and Michael Niemira of the International Council of Shopping Centers sat on a panel to discuss trends in cross-border retailing.

They agreed that Mexico's retail industry is undergoing a major transformation. The number of high-end stores in large Mexican cities is growing, giving their U.S. counterparts more competition. U.S. retailers still have the edge because they carry a greater variety of items, have the latest styles and often sell at significantly lower prices. These advantages may erode as Mexico's retail industry evolves.

To remain competitive with Mexican stores and other U.S. markets, panelists agreed, border cities and retailers seeking cross-border shoppers must focus on customer service. San Antonio and Houston are among the many U.S. cities with tourism bureaus or chambers of commerce that offer travel packages from Mexico that include airfare, hotel, shopping trips, and such extras as tourist activities and health care. Such package deals, combined with personal customer service, will be a necessary component of marketing to the Mexican shopper in the future.

Crossing borders usually involves inconveniences, but shoppers make the trip when retailers in another country offer better prices, selection or service. For the U.S.–Mexico border region, these differences have led to billions of dollars in business. As the gaps between the two economies shrink—and, in particular, as retailing in Mexico becomes more sophisticated—the character of cross-border shopping may change, presenting challenges to businesses on both sides.

*Cañas and Coronado are assistant economists at the El Paso Branch and Phillips is a senior economist and policy advisor at the San Antonio Branch of the Federal Reserve Bank of Dallas.*

## Notes

Presentations from the "Cross-Border Shopping Activity" conference can be found on the Dallas Fed web site, [www.dallasfed.org/news/research/2006/06crossborder.html](http://www.dallasfed.org/news/research/2006/06crossborder.html).

<sup>1</sup> "Texas Border Benefits from Retail Sales to Mexican Nationals," by Keith R. Phillips and Roberto Coronado, in *The Face of Texas*, Federal Reserve Bank of Dallas, October 2005.

<sup>2</sup> "The Economic Impact of Mexican Visitors to the Lower Rio Grande Valley 2003," by Suad Ghaddar, Chad Richardson and Cynthia J. Brown, Center for Border Economic Studies, University of Texas–Pan American, Technical Report, May 2004.

<sup>3</sup> "The Economic Impacts of Mexican Visitors to Arizona: 2001," by Alberta H. Charney and Vera K. Pavlakovich-Kochi, University of Arizona, Research Study, July 2002.

<sup>4</sup> "Real Exchange Rate Fluctuations and the Dynamics of Retail Trade Industries on the U.S.–Canada Border," by Jeffrey R. Campbell and Beverly Lapham, *American Economic Review*, vol. 94, September 2004, pp. 1194–1206.

<sup>5</sup> "Retailing to Foreign National Consumers in the Border Zone: The Impact of Currency Devaluation and Cross-Border Competition," by John Hadjimarcou and John W. Barnes, *Journal of Global Marketing*, vol. 11, no. 3, 1998, pp. 85–106.

<sup>6</sup> "Retail Trade on the U.S.–Mexico Border During the NAFTA Implementation Era," by Richard V. Adkisson and Linda Zimmerman, *Growth and Change*, vol. 35, Winter 2004, pp. 77–89.

<sup>7</sup> "Empirical Evidence Regarding 9/11 Impacts on the Borderplex Economy," by Thomas M. Fullerton Jr., University of Texas at El Paso, Working Paper, 2006.

**QUOTABLE** *“Natural gas in storage is headed toward an all-time high by late fall. That has pushed natural gas prices to lows more consistent with \$40 oil than \$70 oil.”*

—Stephen P. A. Brown, Director of Energy Economics

## TEXAS ECONOMY: New Data Show Output Grew 4.3 Percent in 2005

A few weeks after each quarter ends, the Bureau of Economic Analysis issues initial estimates of the nation's output, or gross domestic product. It takes considerably longer for the BEA to pull together its first readings on each state's economy, captured as gross state product.

The BEA's first look at 2005 state-level growth was released in early June. Arizona led the way, with an 8.7 percent increase in gross state product. Texas' economy grew 4.3 percent—16th best in the country and 0.8 percentage point faster than the nation as a whole.

The results follow historical norms. For much of the past century, Texas' employment and output have grown faster

than the nation's, largely because of the state's attractive business climate, transportation facilities and low cost of living.

The BEA also revised Texas' 2004 growth upward, now estimating that state output rose 5.1 percent, almost a full percentage point faster than the rest of the country. A strong performance by the state's manufacturing sector was key to the good showing.

Texas' 2003 growth was revised downward, however. It's now estimated at 1.4 percent, almost half the U.S. rate. The state, just emerging from recession at the time, lagged the nation in recovery. Texas employment fell in 2003, while the nation added jobs.

## ENERGY: Drilling Activity Responds to High Prices

High energy prices are spurring Texas oil and gas exploration, sending a key measure of drilling activity to its highest level in two decades.

Baker Hughes' weekly rig count rose to 749 in early June, capping a steady rise that saw the indicator cross 500 in July 2004, 600 in June 2005 and 700 in April 2006. The count sank below 200 in early 1999.

Well permits filed with the Texas Railroad Commission suggest the pace of exploration will remain strong. They've been above 1,000 a month since November 2004 and averaged nearly 1,300 the first four months of this year. From 1990 to late 2003, permits never hit 1,000 a month.

The key, of course, is energy prices. Oil has been hovering around \$70 a barrel in recent months. Natural gas, although down sharply from its 2005 peaks, still sells for around \$6 per million Btu, well above what it was a few years ago.

The hottest section of the state for drilling stretches from Abilene, through the Dallas–Fort Worth metroplex and into East Texas. This swath, which includes the Barnett Shale gas reserves outside Fort Worth, accounted for three-quarters of the net increase in rigs over the past year.

Traditionally oil-rich West Texas has also seen a significant increase in drilling operations.

## MANUFACTURING: Survey Finds Sector Strong, Optimistic

The Dallas Fed's Texas Manufacturing Outlook Survey indicates the state's factories continued humming through the first five months of 2006.

Readings for production, capacity utilization, and new-order volume and growth have been strong since the beginning of the year, with May rebounds offsetting April dips. Most companies say they expect business to get better over the next six months.

The survey has been finding evidence of rising costs for raw materials and wages and benefits. In May, for example, 57 percent of responding companies reported an increase in raw materials prices. Most companies saw no change in prices received for finished goods that month, but the percentage of

firms reporting increases was up from the previous month.

In general, this year's survey participants have expressed optimism about the overall economy and their own companies, both for the present and six months ahead.

The Dallas Fed unveiled the Texas Manufacturing Outlook Survey in November, although data collection dates back to May 2004. Roughly 80 manufacturers regularly respond to questions about their Texas operations. Respondents come from all sectors of manufacturing, and no one industry dominates.

The Dallas Fed releases the survey each month. Complete information can be found on the bank's web site at [www.dallasfed.org/data/outlook/index.html](http://www.dallasfed.org/data/outlook/index.html).

## Texas Still Enjoying Economic Health

**T**exas' unemployment rate has hovered around 5 percent since the start of the year—the lowest reading since the state fell into recession in 2001. Labor force growth has been relatively strong, but enough new jobs have been created to absorb the increase in workers.

Since Texas' recession ended in July 2003, state job growth has exceeded the nation's as a whole by 0.8 percentage point a year. The gap breaks down this way: 0.7 percentage point comes from Texas firms expanding faster than their U.S. counterparts, and 0.1 percentage point owes to Texas' slightly larger share of fast-growing industries.

Overall, job growth numbers don't seem to show a strengthening labor market. Initial reports indicate Texas employment rose at an annualized rate of 1.8 percent for the first five months—weaker than last year's 3.1 percent rate.

Anecdotal reports, however, suggest the 2006 data have understated job growth, making it likely that the figure will be revised upward. During periods of recovery, initial

employment estimates are generally revised up. For example, for the five quarters ending in fourth quarter 2005, the average upward revision has been 1.2 percentage points.

Forecasts indicate Texas job growth for 2006 is likely to come in around 3 percent.

Additional evidence of the state's economic health can be found in the Dallas Fed's Texas Leading Index, which continues to signal expansion. The index's recent rise has been the result of increases in average weekly hours worked, the help-wanted index and oil prices, as well as a drop in new unemployment claims.

Construction activity is still strong. Homebuilding remains at high levels. Existing-home sales are healthy, despite a cooling in the Dallas–Fort Worth area, particularly for lower-priced homes.

Nonresidential construction picked up in recent months. In April, nearly half of Beige Book contacts reported they had started or planned to start major construction projects in 2006. Most firms said this year's construction spending was higher than last year's.

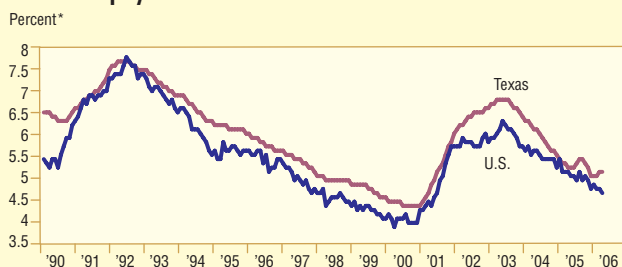
Capacity constraints are limiting growth in a few industries. The energy sector, for example, has been robust, but it faces shortages of rigs, equipment and skilled labor. Oil service firms report growing backlogs of unfinished work, and they are turning down jobs they can't schedule.

In addition, some manufacturing and service sectors are being crimped by shortages of skilled labor. Some contacts report difficulties in finding entry-level workers who meet basic qualifications, such as background checks and drug tests.

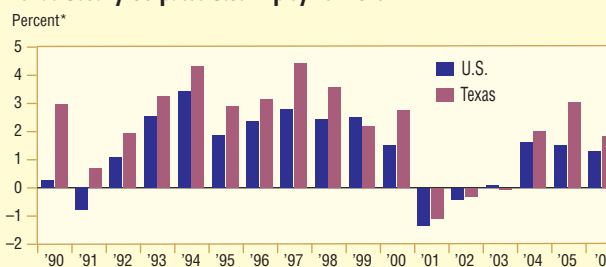
Some Texans may be facing financial strain. Gasoline prices have jumped sharply this year, driven up by rising crude oil prices and new regulatory requirements. Beige Book contacts in April and June reported that retail sales have been weakest among low-income consumers, who are spending a larger share of their disposable income on high utility and gasoline bills.

—Fiona Sigalla

### Texas Unemployment Rate at Post-Recession Low

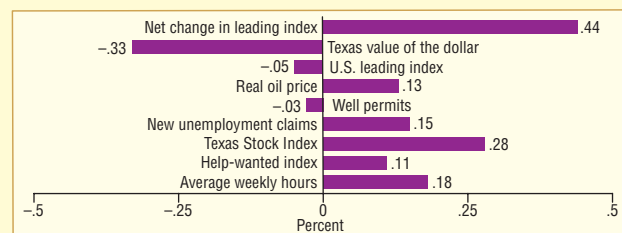


### Texas Usually Outpaces U.S. Employment Growth



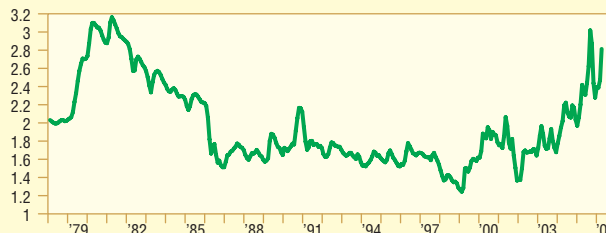
### Net Contributions to Changes in Texas Leading Index

February–April 2006



### Real Gasoline Prices Approach All-Time Highs

2006 dollars per gallon





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