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Our resilient and highly productive U.S. economy will rise above the current difficulties, but it is still important to understand them.

Prudent risk taking is the lifeblood of capitalism, especially in its American form, in which the new, the innovative and the more productive constantly sweep away the status quo. If we had not been a nation of risk takers, we would have never built our $14 trillion economy.

The necessity of risk taking has given rise to agents who service it, providing the means to assess, package and distribute risk. In the old days, their job was fairly straightforward. The agents packaged such instruments as letters of credit, bankers' acceptances, commercial paper, simple loans and stocks, life and property insurance and fixed-rate mortgages.

More recently, the menu of risk instruments expanded dramatically, thanks in part to technological and theoretical advances that allowed financial players to make computations and assess probabilities at lightning speeds. A lengthy period of abnormally low interest rates and the normal human instinct to seek higher yields stimulated the hunger for the new instruments.

The quest for higher investment returns led the market to create ever-more-exotic investment products, many of which were backed by home mortgages of dubious quality. These products were built on the presumption house prices would always rise. When this proved unsustainable, markets for these products buckled under their own weight. Other markets were soon dragged down with it.

Throughout history, we have witnessed many instances of excessive risk taking that were followed immediately by periods of extreme risk aversion. While this recent episode bears all the hallmarks of a classic boom–bust cycle, this round of speculation and financial amnesia seems to have been driven by an overreliance on statistical models and rating agencies, excessive liquidity and perverse incentives, all of which were compounded by complacency.

Our resilient and highly productive U.S. economy will rise above the current difficulties, but it is still important to understand them. In this issue of *Southwest Economy*, the "On the Record" interview features Harvey Rosenblum, our director of research and one of the people I most trust for analytical insight. His take on recent events reflects four decades spent at the Fed, monitoring the U.S. economy. Harvey's words of wisdom provide important and timely lessons.

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

Will New Business Tax Dull Texas' Competitive Edge?

By Jason L. Saving

The state implemented a version that's expected to raise more than twice the revenue of the old tax, changing both the number of businesses subject to taxation and the distribution of the burden across sectors.

In today's global economy, high corporate tax rates are more harmful than ever because it has become easier for mobile productive resources to cross borders in search of more favorable business climates.

Nations seem quite aware of this. The European Union's corporate tax rates have fallen by a third over the past decade, with five member states making cuts in 2006 alone. Asian nations, too, have responded to global competition by reducing the tax bite on business. In fact, all members of the Organization for Economic Cooperation and Development impose lower corporate tax rates than they did in the mid-1980s.

It's in this context—though not for this reason—that Texas recently revamped the franchise tax, its main vehicle of corporate taxation. This year, the state implemented a version that's expected to raise more than twice the revenue of the old tax, changing both the number of businesses subject to taxation and the distribution of the burden across sectors.

The new way of taxing businesses raises an important issue: Will it erode the Texas economy's highly competitive business climate?

Rates and Revenues

Texas introduced the franchise tax just over a century ago—in 1907. As originally conceived, it targeted corporate assets, and the same basic idea was retained through the years. The initial levy was only 0.05 percent—a nickel for each $100 of taxable capital.

Before this year's reforms, companies paid either 0.25 percent of taxable capital or 4.5 percent of "earned surplus," which roughly corresponds to a firm's net income. In fiscal 2006, the franchise tax raised $2.6 billion, or 8 percent of total tax revenue. This places the franchise tax among the state's four biggest revenue raisers, far behind the sales tax but slightly ahead of the natural gas production tax (*Chart 1*).

While some may assume the franchise tax affects most Texas businesses, the state comptroller estimates that only 6 percent of firms, or one in 16, have any liability. To some extent, this isn't surprising, given that three-quarters of Texas businesses are sole proprietorships that don't fall under the state's corporate code. The 6 percent figure represents only about half the Texas firms subject to U.S. corporate income taxes.

Revenue from the franchise tax hasn't kept up with an expanding Texas economy. Between 1997 and 2006, for example, nominal franchise-tax receipts grew at an annual rate of 4.2 percent, versus 6.6 percent for the overall state economy. Moreover, the franchise tax had the lowest growth rate of Texas' major taxes in the decade, partly because productive resources shifted toward sectors and legal forms that bear a relatively small share of the franchise-tax burden.

Reform Issues

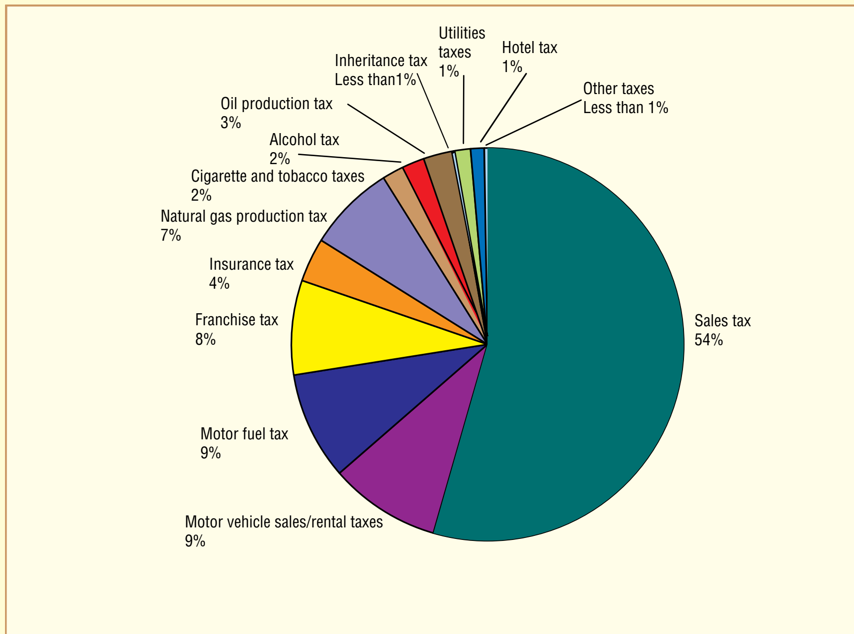
Economic theory suggests the tax code should treat similar businesses the same. When this doesn't occur, resources flow disproportionately to favored businesses and sectors, and overall economic activity falls below what it would have been in the absence of distortions.

One aspect of the franchise tax that produces unequal treatment is the legal status of businesses. For a variety of reasons, the franchise tax has never applied to sole proprietorships, which are generally small and comprise about three-quarters of Texas businesses.[1] The franchise tax also exempts partnerships and other noncorporate entities that share many of the economic characteristics of corporations.

These exemptions provide an incentive for businesses to operate as sole proprietorships or partnerships to escape franchise taxes—a spur that's particularly strong in states like Texas that don't levy personal income taxes.

Another feature of the franchise tax is the so-called Delaware sub loophole. By becoming a subsidiary of an out-of-state

Chart 1
Texas Tax Revenue, 2006



NOTE: Percentages don't add to 100 due to rounding.
SOURCE: Texas Comptroller, State of Texas 2006 Annual Cash Report.

holding company and funneling income to it, Texas firms can legally avoid most franchise-tax liability. Delaware has been a common choice as a headquarters state due to its favorable corporate tax laws. Former Texas Comptroller Carol Keeton Strayhorn once assessed the loophole's cost to the state treasury at about $300 million a year.

In addition, the franchise tax doesn't reflect the modern Texas economy. The tax's wealth-based nature imposes a relatively high burden on capital-intensive industries like manufacturing and mining but a relatively low burden on labor-intensive industries, such as construction and services.

Perhaps a justification could be made for this tax scheme in the early 20th century, when manufacturing and oil and gas constituted a substantial portion of Texas' economy. But in 2007, service-sector businesses made up two-thirds of the state economy, creating a situation in which similarly sized businesses had very different tax liabilities, depending on what they produced and how they produced it (*Chart 2*).

Do franchise taxes fall disproportionately on certain sectors of the Texas economy? The data say yes (*Chart 3*). Mining faces the highest franchise tax burden at $2,083 per employee, followed by utilities, transportation and information at $1,073 and manufacturing at $574. Construction, trade and "other services" (including professional and business services) pay between $97 and $308 per employee.

Similar but less dramatic trends hold when franchise tax burdens are measured in proportion to each sector's contribution to state gross domestic product. Mining's burden remains above average but is displaced by utilities, transportation and information as the highest, while construction and "other services" continue to face the lowest franchise tax burden.

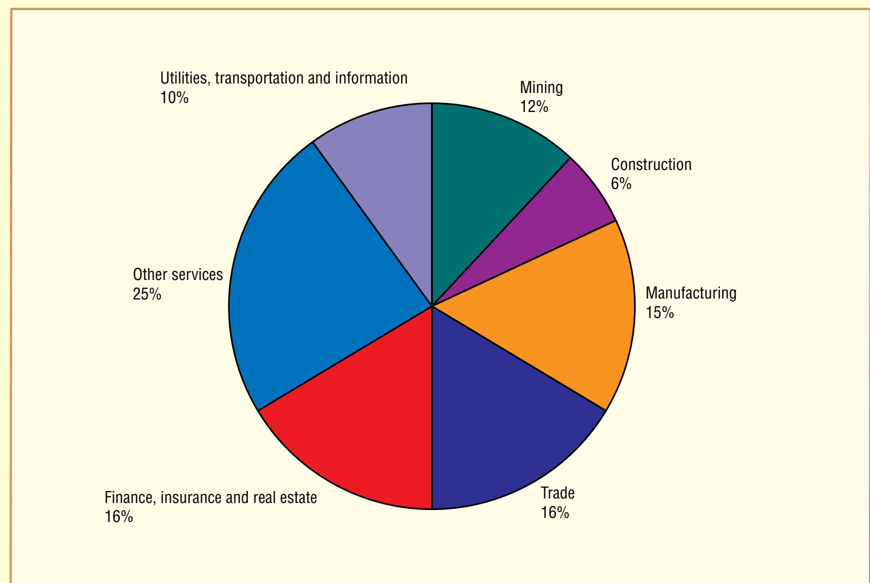
Services are increasingly important to the Texas economy, and low taxes provide a boost to the new engine of statewide growth. At the same time, public finance principles suggest it's inappropriate to offer preferential tax treatment to any sector because doing so hobbles the overall economy, even while potentially stimulating the favored sector.

A Tax Is (Re)born

Partly because of the resource-allocation issue, a succession of commissions, comptrollers and legislative committees urged franchise-tax reform for at least two decades. And on May 18, 2006, Gov. Rick Perry signed into law a bill that substantially revamped Texas' franchise tax.

The new version, which took effect Jan. 1, 2008, imposes a flat levy of 1 percent on "taxable margin," and it's for this reason that the revised franchise tax is often called a margin tax.[2] The new tax defines taxable margin as a firm's total revenue less one of two deductions—the cost of goods sold or compensation and benefits. Should neither be very large, firms can instead claim a

Chart 2
Texas GDP by Sector, First Quarter 2007



SOURCES: Bureau of Economic Analysis; Federal Reserve Bank of Dallas.

30 percent deduction, leaving an implicit levy of 0.7 percent on taxable margin.

Both capital-intensive and labor-intensive firms can substantially deduct their most important cost of doing business, so firms aren't penalized for producing a high volume of goods or hiring large numbers of people. Yet because this deduction doesn't include all costs of doing business, firms that lose money may still have tax liabilities—an important feature because the Texas Constitution prohibits corporate taxation based purely on income.

Cost of goods sold is the amount firms pay to produce or acquire merchandise, including storage costs, capital expenditures and labor compensation directly tied to production. Excluded are officer compensation, distribution and advertising expenditures, and payments made to undocumented immigrants.

The compensation and benefits category consists of cash payments to all employees, including managers, officers, owners, directors and partners, up to $300,000 per person. It also includes retirement plan and medical insurance expenditures as well as certain other outlays deductible under federal law, such as workers' compensation payments. As with cost of goods sold, no wages paid to undocumented immigrants can be included in the calculation, whether or not they worked on the books and paid federal income and payroll taxes.

How does a firm choose which deduction to take? While no generalization can be made, manufacturing-oriented firms will most likely find that cost of goods sold outweighs compensation, whereas service-oriented firms will find the opposite. Firms in between might find themselves at a competitive disadvantage, perhaps leading to spin-offs or further specialization.

The margin tax applies to partnerships and Delaware sub firms. As a result of these and other base expansions, the new tax is expected to hit about 12 percent of Texas firms, compared with the previous tax's 6 percent. Among the firms will be roughly half the state's non-sole proprietorships. Revenue is expected to rise by at least $3 billion in 2008, more than doubling the tax's 2006 intake of $2.6 billion.

Margin Tax's Burden

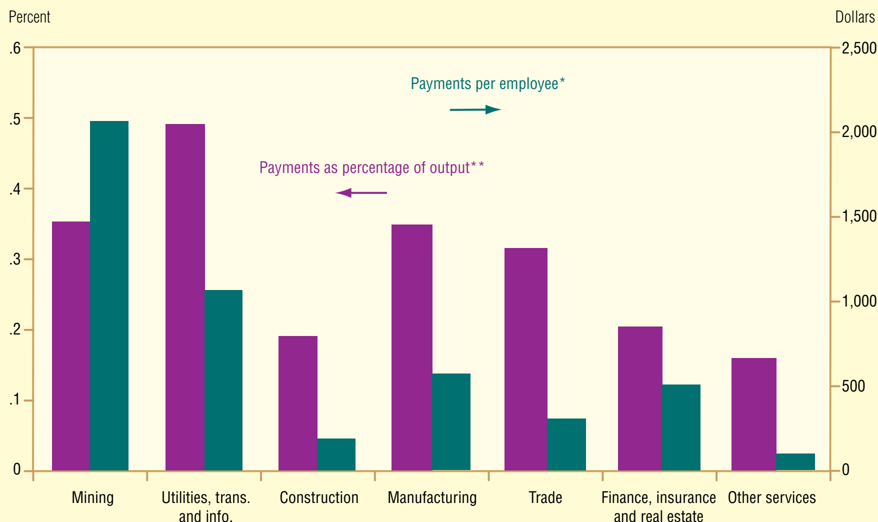
Public finance principles tell us that efficient tax regimes should be broad based and show no favoritism to particular sectors. And at first glance, the margin tax seems to satisfy these criteria: More businesses will pay the tax, and once-lightly taxed sectors are expected to shoulder a greater share of the burden.

This doesn't necessarily mean that the aggregate business tax burden will decline in every previously highly taxed sector. Some previously available exemptions won't be available under the margin tax, for

The margin tax applies to partnerships and Delaware sub firms. As a result of these and other base expansions, the new tax is expected to hit about 12 percent of Texas firms, compared with the previous tax's 6 percent.

Chart 3

Franchise Tax Burden Differs Across Sectors

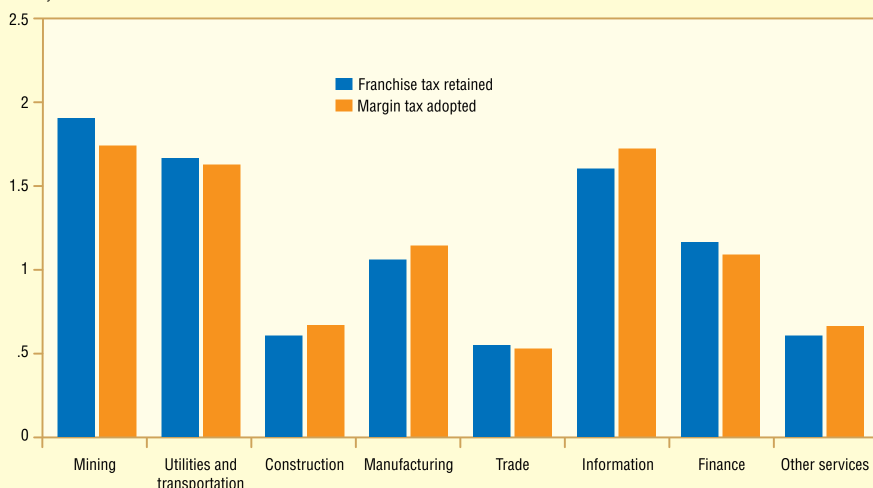


*August 2007 payroll employment.

**Annualized Texas GDP values by supersector, first quarter 2007.

SOURCES: Texas Workforce Commission; Texas Comptroller; Bureau of Economic Analysis; Federal Reserve Bank of Dallas.

Chart 4
Tax Burden Equalizes a Bit Across Industries



SOURCES: Legislative Budget Board, Tax Equity Note for HB 3, 79th Third Called Session; Texas Comptroller.

example. If a particular sector made disproportionate use of these exemptions, its total tax bill could increase, depending on how elements of the package offset each other.

How does the margin tax change the business tax burden borne by each sector? To find out, we compare projected 2008 figures for the margin tax with a scenario based on the franchise tax in its previous form.[3]

The construction and "other services" sectors will bear greater shares of the tax burden, although both will remain below the statewide average (*Chart 4*). The mining and utilities and transportation sectors will bear lower shares but remain above average. For these sectors, it appears the margin tax will offer more equal treatment.

This pattern doesn't hold across the board, however. The manufacturing and information sectors, for example, both face a slightly higher share of the burden even though they were above-average payers before the reform. While these changes are not dramatic, they do reinforce the point that the revised franchise tax won't—and can't be expected to—completely equalize tax burdens across sectors.

On a related note, some businesses within the manufacturing and information sectors are high tech, and others look more like old-economy firms. It's possible that the most capital-intensive firms within these sectors will pay less while the more labor-intensive firms will pay more, which would replicate the general trend for the broader economy. But we don't yet have evidence to evaluate this possibility; the level of aggregation provided by the data is too coarse to perceive these effects as clearly as we might like.

Texas' Business Climate

The margin tax has several implications for the state economy. First, it slightly raises Texas businesses' aggregate tax burden. Second, it to some degree reduces distortions across sectors, encouraging a more efficient—and productive—allocation of resources within Texas. Finally, it moves the tax structure toward treating similar businesses the same, which should also foster a better use of resources.

What does this mean for Texas' business environment? To answer this question, it's helpful to recall perceptions under the old franchise tax. Texas had the nation's sixth-best business climate and eighth-lowest overall tax burden, according to the nonpartisan Tax Foundation. Forbes.com placed the state's business climate second behind Virginia's, and the Fraser Institute ranked it eighth.

While any single study can be disputed, it's hard to challenge the general finding that the Texas business climate has been widely regarded as above average.

And this business climate has helped Texas compete globally. Recent *Southwest Economy* articles have documented how Texas is increasingly open to the global economy and how its growth rate has exceeded the nation's. Both measures are consistent with a favorable business climate.[4]

Today's globalizing, technology-rich economy allows factors of production to move faster and farther in seeking places where they can be used most effectively. In this environment, it makes sense that states like Texas with relatively favorable business climates would see their economies—and populations—grow faster than in the U.S. overall.[5]

Because the margin tax will raise more money than the previous franchise tax, it's tempting to conclude it will harm the state's business climate. But the new tax also treats sectors and businesses somewhat more equally than the old franchise tax did, producing a more efficient allocation of resources. The higher revenue and greater efficiencies will offset themselves to some degree, mitigating the negative impact of a higher franchise tax burden on the overall business climate.

Other tax changes made concurrently with the new margin tax—notably, a reduction in property tax burdens borne by both businesses and individuals—further mitigate the adverse impact and could arguably leave Texas with a slightly more favorable business climate than it had under the previous franchise tax. Such an outcome isn't a certainty, of course, and vigilance will be needed if Texas is to retain its reputation as an attractive place for business.

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Notes

[1] Seventy-five percent of U.S. and 74.2 percent of Texas businesses are sole proprietorships. Both figures exclude businesses that were too small to file tax returns.

[2] Certain firms in wholesale and retail trade face a reduced rate of 0.5 percent, and firms whose revenue falls below $300,000 are not required to pay the tax.

[3] All figures come from the official Tax Equity Note for the franchise-tax overhaul bill (HB 3).

[4] "Don't Mess with Texas," by Fiona Sigalla, Federal Reserve Bank of Dallas *Southwest Economy*, January/February 2005.

[5] "Census Data Show the Economy Matters," by Jason L. Saving, Federal Reserve Bank of Dallas *Southwest Economy*, July/August 2001.

SpotLight

Midland and Odessa

Permian Basin Cities Ride Oil Boom Again

Midland and Odessa lie only 20 miles apart on West Texas' arid plains, but a combination of historical accident and geography give each a different role in the industry that determines their destiny.

The Permian Basin's first commercial oil well started pumping in 1921, and Midland and Odessa were boomtowns by the late 1920s. Midland offered the best hotel and drew oil company executives, investors and speculators. The city became home to white-collar corporate oil, with a per capita income of $40,885 in 2005, topping the state's $32,460.

11th District Places

New Mexico
Midland
Odessa
Texas
Mexico

Odessa's location to the west positioned it closer to the oil fields, giving the city an advantage in the blue-collar oilfield service and machinery industries. Its per capita income was $25,590 in 2005.

Despite their differences, the two cities have been yoked together in the booms and busts of the oil business. Job growth has been an on-again, off-again proposition for both (*Chart 1*). For example, a sharp decline followed the collapse of oil prices in 1997–98. Now in full boom, the cities have separated themselves from the rest of the U.S. since oil prices per barrel moved above $40 in 2004 on their way to triple digits.

The seasonally adjusted unemployment rate in February 2008 pushed down to 2.7 percent in Midland, the lowest in the state, and to 2.9 percent in Odessa, well below the state's 4.1 percent, a historic low.

Midland and Odessa form the economic hub of the Permian Basin region that stretches across West Texas and southern New Mexico. Drilling activity fluctuates with energy prices and drives such economic indicators as the unemployment rate (*Chart 2*).

The Permian Basin rig count fell to a cyclical low of 43 in early 1999, when oil hit $10 per barrel, and then found another bottom of 85 in early 2002 on the heels of the U.S. recession. Rig counts climbed rapidly over the next few years, flattening out over the winter of 2006–07 and crawling past 200 in early 2008—a level not seen since the mid-1980s.

Historically a black-oil region, the Permian Basin has turned increasingly to natural gas over the past decade. Recent data show about a third of drilling activity directed to natural gas. Some gas is associated with oil, but drilling directed to exclusively deep gas or gas in tight sands has been active for some time, and unconventional gas in the Barnett and Woodford shale formations is now attracting significant interest.

Today, the Permian Basin produces 16.4 percent of the nation's oil and 7.1 percent of its natural gas.

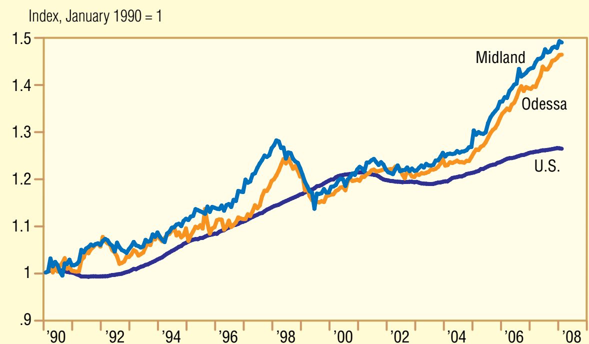
Every Permian Basin economic report in recent years has emphasized not only the high level of economic activity but also the severe labor shortages that accompany it. High wages paid by the local oil industry allow it to hire labor away from other local businesses at will, creating big problems in these relatively isolated communities.

Non-oil businesses are being hurt. Some have closed. Restaurants are trying to save labor, with some full-service establishments closing rear sections and fast-food places operating only drive-through lanes at night. New-home construction has slowed to a standstill.

Boom times are back for now, but resource-driven regions like the Permian Basin face a recurring dilemma. At the bottom of every cycle, when the oil industry is shrinking and times are tough, nothing is pursued with more fervor than industrial diversification. Yet, on the way up, the oil industry can be so profitable it pushes other businesses to the side. At the peak, diversification dwindles. Any cushion for the downside is gone—and the downside has always come in commodity industries.

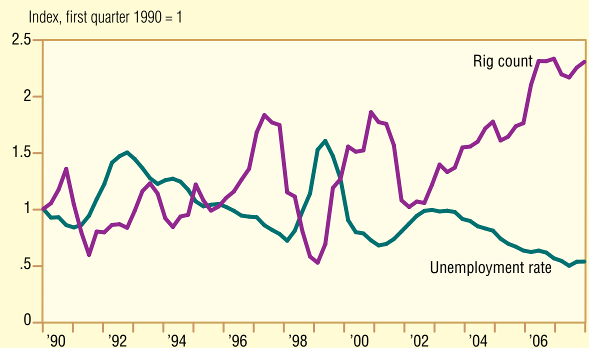
—Robert W. Gilmer and Charles James

Chart 1
Midland and Odessa Job Growth Compared with U.S.



SOURCE: Bureau of Labor Statistics.

Chart 2
Permian Basin Rig Count Plotted Against Midland–Odessa Unemployment Rate



NOTE: Data for all years are first quarter only.
SOURCES: Smith International; Bureau of Labor Statistics.

OnTheRecord

A Conversation with **Harvey Rosenblum**

The Dangers of Complacency About Risk

Dallas Fed Research Director Harvey Rosenblum discusses the stability of the U.S. economy's Great Moderation and how it set the stage for the financial turmoil that has gripped the nation since August 2007.

Q. Would you explain the term *Great Moderation*?

A. Economists use it to describe the marked decline in the frequency of recessions over the past 25 years. A less volatile macroeconomic performance was accompanied by big reductions in inflation and inflation volatility. This environment changed expectations. Inflation and inflation expectations are the keys to economic stability because they're the primary drivers of changes in interest rates over long periods.

One way this relationship affects the average American is through its impact on mortgage rates, which also rise and fall based on inflation and inflation expectations. As interest rate volatility nearly disappeared in recent times, home mortgage rates declined appreciably, making the American Dream of homeownership more affordable.

Q. So far, this sounds positive. How did we get from there to the irrational behavior we've heard about in the housing and mortgage markets?

A. We have to realize that some of the irrationality that characterized the years leading up to the credit crisis was a by-product of the economic tranquility being experienced. The Great Moderation induced a feeling of minimal risk, but the feeling did have an aura of rationality to it.

Indeed, it may have been quite rational to have faith in positive outcomes, to become a bit complacent, given the economy's increased and prolonged stability. The real question is, how do you draw the line between rational complacency and misplaced confidence?

Q. And the answer to that question is…?

A. At a certain point, complacency began to feed on itself; it became a psychological state that fed on laziness and overconfidence. As a result, financial market participants' incentives became perverse, misplaced and misguided. But financial markets and the economy remained calm, so the complacency didn't raise as many red flags as it should have. Regulation and market discipline were always one or two steps behind events.

Q. How did this complacency manifest itself?

A. Through what I call the three corollaries of complacency—complexity, confidence and compensation. The first of these concepts gets at whether managers can figure out what's going on within their own organizations.

Take the obvious example of a bank, which we have to remember is a regulated entity. Can the CEOs describe their organizations' structure and investment risks to their 12-year-old grandchildren? Are objectives other than safety, soundness and shareholder value being pursued? Or is the complexity of the corporate structure a way to hide things from top management and shareholders? If so, there should be a rating penalty; every effort at obfuscation must be "taxed." It's fine to have a far-flung empire. It's not fine for it to be subsidized by shareholders, investors or, perhaps eventually, by taxpayers.

Q. And the second *C*: confidence?

A. I think of confidence as a component of liquidity, which isn't one of those things you can easily measure. We've quickly learned that it's more like a switch that's either on or off. The crux of liquidity is whether you can sell something quickly for cash at a price close to the last trade. If you can, then an asset is liquid. But when market confidence starts disappearing, it takes liquidity with it, especially during turbulent times, when a flight to quality is almost certain.

I would be remiss if I failed to mention a separate aspect of liquidity that crept back in the recent complacency: a classic mismatch of long-term assets funded by short-term liabilities. In the current crisis, it has shown up in bank off-balance-sheet entities funded with very short-term commercial paper backed by long-term assets of questionable quality.

Commercial paper has traditionally traded at rates very close to similarly short-term Treasury rates. The underlying assumption behind every asset–liability mismatch is that you can indefinitely fund your liabilities at something close to short-term Treasury rates. What banks discovered the hard way is that no market can provide a perfect substitute for the U.S. Treasury market.

Q. Does it bother regulators that they're once again dealing with the repercussions of off-balance-sheet financing?

A. Not necessarily. A little background on the workings of commercial banks helps here. The sustainable competitive advantage commercial banks have over their nonbanking competitors is the safety net that encompasses the Fed's discount window and federal deposit insurance. Commercial banks voluntarily "pay dues" to be among the financial

"The Fed is using every tool at its disposal and creating new ones to mitigate the damage this storm is inflicting on the economy."

institutions that are more closely regulated. The advantage of membership in this club is that it provides a solid means of funding in both good times and bad.

What we're grappling with today is that some banks have effectively bent the rules under which they've agreed to be regulated by creating these off-balance-sheet entities that are very difficult to track. Why they did this leads us to the subject of incentives, or the last of my three *C*'s of complacency—compensation.

Before the current crisis hit, it appeared the incentive systems were operating as they were meant to, as a guide for people to maximize company profit and shareholder value. But in retrospect, these incentives seem perverse. They encouraged increasingly risky lending by compensating people for the number of transactions and not for the long-run return on investment financed by these transactions.

Q. Can you give us an example?

A. The most obvious one comes out of the mortgage banking industry. For starters, the entire industry really changed when savings and loans became less of a factor in mortgage lending. The S&L decline in the 1980s resulted in a critical shift away from a business model that might be deemed quaint these days: A lender specializing in mortgage loans knew it would hold them to maturity. As a result, the incentive was to lend to borrowers who had the means to repay, with the loans collateralized by property that wouldn't decline in value. The risk was that you funded these assets with deposits, liabilities whose maturity was much shorter than the assets'.

The S&Ls' fall opened the door to a cottage industry that made mortgage loans on behalf of a wide range of investors who wanted to hold mortgage debt. In this new business model, you originated loans with the intent of selling them to investors rather than holding them. You got paid for making loans. Looked at differently, every loan denied was time and income forgone. So the incentive was to get investors to be flexible about what long-term assets they were willing to hold.

In a relatively short time, the industry went from a platform of homogenous, plain vanilla mortgages that may not have met all borrowers' needs to an amalgam of customized mortgages with adjustable rates, zero or low down payments, interest-only payments and looser standards for documentation of income.

Q. How does that tie into our recent troubles?

A. The Great Depression taught us mortgages could be risky products. House prices fell when unemployment rose. For many years after the Depression, national banks weren't allowed to hold mortgages because they were viewed as too risky. Fifty years of home mortgages being much less risky changed all that, abetted by the Great Moderation.

Q. I doubt many people today would describe mortgages as "less risky."

A. It doesn't help that the housing industry has been hit by what has been described as the equivalent of a 100-year storm. But unlike an uncontrollable event in nature, I think the storm in the housing market might have been prevented.

Homes have always been depreciable assets. They appreciated only if you kept blowing money into them, kept improving and modernizing them. But at some point, the public began to believe that homeownership was a party you had to attend, that house prices could go in only one direction—up.

Feeding this perception was that cottage industry of mortgage lenders and investors grafted onto the existing mortgage industry structure. We saw a tremendous expansion of lending. Money flowed in from all over the world to support it. The pervasive complacency, however, meant many investors didn't adequately consider the risks involved, particularly when it came to the innovations in the subprime segment of the mortgage market.

Not all of this financial innovation was bad, mind you. The positive spillover is that many Americans have better access to mortgage credit and homeownership rates have risen sharply. And much of that money flowed to responsible borrowers who are fully discharging their repayment obligations. Many of them wouldn't have had access to mortgage credit under the "quaint" business model of the late 20th century. The democratization of the mortgage market—and other segments of the credit markets as well—is something that, on balance, we should celebrate.

Q. So how do we navigate, and presumably escape, this perfect storm's path?

A. Until we have a sense that house prices have stopped falling, it's hard to say how long the current turmoil will last. But let's not lose sight of the fact that there will be a bottom to this market. And it's probably not all that far away. The Fed is using every tool at its disposal and creating new ones to mitigate the damage this storm is inflicting on the economy. The Fed has been rewriting the textbook on economics and finance. The Fed is clear about its mission, and I believe we're succeeding.

Editor's note: Two Dallas Fed Economic Letter *articles offer background on the issues discussed here. See "The 'Great Moderation' in Output and Employment Volatility: An Update," by Evan F. Koenig and Nicole Ball, September 2007, and "From Complacency to Crisis: Financial Risk Taking in the Early 21st Century," by Danielle DiMartino, John V. Duca and Harvey Rosenblum, December 2007.*

Is Texas Overbanked?

By Kory Killgo

A good way to answer that question is to compare the availability of banking services in Texas with availability in other parts of the country.

Texans taking to the roads are almost guaranteed to come across three things: a place to eat, a place to buy gas and a place to bank. Seemingly ubiquitous in the modern Texas landscape, banks are both a source and a sign of the state's robust economy. In small towns and large cities, community banks compete for business with each other, with savings banks and credit unions and with the largest commercial banks in the world.

Banks competing to offer the best service at the best price is essential to the health of local economies. With too little competition, monopoly characteristics can creep into banking markets, driving up costs for consumers. On the other hand, too many banks in a market may mean some institutions don't have enough business to support their overhead, making them less efficient.

So where do Texas banks and banking markets fall on this spectrum? A good way to answer that question is to compare the availability of banking services in Texas with availability in other parts of the country.

Bankers sometimes worry Texas is overbanked. The concept is somewhat subjective, so finding a conclusive empirical answer can be problematic. However, data show that Texas ranks among the relatively less banked states, based on several measures, although it generally has greater banking services availability than California, a similarly sized state. The same conclusion holds when Texas metropolitan areas are compared with like-sized regions in other states.

How States Compare

When quantifying an area's banking infrastructure, several measures provide a yardstick of institutional presence, including total deposits, the number of different banks and the number of branches.

Branch number is probably the best gauge of availability from industry participants' perspective. A community banker with a single location surrounded by 10 branches of other institutions would most likely deem each a competitive force, regardless of the size of the branches' deposits or whether they were owned by two, three or 10 different institutions.

Since industry participants usually consider the broadest range of competitors,

Table 1
Banking Services Availability

	Texas	California	U.S. average
Population per institution (rank)	19,234 (35)	43,515 (50)	17,549
Population per branch (rank)	3,290 (42)	4,848 (51)	2,880
GDP per institution (rank)	$872 (35)	$2,039 (51)	$767
GDP per branch (rank)	$149 (42)	$227 (49)	$126
Personal income per institution (rank)	$721 (35)	$1,786 (51)	$675
Personal income per branch (rank)	$123 (39)	$199 (51)	$111
Deposits per institution (rank)	$399 (34)	$999 (47)	$416
Deposits per branch (rank)	$68 (37)	$111 (46)	$68
Square miles per branch (rank)	37 (33)	21 (21)	34

NOTES: All dollar values are in millions. Population data are 2007 Census estimates. Gross domestic product estimates as of calendar year 2006. Personal income data as of second quarter 2007. Banking structure data as of June 30, 2007.

SOURCES: Population and geographic data, Census Bureau; GDP and personal income, Bureau of Economic Analysis; institution branch structure and deposit data, SNL Financial.

Table 2
Big Banks Gaining Ground in Texas

	HHI (rank)		Median HHI for all states
	Texas	California	
2002	385 (9)	711 (32)	640
2003	401 (9)	764 (34)	647
2004	360 (9)	746 (32)	647
2005	540 (19)	777 (35)	686
2006	527 (16)	674 (29)	648
2007	545 (16)	672 (30)	646

SOURCE: SNL Financial.

we look at all financial institutions with reported, insured deposits: commercial banks, savings banks, thrifts and credit unions.[1] To compensate for differences in state size, the measures take the form of ratios—for example, population per number of institutions.

The data allow us to derive nine measures of banking services availability in Texas, California and the nation in 2007 (*Table 1*). The values in parentheses show the states' rank relative to the 50 states and the District of Columbia.

For each measure, the state ranked first is the "most banked"—the state with the lowest size measure (e.g., population) relative to its banking activity measure (e.g., number of branches), suggesting the most competition. The state ranked 51st is the "least banked"—the state with the highest size factor relative to its availability factor, suggesting the least competition. On the population-per-institution measure, for example, California is the 50th, or second-least-banked, state in the U.S.

The rankings indicate that Texas is less banked than the majority of the other states on all the measures. However, it's more banked than California by most of them.

In general, Texas falls on the less-banked side of the U.S. averages. For example, it has 3,290 people per branch, compared with 2,880 for the nation. When it comes to deposits per institution, however, the state's $399 million falls slightly below the nation's $416 million.

These simple availability measures don't tell us as much as we'd like about competition. A more sophisticated approach involves the Herfindahl-Hirschman Index (HHI), a widely used measure of the degree of competition in a market. It starts with the percentage of the market's deposits held by each institution. These shares are squared and summed to arrive at the HHI.

Relatively high or increasing HHI values indicate a market's biggest institutions have a large or growing market share, which is consistent with low or decreasing competition.

For banking, the HHI has some limitations—such as the inability to reflect the impact of the number of locations each institution operates in a market. However, it's the principal measure used by the Federal Reserve System and the U.S. Department of Justice for anticompetitive analysis.

Statewide HHI values and related rankings for Texas and California, as well as the median HHI for all states, seem at odds with previous concentration measures that put Texas on the less-banked side of the U.S. average. The HHI data indicate that Texas is more competitive and more banked than both California and the rest of the nation (*Table 2*).

The HHI analysis suggests a slight lessening of competition in Texas over the past five years, but the state still ranked 16th on banking services availability in 2007. California was 30th.

Using a simple HHI to measure concentration can be misleading, however, because it rests on the assumption that the entire state acts as a single market. The shortcomings of that approach are obvious—especially in a state the size of Texas. It would be hard to see how a community bank with several branches in the Panhandle would compete for loans and deposits with a savings bank in the Valley or a credit union in Tyler.

A weighted HHI for each state addresses this problem by calculating an HHI value for each market within a state, using Census core based statistical areas (CBSAs) and rural counties as markets and weighting each one's contribution to state HHI by the ratio of its deposits to the state's total (*Table 3*).[2]

The rankings indicate that Texas is less banked than the majority of the other states on all the measures.

Table 3
Banking Competition Weakens in Texas

	Weighted HHI (rank)		Weighted median HHI for all states
	Texas	California	
2002	1,277 (21)	939 (10)	1,396
2003	1,316 (21)	1,007 (12)	1,404
2004	1,218 (20)	1,170 (16)	1,377
2005	1,516 (32)	1,362 (25)	1,436
2006	1,486 (28)	842 (6) *	1,416
2007	1,602 (35)	846 (4)	1,415

*The decrease in California's HHI in 2006 is caused by a decrease of approximately $50 billion in the deposits of a single branch.

SOURCE: SNL Financial.

By weighted HHI, California was the fourth most competitive, or most banked, state in 2007, with Texas falling on the less-banked side of the median value of 1,415 for all states. The time series also shows that, by this measure, Texas has become moderately less competitive, or relatively less banked, over the past five years, with the state's weighted HHI value increasing from 1,277 to 1,602.

This confirms the conclusion based on the availability measures in Table 1—that Texas is among the relatively less banked states. Moreover, by the weighted HHI analysis, Texas is less banked than California.

How Metros Compare

A state as big and diverse as Texas shows significant regional differences in

Banking services do vary from place to place, but availability in Texas CBSAs tends to be slightly low when compared with similarly sized areas in other states.

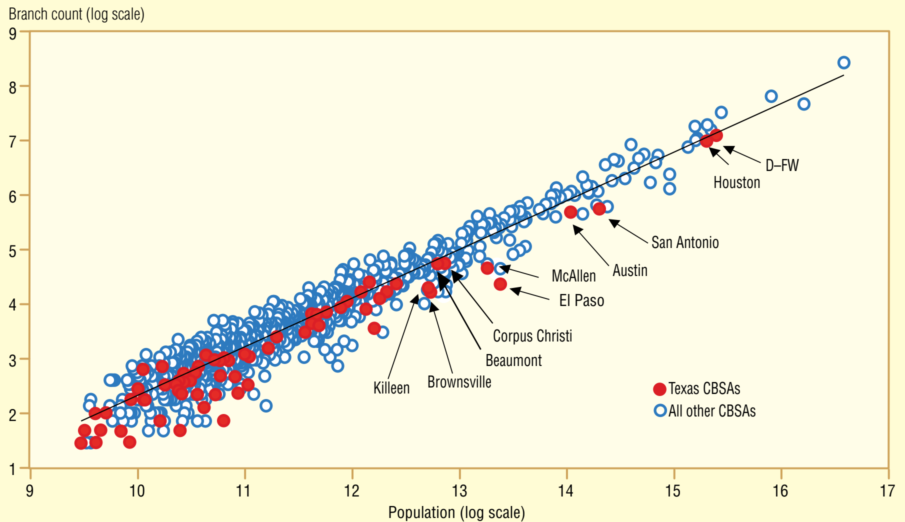


Chart 1
In 2002, Most Texas Metros Are Less Banked Than Peers Elsewhere

SOURCE: SNL Financial.

many economic measures. Banking services do vary from place to place, but availability in Texas CBSAs tends to be slightly low when compared with similarly sized areas in other states.

Let's first look at the ratio of population to branches in each U.S. CBSA in 2002 (*Chart 1*).[3] The trend line represents central values for the entire sample: areas above the line are relatively more banked; those below the line are relatively less banked.

The 10 Texas metro areas with the largest population were under the trend line in 2002, suggesting some degree of being less banked compared with CBSAs nationwide. El Paso was the most noticeably less banked of Texas' large CBSAs.

Now, let's look at the most recent CBSA data (*Chart 2*). In 2007 the Dallas–Fort Worth and Houston CBSAs are above the trend line, indicating their availability of bank branches relative to all CBSAs increased since 2002. The Austin and San Antonio areas' relative availability also rose over

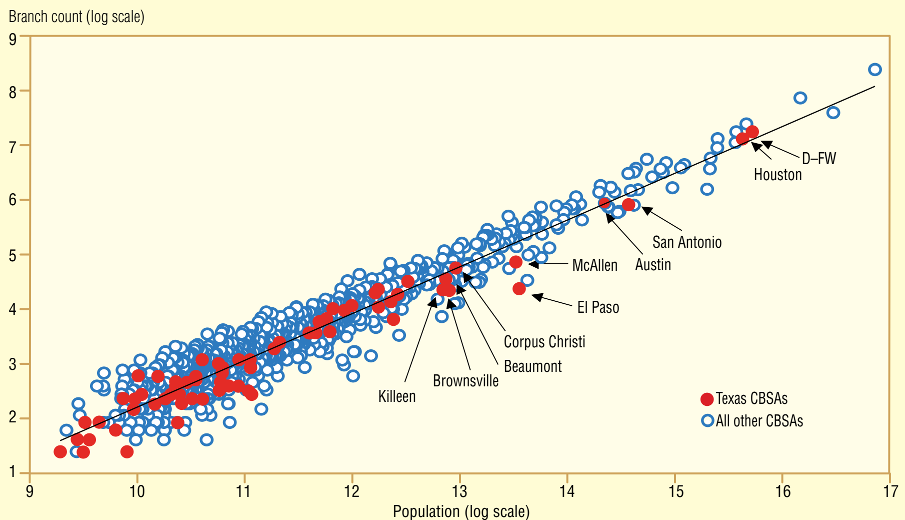


Chart 2
By 2007, Large Texas Metros Become More Banked But Still Trail Peers

SOURCE: SNL Financial.

Table 4

Projections Based on Peer Areas Show State's Most Populous Areas Are Less Banked

Census statistical area	As of year	Branch count	Projected branch count	Difference
Dallas–Fort Worth	2002	1,311	1,484	–173
	2007	1,817	1,873	–56
Houston	2002	1,175	1,338	–163
	2007	1,587	1,723	–136
San Antonio	2002	327	531	–204
	2007	451	628	–177
Austin	2002	308	435	–127
	2007	465	532	–67
El Paso	2002	80	223	–143
	2007	91	236	–145
McAllen	2002	107	215	–108
	2007	149	242	–93
Corpus Christi	2002	117	119	–2
	2007	135	131	+4
Beaumont	2002	115	127	–12
	2007	110	133	–23
Brownsville	2002	67	107	–40
	2007	88	135	–47
Killeen	2002	75	100	–25
	2007	88	126	–38

SOURCE: SNL Financial.

the five-year period—but they, like the six other largest Texas CBSAs, remain below the trend line and less banked.

Comparing Texas' 10 largest CBSAs with defined peer groups from other states brings the changes between 2002 and 2007 into greater focus. Made up of the five next largest and five next smallest CBSAs, these peer groups are the basis for projections that we can compare with actual branch counts in Texas metropolitan areas.[4]

In 2002, the peer-based projections call for 1,484 branches in Dallas–Fort Worth; the area had 1,311, a deficit of 173. In 2007, however, the deficit had dropped to 56 branches (*Table 4*).

From 2002 to 2007, the general trend is consistent with the largest Texas CBSAs becoming more like other similarly sized areas in terms of banking services availability. Take San Antonio as an example. In 2002, the market had 204 fewer branches than we would expect based on peer areas. In 2007, the market had 177 fewer branches than we would expect based on peer areas, a relative gain of 27 branches.

The El Paso, Beaumont, Brownsville and Killeen areas trended the opposite way and became less banked relative to the peer average over those five years. With the exception of Corpus Christi, the state's largest CBSAs are still less banked than their similarly sized peers nationwide.

Texas Not More Banked

Is Texas overbanked? The question can't be answered precisely, but we can determine how Texas compares with other states. Various measures suggest Texas isn't among the states with the most intense competition in banking services, and weighted HHI analysis implies at least some decreasing competition in recent years.

Branch analysis of the largest metropolitan areas detects increasing competition in some places. Even so, Texas' major metropolitan areas are either near or below the number of branches that would be expected based on similarly sized markets outside the state.

Is Texas more banked than other states? By objective measures, it seems the answer is no. The state's major urban centers are more banked than they were just five years ago, but overall, current banking availability is at or below levels seen elsewhere in the U.S.

Killgo is a financial industry analyst in the Financial Industry Studies Department of the Federal Reserve Bank of Dallas.

Notes

[1] Credit unions don't report branch-level data. Instead, they report all share balances at the institution's head office.

[2] Core based statistical areas are composed of metropolitan statistical areas, centered on a core urban area of at least 50,000 people, and micropolitan statistical areas, which are centered on a core urban area of between 10,000 and 50,000 people.

[3] Charts 1 and 2 show branch data as of June 30 and population estimates as of July 1.

[4] Dallas–Fort Worth was the fifth and fourth largest CBSA in the nation ranked by population in 2002 and 2007, respectively, and Houston was ranked fifth in 2007 (excluding Dallas). Their peer groups are adjusted accordingly. For example, in 2002 Dallas–Fort Worth's peer group consists of the four next largest and four next smallest CBSAs outside Texas.

NoteWorthy

QUOTABLE: *"Real Texas exports grew at a 4 percent clip in 2007. Although sales to Mexico slowed last year, increasing trade with China, the European Union and Latin America helped keep overall growth positive."*

—Laila Assanie, Associate Economist

ENERGY: Supply Disruptions Lead to Spike in Coal Prices

The high cost of oil and natural gas has dominated the headlines, but coal prices have doubled in the past year, including a 47 percent rise in the first three months of 2008.

Weather has been the primary cause of the most recent increases. A snowstorm in China and flooding in Australia and South Africa limited output in countries that together produce 52 percent of the world's coal. Supply disruptions have been so severe that prices are higher for the current month than for future months.

Texas contributes about 4 percent to total U.S. coal production, so it should see some benefit from rising prices. For most Texans, however, more expensive coal will mean higher electricity bills because the fuel accounts for 44 percent of the state's electricity production. Nonetheless, coal is by far the cheapest non-nuclear power source, and it's likely to remain the primary input for electricity generation in Texas and the U.S.

Some ebbing in coal prices is expected as supply disruptions ease. However, long-term price pressures remain because demand is growing rapidly in the developing world. China's coal consumption more than doubled from 2000 to 2006 and now exceeds North America's and Europe's combined. And if droughts persist in the Southeast U.S. and Spain, water shortages could shut down nuclear plants, causing coal demand—and prices—to rise.

—Amber C. McCullagh

TEXAS ECONOMY: State Ranks 4th in Personal Income Growth

Real personal income rose 5.3 percent in Texas last year, outpacing the national average of 3.5 percent and ranking the state fourth behind Louisiana, Utah and Wyoming.

For Texas, the gains were smaller than in 2006, but several factors kept the state ahead of most of the nation. The Texas labor market has been tight, leading to higher wages for some workers. High energy prices have ignited a boom in an industry that pays well and writes big royalty checks. The construction and professional and business services sectors have also added high-paying jobs.

Bureau of Economic Analysis data show that Texas' share of U.S. personal income was 7.6 percent in 2007, up a 10th of a percentage point from the previous year. With the exception of telecom-bust-plagued 2002, the state's share of U.S. personal income has been growing for 18 years.

While Texas enjoyed relatively high personal income growth, its population increased twice as fast as the nation's, and it maintained a slightly lower labor force participation rate. As a result, the state didn't rank in the top 10 in real personal income growth per capita. Even so, its gain of 2.8 percent beat the national average of 2.6 percent.

—Jessica J. Renier

HEALTH CARE: Hospital Building Boom Under Way in Texas

Texas' health sector is flourishing. Hospital construction and expansion projects are taking off across the state to meet the needs of a growing population.

From 2000 to 2007, the number of projects increased an average of 4.9 percent a year in Texas, compared with a 3 percent decrease in the U.S. The inflation-adjusted total value of health care-related construction contracts increased an average of 4.9 percent a year over this period, bettering the nation's 4.5 percent.

Three health care developments were among the 10 largest construction projects to break ground in Texas in 2006, according to *Texas Construction*—the $162 million expansion at Methodist Hospital in Houston, the $130 million Sierra Providence Eastside Hospital in El Paso and the $126 million Hillcrest Baptist Medical Center in Waco.

These facilities are part of a rapidly growing industry that provides 13 percent of Texas' private-sector jobs. From February 2000 to February 2008, private health care employment increased by 257,100, or 29.6 percent, accounting for more than a quarter of Texas' overall private employment growth.

About two-thirds of that growth occurred in large metro areas, rising 35 percent in Houston, 34.1 percent in Dallas–Fort Worth, 30.5 percent in San Antonio and 25.6 percent in Austin. Since 2000, health care's share of total jobs has risen faster than the state average in every border metro except El Paso.

—Mike Nicholson

Regional Update

Texas Economy Continues to Cool

Economic growth has softened in Texas, and evidence suggests that some business leaders are expecting continued weakness.

Texas job growth has been slowing since 2006, when it posted a 3.3 percent increase. Employment rose 2.9 percent in 2007, and growth is likely to end 2008 around 1.5 percent.

Despite the slowdown, the state continues to grow much more rapidly than the nation, with nearly all sectors of the economy adding workers at a faster pace over the past three years. In 2007, one-third of private-sector jobs created in the U.S. were in Texas, making the state's job growth three times faster than the nation's (*Chart 1*).

The relative strength of the Texas construction sector is particularly notable. The state's construction workforce rose 5.6 percent last year, while U.S. construction jobs declined 3 percent.

A number of recent indicators point to slower growth. Beige Book, the Dallas Fed's anecdotal survey of economic conditions, has been reporting decelerating growth for over a year. In March and April, business executives expressed a great deal of uncertainty about the outlook for growth, and some are cutting capital spending, paring inventories and reducing or freezing employment.

Home sales are slowing, and after credit standards tightened in fall 2007, the drop has been as precipitous in Texas as in the rest of the country (*Chart 2*).

Most Indicators Soft

The Dallas Fed's Texas Manufacturing Outlook Survey has weakened over the past few months. Indexes for production, volume of new orders and volume of shipments have decelerated since mid-2007.

Most indicators of current conditions remained soft in April. Manufacturers perceive general business conditions as worse than their own company outlooks (*Chart 3*).

The Texas economy is also showing signs of strength. Energy activity remains high, and real estate markets are in better shape in Texas than in the nation. Home sales have slowed, but sharp cutbacks in home construction have helped keep Texas inventories from rising and price declines at bay.

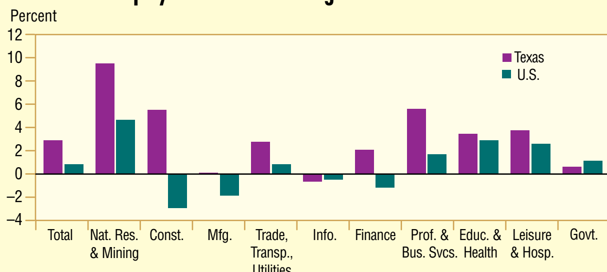
The Texas unemployment rate of 4.3 percent remained well below the U.S. rate of 5.1 percent in March (*Chart 4*). Firms continue to have difficulty finding workers, according to anecdotal reports.

Current labor market conditions echo those of the state's early 1980s energy boom, which sent Texas unemployment rates below the national average. For over 20 years—between 1985 and 2007—Texas unemployment tended to be above the U.S. rate. But the state unemployment rate moved below and has steadily diverged from the U.S. trend since May 2007.

Movements in the Dallas Fed's Texas Leading Index over the past several months point to slower growth but not to recession.

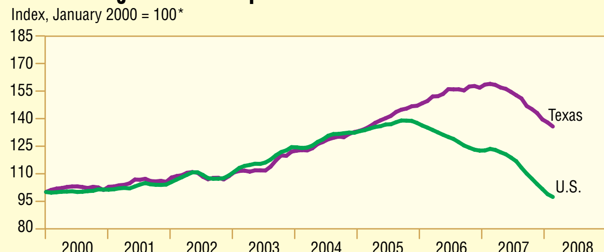
—Fiona Sigalla

Chart 1 **2007 Employment Growth Stronger in Texas than U.S.**



SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal and other adjustments by the Federal Reserve Bank of Dallas.

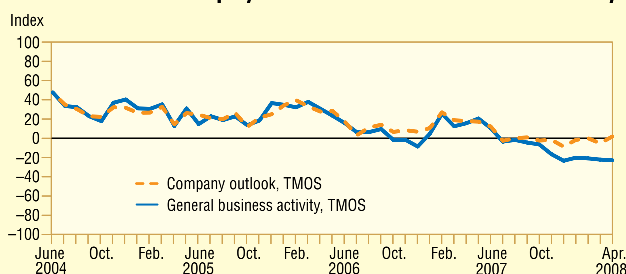
Chart 2 **Existing-Home Sales Dip**



*Six-month moving average.

SOURCES: National Association of Realtors; Texas A&M Real Estate Center; seasonal and other adjustments by the Federal Reserve Bank of Dallas.

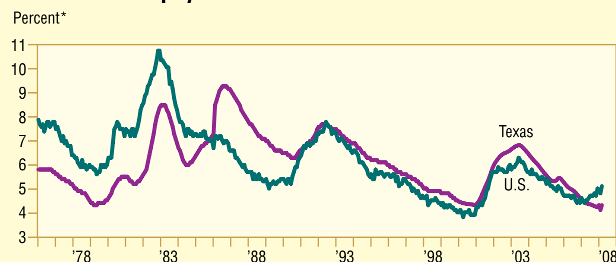
Chart 3 **Manufacturers' Company Outlook Better than View of Business Activity**



NOTE: Each index, based on Texas Manufacturing Outlook Survey responses, is calculated by subtracting the percentage of firms reporting a decrease from the percentage reporting an increase. When all firms report activity has increased, an index will register 100.

SOURCE: Federal Reserve Bank of Dallas.

Chart 4 **Texas Unemployment Falls Below U.S. Rate**



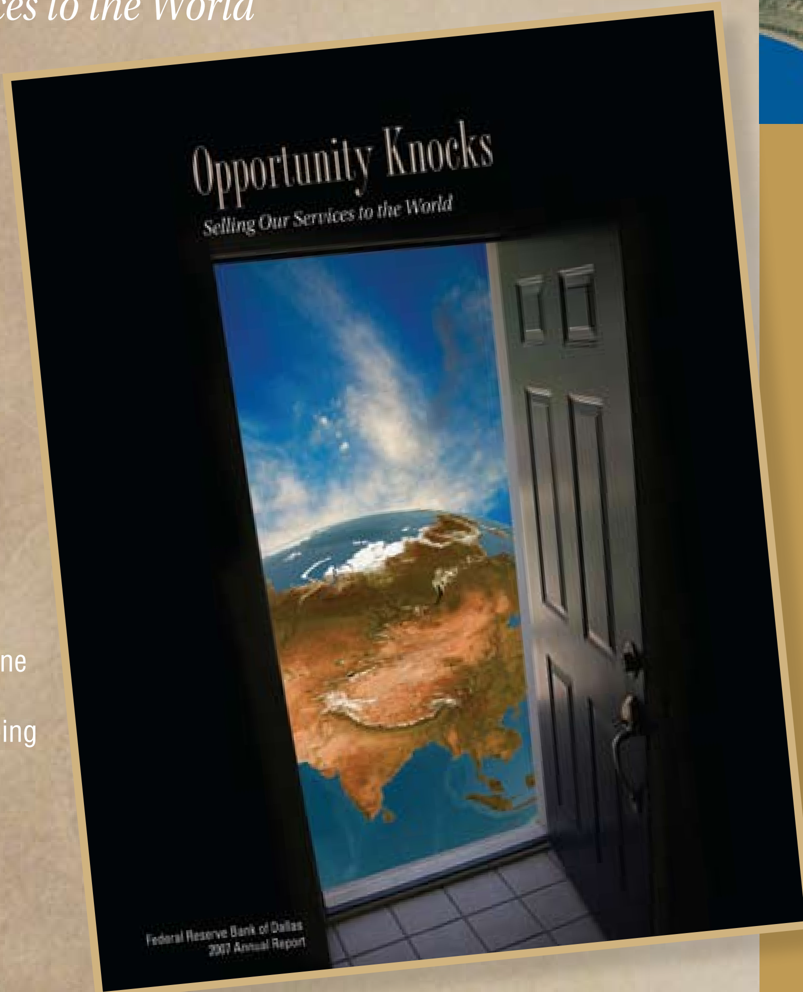
*Seasonally adjusted.

SOURCES: Bureau of Labor Statistics; Texas Workforce Commission; seasonal and other adjustments by the Federal Reserve Bank of Dallas.

Opportunity Knocks

Selling Our Services to the World

2007 Annual Report



The U.S. has been sharpening its service skills for decades. Opening the door to the expansion in services trade will lead to faster economic growth and rising incomes. Turning away from globalization's call risks squandering a golden opportunity.

Access the full report online at **www.dallasfed.org** or receive a free copy by calling 214-922-5254.

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