

THE TEXAS ECONOMY

An Overview of '96 and Outlook for '97

THE TEXAS ECONOMY expanded at a modest pace in 1996, following more intense growth in 1994 and 1995. The strength of the oil and gas industry was a welcome surprise last year, and the stabilization of the Mexican economy helped Texas exports. Texas' role as a distribution hub continued to enhance growth, as in previous years. On the other hand, a weak semiconductor industry and a severe drought tempered growth. Perhaps the greatest restraint on job growth, however, was the tightest labor market in a decade. While the changes of 1996 affected individual cities to varying degrees, Texas' diverse economy prevented any single factor from dominating the state's expansion.

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What Helped Growth in 1996?

Oil and Gas. The energy industry helped bolster the 1996 expansion. In particular, the upstream energy industry—the production and exploration side of the business—was strong in 1996. One reason was higher oil and natural gas prices. Stock prices of drilling, exploration and production firms reflected the industry's strength,

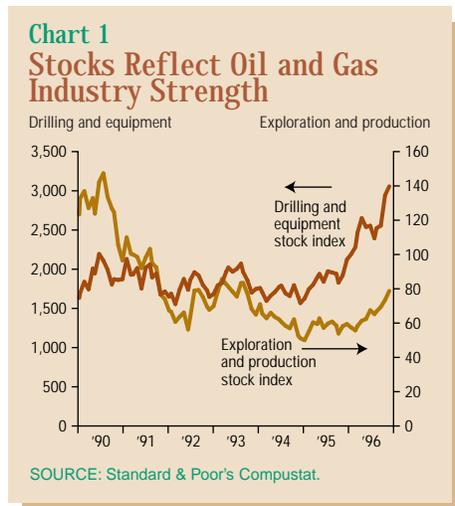
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as Chart 1 shows. Another source of the industry's strength was technological improvements that have allowed firms to downsize while increasing productivity.¹

Advancements in technology have lowered production costs worldwide and renewed interest in drilling in the Gulf of Mexico. The gulf's deep waters and large salt deposits hindered the discovery of oil with older technologies. The recent strong interest in the Gulf of Mexico is largely a product of important new tools such as three-dimensional seismic imaging, coiled tubing and measurement-while-drilling, which have lowered drilling costs, reduced risk and widened the range of economic prospects available to the industry. These advances have lowered the cost of finding oil all over the world. For example, exploration and development costs in the United States fell from about \$7 per barrel in 1991 to about \$4 in 1995. The industry can now be profitable with lower oil prices.

One indication of the energy industry's current strength is the Texas rig count—the number of rigs drilling for new wells—which climbed to post-Gulf War levels in December. Although this recent increase looks feeble next to rig counts during the oil industry's boom years, the comparison is misleading because improvements in technology have enabled the industry to do more with fewer rigs. For example, the drilling success ratio for new field wildcat wells—the percentage that are not dry holes—nearly doubled over the past 10 years.

Not only is the industry using fewer rigs, it's also improving labor productivity. Since the height of the oil and gas industry boom in 1982, this sector has shed nearly 170,000 jobs in Texas, more than half its 1982 employment. With competitive cost pressures and new technology, the oil industry is smaller but also stronger and more profitable than in past years.² Increased competition has led firms to outsource



many functions to reduce costs and shift risks. Much work done by oil industry firms in the early days is now done by contractors and consultants. Thus, the industry can contract or expand much more quickly in response to market conditions. Another result of this increased competition is a consolidation of the industry into major oil cities such as Houston and Dallas.

While technological improvements and industry restructuring have caused a downward trend in upstream energy industry employment over the past several years, higher energy prices have helped stem the decline. Oil and gas extraction employment stabilized, and oil field machinery manufacturing and services experienced strong employment growth in 1996.

Furthermore, what's good for the energy industry is still good for Texas. Although downstream energy firms such as refining and petrochemical companies are hurt by higher oil prices, the state as a whole still benefits. Work done at the Dallas Fed shows that for each *sustained* \$1 increase in oil prices, Texas gains about 16,000 jobs.³ However, overall labor tightness in Texas is also affecting the energy sector, restraining growth in both white-collar and blue-collar jobs. Geophysicists, petroleum engineers, machinists and roughnecks are all in high demand.

Mexico. Exports to Mexico have been particularly important to Texas. In the first half of 1996, the state sent one-third of its export goods to Mexico, while the United States sent 9 percent of its total exports to Mexico. The dramatic decline of the peso in December 1994 and subsequent recession had a significant impact on the state's exports to Mexico. Dallas Fed economists have estimated that had the peso crisis not occurred, Texas exports to Mexico would have been 31 percent higher in 1995.⁴

Since the peso devaluation, the Mexican economy has stabilized. After turning positive in the third quarter of 1995, real Mexican GDP growth averaged an annual rate of 6.7 percent in the first three quarters of 1996. Consequently, Texas' exports to Mexico accelerated. Between the fourth quarter of 1995 and the second quarter of 1996, exports to Mexico increased 17 percent, surpassing the pre-crisis level, as shown in Chart 2.

With this improvement in the Mexican economy, border retail sales also strengthened in the first half of 1996. However, the increase was not enough to provide much of a boost to retail trade employment in border cities. Flat retail employment, combined with a leveling off in border construction and manufacturing job growth, restrained border employment growth.

Distribution Hub. Texas' role as a distribution hub continued to stimulate growth in 1996. Spurred by the effects of trucking deregulation, distribution activity increased with a 6.6 percent jump in trucking and warehousing employment in 1996. The industry provides easy access to North and Latin America, and its strength is evident in the continued expansion around the D/FW International and Alliance airports and in the strong warehousing activity in Dallas, Fort Worth and El Paso. Another active distribution hub is the Houston Ship Channel, the nation's second largest port in terms of cargo volume.

“Homebuilders enjoyed a banner year in 1996.”

Chart 2
Texas Exports to Mexico Rebound



SOURCE: Massachusetts Institute of Social and Economic Research (MISER).

Construction. The construction and real estate industries have been bright spots for Texas. Both benefited handsomely from firm expansions and relocations into the state. After good years in 1994 and 1995, construction activity rose at a strong pace again in 1996, with increases in both residential and non-residential construction (*Chart 3*). Dallas and Fort Worth saw particularly high growth, with companies drawn into the area by the convenient distribution facilities of the D/FW International and Alliance airports. In Dallas alone, over 12 million square feet of industrial space was added in 1996, after a gain of 8 million square feet in 1995.

The office market also profited from firm relocations and expansions. Occupancy rates in Austin's office market and Dallas' suburban office market have risen above the U.S. average, and rents are going up. However, Texas is still a bargain, with prime Dallas office space renting for about \$20 per square foot, compared with average citywide rents of \$25 in Chicago and \$21 in Atlanta and Minneapolis.

Homebuilders enjoyed a banner year in 1996. From January through September, the Dallas/Fort Worth single-family market ranked fourth most active in the nation. Because of robust demand and shrinking inventories, prices

for existing homes in major Texas cities rose at rates above the national average. Despite a recent cooling in new home demand, the strong increase in homebuilding earlier in the year means 1996 will surpass the excellent record posted in 1995.

These increases in industrial, residential and office building have caused a 6 percent increase in Texas construction employment in 1996, above the 5.5 percent rise at the national level. In addition, construction-related segments of the manufacturing and retail sales industries flourished in 1996 because of strong building activity.

What Hindered Growth in 1996?

Semiconductors. After being a source of strength for Texas employment in recent years, the high-tech manufacturing industry weathered a less robust year in 1996 caused by weakness in the semiconductor industry. Semiconductor production is a major part of high-tech manufacturing in Texas. In fact, if Texas were a nation, it would be the fifth largest producer of semiconductors. The industry's fortunes changed in early 1996, and a barometer for the industry's health, the book-to-

bill ratio for semiconductors, fell.⁵ The Standard & Poor's 500 semiconductor stock price index also suffered a deep decline.

The industry responded with a midyear flurry of layoffs, hiring freezes and plant construction slowdowns. Chart 4 shows how the weakness in semiconductors put a damper on Texas' rapidly growing high-tech manufacturing industry, which includes electronic and nonelectrical equipment and instruments and related products. After growing at a vigorous rate of 7.3 percent in 1995, high-tech manufacturing growth fell to 2.5 percent in 1996.

Following three quarters of weakness, the book-to-bill ratio bounced back in the fourth quarter of 1996. Most recently, business contacts in the industry report increased confidence that the industry has bottomed out and is poised for positive growth in 1997, but at more moderate levels than in 1994 and 1995.

Drought. The rural areas of Texas were hit hard by a relatively short but severe drought last year. The wheat crop was ravaged, and feed prices soared. Lack of water, forage and feed forced producers to accelerate the liquidation of their herds, despite rock-bottom cattle prices. Disaster relief and crop insurance helped mitigate losses, but farmers and nearby communities felt the pinch of lowered incomes. Many farmers and ranchers had difficulty repaying their loans, and a number of producers chose to discontinue production, perhaps influenced by the impending phase-out of government payments.

Labor Market Tightness. In addition to the effects of the drought and the semiconductor price drop, tightness in the labor market slowed employment growth in 1996. The Texas unemployment rate in October hit its lowest level in 15 years, and the unemployment rate for nonborder areas was substantially less than the nation's (*Chart 5*). Overall labor force growth slowed in Texas in 1996 as it picked up in the nation.

Chart 3
Texas Construction Activity Still Going Strong



SOURCE: F. W. Dodge, a Division of the McGraw-Hill Companies.

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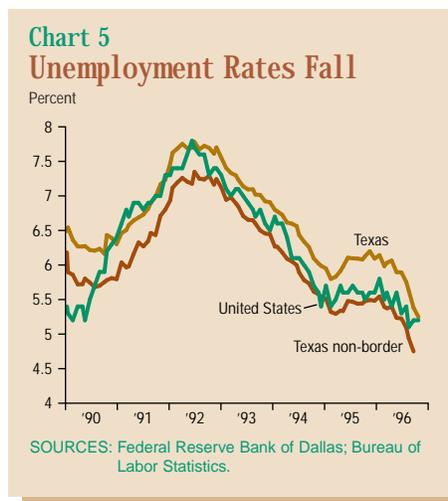
These numbers are consistent with the Dallas Fed's survey of business conditions, which has been reporting labor market tightness for some time across a wide variety of sectors. Improvements in the California and Mexico economies may have contributed to the tightness by reducing migration to Texas from these areas.

Outlook

Texas' employment growth may slow in 1997 to about 2 percent from the 2.3 percent posted in 1996. Factors that benefited Texas in 1996 will continue to help the state in 1997 but won't give as much of a boost as in the past.

Higher energy prices will continue to help the economy. However, oil and gas prices are not expected to go up further—if anything, they'll decline in 1997. The vigor in the industry will continue, but the growth rate may be somewhat lower.

Similarly, a growing Mexican economy will be a plus for Texas. But after bouncing back with a 34 percent annual growth rate in 1996, exports to Mexico



are expected to grow at a rate closer to the 10-year average of 14 percent.

The current growth in the construction industry should also decelerate to sustainable levels. Lower migration to Texas is expected to help stabilize residential construction growth. Nonresidential construction should continue to rise, a result of previously planned office construction projects. Also, industrial and retail construction may slow in 1997, with recent warnings of over-

building. This, in turn, foreshadows a slower year for wholesale and retail employment growth.

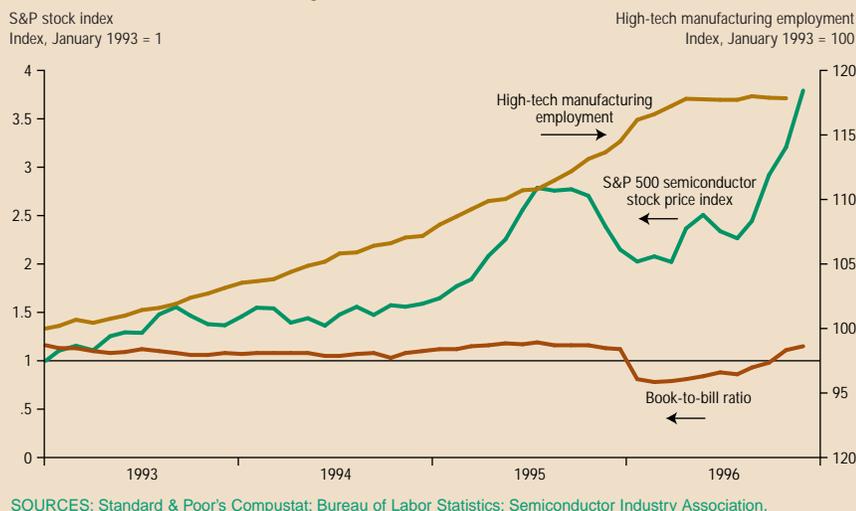
Other service sectors may also slow. High fuel costs, rising trucking industry wages and a slowdown in warehouse construction will affect the transportation and distribution industries. Also, the tighter labor market may restrain overall growth and cause a shift from temporary employment to manufacturing sectors as more manufacturing firms hire proven temporary workers away from temporary employment agencies.

Although Texas' cost differential with the nation is slowly subsiding, the state's costs should remain below the national average in 1997. Texas' wages, rents and housing prices are still below the nation's. Therefore, the state's cost advantage and its role as a prime distribution hub should continue to aid further expansions and relocations into the region.

The national economy and labor market tightness will be the wild cards in 1997.

—Sheila Dolmas
Mine Yücel

Chart 4
Semiconductor Industry Retrenches



Notes

Steve Brown, D'Ann Petersen, Fiona Sigalla, Lori Taylor and Madeline Zavodny contributed to this outlook.

¹ See Bill Gilmer, "Oil Extraction in the Southwest," *Southwest Economy*, Issue 4, 1996.

² See Gilmer (1996).

³ Steve Brown and Mine Yücel, "The Energy Industry: Past, Present and Future," *Southwest Economy*, Issue 4, 1995.

⁴ See *Southwest Economy*, Issue 5, a NAFTA retrospective, September/October 1996.

⁵ The book-to-bill ratio is the ratio of shipments to orders.

WHAT'S IN STORE FOR TEXAS CITIES?

Houston's Steady Growth Should Continue

Houston's wage and salary job growth averaged 2.7 percent in 1994 and 3.1 percent in 1995 and held to a steady pace near 2.5 percent throughout 1996. The Houston labor market has tightened month by month since 1994, with the unemployment rate dipping below 5 percent in late 1996.

For Houston, 1997 promises to be more of the same: job growth near 2.5 percent and economic expansion driven by factors similar to those that have been at work since 1994. According to the best estimates available, Houston's growth industries remain divided 50-50 between those related to oil and natural gas and those independent of energy. A strong national economy, operating at full employment, and high levels of industrial capacity utilization since 1994 have provided a powerful stimulus to Houston's big nonenergy companies, such as Compaq Computers, Continental Airlines, BFI and American General Insurance.

Important weaknesses continue, however, at two of Houston's biggest non-oil growth centers: the Texas Medical Center (TMC) and the Johnson Space Center (JSC). Cost containment in medical care has led to a steady reduction in jobs at the TMC. Similarly, budget cuts sustained by the National Aeronautics and Space Administration have led JSC to cut several hundred jobs per year. Neither center is a major drag on overall growth, but these centers are not providing Houston the billions of dollars in stimulus they delivered from 1987 to 1991.

Energy will be the key to Houston's growth in 1997. Oil prices over \$20 per barrel and natural gas over \$2 per thousand cubic feet generated big cash flows for oil extraction, services and machinery companies in 1996, which in turn will bring numerous capital projects to Houston in 1997. Houston's oil service and durable manufacturing industries surged through late 1996, and this growth should carry over well into 1997.

—Robert W. Gilmer

San Antonio, Austin Poised for Job Growth

Employment growth in most parts of South Texas should pick up in 1997. As the Mexican recovery spreads beyond the export sectors and real wages begin to increase, the return of Mexican shoppers and vacationers to the border and San Antonio will boost these economies.

Although employment growth in South Texas has surpassed the state average over the past 10 years, the region's performance since 1994 has been relatively weak. The main factors behind the weakness are the sharp fall in the peso's value in late 1994 and the semiconductor price collapse in early 1996.

The importance of the tourism industry to San Antonio appears to have softened the blow of the peso devaluation there. The continued flow of U.S. tourists to these areas likely had an important positive impact, but the failure of Mexican tourists to return in large numbers weakened employment growth in 1996.

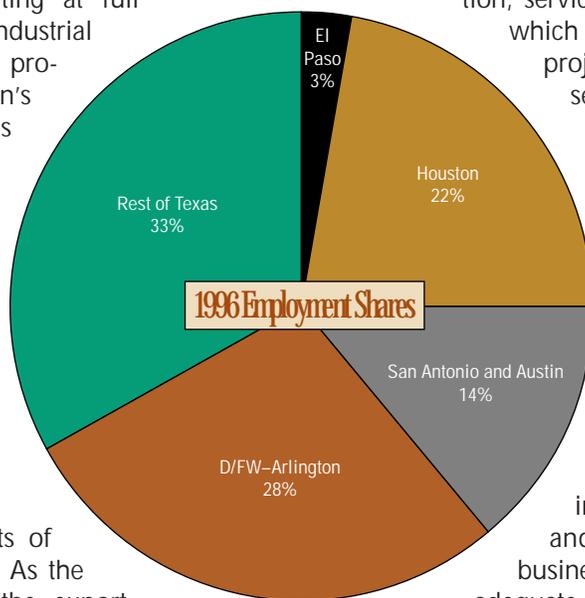
While the improvement in the Mexican economy this year will boost the tourism industry in San Antonio, several

other factors will restrain growth. The 1996 drought and a lawsuit filed by an environmental group resulted in tight residential water restrictions and an increased perception among businesses that the city may not have an adequate water supply to maintain a strong long-run rate of economic growth. Cutbacks in the military also represent a challenge to the city. Overall, growth in 1997 will likely be close to the modest pace experienced in 1996.

Austin, one of the nation's fastest growing metropolitan areas in the 1990s, had the state's strongest employment growth in 1995. Job growth slowed sharply last year, however, as semiconductor prices fell and overall manufacturing employment growth slowed from 8.4 percent in 1995 to 2 percent in 1996. Another factor likely affecting employment growth in Austin is tightness in the labor market. The city's unemployment rate averaged 3.1 percent in the first 10 months of 1996 even as employment growth slowed. The pace of growth in Austin is likely to accelerate in 1997 as semiconductor prices bottom out and the high-tech sector continues to gain momentum.

—Keith R. Phillips

(continued on page 9)



were required to treat all immigrants as if they were legal immigrants—states were forbidden to ask whether a recipient was in the country illegally and forbidden to deny benefits on that basis.

Term Limits and Work Requirements

The welfare reform law changes welfare programs in several respects. First, it imposes a five-year lifetime limit on welfare benefits. Second, it mandates that anyone who remains on the welfare rolls for more than two years must work to receive benefits. Third, the bill requires that 25 percent of the recipients in each state's welfare caseload work by 1997. Fourth, the bill restricts the eligibility of legal immigrants for welfare programs. Fifth, the bill converts federal funding from per-recipient matching funds into lump-sum block grants.

How are the changes likely to affect welfare recipients? The term limit and work requirement provisions have been hailed as the most significant changes in American welfare policy since the New Deal, and there is reason to believe that such provisions could reduce the number of people who receive public assistance. However, the specific provisions in the welfare reform law contain significant loopholes for states that choose to employ them. An exception to the first provision stipulates that one-fifth of a state's caseload may be exempted from term limits if the state asserts (with or without cause) that the loss of benefits would create "hardship" for those who have reached their five-year limit. An exception to the second provision allows states to define "work" in as untraditional a manner as they choose. An exception to the third provision lets states calculate the number of recipients who do not have to work by 1997 as 75 percent of their 1995 caseloads rather than as 75 percent of current recipients, which is significant because the number of people receiving public assistance declined (in some cases significantly) between 1995 and 1996. In addition, a general exception to the bill permits states to relabel a portion of their funds from the federal government as a "social services block grant," which may be given to recipi-

ents who exceed their time limit or refuse to work.

The welfare reform bill's enforcement mechanism is especially problematic. If a state does not fulfill the requirements of the bill, it is penalized by a reduction in federal funding. Since states actually define most of the requirements they must meet, states have an incentive to impose lenient requirements to lessen the probability of punishment. Moreover, states are free to seek permission from the executive branch of the federal government to waive provisions of the bill with which they disagree. If a waiver is granted to a particular state, the state cannot be punished for violating that portion of the welfare reform law for which the state received a waiver.

How might the time limit and work requirement provisions operate in practice? If a state's welfare caseload declined by 10 percent between 1995 and 1996, which is approximately the amount by which welfare caseloads fell in the United States, the state could mandate that 15 percent rather than 25 percent of welfare recipients work by 1997. The state could also define easily achievable, non-work-related activities as "work" to help its recipients maintain eligibility for welfare. Then the state could exempt any families that exceed their lifetime eligibility for welfare from time limit provisions. If any families remained without benefits after these actions, the state could continue to give welfare benefits to those families with federal dollars under the social services block grant program or simply ask the Department of Health and Human Services to waive the time limit and work requirement provisions entirely.

All these possibilities suggest that, if a state does not wish to impose term limits or work requirements, the welfare reform bill will not force it to do so. Even a state that adopts strict term limit and work requirement provisions may, however, find itself hampered by practical difficulties that arise from state-to-state migration. Although welfare recipients are free to migrate from one state to another, their welfare histories (such as the length of time they received welfare and whether they participated in a work program) do not travel with them. Indeed, at the present time, states have no way to obtain the wel-

Table 1
Social Welfare Programs
In 1994

Program	Recipients (Millions)	Payments (Billions)
AFDC	14.0	\$ 22.9
Food Stamps	27.4	\$ 22.7
Medicaid	35.0	\$108.3

fare histories of newly arrived residents, and some states do not even record this information for their own welfare recipients. Unless every state records the welfare histories of its recipients and exchanges this information with other states, recipients will be able to exhaust their eligibility for welfare, move to a state unaware of their previous welfare histories and receive benefits as if they had no welfare histories.

Changes for Legal and Illegal Immigrants: A Dilemma for Texas

One change likely to exert a disproportionate impact on the Southwest is the restriction on the eligibility of immigrants. The welfare reform bill stipulates that some current legal immigrants and all future legal immigrants are ineligible for the AFDC and Food Stamp programs for at least five years after their immigration; an accompanying immigration bill gives states the right to deny those benefits to recipients who are in the country illegally. The impact of these provisions on Texas is expected to be substantial: approximately 200,000 Texans will lose a total of \$153 million in food stamps during 1997. One charity worker estimates that 20 percent of residents in some border counties are legal immigrants and that over one-third of those immigrants could lose their benefits.⁸

However, the bill is not as strict as it first appears in this regard because any legal immigrant who chooses to become a citizen is exempt from these restrictions. Indeed, Immigration and Naturalization Service officials have been ordered to increase the speed at which they process immigrants who face a loss of benefits, and a historically unprecedented number of immigrants have been naturalized as a result. More-

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over, residents of any county whose unemployment rate exceeds 10 percent may be exempted from a cutoff of food stamps. Illegal immigrants face a somewhat more difficult prospect because, in general, they cannot become citizens of the United States. In practice, however, most states (with the exception of California) have no plans to remove them from the welfare rolls.

Medical care for noncitizens is another area that presents difficulties for the Southwest. Almost 100,000 legal immigrants are expected to lose Medicaid benefits as a result of the welfare reform bill. Without Medicaid coverage, the Texas Department of Health fears that these immigrants will simply go to emergency rooms and leave Texas taxpayers to pick up the tab.⁹ Again, though, legal immigrants may retain Medicaid coverage if they choose to become citizens of the United States. Illegal immigrants face the greatest difficulties: the bill would strip them of all medical coverage except for emergency medical assistance. However, most states (including Texas) do not yet attempt to distinguish between legal and illegal immigrants in the provision of Medicaid services, which suggests that the short-term impact of the welfare reform bill on illegal immigrants may not be as significant as many have feared.¹⁰

From Welfare to Work

The welfare reform bill gives new opportunities to states. Under the bill, states may hire private-sector employment agencies to move individuals from welfare to work. Since the salaries of social workers depend on a steady stream of welfare recipients, some analysts believe private agencies may be better able to help recipients find employment. States may also offer subsidies for employers that hire welfare recipients. Evidence from California suggests that many long-term recipients have little education and lack basic job skills, and

to the extent that these individuals impose higher training costs on employers, subsidies might make it more profitable for businesses to hire welfare recipients. Governors, including Pete Wilson of California and George Bush of Texas, have expressed interest in these provisions, and President Clinton has promised to seek an expanded job subsidy program for welfare recipients during the 1997–98 session of Congress.

Southern states face especially large hurdles in implementing welfare-to-work programs because of a provision of the bill that changes the funding mechanism for AFDC. Before the welfare reform bill was passed, the federal government would subsidize a fixed proportion of each recipient's AFDC payment and states would pay the remainder. Under the new system, the federal government gives a certain amount of money to each state in the form of a block grant. The block grant given to a particular state reflects the level at which the state previously funded welfare programs, which means that states that chose to give high benefits under the old system will receive larger block grants (in per capita terms) than other states. Since there is no reason to suppose that the welfare-to-work programs will be more expensive in high-benefit states, there is no economic rationale for these states to receive larger block grants under the new system. Nevertheless, the funding differentials exist and are quite substantial. For example, Texas will receive an estimated \$339 per child annually while New York will receive an estimated \$1,998. This highly uneven funding system will be especially harmful to welfare reform efforts if states expressed their (dis)satisfaction with the old welfare system by the funding they chose to provide for it because states whose leaders would be most likely to pursue reform will lack the funds to proceed, while states that receive sufficient funds will have no interest in reform.

Conclusion

Much has been said about the recent welfare reform bill. Some have suggested that recipients will finally escape the cycle of dependency and enter the labor force, while others have charged that impoverished families will be deprived of the food and medicine they need to survive. There is a broad consensus, however, that welfare reform ought to ensure assistance for those who need it and encourage work for those who do not. The welfare reform bill gives states unprecedented freedom to make meaningful changes in the welfare system, but it also gives states the freedom to resist reform. Only time will tell whether states seize the new opportunities given to them or whether they simply perpetuate rather than eliminate the American welfare system as we have known it.

—Jason L. Saving

Notes

- ¹ Bill Clinton, as quoted in "Welfare: Work All Around," editorial board, *Christian Science Monitor*, December 27, 1996.
- ² Senator William Roth of Delaware, as quoted in "U.S. Senate Passes Major Overhaul of Welfare System," by Sue Kirchoff of Reuters World Service, August 1, 1996.
- ³ Senator Pete Domenici of New Mexico, as quoted in "Welfare Overhaul Approved," *Reading Eagle*, July 24, 1996.
- ⁴ Former Senator Bill Bradley, as quoted in "President Praises Senate Changes in Welfare-Reform Bill," National Public Radio, Morning Edition, July 24, 1996.
- ⁵ Catholic Charities USA, as quoted by Massachusetts Senator Edward Kennedy in his statement on the welfare bill, July 22, 1996.
- ⁶ Senator Carol Moseley-Braun of Illinois, as quoted in "Senate Approves Sweeping Change in Welfare Policy," by Robert Pear, *New York Times*, July 24, 1996.
- ⁷ Senator Daniel Patrick Moynihan of New York, as quoted in "As Pivotal Vote Nears, Welfare's Fate Unclear," by Vanessa Gallman, *The Record*, July 22, 1996.
- ⁸ George Rodrigue, "Welfare Cuts May Hit Legal Immigrants Hard," *Dallas Morning News*, August 28, 1996.
- ⁹ George Rodrigue, "Welfare Overhaul Bill Easily Passes in Senate," *Dallas Morning News*, July 24, 1996.
- ¹⁰ Diane Jennings, "Welfare Law's Impact Unclear," *Dallas Morning News*, September 8, 1996.

WHAT'S IN STORE FOR TEXAS CITIES?

(continued from page 5)

High-Tech and Distribution Fuel D/FW Expansion

The Dallas/Fort Worth metroplex continued to expand briskly in 1996, even as the overall Texas expansion was slowing. The metroplex attracts manufacturers and service companies with good distribution facilities and a "business friendly" environment. Metroplex wages and construction and real estate costs remain a bargain compared with those in other major U.S. cities. D/FW's location in the center of North America allows businesspeople to communicate easily with firms on both coasts and fly nonstop to most business centers worldwide. Ninety-six percent of the U.S. market can be served by truck or rail from D/FW warehouses in 48 hours.

In 1996, metroplex employment increased 3.6 percent, up slightly from 3.4 percent job growth in 1995. Firm expansions and relocations helped feed growth in the real estate and construction industries. Dallas and Fort Worth office markets surged in 1996. In suburban Dallas, office occupancy rates rose above the U.S. average and, for the first time in over a decade, construction plans were under way downtown. Homebuilding also remained quite strong.

Over half of Texas' high-tech jobs are in D/FW companies. These firms felt the impact of the 1996 downturn in the electronics industry, but the effects were less damaging to the D/FW economy than to Austin's because of the metroplex's economic diversity. The metroplex also has a large share of telecommunications manufacturers, which continued to expand strongly.

With relatively low costs, good location and adequate water supply, the metroplex should continue to grow strongly into the next century.

—Fiona Sigalla

Mexican Recovery Boosts Border Outlook

Positive developments in the Mexican economy have given the Texas-Mexico border a healthy outlook for 1997. Border retailers will profit as the number of Mexicans making the trip north for their purchases increases in 1997. As the No. 1 state exporter to Mexico, Texas will benefit from increased U.S.-Mexican trade flows in 1997, and Texas border cities, as ports of entry for this trade, will benefit through increased activity in transportation services, customs and legal services, and warehouse/distribution facilities.

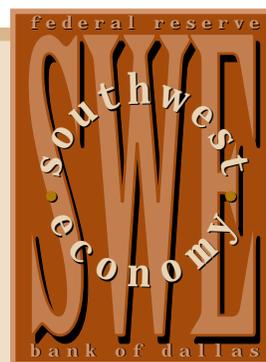
Mexico's maquiladora industry, 70 percent of which is concentrated along the U.S. border, grew strongly for two years. Maquiladoras' dynamic expansion translates into increased opportunities for border cities in supplying maquiladora companies with components, transportation and warehouse/distribution infrastructure, and legal, accounting, financial and other professional services.

Although double-digit unemployment rates persist, employment along the border has picked up. All major border cities have recorded a reduction in their unemployment rates from a year ago.

The border's much-lamented double-digit unemployment rate may have a silver lining. To the extent that such high unemployment rates indicate excess labor, border cities have an advantage in attracting new company relocations and expansions. For example, the plastics-injection molding industry has found a niche in El Paso, and more companies in this field are locating in the city to take advantage of its inexpensive labor and lucrative maquiladora market across the border.

Thus, the border's proximity to Mexico, combined with its excess labor force, offers potential growth for border cities. Some of this growth is already materializing and will surely become more evident throughout 1997.

—Lucinda Vargas



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Despite Short-Term Volatility, Dollar's Value Stable for Nearly a Decade

THE DOLLAR'S VALUE has been remarkably stable over the past nine years, according to the Dallas Fed's inflation-adjusted Trade-Weighted Value of the Dollar Index (TWVD), a measure of the dollar's value relative to the currencies of 101 U.S. trading partners. This recent stability contrasts with the dollar's 1981–87 performance, when the real (inflation-adjusted) TWVD appreciated more than 35 percent and then depreciated by nearly as much.

Since 1988, the real TWVD has stayed within a relatively tight band—never moving more than 5 percent higher or lower than the average value of 76.7. Interestingly, this represents a return to a pre-1981 pattern. From 1976 to 1980, the dollar also never deviated from its average level by more than 5 percent. Moreover, the 1976–80 average, 74.6, is very close to the 1988–96 average (*Chart 1*). What does the dollar's return to its earlier levels and stability tell us about the U.S. economy?

Long-run changes in the trend of the real value of the dollar primarily reflect changes in productivity differentials between the United States and the rest of the world in products that compete in world markets. So the dollar's stable behavior over the long term suggests that U.S. productivity has been fairly stable relative to the rest of the world. Although the dollar's run-up during the 1980s was substantial, most economists attribute this unusual appreciation and the subsequent fall to a sharp, temporary tightening of monetary policy combined with expansionary fiscal policy during the early years of the Reagan presidency.

If the real value of the dollar had shown persistent appreciation, the likely reason would have been an increase in relative U.S. productivity. For example, a permanent increase in the productivity of U.S. carmakers over their foreign counterparts would contribute to a sustained increase in the real value of the dollar. Sustained shifts in demand for U.S. or foreign goods could also change the long-run level of the exchange rate, although this would be less likely to drive long-run changes than would shifts in productivity.

The relationship between the real value of the dollar and long-run productivity differentials is summarized by the theory of *purchasing power parity*. This theory maintains that the

overall real value of any country's currency moves toward a long-run value with the rest of the world provided relative productivity differentials in traded goods remain constant and no prolonged shifts in relative goods demand occur. Hence, the long-run stability of the Dallas Fed's Real Trade-Weighted Value of the Dollar Index suggests that U.S. productivity relative to the rest of the world has remained fairly constant over the past 20 years.

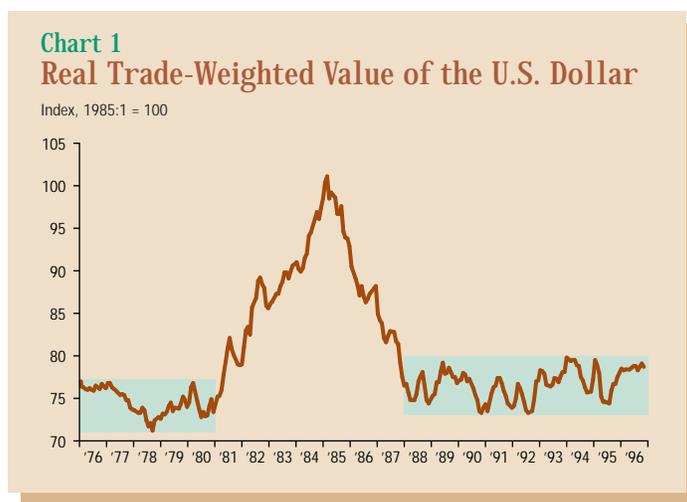
But what drives short-run movements in the real TWVD? In the short run, even if the long-run relative productivity differentials don't change, the real TWVD can deviate substantially from its central trend. Over the business cycle, prospects for growth can change markedly, altering relative demand and the real exchange rate. Nominal (not adjusted for inflation) exchange rate volatility can also translate into real exchange rate volatility if domestic prices do not

instantaneously adjust to changing international conditions. So despite the movement of the real TWVD toward a long-run level, tremendous short-run volatility can occur.

Although the long-run trend in the real value of the dollar has remained fairly constant, on an annual basis, it has shown more volatility in the past nine years than in 1976–80. While swings of more than 5 percent in less than nine months were rare before 1981, they have been common since 1988. One possible

explanation is the further integration of world capital markets, which has increased both nominal exchange rate variability and real exchange rate volatility (as domestic prices are slow to adjust to international price differentials). Another explanation may be that there have been some unusual international events since 1988 that were unlike the influences of the late 1970s, such as the fall of the Berlin Wall in 1989 and the consequent changes in Eastern Europe, the 1992 European Exchange Rate Mechanism crisis and the 1994 devaluation of the Mexican peso. All these events could have contributed to greater short-run volatility while not substantially affecting long-run trends in U.S. relative productivity.

— David Gould
Jeremy Nalewaik



Regional Update

JOB GROWTH IN the Eleventh District states—Louisiana, New Mexico and Texas—picked up in October and November after a very sluggish third quarter. Employment growth rebounded in Texas and New Mexico but slowed during October and November in Louisiana, where it was sluggish for most of the year. Economic indicators suggest District employment growth should continue to be stronger than the weak growth posted in the third quarter.

Texas' private job growth reached an annualized 2.4 percent in October and November, up from 1.6 percent in the third quarter. Employment growth in Texas had been dampened by slower homebuilding and a slump in some high-technology industries.

New Mexico job growth increased 2.5 percent in the fourth quarter after falling 1.3 percent in the third quarter. The service sector rebounded strongly in October and November,

up 4.8 percent and 7.4 percent, respectively. New Mexico's manufacturing sector remains weak, with employment declining 1.3 percent in the past two months.

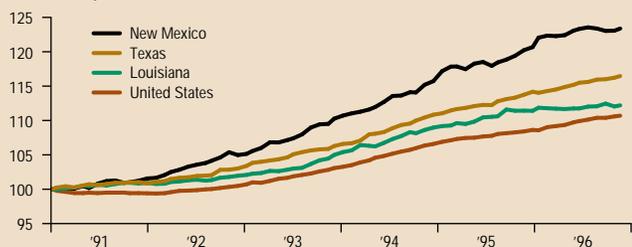
Louisiana's employment growth slowed to 0.4 percent in October and November, after increasing 1.2 percent in the third quarter. Louisiana's manufacturing sector has been very weak in 1996, and employment fell 7.4 percent in the past two months. For the first time in many years, however, higher oil and gas prices have helped boost Louisiana employment in mining.

The Federal Reserve's Texas Leading Index increased strongly in November, suggesting that employment growth over the next three months should continue to be stronger than during the weak third quarter. The increase in the index has been driven by increases in most indicators, particularly in the help-wanted and stock price indexes.

—Fiona Sigalla

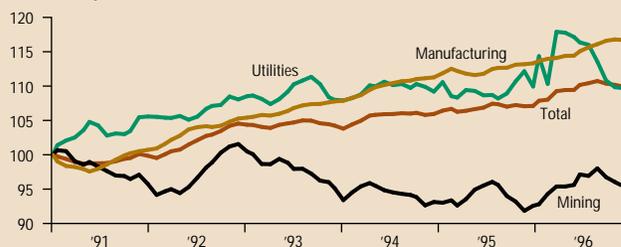
Total Nonfarm Employment

Index, January 1991 = 100



Texas Industrial Production Index (TIPI)

Index, January 1991 = 100



Texas Leading Index and Nonfarm Employment

Thousands of persons

Index, January 1981 = 100



Net Contributions of Components to Change in Leading Index

September–November 1996



Regional Economic Indicators

	Texas Leading Index	TIPI total	Texas employment				Total nonfarm employment			
			Mining	Construction	Manufacturing	Government	Private service-producing	Texas	Louisiana	New Mexico
11/96	118.6	122.9	154.7	441.2	1,057.5	1,473.6	5,177.5	8,304.5	1,800.8	717.8
10/96	117.1	123.0	154.4	438.3	1,056.6	1,470.9	5,167.1	8,287.3	1,798.2	716.0
9/96	116.9	123.2	154.8	435.1	1,055.7	1,467.3	5,158.6	8,271.5	1,804.9	715.8
8/96	116.4	123.7	155.0	433.3	1,056.4	1,473.4	5,149.6	8,267.7	1,798.6	717.8
7/96	115.9	123.3	154.7	432.7	1,053.5	1,462.1	5,140.6	8,243.6	1,797.9	718.8
6/96	116.0	123.0	155.7	432.3	1,053.7	1,457.9	5,136.0	8,235.6	1,793.6	717.5
5/96	116.5	122.2	155.9	431.5	1,052.7	1,456.9	5,116.3	8,213.3	1,793.5	716.0
4/96	116.7	122.2	155.6	430.5	1,051.7	1,455.3	5,097.7	8,190.8	1,792.2	712.2
3/96	116.1	122.0	156.1	429.9	1,049.1	1,453.2	5,077.1	8,165.4	1,793.1	711.4
2/96	115.0	120.6	155.6	428.5	1,047.3	1,452.7	5,064.5	8,148.6	1,794.0	711.8
1/96	113.8	120.5	154.7	424.6	1,044.7	1,451.0	5,055.8	8,130.8	1,795.3	710.1
12/95	113.3	119.6	154.2	420.1	1,039.1	1,460.9	5,067.2	8,141.5	1,788.1	702.1

Further Information on the Data

For more information on employment data, see "Reassessing Texas Employment Growth" (*Southwest Economy*, July/August 1993). For TIPI, see "The Texas Industrial Production Index" (Dallas Fed *Economic Review*, November 1989). For the Texas Leading Index and its components, see "The Texas Index of Leading Indicators: A Revision and Further Evaluation" (Dallas Fed *Economic Review*, July 1990).

Online economic data and articles are available on the Dallas Fed's BBS, Fed Flash, (214) 922-5199 or (800) 333-1953, and WWW home page, www.dallasfed.org.



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