

Southwest Economy



▶ **Strength of Economy, Limited Benefit Eligibility in Texas Curb Long-Term Unemployment Rate**

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▶ *Mexico's long-awaited energy reform should, if carefully and deliberately implemented, increase oil and gas production and reverse a nine-year trend of declining output.*

As someone who spent his childhood in Mexico City, I find the growing prominence of Texas' southern neighbor and largest trading partner one of the most gratifying developments of my lifetime. Structural reform in Mexico—handled judiciously, especially as U.S. economic growth accelerates and Europe recovers—can pay off handsomely for its population and those who work and invest there.

Mexico's Congress approved a dozen reform bills that became law in 2013, five requiring constitutional amendments. To put that in perspective, the current government accomplished more in the past year than the three preceding administrations combined. Mexico has revamped its education and telecommunications systems, amended its labor laws and liberalized its financial and energy sectors—including a plan to open up the oil and gas sector to private investment.

Mexico's long-awaited energy reform should, if carefully and deliberately implemented, increase oil and gas production and reverse a nine-year trend of declining output that has constrained Mexican exports, industrial production and gross domestic product and adversely impacted government revenues.

My colleagues and I at the Federal Reserve Bank of Dallas visited with our counterparts at Mexico's central bank, Banco de México, in March. We were impressed by the optimism these reforms have inspired, and we would encourage others to pay close attention as Mexico's oil and gas industry, in particular, is opened to outside investment and expertise. Michael Plante and Jesus Cañas explain in this issue of *Southwest Economy* the potentially far-reaching effects Mexico's energy reform could have on future prosperity.

Unlike many emerging-market nations, Mexico has seized the opportunity to make some tough decisions during a difficult period in the past few years and is more resilient and globally competitive as a result. Macroeconomic stability, openness to trade and a unified commitment to confront rather than run from market forces indicate that the Mexican economy is no longer emerging; it has emerged.

A handwritten signature in black ink that reads "Richard W. Fisher". The signature is fluid and cursive, with a large initial 'R'.

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



Strength of Economy, Limited Benefit Eligibility in Texas Curb Long-Term Unemployment Rate

By Anil Kumar

▶ *An unemployment rate with a persistent long-term component can be more detrimental to the economy than the same jobless rate with a smaller share of long-term unemployed.*

A sharp rise in the U.S. unemployment rate was a defining feature of the Great Recession. The rate more than doubled, from 4.5 percent in prerecession 2006–07 to a postrecession peak of 10 percent in 2009.

The increase in the percent of long-term unemployed—those jobless for more than six months—was even more compelling. The 12-month moving average of the long-term unemployment rate rose more than fourfold, from 1 percent before the recession to a postrecession peak of 4.1 percent, a level unprecedented in the postwar United States.

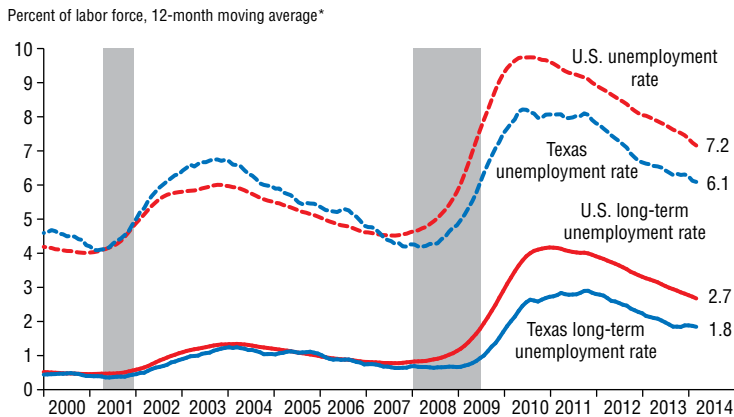
While the overall unemployment rate is of central concern for policymakers, its composition has important policy implications. An unemployment rate with a persistent long-term component can be more detrimental to the economy than the same jobless rate with a smaller share of long-term unemployed. Very

long durations off the job can lead to considerable skill depreciation, permanently limiting productivity. Moreover, the relative effectiveness of Federal Reserve monetary policies and federal government fiscal policies differs when the long-term component of unemployment is high.

Increases in the Texas unemployment rate, reflecting a shorter recession and stronger job growth during the recovery, were somewhat subdued relative to those of the nation. Similarly, the spike in long-term unemployment was comparatively limited in Texas, although the state still experienced a surge.

From prerecession long-term rates similar to the nation’s 1 percent of the labor force, the Texas rate almost tripled to a high of 2.9 percent in 2011 (*Chart 1*). The average period that a Texas worker was unemployed doubled from 15 weeks before the recession to a high of 30 weeks

Chart 1 Texas Long-Term Unemployment Rate Remains Below U.S. Rate



*Seasonally adjusted.

NOTE: The long-term unemployment rate depicts the percent of the labor force that has been unemployed 27 weeks or more. Shaded areas indicate U.S. recessions.

SOURCES: Bureau of Labor Statistics' Current Population Survey; author's calculations.

in 2011; nationally, it increased from 16 to 37 weeks.

Long-term unemployment in Texas—along with headline unemployment—continues to be below national levels across almost all major demographic and industry groups, though it remains higher than prerecession averages, the Bureau of Labor Statistics' monthly Current Population Survey data show. Differences in demographic and industrial composition account for only a small portion of Texas' lower incidence and duration of unemployment vis-à-vis the nation.

Those out of work in Texas continue to enjoy a higher job-finding rate than their counterparts nationally, whether they are unemployed short term or long term. The state's higher job-finding rate has resulted from a combination of factors that include greater job growth, a strong energy sector and a milder housing market downturn. During much of the recession and recovery, a somewhat greater percentage of unemployed Texans left the labor force—where they were no longer counted among the jobless—relative to their counterparts across the nation. Both the greater ability to find work and higher incidence of dropping out of the labor force helped keep long-term unemployment lower in Texas than in the U.S.

Long- and Short-Term Unemployment

During the recovery, the headline unemployment rate and the ranks of the long-term unemployed have decreased slowly but steadily in the state and nation. The Texas unemployment rate has declined 3.1 percentage points from its peak of 8.3 percent in 2011 and stood at 5.2 percent in April 2014, approaching its prerecession average of about 5 percent.

Meanwhile, long-term unemployment is less improved. The 12-month moving average of the long-term rate in Texas has declined a percentage point since 2011 to 1.9 percent of the labor force in February 2014. The share of the long-term unemployed among all jobless workers is 30 percent—14 percentage points higher than the prerecession share, suggesting that improvement within this group hasn't

kept pace with advances for the short-term unemployed.

Tepid gains among the long-term unemployed are a key reason the headline rate remains high relative to prerecession levels four years after the Great Recession ended. The overall unemployment rate in Texas is broken down into short term (less than 15 weeks), medium term (15 to 26 weeks) and long term (27 weeks or more) in Chart 2. The short-term rate is already back to prerecession levels, and the medium-term rate is not far behind. But the long-term unemployment rate remains well above prerecession levels.

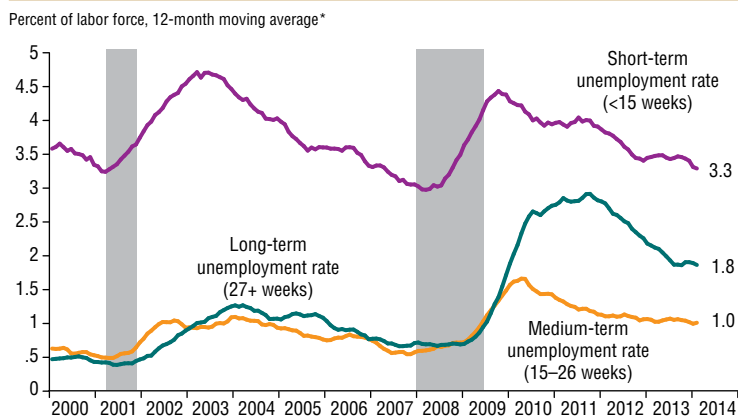
However, Texas' long-term unem-

ployment rate remains lower than the nation's across virtually all demographic groups (Chart 3). The rate for most demographic groups in Texas was about the same as the national average before the recession. Thus, almost the entire difference among groups between Texas and the nation emerged after the recession.

Prerecession differences in long-term unemployment between Texas and the U.S. were significant only in the construction and manufacturing industries (Table 1), and the gap widened after the recession. The construction sector was the hardest hit of all sectors in the Great Recession's sharp housing downturn.

At the national level, long-term un-

Chart 2 Short-Term Unemployment Rate in Texas at Prerecession Levels as Long-Term Rate Lags

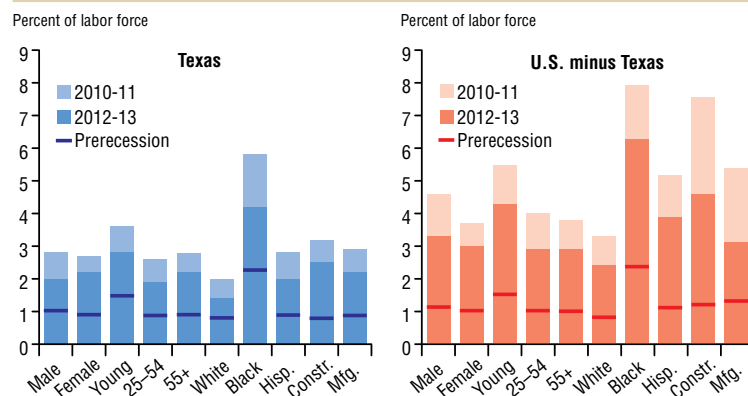


*Seasonally adjusted.

NOTE: Shaded areas indicate U.S. recessions.

SOURCES: Bureau of Labor Statistics' Current Population Survey; author's calculations.

Chart 3 Texas Long-Term Unemployment Rate Declines, Remains Below U.S. Rate for All Major Groups



NOTE: The long-term unemployment rate depicts the percent of the labor force that has been unemployed 27 weeks or more.

SOURCES: Bureau of Labor Statistics' Current Population Survey; author's calculations.

Table 1 Long-Term Unemployment Rate Varies Across Industries, Lower in Texas

	Texas	U.S. minus Texas	Texas	U.S. minus Texas	Texas	U.S. minus Texas	Texas	U.S. minus Texas
	2004–07	2004–07	2008–09	2008–09	2010–11	2010–11	2012–13	2012–13
Mining	0.6	0.5	1.6	1.7	3.8	3.5	1.3	1.6
Construction	0.7	1.1	1.5	3.5	3.2	7.6	2.5	4.6
Manufacturing	0.8	1.2	1.5	2.8	2.9	5.4	2.2	3.1
Wholesale/retail	0.9	1.0	1.2	2.1	2.6	4.2	2.1	3.3
Transportation	0.6	0.7	1.1	1.7	2.1	3.7	1.5	2.6
Information	0.8	1.1	1.7	2.2	4.3	4.1	2.3	3.1
Financial activities	0.6	0.6	1.1	1.7	1.9	3.5	1.8	2.2
Professional and business services	1.2	1.1	1.4	2.3	2.9	4.4	2.1	3.4
Educational and health	0.4	0.5	0.6	1.0	1.4	2.1	1.4	1.9
Leisure and hospitality	1.2	1.2	1.3	2.4	3.7	4.4	2.3	3.5

SOURCES: Bureau of Labor Statistics' Current Population Survey; author's calculations.

employment in construction increased from about 1 percent before the recession to 7.6 percent in 2010–11, before declining to an average of 4.6 percent over 2012–13. Texas, benefiting from a milder housing downturn and stronger recovery, experienced much smaller swings, with long-term unemployment in the sector standing at 2.5 percent in 2012–13.

Persistently High Rate

Economists and policymakers have been puzzled about the headline unemployment rate's slow decline following the Great Recession. Recent research shows that structural factors involving age, education, industry or occupation are relatively less important than other supply- and demand-side explanations.¹

The extension of unemployment benefits may have boosted the supply of individuals looking for work, reducing their job search costs and possibly contributing to the higher unemployment rate. On the demand side, recruiting intensity declined as employers less aggressively filled vacancies after the Great Recession, a recent paper found.²

Supply and demand factors affect the transition of workers in and out of unemployment. Joblessness rises if the "inflow" rate—employed workers leav-

ing jobs, or people out of the labor force seeking to reenter it—exceeds the "outflow" rate—individuals finding employment or dropping out of the labor force.

The outflow rate is a key determinant of the extent of long-term unemployment. The part of the outflow rate measuring the proportion of individuals moving from unemployment to employment—known as the job-finding rate—plunged nationally from 28 percent in prerecession 2006 to an average of 17 percent during the downturn. It remained sluggish during the recovery from the 2007–09 slump (*Chart 4A*).³

The rate at which unemployed individuals dropped out of the workforce also declined dramatically during the recession and, along with the lower job-finding rate, contributed to the rising unemployment rate (*Chart 4B*). The number of unemployed people quitting the labor force has slowly increased during the recovery.

The Texas job-finding rate has exceeded that of the nation since the recession—helping tamp the state's unemployment rate increase. Additionally, because relatively more people in Texas dropped out of the workforce, the state's unemployment rate increase wasn't as great as in most of the U.S. The higher

rate of labor force exits in Texas could be in part because the duration of unemployment benefits was, on average, lower and eligibility for benefits more limited than elsewhere in the country.

Nationally, the entry of those who had been outside the labor force also helps explain the rising unemployment rate during the Great Recession.⁴ Moreover, the rate at which people returned to the workforce and managed to find a job declined significantly across the U.S. The figure in Texas was smaller—indicative of people finding jobs in a relatively healthier economy.

Duration Dependence

Economic job search models during times of unemployment show that the length of joblessness is negatively correlated with the likelihood of landing work—a phenomenon also known as duration dependence. In other words, the longer someone is away from the workplace, the less likely he or she is to find a job (*Chart 5A*).

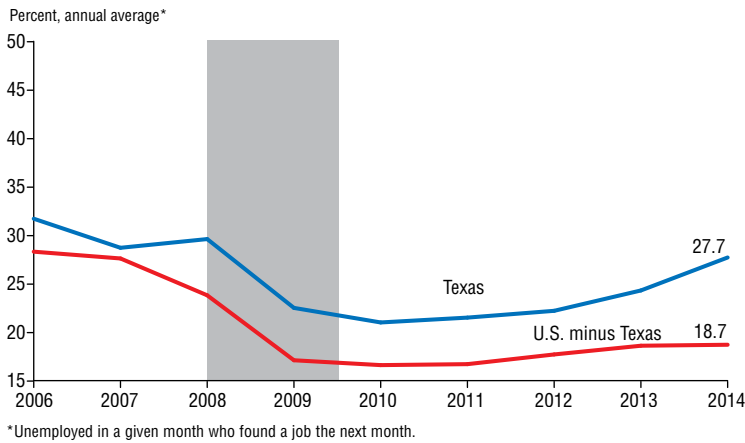
There are several potential explanations for this. First, skills and productivity are lost over time. Employers subsequently question why no one else has hired the long-term unemployed, inferring that the candidate has negative qualities. Recent research shows that exiting unemployment becomes particularly difficult if joblessness lasts longer than nine months; there is no significant duration dependence for lesser periods.⁵

Nationally, someone just out of work has a 30 percent chance of finding another job, on average, in the next month, while a person whose joblessness has lasted more than 26 weeks has about a 14 percent probability of finding a job in the next month, as seen in *Chart 5A*. Due to stronger job growth and shorter unemployment-insurance benefit duration, an average worker in Texas is more likely than someone in the rest of the nation to exit joblessness and find a job at all durations of unemployment.

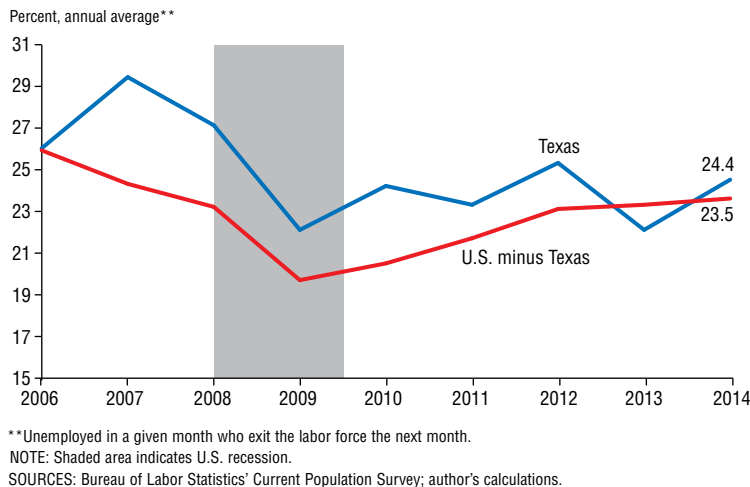
There doesn't appear to be a similar relationship involving time without work among the unemployed who subsequently drop out of the labor force (*Chart 5B*). Additionally, the likelihood that an unemployed individual will

Chart 4 Fewer People Find Jobs, Drop Out of Workforce During Recession

A. Job-Finding Rate for Unemployed Higher in Texas than Nation



B. Some Unemployed Exit Labor Force During Weak Recovery



leave the labor force is somewhat higher in Texas than in the rest of the nation, regardless of unemployment length.

A slightly higher transition rate from unemployment to nonparticipation, particularly among Texans off the job for longer periods, could be partly due to a two-week shorter average potential duration of unemployment insurance benefits in the state. A longer period of benefits in the rest of the U.S. likely prompted the unemployed to keep looking for jobs and remain in the labor force.

Extended Unemployment Benefits

Generous unemployment benefits subsidize the cost of a lengthy job search and have long been linked to longer joblessness periods. Although enhanced

benefits can lengthen duration by lowering job search intensity, they also provide fiscal stimulus by increasing consumption among the unemployed who are otherwise credit constrained. Recent studies regarding the impact of benefit generosity on unemployment duration and the jobless rate find only modest positive effects.

The average period of unemployment nearly doubled, from 18 weeks to 35 weeks, during the Great Recession. The increase was larger for those eligible for unemployment benefits, whose duration rose by more than 20 weeks.⁶ This longer length of joblessness is equivalent to a 0.8 percentage point increase in unemployment that can be attributed to unemployment benefit extensions.

Estimates in the literature indicate that the impact of extended benefits on the unemployment rate in the postrecession period was likely less than 1 percentage point. To be sure, part of the increase in the unemployment rate was due to the unemployed either reducing job search efforts or declining some job offers in order to prolong benefit receipt—economically, not a desirable outcome.

But some of that increase was also due to individuals prolonging their job searches—to qualify for unemployment insurance—rather than dropping out of the labor market. As much as half the impact of extended benefits on the unemployment rate can be traced to increases in the labor force participation rate, according to a recent study. The remaining half was attributable to the benefits' disincentive effects on reemployment.⁷

Texas historically has had fewer unemployment benefit recipients as a percent of the total unemployed than the nation (*Chart 6*).

This is partly due to the shorter duration of unemployment benefits in Texas. Data from the U.S. Department of Labor's Employment and Training Administration indicates that the average potential duration of unemployment benefits—the maximum entitled benefit divided by the weekly benefit amount—reached a high of 22.2 weeks in 2009 in Texas, about two weeks less than the national average.

Regular unemployment compensation is a state-funded, federally administered program that provides a maximum of 26 weeks of benefits and is designed to replace, on average, 50 percent of wages for individuals who are involuntarily dismissed from jobs without cause. Once regular unemployment is exhausted, and if a state's unemployment rate is high, benefits can be extended 13 to 20 weeks under the permanent Extended Benefits program, which the federal and state governments fund equally.

Additionally, Congress can authorize 100 percent federally funded temporary unemployment insurance during national recessions. Congress last created such a temporary Emergency Unemployment Compensation program in July 2008; it expired last Dec. 31 after several extensions. The

program provided 47 to 63 weeks of additional benefits in 2012 and 2013, the exact length of payments dependent on the jobless rate in individual states. In states with persistently high rates of unemployment, the maximum potential duration of benefits under the three programs reached 99 weeks.⁸

The duration of extended benefits under the Emergency Unemployment Compensation program was relatively short in Texas, whose unemployment rate was lower than most other states. Benefits were further limited by the state's milder downturn, as well as by layoffs and permanent job losses that were significantly lower than in the nation.

Policy Implications

The extent of long-term unemployment has important implications for Federal Reserve monetary policy, whose goals are price stability and low unemployment. A higher unemployment rate typically depresses wages and prices. A relatively higher proportion of long-term unemployed among the jobless can dilute this influence on wages and prices, and implies a diminished impact of monetary policy on the unemployment rate.

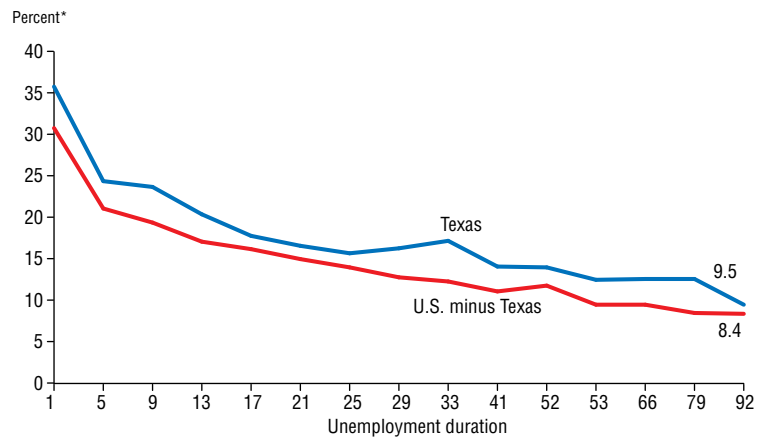
While chronic long-term unemployment potentially weakens the case for monetary policy intervention, it raises the stakes for fiscal policy. If workers are potentially exposed to long periods off the job, they may start saving more money when they do work, simply to get by when they are unemployed. Such savings most immediately slows consumer spending and impedes short-term economic growth.

Moreover, the long-term unemployed may have considerable difficulty finding jobs. If employers have inadequate information about worker quality, they may use length of unemployment as an indicator. Workers also are wary of investing in their own skill improvement if they think they will be unemployed for a long time and, thus, become even more unmarketable to employers.

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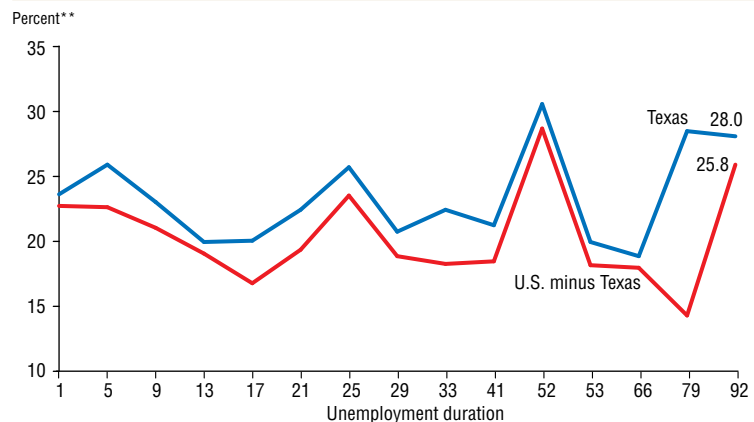
Chart 5 Length of Unemployment Affects Job Finding, Influences Labor Force Departures

A. Job-Finding Rate Declines with Length of Joblessness



*Percent of unemployed in a given month who found work the next month, by weeks of joblessness between 2008 and 2013 (1 = 1-4 weeks, 5 = 5-8 weeks, etc).

B. The Unemployed Exit the Labor Force at All Lengths of Joblessness



**Percent of unemployed in a given month who left the workforce the next month, by weeks of joblessness between 2008 and 2013 (1 = 1-4 weeks, 5 = 5-8 weeks, etc).

SOURCES: Bureau of Labor Statistics' Current Population Survey; author's calculations.

Chart 6 Texas Has Fewer Unemployment Insurance Claimants than Nation

Percent unemployed claiming unemployment insurance



NOTE: Shaded areas indicate U.S. recessions.

SOURCES: Bureau of Labor Statistics; Department of Labor Employment and Training Administration; Haver Analytics.

A Conversation with Jeff Webster

Texas Students Often Lack Skills, Financial Knowledge for College Success

Jeff Webster is assistant vice president for research and analytical services for TG (Texas Guaranteed Student Loan Corp.), a nonprofit that promotes educational access and administers the Federal Family Education Loan Program. He has studied student loan default, debt burden and student retention.

Q. When it comes to college enrollment, education funding and graduating on time, how do Texas students fare?

Unfavorably, if you are concerned about college attainment and timely repayment of student debt.

Among all U.S. ninth graders, 21 percent will go on to graduate high school on time, enroll in college the next fall and graduate within 150 percent of the program length. Only 14 percent of Texas ninth graders managed to do the same. The difficulties begin early.

Based on 2012–13 Preliminary SAT (PSAT) scores, only 37 percent of Texas high school juniors who took the test are college ready, compared with 49 percent nationally. Texas students' SAT scores in critical reading, math and writing trail national averages, reflecting a lack of preparation for college. Regardless of income level, taking a college preparatory curriculum greatly enhances your odds of going to college. Without a college-prep high school diploma, many will forgo or delay college enrollment. If they do enroll, nearly all will do so in an open-admission community college.

The readiness gap partially explains why Texas students choose community college at higher rates. Community colleges account for 45 percent of Texas postsecondary students, compared with 32 percent for the nation. Community colleges are also the lowest-cost option for students—and this matters to Texas students. One's ability to pay for college shapes his/her educational experience in

important ways.

Since community college students tend to be more cost sensitive and debt averse, they often delay enrollment, attend part time and work full time. While this strategy limits out-of-pocket expenses, it disengages students from campus life and can lower their odds of completion. Although less than 27 percent of Texas undergraduates at four-year colleges enroll part time, 64 percent of Texas community college students do. This large group drops out at higher rates.

Q. What are the biggest barriers to bachelor's degree attainment in Texas?

It's a combination of low academic preparedness and inability to afford college. The two interact in interesting ways. Texas has pockets of high poverty where underfunded school districts often lack the resources to adequately prepare their students for college. While polls indicate that American parents want their children to go to college, low-income families are far less confident in their ability to pay. When college isn't financially viable, few students will commit to a challenging high school curriculum. In 2011–12, Texas provided only a quarter of the college grant aid that California did. Student aid has always held out the promise of removing financial barriers and, for many, it has been crucial to their access and success in college. But each year that federal and state governments reduce their commitment to college affordability, more students are unable to

earn a college degree.

My team conducted a study in 2009 that estimated that Texas loses about 52,000 bachelor's degrees per year due to financial barriers. If students from the bottom three quartiles of earnings enrolled and graduated at the same rates as students from the top quartile, our state's workforce would be the envy of the country. What makes the college experience different for the upper income quartile? They are far more likely to enroll at a four-year college straight out of high school, attend college full time and work manageable hours that complement their academics. This makes for an enriching college experience that is far from the norm in our state.

Q. How much student loan debt do Texas college students have, and how does that compare with students in the rest of the nation?

Texas students borrowed about \$5.5 billion in 2011–12. Cumulatively, current and former Texas students have about \$70 billion in outstanding student loans. The national figure is \$1.2 trillion, so per capita, Texas students have borrowed less than students in other states. Most of this borrowing is from the federal government. Because of inadequate grant aid, 60 percent of direct aid awarded annually in Texas is through loans, compared with 51 percent nationally, so loans remain especially important here.

Q. Why do Texas college students take on less debt?

Texas students are more likely to enroll in short-term, low-cost community colleges, so borrowing is less frequent and loan amounts are lower. It is also more common for Texas student borrowers to fail to complete their programs of study; these students borrow less than the graduates.

Low-income students, especially those who have had negative experiences with debt, usually fear debt. They pursue strategies to limit their need to borrow—such as enrolling part time at community colleges and working full time. This comes at a greater risk of dropping out of college.



Q. Default rates on student loans are high and rising. Why do students take on more debt than they can repay?

Texas students gravitate to short-term programs, whether at community colleges or at for-profit career colleges, where default rates are more than twice as high as at four-year schools. But we need to think carefully about that comparison. Remember, these schools serve a different population than four-year schools. Their students are more likely to be from low-income families and need developmental education. While Texas short-term programs generally offer quality education at affordable prices, they serve a population at much higher risk of dropping out and defaulting on their student loans.

Students want to graduate, but whether due to financial or academic circumstances, some will not. Without that credential, and the skills acquisition it represents, students rarely get the income boost they were expecting when they borrowed. Those who fail to earn their degrees are about three times more likely to default than those who graduate. But they aren't the only ones who struggle to repay their loans.

TG and other large student loan guarantee agencies participated in a study with the Institute for Higher Education Policy, which resulted in the report "Delinquency: The Untold Story of Student Loan Borrowing."

Researchers learned that even student borrowers who graduate encounter repayment difficulties. Thirty-eight percent of such graduates either became

delinquent or defaulted on their loans within five years of graduation. Many in higher education are familiar with U.S. Census Bureau data showing that bachelor's degree recipients earn about \$1 million more over their lifetimes than those with only a high school diploma.

Typically, this is depicted with an upward-slanting line showing greater lifetime earnings with higher levels of education. Many use this iconic chart to tell students, "Just go to college." But if one digs deeper into the data, one sees a different picture that requires a more nuanced message.

The deeper dive reveals substantial variance in earnings outcomes, especially for the highest levels of education. By looking at the 25th and 75th income percentiles by level of education, we learn that significant percentages of people with "lower" levels of education out-earn many people with advanced degrees. From National Center for Education Statistics data, we discovered that students' choice of major explains much of this variance, along with how they apply their training to an occupation.

Our message to students should adjust to this new understanding: "Go to college with a plan for what you will study and how you will use that education in a career." Granted, this is a more complex message to deliver, but by heeding this advice, students will see more favorable debt-to-income ratios and have a more realistic expectation of their future standard of living.

Q. With rising college tuition and relatively flat income growth, what are the alternatives to debt?

The state should view student grant funding as the valuable investment it is. Otherwise we will continue with more part-time enrollment leading to lower graduation rates and higher default rates. Clearly, more high school students taking more rigorous classes, especially

► *Our message to students should adjust to a new understanding: Go to college with a plan for what you will study and how you will use that education in a career.*

advanced placement credit courses, would ease the debt burden of students, but this is unlikely to happen without a clear sense that college will be affordable. So, debt will remain a necessary evil to students with financial need. This makes more thoughtful and directive counseling of students crucial.

Q. What does your work suggest is the biggest problem with student loan debt in Texas? How do we fix it?

Students seldom understand the commitment they've made when they take out a student loan. Required loan counseling occurs twice, once when students are still figuring out college life—and are unlikely to contemplate the importance of their debt—and then at the time they leave school. Those most in need of loan counseling have already dropped out of college, and they seldom bother to complete the exit counseling.

Students participating in both of these federal online counseling sessions often report that the experience is complex, legalistic, unintuitive and often irrelevant to their individual circumstances. These online tools need to be fundamentally revised to make them more user-friendly and comprehensible. Students also need access to comprehensive counseling on an as-needed basis.

The state of Texas will soon launch a pilot program that will provide critical consumer information for students, especially as it relates to borrowing and career planning. The pilot will include financial literacy training, annual loan counseling, college-going tips and access to a contact center with expertise on a wide range of financial and student aid topics. This pilot will also convene practitioners and experts from financial aid, academic advising and career counseling to explore ways of better coordinating counseling messages to students.

Banking Recovery Could Be Vulnerable to Interest Rate Increases

By Kenneth J. Robinson

▶ *The earnings on assets—generally loans—may not respond as rapidly as the cost of funds—deposits—leading to declining profits.*

After being hit hard by the financial crisis and resulting recession, the banking industry is bouncing back amid a prolonged low-interest-rate environment. Still, even as profitability rose last year and asset quality problems continued to recede, questions remain about what will happen when interest rates return to more normal levels, challenging bank performance.

The traditional business of banking can result in a mismatch in the maturity structure of assets and liabilities. For example, banks may offer 30-year mortgages or long-term loans to businesses and fund these loans with short-term deposits that either have no explicit maturity, such as savings accounts, or maturities that might last five years or less, such as certificates of deposit. This type of asset and liability structure exists because customers often want long-term loans but relatively quick access to their savings.

Because of this mismatch, banks are exposed to what is known as interest rate risk. In particular, an institution with more long-term assets than liabilities is vulnerable to rising interest rates. In this scenario, the earnings on assets—generally loans—may not respond as rapidly as the cost of funds—deposits—leading to declining profits. Banks can cushion the impact of rising rates in several ways, including with various hedging strategies.

Available data on banks' balance sheets indicate that the maturity structure of assets has lengthened considerably and has not been offset with a corresponding lengthening among liabilities. As such, the "gap" facing banks has increased. The good news is that banks appear to have sufficient capital to mitigate the potential impact of higher interest rates.

The Recovery Continues

In 2013, banks based in the Federal Reserve's Eleventh District earned a return on assets of 1.14 percent, up from 1.09 percent in 2012.¹ Across the U.S., banks recorded a return of 1.09 percent in 2013, up from 1.01 percent the previous year. Eleventh District banks continued their recent performance trend, outperforming their counterparts across the nation, although the differential narrowed (*Chart 1*). Since the financial crisis, the biggest contributor to profitability gains has been a reduction in provision expense—the amount banks set aside to cover potential bad loans.

Asset quality, as measured by the noncurrent loan rate, also strengthened. After peaking in 2009 across the country and in 2010 in the district, the noncurrent loan rate has declined steadily and now stands at 2.6 percent for banks nationwide and 1.3 percent at district banks. The largest category of noncurrent loans has been residential real estate nationally, while commercial real estate made up the largest group in the Eleventh District.²

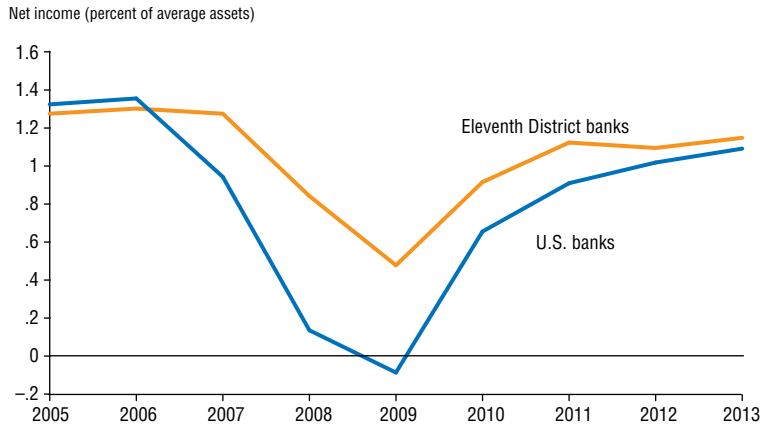
Despite the good news regarding profitability and asset quality, banks have struggled with a traditional core element of their business. Their net interest margin—the interest earned on assets minus the interest paid on deposits—has continued to decline (*Chart 2*). As a result, banks face the challenge of finding alternative sources of revenue.³

Reaching for Yield?

One potential strategy to boost revenue is lengthening the maturity structure of assets. Bonds and loans with longer-term maturities tend to offer a higher return to compensate for less liquidity and greater risk. The current low-interest-rate environment could make such a "reach for yield" particularly

Chart
1

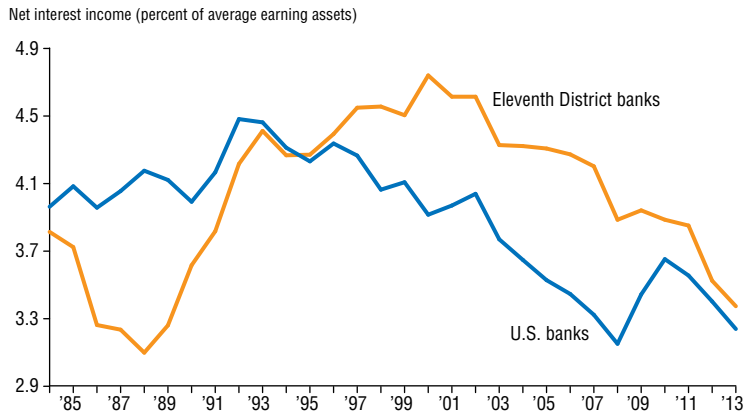
Bank Profitability Continues to Improve



SOURCE: Report of Condition and Income from the Federal Financial Institutions Examination Council.

Chart
2

Downward Trend in Net Interest Margin Persists



SOURCE: Report of Condition and Income from the Federal Financial Institutions Examination Council.

▶ Nationally, those banks with less than \$60 billion in assets—a group that resembles the makeup of the industry in the Eleventh District—recorded a significant increase in the maturity structure of their asset portfolios.

appealing. In fact, it appears that banks have lengthened the maturity structure of their asset portfolios.

In the Eleventh District, holdings of loans and securities that mature or reprice in five years or more stand at almost 27 percent of assets (*Chart 3*). This is up from the recent low of 15 percent before the onset of the crisis and 21 percent in 2003, when interest rates were also quite low.⁴

However, U.S. banks as a group have not lengthened their maturity structure appreciably. This is because the largest institutions heavily influence the national figures. The biggest institutions often turn to alternative sources of revenue that preclude the need to reach for

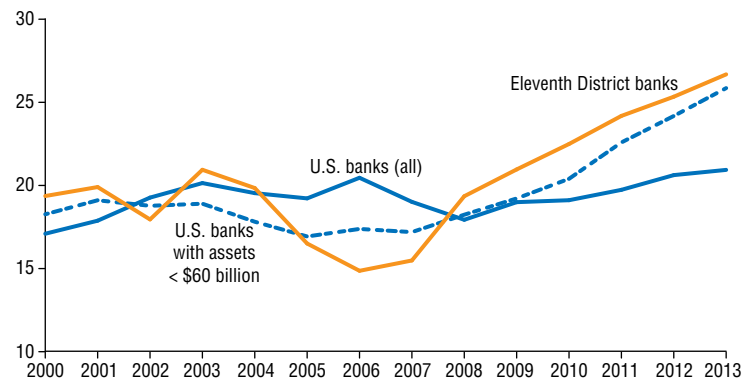
yield. Nationally, those banks with less than \$60 billion in assets—a group that resembles the makeup of the industry in the Eleventh District—recorded a significant increase in the maturity structure of their asset portfolios.

On its face, this lengthening could indicate a significant increase in interest rate risk. However, institutions have also recorded a large increase in nonmaturity deposits, defined as checking accounts, other types of transactions accounts, savings deposits and money market deposit accounts (*Chart 4*). These “core” deposits, as they are sometimes known, represent a typically stable source of funds, suggesting there may not be a mismatch between assets and liabilities.

Chart 3

Banks Increase Their Long-Term Assets

Long-term assets (percent of total assets)



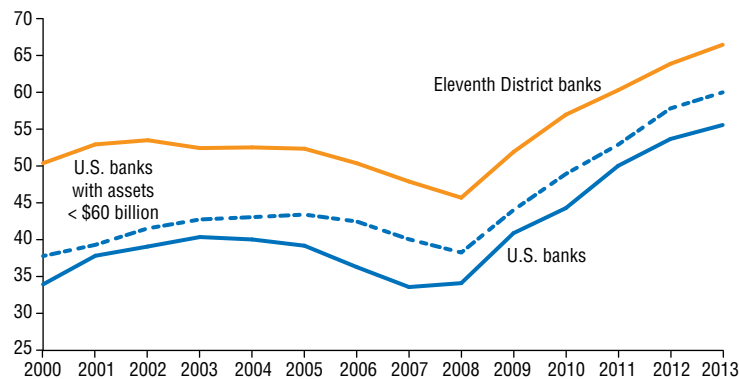
NOTE: Long-term assets are loans and securities that mature or reprice in five years or more. Data are adjusted for structural changes involving recent relocations of banks into the district.

SOURCE: Report of Condition and Income from the Federal Financial Institutions Examination Council.

Chart 4

Banks' Nonmaturity Deposits Also Increase

Nonmaturity deposits (percent of total assets)



NOTE: Nonmaturity deposits are demand deposits, other transaction accounts, money market deposit accounts and other savings deposits. Data are adjusted for structural changes involving recent relocations of banks into the district.

SOURCE: Report of Condition and Income from the Federal Financial Institutions Examination Council.

The low-interest-rate environment gives rise to uncertainty about the stability of these deposits, however. The 2002–03 period was also a time of very low interest rates. When rates began rising in 2004, banks experienced a mild decline in nonmaturity deposits relative to assets.⁵ If banks lose nonmaturity deposits when rates begin increasing, institutions' earnings could be squeezed as they attempt to replace these funds while maintaining asset portfolios that don't adjust as rapidly.

The Gap Measure

The structure of assets and certain

deposit liabilities at community and regional banks suggests that exposure to interest rate risk might have increased. The extent of the maturity mismatch between assets and liabilities offers a clearer picture.

The gap measure that banks report is a "net over three-year position"—defined as loans and securities that reprice in more than (over) three years minus their liabilities that reprice in more than (over) three years, expressed as a percent of assets. A positive value indicates a greater proportion of long-term assets than long-term liabilities. When interest rates increase, a bank with a positive gap

would see its liabilities reprice faster than its assets, contributing to losses.

What is not captured by the gap measure is a bank's ability to offset its interest rate risk through hedging activities. Institutions can use instruments such as interest rate swaps and other derivatives to counteract exposure to rising rates.

To ascertain the possible extent of interest rate risk, it's useful to concentrate on community banks, those institutions with assets of less than \$10 billion. Community banks are less likely to engage in hedging activity than their larger counterparts, reflecting the less-complex structure of the smaller entities' balance sheets as well as the costs associated with hedging. Thus, the gap measure can be a more meaningful indicator of interest rate risk for community banks than for larger institutions.⁶

The gap measure for community banks nationally and in the Eleventh District indicates that banks' exposure to increases in interest rates rose from 2003 to 2013 (Chart 5).

During the period of low rates in 2003, community institutions nationwide and those based in the district experienced similar patterns of repricing their assets and liabilities. By the end of last year, the gap measure increased for every decile, and every grouping of community banks in the Eleventh District recorded a larger gap than their counterparts nationwide. In other words, the gap increased across the industry, and district banks were more mismatched in 2013 than were their peers nationally, leaving them potentially more exposed to rising interest rates.

Cushion Against Losses

While rising rates are a concern for bankers and supervisors alike, certain factors can mitigate the impact. Apart from hedging, retaining capital as a cushion against losses is another way to offset rate risk.

Community banks generally hold sufficient capital, and 98 percent of them were classified as well capitalized at year-end 2013.⁷ Well-capitalized institutions recorded equity capital ratios—capital as a percentage of assets—of 11.2 percent nationally and 10.4 percent districtwide.

A pronounced negative relationship between capital and the gap measure could provoke some notice. In other words, are those banks that are the most mismatched in terms of their gap measure also those with the lowest capital ratios? A comparison of equity capital ratios at community banks nationwide and the gap measure at year-end 2013 reveals that this was not the case (Chart 6).

Community banks nationwide had a slightly negative and statistically significant relationship.⁸ The good news is that equity capital ratios at the end of last year were relatively robust across the distribution of banks. Those in the decile with

the largest gap recorded average equity capital to asset ratios of 9.8 percent in the Eleventh District and 10.4 percent in the U.S. Those in the decile with the smallest gap recorded capital ratios of 10.8 percent in the district and 11.1 percent nationally.

On the Radar

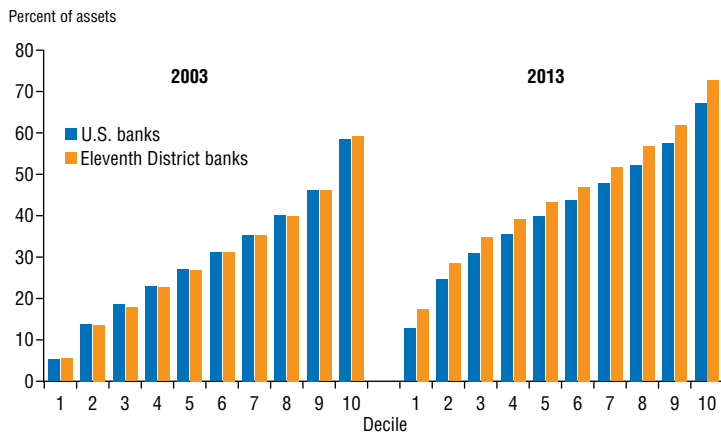
The banking industry's recovery from the financial crisis continues apace. Profitability and asset quality have steadily improved.

The long-run decline in net interest margins coupled with the current low-interest-rate environment has likely

contributed to banks seeking out higher returns by lengthening the maturity structure of asset portfolios and, thus, often boosting exposure to rising interest rates. This exposure appears to be greater than what was observed in the prior period of low interest rates but is mitigated by sufficient amounts of capital. So in spite of the relatively good banking industry news over the past few years, supervisors remain vigilant to potential risks.

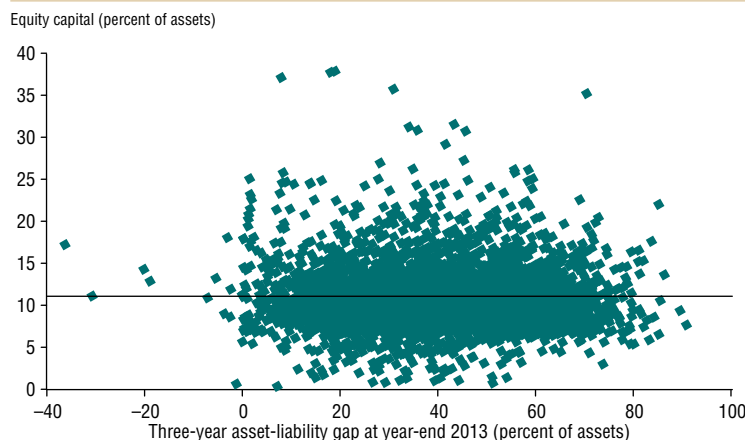
Robinson is an assistant vice president in the Financial Industry Studies Department at the Federal Reserve Bank of Dallas.

Chart 5 Asset/Liability Gap Increases from 2003 to 2013 for Community Banks



NOTE: Values for each decile are the mean values of the gap measure for banks within the group. Decile rank based on mean gap measure. Community banks are defined as those institutions with assets less than \$10 billion.
SOURCE: Uniform Bank Performance Report from the Federal Financial Institutions Examination Council.

Chart 6 Gap and Capital not Closely Related at U.S. Community Banks



NOTE: Community banks are defined as those institutions with assets less than \$10 billion.
SOURCE: Uniform Bank Performance Report from the Federal Financial Institutions Examination Council.

Notes

- ¹ The Eleventh Federal Reserve District consists of Texas, northern Louisiana and southern New Mexico.
- ² See "Bank Performance Strengthens," by Kelly Klemme, Federal Reserve Bank of Dallas *Financial Insights*, vol. 3, no. 1, 2014, for more evidence on the role of provision expense in earnings. Noncurrent loans are loans past due 90 days or more and loans on nonaccrual status. Data are adjusted for structural changes involving recent relocations of banks into the district.
- ³ Banks were able to maintain strong levels of profitability before the crisis despite continued declines in the net interest margin mostly by lowering their noninterest expense.
- ⁴ In 2003, the federal funds rate fell to 1 percent.
- ⁵ From the end of 2004 until 2007, banks' nonmaturity deposits increased 11.4 percent while their assets increased 33.1 percent. Some of this relative decline in nonmaturity deposits to assets could have found its way into money market funds. Over this same period, retail money market funds grew 20.5 percent while institutional money market funds increased 41 percent.
- ⁶ See "Interest Rate Risk Management at Community Banks," by Doug Gray, Federal Reserve System *Community Banking Connections*, Third Quarter, 2012. In addition to concentrating only on community banks, also excluded were credit card banks and bankers' banks, newly chartered banks (those less than five years old) and banks with equity capital ratios greater than 40 percent.
- ⁷ To be classified as well capitalized, a bank must have a total risk-based capital ratio of at least 10 percent, a tier 1 risk-based capital ratio of at least 6 percent and a leverage ratio of at least 5 percent.
- ⁸ In regressions of the equity capital ratio on the gap measure, the coefficient is small and negative (-0.009) but statistically significant at the 1 percent level for U.S. banks. This estimated relationship implies that a 1 percentage point increase in the gap is associated with a 0.9 basis point decline in the equity capital ratio. (100 basis points equal 1 percentage point.) The relationship is statistically insignificant when considering only Eleventh District banks. In 2003, the relationship is statistically insignificant for both bank groups.



AGRICULTURE: Texas to Avoid Worst of Projected Farm Income Drop

U.S. farm income is expected to plummet 27 percent this year, driven largely by lower cash receipts from crops, according to an initial outlook from the U.S. Department of Agriculture (USDA). But the decline will be less substantial in Texas, where livestock dominates the agriculture sector.

Texas ranks No. 1 in livestock production among the states, and livestock and related products account for two-thirds of Texas' agriculture cash receipts. Those receipts will increase slightly in 2014, the USDA predicts, likely allowing Texas farm income to dodge the steep national decline.

New Mexico will also avoid the bulk of the downturn, as livestock composes 80 percent of that state's agriculture sector. Within the New Mexico livestock segment, dairy production accounts for half. Dairy cash receipts will increase 7 percent in 2014, the USDA forecasts.

Besides the national double-digit decline in crop cash receipts, sharply reduced government payments resulting from the 2014 farm bill also contribute to the anticipated drop in U.S. farm income. The USDA expects a \$5.1 billion decline in government farm payments this year, partly due to the legislation repealing the direct payments program. The law, however, exempts growers of cotton—Texas' primary crop—who will receive direct payments in 2014 at a reduced rate.

—Emily Kerr



MEXICO: New Pipeline May Reduce Reliance on Overseas LNG Imports

Mexico has been importing increasing amounts of liquefied natural gas (LNG) to meet growing demand for natural gas, particularly for power generation. Now, new U.S.-Mexico gas pipelines could help Mexico scale back costly overseas LNG imports.

The majority of Mexico's natural gas imports come via pipeline from the United States, which accounted for about 80 percent of Mexico's overall gas imports in 2012, according to the Energy Information Administration (EIA). About 75 percent of these 2012 imports originated in Texas. LNG imports from countries such as Nigeria, Qatar and Peru fulfilled the remaining imported natural gas needs.

Mexico could reduce these costly, distant imports in favor of cheaper pipelined supplies when the additional capacity from the U.S. comes online later this year. Three cross-border pipeline projects—two from Texas and a third from Arizona—under construction could boost capacity by 2.44 billion cubic feet per day (bcf/d). Pemex, Mexico's state-owned oil and gas company, is adding pipeline capacity from these border crossings to power plants and industrial customers in northern and central Mexico.

Mexico's natural gas consumption totaled 6.6 bcf/d in 2012, up almost 3 percent from 2011, EIA data show. Domestic production, which fell more than 3 percent in 2012, totaled just 4.6 bcf/d.

—Amy Jordan



AIR TRAFFIC: DFW Passenger, Cargo Growth Lags Other Major Airports

Dallas/Fort Worth International Airport grew less than other comparable airports from 2002 to 2012, according to the U.S. Bureau of Transportation Statistics (BTS). The number of enplaned passengers at DFW Airport increased 14.3 percent, compared with an average 18.4 percent among the nation's top 50 airports and 21.2 percent at the busiest airport, Hartsfield-Jackson Atlanta International.

Declining domestic market share at American Airlines may be a factor. Along with its American Eagle affiliate, American accounted for 81 percent of DFW Airport passenger traffic in the year ended in January, BTS data show. American's U.S. market share based on revenue passenger miles—one passenger flown one mile—fell from 20.4 percent in 1992 to 12.9 percent in 2012, a Hofstra University report found.

DFW Airport passenger and cargo traffic remain below peak levels reached in 2000, before 9/11 and the dot-com bust, though the total number of passengers had nearly rebounded by 2013. Particularly large declines in passenger traffic occurred from 2000 to 2002—only Los Angeles International Airport (LAX) experienced a bigger drop among the top five airports for passenger traffic. On the cargo side, DFW Airport volumes in 2013 were 28.8 percent below 2000 levels. The overall air cargo industry stagnated over the period, with growth concentrated at hub airports for major freight carriers such as FedEx and UPS.

—Melissa LoPalo

Would a Texas Central Bank Set Rates Higher?

By Janet Koech and Mark A. Wynne

The Texas economy has outperformed the rest of the nation on several fronts—it did not experience as big a house price run-up prior to the economic crisis, nor was the subsequent housing bust during the crisis as big. Texas entered the recession later than most other states, experienced a milder downturn and recovered its precrisis level of employment and economic activity sooner than most other states.

With such relative economic strength, it is interesting to speculate how interest rates in Texas would differ if the state had its own central banking system. In fact, if Texas were a stand-alone nation, it would rank as the world's 13th-largest economy.¹

Stanford University economist John Taylor has posited that the appropriate monetary policy rate depends on a region's economic output relative to its potential (popularly known as the output gap), and the deviation of inflation from the central bank's inflation target (usually assumed to be 2 percent). The Taylor rule prescribes higher interest rates when inflation is above target and output is above potential—and lower interest rates when output is below potential and inflation is below target.

Computing a Taylor rule rate for Texas offers possible insight into the interest rate path a central bank of Texas

might set in response to regional economic conditions. The implied monetary policy rate for Texas (*Chart 1*) shows a very different path than that set by the Federal Reserve's rate-setting Federal Open Market Committee (FOMC).

While the federal funds rate has been near zero for several years, a monetary policy calibrated to Texas' economic conditions would have called for an interest rate of zero for at most one year and rates of about 2 to 3 percent in 2011 and 2012. Indeed, for the entire period since the mid-1990s, economic conditions in Texas would have called for interest rates higher than the prevailing monetary policy rates. Conversely, as Texas recovered from the 1980s recession, it would have preferred interest rates lower than those set by the FOMC through the early 1990s.

The smaller deviation of Texas' actual output from its potential relative to the nation's performance corroborates the state's better economic performance over the past few years—economic activity in Texas did not fall as far below potential during the recent crisis as it did in the U.S. (*Chart 2*).

However, Texas inflation has been closely correlated with overall U.S. inflation, with an even higher correlation in recent years.² The patterns of these two components of the Taylor rule—the output gap and inflation—suggest that

the preferred path of interest rates in Texas shown in *Chart 1* is driven mainly by output gap differences.

The Taylor rule rate implies that a higher interest rate would be more appropriate for Texas than the current federal funds rate and, thus, the prevailing lower rate might lead to locally higher inflation. But inflation in Texas is broadly similar to inflation in the rest of the U.S. This is largely because the state is fully integrated into the broader U.S. economy. Wage and price pressures are kept in check by the movement of goods and especially workers.

Texas has been the No. 1 destination for domestic migrants—U.S. natives and immigrants relocating to Texas from other states—since 2006.³ In the euro area, the absence of such labor mobility makes living with a one-size-fits-all monetary policy comparatively much more challenging.

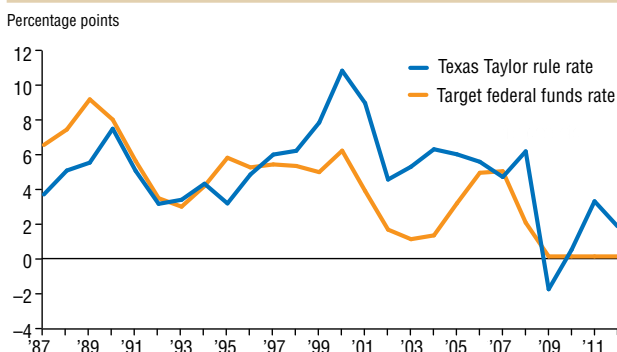
Notes

¹ Texas' gross domestic product (GDP) was \$1.48 trillion in 2013. See "If Texas Were a Nation 2013," Texas Comptroller of Public Accounts, March 2014.

² The correlation between U.S. and Texas consumer price inflation is 0.90 for the 1987–2012 period and 0.99 for 2009–12. The output gap correlation for 1987–2012 is 0.79, compared with -0.61 for 2009–12.

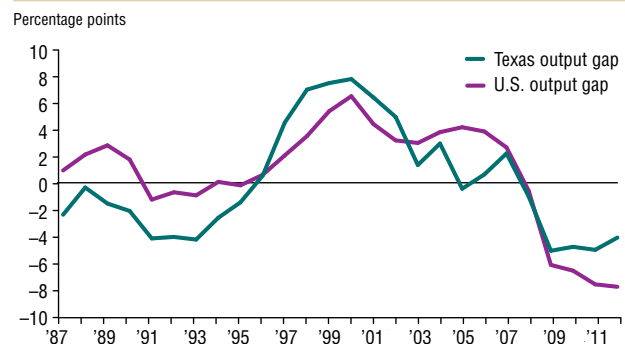
³ See "Gone to Texas: Immigration and the Transformation of the Texas Economy," by Pia M. Orrenius, Madeline Zavodny and Melissa LoPalo, Federal Reserve Bank of Dallas Special Report, 2013.

Chart 1 Texas Taylor Rule Rate Differs from U.S. Rate



SOURCES: Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve Board/Haver Analytics; authors' calculations.

Chart 2 Output Gap Smaller in Texas than U.S.



SOURCES: Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve Board/Haver Analytics; authors' calculations.

‘Reforma Energética’: Mexico Takes First Steps to Overhaul Oil Industry

By Michael D. Plante and Jesus Cañas

▶ *The fiscal health of the Mexican government and the living standards of Mexico’s citizens are inextricably tied to that of Pemex, making declining crude oil production over the past decade a particularly troubling sign for many in Mexico.*

The Mexican oil sector is at a critical juncture. Output from state-run *Petróleos Mexicanos* (Pemex) has declined more than 25 percent since peaking in 2004, despite increased investment in production and exploration for new oil (*Chart 1*). Mexico now produces less oil than Texas, and forecasts in recent years point to further declines.

The ramifications of falling production extend well beyond Pemex. The oil and gas sector alone accounts for about 5 percent of Mexican gross domestic product (GDP). Pemex also provides 25 to 30 percent of government revenue; the company’s tax payments have been so substantial that they have exceeded operating income in recent years, causing Pemex to incur losses (*Chart 2*).

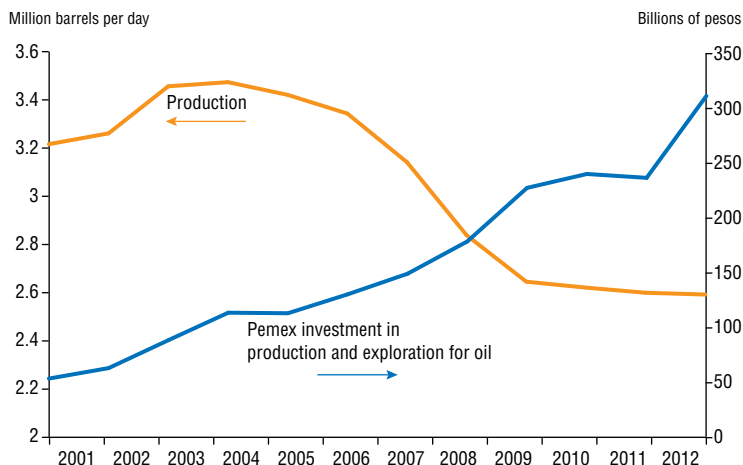
Put in perspective, the size of Pemex’s remittance exceeds total government spending on social programs, education, and public health and safety. As a result, the fiscal health of the Mexican government and the liv-

ing standards of Mexico’s citizens are inextricably tied to that of Pemex (*see box, page 19*), making declining crude oil production over the past decade a particularly troubling sign for many in Mexico.

Politicians in Mexico have been aware of these problems for some time. In 2008, the administration of then-President Felipe Calderón announced plans to resuscitate Pemex, offering reforms that would give the company greater budgetary autonomy and operational flexibility. But political opposition diminished most of the proposed changes, and the measures that passed failed to stem production declines.

Against this background, Mexican President Enrique Peña Nieto sought to turn the tide of falling production, recently pushing through a comprehensive reform of the oil and gas industry, or *reforma energética*. It will affect every aspect of the sector, from Pemex’s role to new opportunities for foreign investment. Although lawmakers haven’t yet

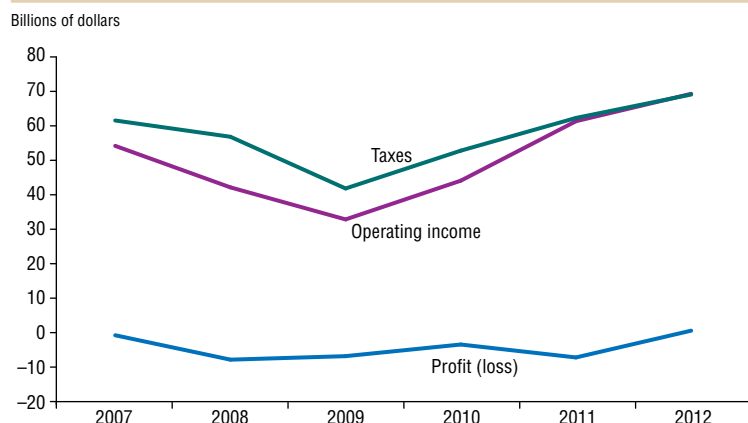
Chart 1 Pemex Investment Hasn’t Reversed Mexican Crude Oil Production Decline



SOURCES: U.S. Department of Energy; Bloomberg.

Chart 2

Pemex Tax Payment Exceeds Operating Income



SOURCES: Bloomberg; International Monetary Fund.

set the details, a framework has been put in place, leading to newfound optimism about the nation's energy future.

Mandated Involvement

The government is engaged in all aspects of Mexico's oil and gas sector. This involvement is mandated in the national constitution and in supporting laws, which together spell out rights regarding ownership of crude oil and its production.

Article 27 of the constitution stipulates that the state is the sole owner of all oil and other minerals found under the ground. Thus, the Mexican government determines where and when oil is produced and by whom. By comparison, in the U.S., private citizens may own oil and minerals found beneath their property.

Although Articles 25 and 28 grant the Mexican government direct control over the production of any oil it owns, foreign oil companies played a prominent role in extraction during the early 1900s. The impact of the constitutional articles was not significantly felt until 1938, when President Lázaro Cárdenas partially nationalized the industry and created Pemex.

Even after the nationalization, Mexico continued to rely on private contractors until the Petroleum Law of 1958 prohibited their participation. The law installed Pemex as the monopoly producer of oil, natural gas and refined

petroleum products such as gasoline and diesel and as operator of related sectors such as petrochemicals.¹

Geology's Blessings (and Curses)

Pemex was initially blessed by favorable geology and could produce abundant oil at minimal cost and effort. In the 1970s, a supergiant oil field, Cantarell, was discovered in the shallow waters of the Bay of Campeche west of the Yucatan Peninsula (*see map, page 18*). The discovery dramatically increased Mexican oil production, yielding enormous amounts of low-cost crude for decades.

As oil fields get older, their production declines. For Cantarell, the peak occurred in 2004 when production averaged 2.1 million barrels of oil per day (mb/d), accounting for 63 percent of Mexican oil output that year. Cantarell's output has slipped precipitously since then, falling in 2011 to 0.5 mb/d, or just 20 percent of Mexican production.

Pemex attempted to offset Cantarell's decline by trying to increase production at several other fields, some more successfully than others. The most notable triumph came from fields known collectively as Ku-Maloob-Zaap (KMZ), located in the same general area as Cantarell. KMZ's 2011 production was more than 0.8 mb/d, a 177 percent gain from 2004. Despite this increase, Mexico's overall production has fallen in the past decade.

Technology, Investment Required

Mexico still has oil underground and likely has other yet-to-be-discovered sources of both oil and gas. The Chicontepec field, north and northeast of Mexico City, contains large reserves, though recovery is complicated by difficult geology. After billions of dollars of development, the field produces a relatively small amount of oil, roughly equal to 2 percent of total Mexican output.

There is consensus among geologists that Mexico probably has a significant amount of oil in deepwater areas of the Gulf of Mexico, though there has been little exploration to date. This contrasts with the U.S. side of the Gulf, which has routinely produced more than 1 mb/d of crude oil for many years.

Moreover, there are locations containing varying amounts of shale oil, shale gas or both. These include the Burgos, Sabinas and Veracruz basins, as seen in the map. The prospects for shale are much more speculative than those for the Gulf of Mexico because shale development is expected to be relatively expensive and risky. Nevertheless, it is possible that at least some of these resources could be harnessed to boost production.

Successful development of these areas will require technology that Pemex does not possess. The company's payments to the Mexican treasury have left it short of cash for developing technologies. The state-owned firm could seek joint ventures with foreign oil companies. However, before the recent reform, outside concerns were permitted to collaborate with Pemex only through contracts in which they provided specific services to Pemex. These agreements have not been conducive to technology transfer.

Constitutional Reforms

President Peña Nieto signed into law last December changes to the Mexican Constitution that set the stage for a dramatic alteration of the oil and gas sector. While questions remain about the details—most requiring additional legislation—the law spells out key points of the plan.

Major Mexico Oil and Gas Fields Where Production Occurs, Development Likely



Courtesy of *Oil and Gas Journal*, PennWell Corp.

Under the new system, the state will retain ownership of any hydrocarbons found underground, allowing the government to remain in control of which resources will be pursued and when and to decide who produces the oil.

In a major break from the past, the government will allow both Pemex and private firms to produce oil and gas in the country. The companies, both foreign and domestic, can work independently or jointly with Pemex.

How private participation will work in practice will depend greatly upon the nature of the contracts Mexico's government offers. The reform is carried out through at least four types of arrangements—profit sharing, production sharing, licensing and service contracts—each with its own risk/reward trade-off:

- Profit-sharing envisions government payment to oil companies based on a percentage of the revenue generated after exploration and production costs are recovered. The outside firms would not own any of the oil produced.
- Production sharing will provide for participating companies to be compensated based on a percentage of production, after cost recovery.
- Licensing will allow companies to acquire possession of hydrocarbons at the wellhead, upon the payment of taxes, if commercial production occurs.
- Service contracts will remain part of the Mexican system. Companies receive cash payment for performing specific activities for Pemex and are paid even if production never occurs.

At least some of the contracts will allow foreign companies to book reserves for U.S. Securities and Exchange

Commission accounting purposes—a necessary provision if Mexico wants to attract private investment.

Round Zero Begins

While Pemex will lose its monopoly on producing oil, the company will choose geographic areas in which it wants to operate—subject to government approval—before outside companies can enter the country. This selection process, known as Round Zero, began in late March when Pemex submitted its official list of areas to the secretary of energy.

Pemex seeks to retain all of the areas where it already produces, including low-cost fields such as the KMZ and more complicated areas in the Chicontepec. Pemex has also sought to retain access to areas where it has no production in the Gulf of Mexico, including some deepwater tracts. However, the

company has not sought to become heavily involved in areas with shale oil or gas, most likely because of cost and risk.

Regulators must decide by Sept. 17 the areas over which Pemex will retain full control, those Pemex will jointly develop with private companies and the ones where private companies will operate independently of Pemex. Sometime in 2015, regulators will allow bidding by domestic and international oil companies.

Optimism for the Future

While the exact outcome of the reforms and their impact on economic

activity in Mexico aren't clear, the outlook is upbeat.

The government forecasts that oil production could increase to more than 3 mb/d by 2018, a 25 percent jump from 2013, significantly reversing the recent 10-year decline. Independent research analysts estimate the reform could add 1 to 1.5 percentage points to Mexico's long-term GDP growth.

The change should also strongly benefit the economy of Texas, home to many companies likely to participate in the oil and gas sector's opening.

The outcome will, of course, depend crucially upon the still-to-be-

resolved reform details. The overhaul, if effective, should entice private companies to invest in the oil sector and allow Pemex to become a more efficient and effective company. The benefits of this would include greater oil production and positive spillovers into other parts of the economy. All are benefits that states such as Texas and North Dakota are experiencing as a result of their ongoing energy booms.

Plante is a senior research economist and Cañas is a business economist in the Research Department of the Federal Reserve Bank of Dallas.

Note

¹ For further details on the Petroleum Law of 1958, see "The Prospect for Further Energy Privatization in Mexico," Ewell E. Murphy Jr., *The Texas International Law Journal*, vol. 36, no. 1, 2001, and "Energy Reform and the Future of Mexico's Oil Industry: The Pemex Bidding Rounds and Integrated Service Contracts," by Tim R. Samples and José Luis Vittor, *Texas Journal of Oil, Gas and Energy Law*, vol. 7, no. 2, 2012.

Government Payments Hobble Pemex

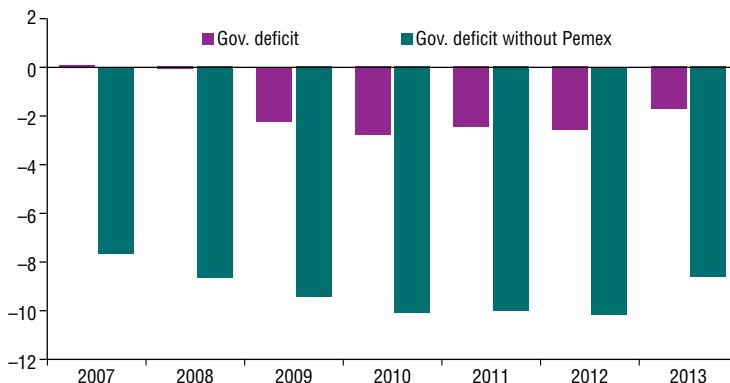
On the face of it, Pemex appears to be an extremely successful company. Based on annual revenue of \$125.2 billion in 2013, it is one of the largest firms in Mexico, and it ranked 36th in the Fortune Global 500 that year. But size masks performance; the company has routinely lost money in recent years.

The shortfall reflects Pemex's large payments to the government, which in 2012 totaled almost \$70 billion (roughly 25 percent of government revenue). With no Pemex revenues and no change in expenditures, the government deficit as percent of GDP would have been much larger (*see chart*). For example, in 2013, the deficit would have been almost 9 percent of GDP instead of 1.7 percent.

Mexico has recently enacted fiscal reform, changing the taxation of corporations and individuals. Specifics of how the new law will affect Pemex and other oil companies haven't been released. While the government needs the revenue, it is also aware that the energy tax regime has to be attractive to private investors and less punitive to Pemex for the sector to flourish.

Mexico's Relative Deficit Would More than Triple Without Pemex

Percent of gross domestic product



SOURCES: Secretary of Housing and Public Credit; authors' calculations.

Strength of Economy, Limited Benefit Eligibility in Texas Curb Long-Term Unemployment

(Continued from page 7)

Texas Economic Influences

Demographic influences explain neither the postrecession rise in unemployment duration in Texas nor the lower long-term unemployment rate in the state vis-à-vis the nation.

Lower long-term unemployment in Texas likely results from two factors. First, unemployed Texans experienced a higher job-finding rate because of the state's stronger job growth, booming energy sector and milder housing market downturn. And second, a somewhat higher percentage of the unemployed in Texas exited the labor force relative to the nation, in part due to their shorter average duration of unemployment benefits and lower eligibility relative to their counterparts nationally.

Kumar is a senior research economist and advisor in the Research Department at the Federal Reserve Bank of Dallas.

Notes

¹For this line of research, see "Long-Term Unemployment and the Great Recession: The Role of Composition, Duration Dependence, and Non-Participation," by Kory Kroft, Fabian Lange, Matthew J. Notowidigdo and Lawrence F. Katz, working paper, Harvard Web Publishing, September 2013. http://scholar.harvard.edu/files/lkatz/files/kink_ltu_and_great_recession_sep16_2013.pdf.

²See "The Establishment-Level Behavior of Vacancies and Hiring," by Steven J. Davis, R. Jason Faberman and John C. Haltiwanger, *Quarterly Journal of Economics*, vol. 128, no. 2, 2013, pp. 581–622.

³The job-finding rate and all other transition probabilities are month-to-month and were calculated using matched monthly Current Population Survey data.

⁴See "The Labor Market in the Great Recession: An Update to September 2011," by Michael W.L. Elsby, Bart Hobijn, Aysegül Sahin and Robert G. Valletta, *Brookings Papers on Economic Activity*, vol. 43, no. 2, 2011, pp. 353–84.

⁵See "Do Employers Use Unemployment as a Sorting Criterion When Hiring? Evidence from a Field Experiment," by Stefan Eriksson and Dan-Olof Rooth, *American Economic Review*, vol. 104, no. 3, 2013, pp. 1,014–39.

⁶See "Extended Unemployment and UI Benefits," by Rob Valletta and Katherine Kuang, Federal Reserve Bank of San Francisco *Economic Letter*, no. 12, April 2010.

⁷See "Unemployment Insurance and Job Search in the Great Recession," by Jesse Rothstein, *Brookings Papers on Economic Activity*, vol. 43, no. 2, 2011, pp. 143–213.

⁸See "Extending Unemployment Compensation Benefits During Recessions," by Julie M. Whittaker and Katelin P. Isaacs, Washington, D.C.: Congressional Research Service, Library of Congress, May 2013.

DALLAS FED



Southwest Economy

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