OCTOBER 2023
FISCAL NOTES

How Texas Created a Recession-Resilient Economy

By Brynne Harder and Peggy Fikac

Some analysts have predicted another economic downturn practically since the nation emerged from the pandemic-driven recession of 2020. But as dire predictions surge and wane, Texas' economic fundamentals help it face the prospect of any recession from a position of relative strength.

For the Texas Comptroller of Public Accounts, job one is closely monitoring economic information and trends. This scrutiny shapes forecasts including the Biennial Revenue Estimate that Comptroller Glenn Hegar issues before each regular legislative session.

"We anticipated slower growth in our revenue estimate, but we also know that Texas' economy is better positioned than other state economies and the national economy to absorb slower growth rates," says Hegar.

A September report by the Federal Reserve Bank of Dallas (Dallas Fed) says Texas job growth fell below the U.S. rate in August, the first time that has happened since November 2022. Overall economic activity was stronger, however, and looking at December 2022 through August 2023, Texas job growth outpaced the U.S. (**Exhibit 1**).

Along with many others who watched the Federal Reserve (the Fed) raise interest rates, the Comptroller's office in January predicted a mild recession for Texas. The Comptroller's office has since pulled back from that forecast, also in line with other economists, as Hegar expressed cautious optimism.

While the uncertainty made a hash of traditional economic expectations, Texas' strengths remain clear: a resilient workforce; a diverse economy that encompasses oil and gas; a business-friendly environment; and a continued investment in infrastructure. These advantages lure people and businesses from outside Texas, further buttressing the state's economy.

"We anticipated slower growth in our revenue estimate, but we also know that Texas' economy is better positioned than other state economies and the national economy to absorb slower growth rates."

– Glenn Hegar

A Message from the Comptroller

I wasn't surprised — but it still made me proud — when the Dallas Fed announced Texas is the "stickiest" state in the nation, with 82 percent of native Texans choosing to stay. The next closest "sticky state" was North Carolina at 75.5 percent. Texas also welcomes more than 1,000 people each day, including births and those moving here. That says a lot about the state's resilient economy (the eighth largest in the world), job opportunities, tax policies and people.

In this issue of *Fiscal Notes*, we examine the reasons Texas has done a good job of weathering economic downturns, relative to other states. We attribute this durability to both good policy and good fortune. Diverse industries, a strong energy sector, business-friendly climate, steady population growth and a relatively young workforce contribute to our resiliency.

Many of us expected an economic reckoning this year in response to federal decisions to raise interest rates, the bumpy restart of global trade and other factors. We watched inflation rise to its highest level in 40 years, straining many a grocery budget. As of this writing, however, we are cautiously optimistic as we monitor the economy. Growth has been slower, but we haven't experienced the anticipated contractions.

This issue of *Fiscal Notes* also looks at the ways in which higher interest rates are affecting our state. To temper inflation, the Federal Reserve at this writing had raised the effective federal funds rate 10 times since March 2022. We study the effect of those increases on capital investments, consumer spending and housing. Our story also takes a look at the evolution of monetary policy in the U.S. over more than a century.

Texas has benefited from record revenues to support state initiatives and invest in infrastructure during what could have been a rocky recovery from a succession of "once-in-a-lifetime" events over the past several years. (I think the term "once-in-a-lifetime" is losing its appeal by now.) But the fact is the U.S. and Texas economies are still in uncharted territory, and Texas remains one of the best places to stick it out.

I hope you find this issue informative,

Glenn Hegar

Texas Comptroller of Public Accounts

A CLOSER LOOK — October 2023

CERTIFICATION REVENUE ESTIMATE

The Certification Revenue Estimate (CRE) — provided after Texas' regular legislative session ends, and this year after two special sessions — revises projections from the Biennial Revenue Estimate to reflect legislative activity and current economic information.

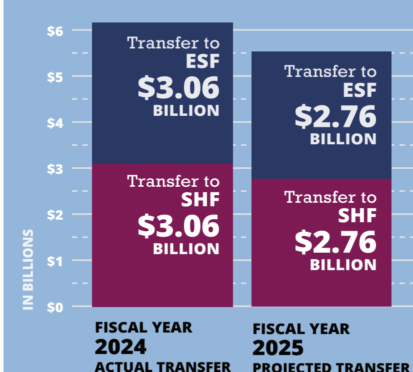
THE 2023 CRE PROJECTS the state will have a total of $194.57 billion in General Revenue-related funds available. This revenue will support general-purpose spending of $176.28 billion for the 2024-25 biennium, resulting in an expected ending balance of $18.29 billion. In view of the significant risks to the economic outlook, revenue is estimated conservatively for the 2024-25 biennium.

Revenue Available for General-Purpose Spending in the 2024-25 Biennium

		2024-25 PROJECTED (In Billions)	
General Revenue-Related (GR-R) Tax Collections	+	$147.11	
Other GR-R Revenues	+	$19.91	
Total GR-R Revenues	=	$167.02	SUBTOTAL
Beginning Balance (Funds carried forward from previous biennium)	+	$38.65	
Total GR-R Revenue & Fund Balances	=	$205.67	SUBTOTAL
Revenue Reserved for Transfers to the Economic Stabilization Fund	–	$5.26	
Revenue Reserved for Transfers to the State Highway Fund	–	$5.84	
Total Revenue Available for General-Purpose Spending	=	$194.57	TOTAL

Revenue and Balance Transfers to the State Highway Fund and Rainy Day Fund

SEVERANCE TAX REVENUE TRANSFERS TO THE ESF AND SHF



The State Highway Fund (SHF) and Economic Stabilization Fund (ESF or Rainy Day Fund) receive required transfers of tax revenue.

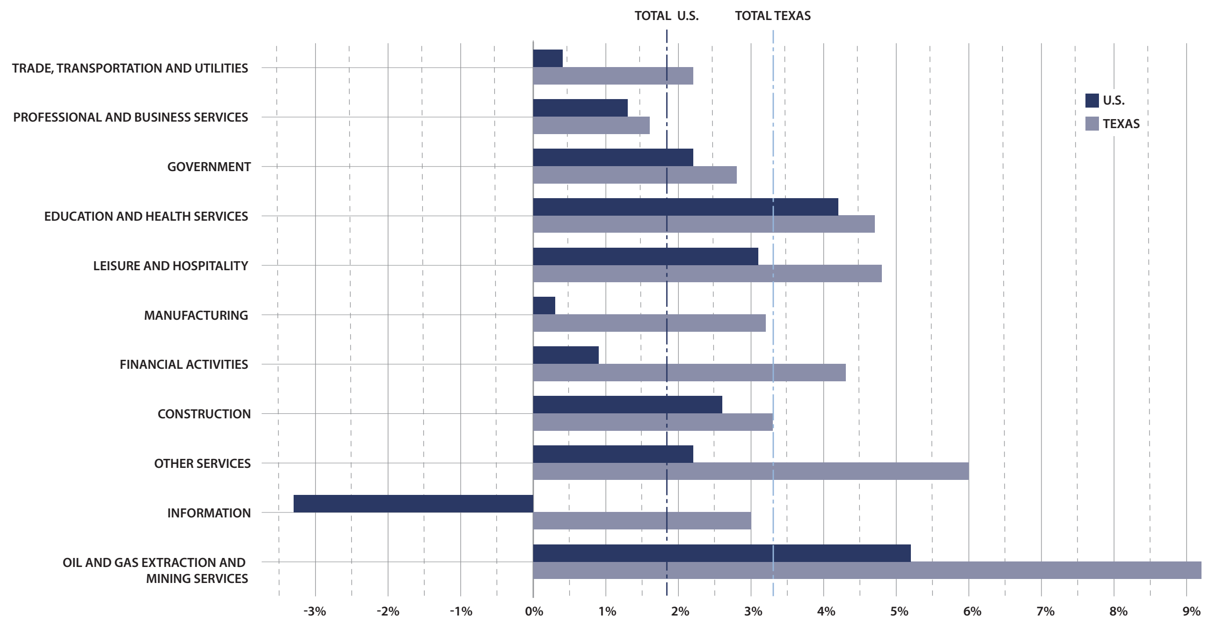
THE RAINY DAY FUND WILL HAVE A PROJECTED BALANCE OF $23.77 BILLION AT THE END OF FISCAL 2025. Taking into account interest and investment earnings, and absent any additional legislative appropriations.

For detailed information about the CRE, visit comptroller.texas.gov/transparency/reports/certification-revenue-estimate/2024-25.

*If you would like to receive a paper copy of **Fiscal Notes**, contact us at **fiscal.notes@cpa.texas.gov**.*

EXHIBIT 1

JOB GROWTH, U.S. AND TEXAS, DECEMBER 2022-AUGUST 2023



Note: Seasonally adjusted annual rate.
Sources: Bureau of Labor Statistics; Texas Workforce Commission; Federal Reserve Bank of Dallas

DEFINING "RECESSION"

There is no official source for state recessions, says Tom Currah, associate deputy comptroller for fiscal matters for the Comptroller's office. The National Bureau of Economic Research (NBER), which tracks U.S. economic cycles, defines recession as "a significant decline in economic activity that is spread across the economy and that lasts more than a few months." The research organization uses federal data on employment, industrial production, personal income and consumer spending. Most recessions identified by NBER include two or more consecutive quarters of declining real gross domestic product.

Tom Currah, Texas Comptroller of Public Accounts

The pandemic and other world events complicated the picture, notes Currah:

- *The federal government provided extensive financial support to individuals, businesses and state and local governments, driving demand for goods and services.*
- *This demand met a limited supply resulting from supply chain issues.*
- *The Fed repeatedly raised interest rates to cool the resulting inflation, a process that historically has led to job losses and, often, a recession. As of this writing, this cycle is different.*

Jase Auby, chief investment officer of the Teacher Retirement System of Texas, said in July that it takes time for interest rate changes to affect the economy, and that he still expected a recession.

Pia Orrenius, vice president and senior economist at the Dallas Fed, notes her agency isn't predicting a Texas recession in 2023, while acknowledging the unique challenges of forecasting in the pandemic era. "All our models broke in the pandemic," Orrenius says. "Everything had to be re-done."

Currah says it's simply new territory.

"I suspect the current business cycle is one that will be studied by economists for decades," he says, "with ongoing debate about exactly why we did not enter a recession by now."

TEXAS' STRONG ECONOMY

Despite the uncertainty, Texas is buoyed by strengths "from both natural advantages and policy," Currah says. Several factors are key.

Business-Friendly Policies

Texas' positive factors include "its business-friendly economic and regulatory environment that attracts companies to the state," Currah says. Texas doesn't impose an income tax, for example, and its regulatory structure is predictable.

Orrenius says taxation and regulation are viewed relative to the states from which people are coming. “If they’re moving from California, obviously we have a much lighter tax and regulation scheme,” she says.

Diverse Industries

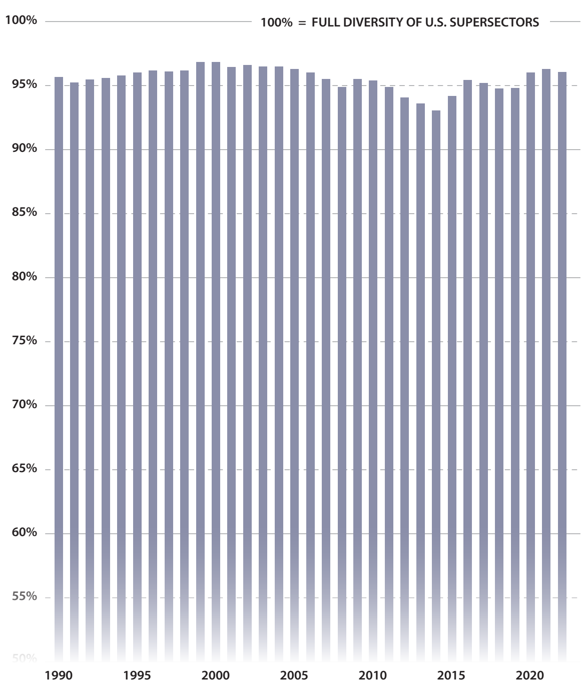
A diverse economy helps in downturns because when one industry slides, others may not be hit as hard. Texas’ economic diversity “has been robust over time,” says Jojo Estrada, an economist with the Comptroller’s office who prepared a diversity index comparing Texas with U.S. employment in 11 “supersector” industries (**Exhibit 2**).

Jojo Estrada, Texas Comptroller of Public Accounts

The index measures diversity based on a scale of zero to 100 percent. An index value close to zero means that the distribution of industry employment in Texas is dissimilar to that of the U.S. On the other hand, the closer the index is to 100 percent, then the distribution of industry employment in Texas is just as diverse as industry employment distribution in the U.S.

EXHIBIT 2

TEXAS EMPLOYMENT IN 11 SUPERSECTOR INDUSTRIES COMPARED WITH U.S., 1990-2022



Note: The diversity index shows employment in Texas in 11 supersector industries compared with the U.S. Supersector industries are natural resources and mining; construction; manufacturing; trade, transportation and utilities; information; financial activities; professional and business services; education and health services; leisure and hospitality; other services; and government.
Source: Revenue Estimating, Texas Comptroller of Public Accounts

Texas’ lowest level on the diversity index occurred in 2014 due to an oil boom that drove up state employment in the industry more than it did that of the nation overall.

“Based on 33 years of employment data, the average annual index value of 96 percent shows that the level of industry employment distribution in Texas closely approximates that of the U.S.,” says Estrada. “This shows that the Texas economy is a diverse one.”

Texas’ economy also benefits from federal and state policy aimed at pandemic recovery and other state and federal legislation. For example, Congress approved the CHIPS and Science Act to boost the U.S. semiconductor industry, and state lawmakers established the Texas Semiconductor Innovation Fund to encourage economic development.

While these factors are important, migration to the state plays a crucial role in its success, says Orrenius. “Really, the secret sauce in Texas is the economic growth that is sustained by both firms and people moving to the state,” she says.

Moving to Texas

Texas is the second state to reach more than 30 million residents, based on 2022 population estimates from the U.S. Census Bureau, after years of high growth, often adding more than 1,000 people per day. By 2060, Texas’ population could be between 36.7 million and 44.4 million.

The Census Bureau wrote that from 2000 to 2022, about half of the population gain came from natural increase, about 29 percent from net domestic migration and 22 percent from net international migration — important factors for a strong and diverse workforce, according to Monica Cruz, state data center lead at the Texas Demographic Center.

Further, individuals between 18 and 34 years of age make up the highest percentage of people moving to Texas both domestically and from abroad (**Exhibit 3**).

“Typically, Texas’ economic growth exceeds U.S. growth by a bit. This is attributable in part to the fact that we have a younger population on average than the country as a whole, and thus a larger share of our population is working age,” says Currah.

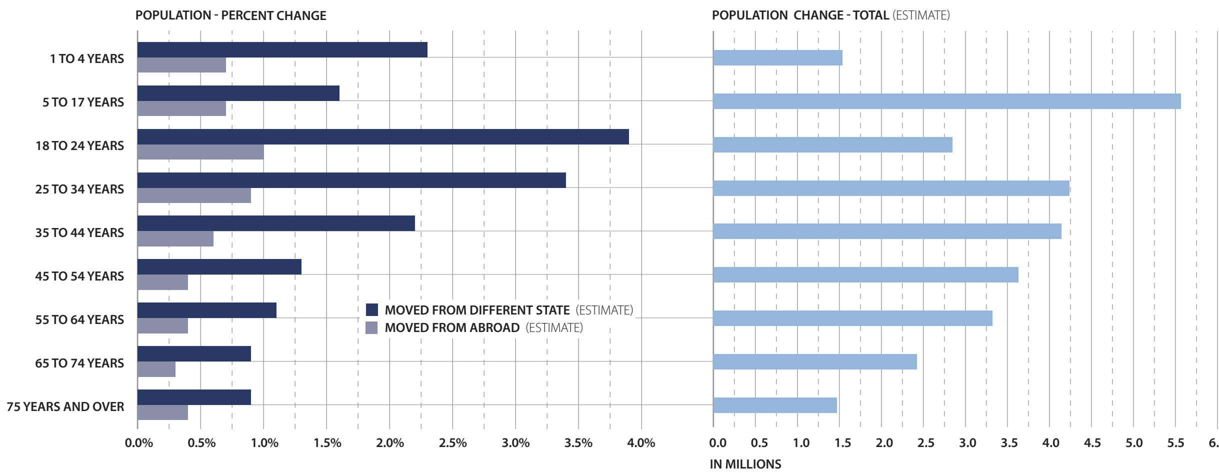
Monica Cruz, Texas Demographic Center

Texas has the second lowest median age in the U.S. of 34.8 years and ranks second for percentage of individuals under 18 years.

“A younger population can be an advantage for the growth of the economy if adequate investments in education, health care, housing and job training are made,” says Cruz.

EXHIBIT 3

AGE GROUPS MOVING TO TEXAS, 2021



Sources: U.S. Census Bureau, 2021 American Community Survey 1-year sample; Texas Demographic Center

FOCUS ON THE FUTURE

Over the years, government and industry leaders have focused on Texas' varied needs, important for keeping the economy strong and continuing to attract new residents.

Education for the Next Workforce

Lawmakers this year approached higher education investment from several directions, including increased funding for community colleges, medical education and appropriations for financial aid programs.

A new funding model for community colleges puts an emphasis on outcomes — transferring to a four-year school, graduating with a degree or certificate, or completing 15 hours of dual credit or dual enrollment. It will provide about $2.2 billion in state funding over the next two years.

Texas community colleges already have received national recognition for outstanding academic and workforce outcomes. In 2021, San Antonio College was the first Texas school to win the Aspen Prize, a national honor awarded every two years. Amarillo College was named a winner in 2023.

Voters in November will consider approving the Texas University Fund, an endowment that could expand research capabilities at Texas State University, Texas Tech University, the University of Houston and the University of North Texas.

Texas State, for example, has set a plan to achieve Research-1 (R1) Carnegie classification, the highest tier of research university, by 2027. At a town hall in May 2023, the university's president Kelly Damphousse said this achievement would mean "a high level of research activity and innovation." Damphousse added, "That means there are companies that get spun out by the faculty or companies that spin in to work with our faculty. That means they will hire our students as interns and provide jobs for our students when they graduate. We are building a tax base here with high-paying jobs around us."

Housing Needs

For many years, Texas had affordable housing compared to the national average. But since about 2010, appreciation has been keeping pace with the nation. Still, Orrenius sees a positive environment compared with states experiencing similar increases in housing costs, but without the same level of residential building.

Pia Orrenius, Federal Reserve Bank of Dallas

"Most quarters, if you look at the data, we're at the very top of adding supply to the housing pool," says Orrenius. "There's just been so much demand that it's overwhelmed supply."

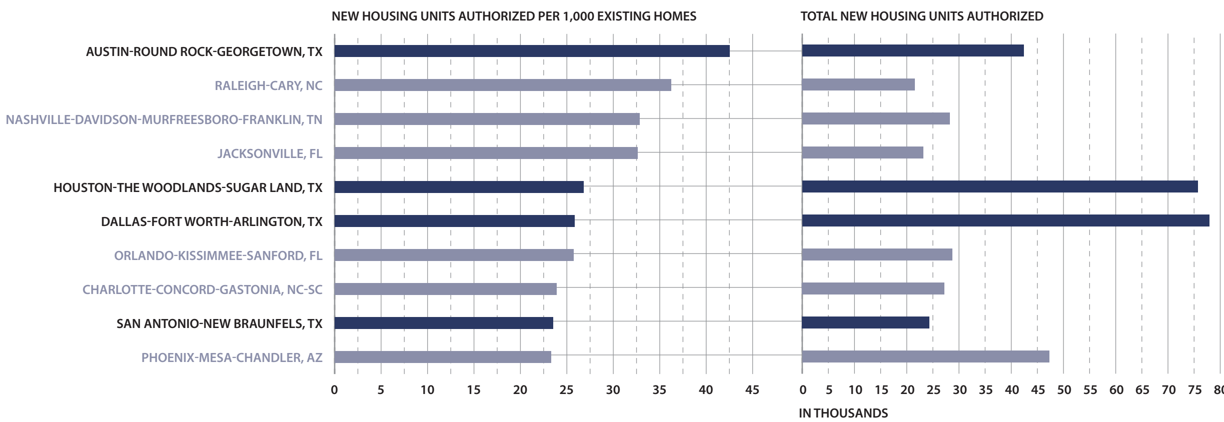
Texas was fourth in the U.S. in a recent analysis by Construction Coverage of residential building permits, while the state's four major metro areas were in the top 10 (**Exhibit 4**).

"Most quarters, if you look at the data, we're at the very top of adding supply to the housing pool. There's just been so much demand that it's overwhelmed supply."

– Pia Orrenius

EXHIBIT 4

TOP 10 LARGE METROS FOR HOMEBUILDING, 2022



Note: Authorized refers to the act of a local jurisdiction approving construction projects by issuing building or zoning permits.
Sources: U.S. Census Bureau, Building Permit Survey; Construction Coverage

Long-Term Infrastructure Planning

A strong economy and prudent spending allow Texas to continue investing in critical infrastructure. The Comptroller's office has been tasked with managing high-speed internet expansion.

"We have a responsibility to ensure that residents and businesses can thrive no matter where they live. I'm honored my office is helping with these essential programs," says Hegar.

The work is ongoing. The 88th Legislature passed measures that, if approved by voters, would create the Broadband Infrastructure Fund, the Texas Water Fund and the Texas Energy Fund. Each seeks to set up long-term funding sources.

Building infrastructure takes considerable time, which can lead to challenges as demographic or business trends change. Orrenius points to one example when mentioning that Mexico recently became the top U.S. trading partner, a change that's been noticed by those in Laredo. The anticipation of increased truck traffic five to 10 years from now has local leaders already examining road needs.

"I think we have a responsibility to do what we can to make sure that whatever's coming, let's prepare for it," she explains.

ESTABLISHING A STRONG FOUNDATION

The Center on Budget and Policy Priorities describes state rainy day funds as "an essential component of strong revenue systems that can endure economic ups and downs and preserve stability, especially during difficult times when they're needed most."

Texas' Economic Stabilization Fund (ESF) is structured to automatically receive a portion of severance tax revenue, reducing the state's reliance on this volatile money for day-to-day expenses. Continued good stewardship of the fund is essential to ensuring it remains available when needed.

"Texas' Rainy Day Fund is a valuable tool, but we must never forget that it comes from taxpayers' pockets," says Hegar.

The ESF is only one aspect of how a sound tax structure and financial accounts can better position the state to withstand any future downturns. About 57 percent of tax revenue is from sales and use tax, and the state doesn't have a personal income tax. Moody's Investors Service says a state income tax can increase economic volatility.

IN A GOOD PLACE

In October 2019, Hegar said, "When you're in the second-longest economic recovery in modern history — and about to be in the longest, hopefully — every morning you wake up, you're one day closer to the next recession. Right now, we don't know when that day is."

The 2020 recession differed completely from previous recessions. But the state was better prepared to rebound from its effects thanks to prudent governance — and expects to be in the same place for future recessions. **FN**

For more on the state's infrastructure investments and needs, turn to "Building Strong Infrastructure for a Growing Texas," available online at comptroller.texas.gov/economy/fiscal-notes/2023/sep/infrastructure.php.

Impacts of Higher Interest Rates on Texas

By Landre Buzard

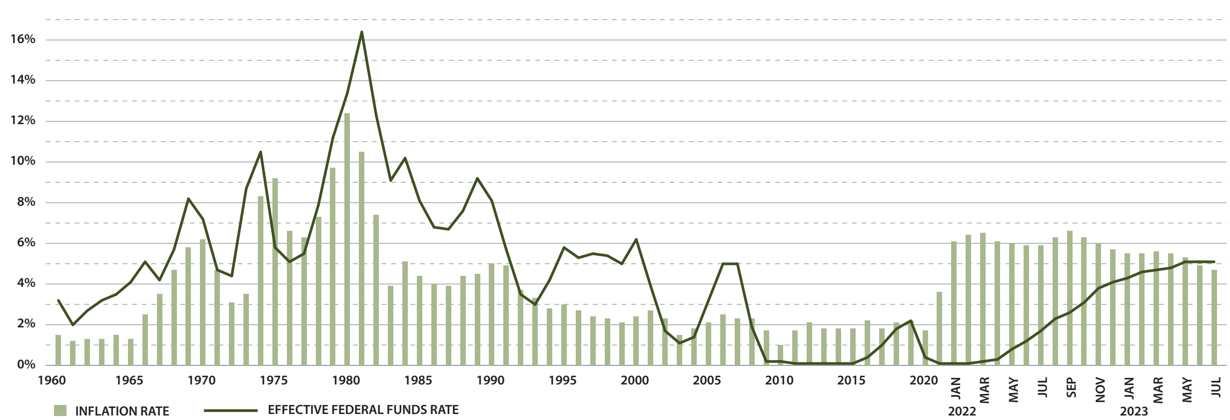
Interest rates play a fundamental role in our financial systems and in our lives. At its core, an interest rate is the cost of borrowing money or the return earned on fixed income investments. It represents the percentage charged or earned on a loan, mortgage, credit card balance or savings account.

In the U.S., the Federal Reserve Board sets the federal funds rate, which determines the cost at which depository institutions, such as banks and credit unions, lend reserve balances to each other overnight on the federal funds market. This rate is essentially the interest rate at which banks borrow and lend money among themselves. Its impact cascades through the financial landscape, molding the rates on various financial products, including personal savings accounts, credit cards and mortgages.

As of July 2023, the effective federal funds rate (calculated as a volume-weighted median of overnight federal funds transactions) stood at 5.33 percent — the highest rate since before the financial crisis of 2007-2009 and up from 0.08 percent in early 2022. The steady rise in interest rates was in direct response to rapidly rising inflation rates, which reached 6.6 percent in September 2022, the highest rate in 40 years (**Exhibit 1**).

EXHIBIT 1

EFFECTIVE FEDERAL FUNDS RATE AND CORE INFLATION RATES, 1960-2023



Note: Inflation rate is year-over-year change in the Consumer Price Index.
Sources: U.S. Bureau of Labor Statistics; Board of Governors of the Federal Reserve System; Federal Reserve Bank of St. Louis

CURRENT LANDSCAPE

Central banks such as the Federal Reserve (the Fed) raise interest rates to combat inflation. Mike Reissig, chief executive officer of the Texas Treasury Safekeeping Trust Company, says, "You can't discuss interest rates without first discussing and understanding inflation. The very existence of interest rates is an adjustable compensation for inflation for lenders, such that rates rise or decline either in response to past or current fluctuations in inflation, or in anticipation of changes in inflation."

Before 2020, there was a long period of low inflation. However, the arrival of the COVID-19 pandemic in early 2020 caused various market problems, including vast disruptions to global supply chains and the effect of large cash infusions from the government to help avoid recession. Throughout 2021 and 2022, the labor market experienced tightening, resulting in a rise in core inflation — the price of goods and services, excluding volatile food and energy prices. This was influenced by the growing ratio of job vacancies to unemployment, and the inflationary pressure was further exacerbated by the war in Ukraine.

According to the Federal Open Market Committee (FOMC) meeting in July, "The Committee seeks to achieve maximum employment and inflation at the rate of 2 percent over the longer run. In support of these goals, the Committee decided to raise the target range for the federal funds rate to 5 1/4 to 5 1/2 percent (**Exhibit 2**)."

WHY THE FED RAISES RATES

When inflation rises too rapidly, it can disrupt economic stability and negatively impact households and businesses. To mitigate this disruption, the Fed raises interest rates to make borrowing more expensive for individuals and businesses. This can discourage borrowing and reduce spending, which typically helps cool demand for goods and services in the economy.

When interest rates increase, it becomes more expensive for banks to borrow money from the Fed. This leads to a reduction in the money supply as banks have fewer funds available for lending. With less money circulating in the economy, the potential for inflationary pressures diminishes. Moreover, by demonstrating its commitment to combat inflation through the tightening of monetary policy, the Fed can shape the expectations of businesses and consumers. If the Fed anticipates lower inflation, it can help anchor price expectations and moderate wage and price increases. **Exhibit 3** shows a history of the Fed's efforts to tackle inflation and shape inflation expectations.

EXHIBIT 2

FEDERAL FUND RATE HIKES SINCE MARCH 2022

FOMC MEETING DATE	RATE CHANGE (BASE POINTS)	FEDERAL FUNDS RATE TARGET RANGE
July 27, 2023	+25	5.25% to 5.50%
May 4, 2023	+25	5.00% to 5.25%
March 23, 2023	+25	4.75% to 5.00%
Feb. 2, 2023	+25	4.50% to 4.75%
Dec. 15, 2022	+50	4.25% to 4.50%
Nov. 3, 2022	+75	3.75% to 4.00%
Sept. 22, 2022	+75	3.00% to 3.25%
July 28, 2022	+75	2.25% to 2.50%
June 16, 2022	+75	1.50% to 1.75%
May 5, 2022	+50	0.75% to 1.00%
March 17, 2022	+25	0.25% to 0.50%

Source: Board of Governors of the Federal Reserve System

EXHIBIT 3

HISTORY OF FEDERAL RESERVE MONETARY POLICY ACTIONS

YEAR	EVENT/POLICY ACTION
1914	*In the early years of the Federal Reserve System, the 12 Reserve Banks are relatively autonomous and set their own policies and discount rates with approval from the Federal Reserve Board.*
1923	*The Board establishes the Open Market Investment Committee to centralize open market operations under the general supervision of the Board and away from individual Reserve Banks. It also is intended to better coordinate Federal Reserve and Treasury policies.*
1935	*The Banking Act of 1935 creates the modern structure of the Federal Open Market Committee (FOMC), including the rotation of Reserve Bank presidents. Control of open market operations is officially vested in the FOMC. These operations are implemented through the trading facilities at the Federal Reserve Bank of New York.*
1951	*The Treasury and the Fed declare they have "reached full accord with respect to debt management and monetary policies to be pursued in furthering their common purpose and to assure the successful financing of the government's requirements and, at the same time, to minimize monetization of the public debt." The new accord allows the Fed to begin pursuing an independent monetary policy.*
1961	*In an attempt to both lessen the balance-of-payments deficit and end the recession, the Fed purchases long-term Treasury bonds while simultaneously selling short-term bills. The move is intended to flatten or "twist" the normal upward-sloping yield curve.*
1977	*The new Federal Reserve Reform Act explicitly directs the Fed to "promote the goals of maximum employment, stable prices, and moderate long-term interest rates" and requires the Board of Governors to report at semiannual hearings before both the House and Senate about the FOMC's objectives, performance and plans for the growth of money and credit.*
1980	*Among other changes to the banking industry, the Depository Institutions Deregulation and Monetary Control Act of 1980 requires all depository institutions to meet reserve requirements. This change strengthens the Fed's ability to control the money supply.*

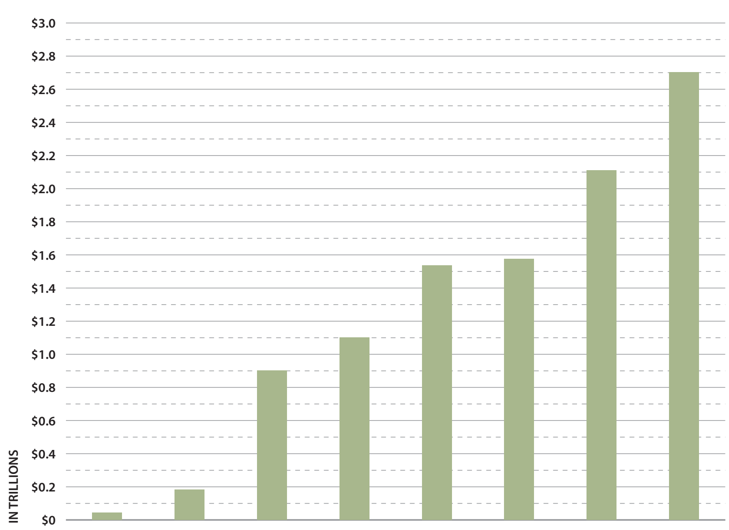
EXHIBIT 3 (CONTINUED)

2001	*In response to the Sept. 11 terrorist attacks, the Board of Governors issues a simple statement that "The Federal Reserve System is open and operating. The discount window is available to meet liquidity needs." The FOMC follows up by lowering the federal funds rate target by 50 basis points, to 3 percent.*
2008	*The Federal Reserve Board announces it will pay interest on depository institutions' required and excess reserve balances. Paying interest on reserves later develops into the Fed's primary tool for steering the federal funds rate into the target range set by the FOMC.*
2010	*The Dodd-Frank Wall Street Reform and Consumer Protection Act provides wide-ranging prescriptions aimed at correcting the causes of the 2007-2009 financial crisis. The Fed lost some autonomy to extend emergency credit to non-bank institutions.*
2014	*The Policy Normalization Principles and Plans states the FOMC intends to use an overnight reverse repurchase agreement facility as a supplementary policy tool to help control the federal funds rate.*
2019	*The FOMC formalizes its use of several new tools to "implement monetary policy in a regime in which an ample supply of reserves ensures that control over the level of the federal funds rate and other short-term interest rates is exercised primarily through the setting of the Federal Reserve's administered rates" and notes "the supply of reserves is not required."*
2020	*To support the economy and financial markets during the COVID-19 pandemic, the FOMC takes decisive action, providing support in three ways: (1) To reduce borrowing costs for households and businesses, the FOMC lowers the federal funds rate to 0-25 basis points; (2) the Fed buys U.S. Treasury securities and mortgage-backed securities to stabilize financial markets; (3) the Fed uses the authority of the Federal Reserve Act to support the flow of credit to businesses, households and communities by introducing several temporary lending and funding facilities.*
2023	*Regulators shut down Silicon Valley Bank and Signature Bank — the largest bank failures since 2008 and the third- and fourth-largest on record. In response, the Federal Reserve Board announced it would make available additional funding to eligible depository institutions to help ensure banks can meet the needs of all their depositors. The additional funding was made available through the creation of a new Bank Term Funding Program, offering loans of up to one year in length to banks, savings associations, credit unions and other eligible depository institutions.*

Source: Federal Reserve Bank of St. Louis

EXHIBIT 4

LEVEL OF FEDERAL RESERVES, 2007-2014 (ANNUAL)



Source: Federal Reserve Bank of St. Louis

HOW THE FED RAISES RATES

The Fed's tools for raising interest rates have evolved over time. In the past, it primarily used the federal funds rate and open market operations to influence the supply of money and credit. It operated under a "limited reserves" framework, in which a target was set for the federal funds rate and the supply of reserves was adjusted by buying or selling U.S. government securities. However, the financial crisis of 2007-2009 prompted changes, leading the FOMC to lower its target for the federal funds rate to near zero and increasing the level of reserves from around $45 billion to more than $2.7 trillion. This was achieved gradually, with the biggest increase occurring between 2008 and 2009 (**Exhibit 4**).

As a result, the Fed adopted the "ample reserves" framework, which it still uses today. It now keeps ample reserves in the banking system and relies on new tools to guide the federal funds rate. The key tools are interest on reserves (IOR) and the overnight reverse repurchase agreement (ON RRP) rate. The IOR occurs when the Fed pays banks interest on the reserves they hold at the central bank. By adjusting the interest rate paid on these reserves, it can influence how much banks choose to lend or keep in reserves.

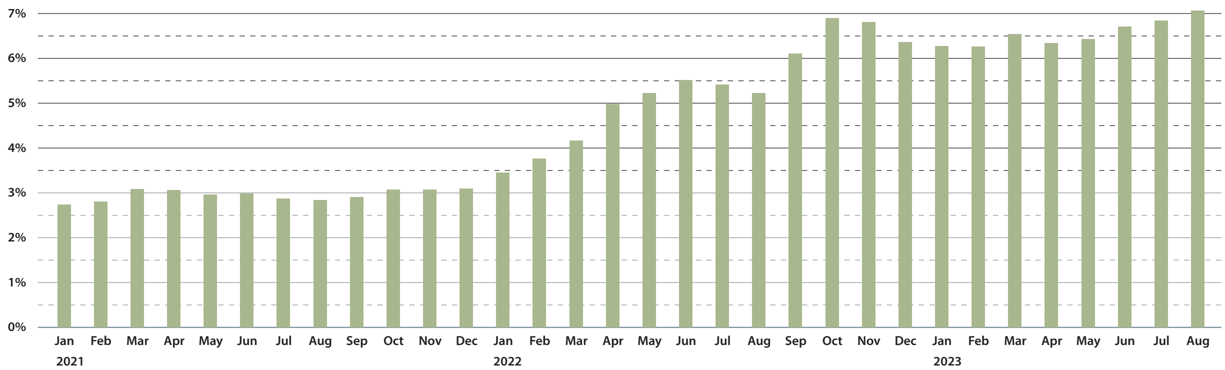
If the Fed raises the IOR rate, it encourages banks to keep more reserves, reducing the money available for lending and potentially raising interest rates. Not all financial institutions have access to IOR, however, which means there is potential for the federal funds rate to drop below the IOR rate. This is why the Fed uses the ON RRP facilities to control the federal funds rate with smaller banks; it offers these banks an opportunity to lend their excess funds to the Fed overnight and earn a set interest rate. In this way, the Fed ensures smaller banks have an attractive option to borrow from, rather than accept lower rates offered by bigger banks. This helps control the federal fund rate by establishing a minimum interest rate that banks are willing to accept, even with smaller banks involved.

IMPACT ON THE ECONOMY

The Fed's attempts to curb inflation through interest rate hikes could have a notable effect on economic growth, potentially leading to a slowdown. Texas, however, often has outperformed the nation, with its low taxes and business-friendly environment.

EXHIBIT 5

30-YEAR MORTGAGE RATES, 2021-2023 (MONTHLY)



Source: Federal Reserve Bank of St. Louis

A June survey by the Federal Reserve Bank of Dallas (Dallas Fed) found approximately 37 percent of participating firms did not plan to change their capital expenditure plans despite higher interest rates, while 38 percent planned to increase their expenditures. Only 25 percent of the participants said they planned to lower their capital investments in 2023. According to Reissig, a multitude of factors influence capital outlays, such as, "how well managed the firm is, what their balance sheet looks like, what kind of upcoming projects they have, how important those projects are for their continued success and how much can they afford to delay projects right now."

Mike Reissig, Texas Treasury Safekeeping Trust Company

Texas added 402,000 nonfarm jobs from August 2022 to August 2023, an increase of 3 percent. Its rate of job growth was the highest of the 10 most populous states; it was the second highest of all states, behind only Nevada, according to the Certification Revenue Estimate (CRE), released Oct. 5 by the Comptroller's office. The CRE projected employment growth of 1.5 percent in fiscal 2024 and 0.3 percent in 2025.

IMPACT ON CONSUMERS

The impact of rising interest rates on Texas consumers can be complex and varied, affecting individuals differently based on their financial habits and economic circumstances. As interest rates climb, the consequences ripple through various aspects of personal finance, reshaping spending patterns and influencing purchasing decisions. For Texas consumers who pay cash for their purchases, rising interest rates might not directly affect their spending habits. These individuals typically have the means to make purchases without relying on credit, which shields them from the burden of interest payments. As a result, they are less likely to curb their spending in response to higher interest rates and may continue supporting certain sectors of the economy. That being said, if the interest rate paid on an interest-bearing asset is appealing enough, current consumption of durable goods would be delayed. Reissig says, "Rising rates don't usually affect those who can pay cash but will likely slow spending of those who use credit." With increasing interest rates, the cost of borrowing rises, making credit-based purchases more expensive. As a result, individuals buying on credit may pull back on their spending to avoid accumulating high-interest debts.

Rising interest rates also affect the housing market. "Mortgage rates are one of the most fundamental ways that higher interest rates affect the economy, because they [interest rates] flow through the mortgage rates, and a home purchase is a huge purchase that has a lot of other economic add-on effects," says Reissig. As interest rates rise, so do mortgage rates, making homeownership less affordable for some prospective buyers (**Exhibit 5**).

Since 2020, monthly mortgage rates have doubled. If this rapid increase leads to a slowdown in the housing market, it could affect not only real estate agents but also industries associated with home buying, such as furniture and home improvement.

THE IMPLICATIONS

Optimism surrounding the Fed's handling of recent interest rate hikes may not guarantee a soft economic landing in the future. "This is especially true when you consider that rate hikes can have a delayed impact on the economy and inflation markers are still not back in the historic 2 percent range," Reissig says, pointing out the full consequences of the current monetary policy decisions may not be immediately apparent. "Thus far, the Fed has definitely avoided a bumpy landing," Reissig says, "but the plane is not on the ground yet." **FN**

Learn more about what causes inflationary pressures with our article, "Inflation and the Economy," at comptroller.texas.gov/economy/fiscal-notes/2022/may/inflation.php.

State Revenue Watch

This table presents data on net state revenue collections by source. It includes most recent monthly collections, year-to-date (YTD) totals for the current fiscal year and a comparison of current YTD totals with those in the equivalent period of the previous fiscal year. These numbers were current at press time. For the most current data as well as downloadable files, visit **comptroller.texas.gov/transparency**.

Note: Texas' fiscal year begins on Sept. 1 and ends on Aug. 31.

NET STATE REVENUE – ALL FUNDS, EXCLUDING TRUST

Monthly and Year-to-Date Collections: Percent Change from Previous Year

(IN THOUSANDS)

TAX COLLECTIONS BY MAJOR TAX	SEPTEMBER 2023	YEAR TO DATE: *Total*	YEAR TO DATE: *Change from Previous Year*
SALES TAX	$3,790,447	$3,790,447	2.82%
Percent Change from September 2022	2.82%		
MOTOR VEHICLE SALES AND RENTAL TAXES	$631,258	$631,258	2.49%
Percent Change from September 2022	2.49%		
MOTOR FUEL TAXES	$329,327	$329,327	0.26%
Percent Change from September 2022	0.26%		
FRANCHISE TAX	$44,433	$44,433	-37.70%
Percent Change from September 2022	-37.70%		
OIL PRODUCTION TAX	$543,559	$543,559	-1.54%
Percent Change from September 2022	-1.54%		
INSURANCE TAXES	$52,136	$52,136	13.48%
Percent Change from September 2022	13.48%		
CIGARETTE AND TOBACCO TAXES	$44,274	$44,274	-56.45%
Percent Change from September 2022	-56.45%		
NATURAL GAS PRODUCTION TAX	$208,116	$208,116	-56.62%
Percent Change from September 2022	-56.62%		
ALCOHOLIC BEVERAGES TAXES	$143,895	$143,895	4.01%
Percent Change from September 2022	4.01%		
HOTEL OCCUPANCY TAX	$58,745	$58,745	3.28%
Percent Change from September 2022	3.28%		
UTILITY TAXES[1]	$4,297	$4,297	-1,926.92%
Percent Change from September 2022	-1,926.92%		
OTHER TAXES[2]	$15,910	$15,910	-5.38%
Percent Change from September 2022	-5.38%		
TOTAL TAX COLLECTIONS	**$5,866,398**	**$5,866,398**	**-3.73%**
Percent Change from September 2022	**-3.73%**		

REVENUE BY SOURCE	SEPTEMBER 2023	YEAR TO DATE: *Total*	YEAR TO DATE: *Change from Previous Year*
TOTAL TAX COLLECTIONS	$5,866,398	$5,866,398	-3.73%
Percent Change from September 2022	-3.73%		
FEDERAL INCOME	$6,076,240	$6,076,240	-6.96%
Percent Change from September 2022	-6.96%		
LICENSES, FEES, FINES AND PENALTIES	$675,782	$675,782	2.37%
Percent Change from September 2022	2.37%		
STATE HEALTH SERVICE FEES AND REBATES[3]	$825,544	$825,544	-63.21%
Percent Change from September 2022	-63.21%		
NET LOTTERY PROCEEDS[4]	$225,816	$225,816	8.47%
Percent Change from September 2022	8.47%		
LAND INCOME	$246,342	$246,342	-40.46%
Percent Change from September 2022	-40.46%		
INTEREST AND INVESTMENT INCOME	$332,981	$332,981	71.37%
Percent Change from September 2022	71.37%		
SETTLEMENTS OF CLAIMS	$4,611	$4,611	56.40%
Percent Change from September 2022	56.40%		
ESCHEATED ESTATES	$1,126	$1,126	-95.24%
Percent Change from September 2022	-95.24%		
SALES OF GOODS AND SERVICES	$12,677	$12,677	-26.02%
Percent Change from September 2022	-26.02%		
OTHER REVENUE	$78,488	$78,488	-38.99%
Percent Change from September 2022	-38.99%		
TOTAL NET REVENUE	**$14,346,004**	**$14,346,004**	**-13.15%**
Percent Change from September 2022	**-13.15%**		

1. Includes public utility gross receipts assessment, gas, electric and water utility tax and gas utility pipeline tax.

2. Includes taxes not separately listed, such as taxes on oil well services, coin-operated amusement machines, cement and combative sports admissions as well as refunds to employers of certain welfare recipients.

3. Includes various health-related service fees and rebates that were previously in "license, fees, fines and penalties" or in other non-tax revenue categories.

4. Gross sales less retailer commission and the smaller prizes paid by retailers.

Notes: Totals may not add due to rounding. Excludes local funds and deposits by certain semi-independent agencies. Includes certain state revenues that are deposited in the State Treasury but not appropriated.

FISCAL NOTES

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Fiscal Notes is one of the ways the Comptroller's office strives to assist taxpayers and the people of Texas. The newsletter is an extension of the Comptroller's constitutional responsibilities to monitor the state's economy and to estimate state government revenues.

Fiscal Notes also provides a periodic summary of the financial statements for the state of Texas. Articles and analysis appearing in *Fiscal Notes* do not necessarily represent the policy or endorsement of the Texas Comptroller of Public Accounts. Space is devoted to a wide variety of topics of Texas interest and general government concern.

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