

# A Bumpy Ride

## Mostly 'Ups' for Texas Industrial Markets

Daniel Oney  
June 12, 2023

Publication 2385



**T**exas is a large, diversified state boasting the ninth largest economy in the world. At \$2.4 trillion, its gross state product accounts for almost 10 percent of all economic activity in the U.S. In an economy of such size, it should be no surprise that parts of the state perform better than others. One example is the wide-ranging performance of industrial real estate in the state's 25 Metropolitan Statistical Areas (MSAs) during the last 40 years.

While an earlier article, “Industrial Space Race: Texas Market Overview,” showcased industrial market diversity in Austin, Dallas-Fort Worth, Houston, and San Antonio, this article considers the individual performance of all 25 MSAs. The goal is to assess changes in industrial inventory over the business cycle from 1982 to the close of 2022.

During the course of this study, two key findings emerged.

### **Finding 1: Which Markets Diverged, and When**

The motivating question for this research was whether the large markets began growing faster than the small

### **Takeaway**

Growth in Texas industrial markets has been uneven over the business cycle. That growth has also been more consistent in some markets than others with the I-35 corridor and oil-related metros outgrowing the rest of the state.

markets around 2014. The short answer is that, in general, growth picked up across Texas, but the larger markets did exceptionally well compared with most small markets.

In the five years before fourth quarter 2014, the average growth rate across all metros was 4 percent. After 2014, the average increased to 12 percent. A closer look shows which markets were growing faster or slower than the average before and after 2014.

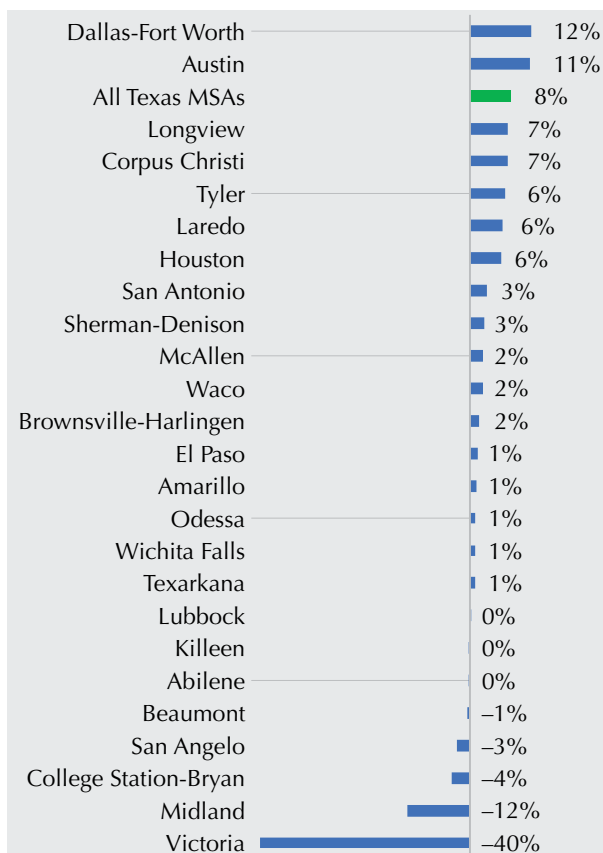
Before 4Q2014, small markets performed relatively well as a class, but some did better than others. Ten markets grew faster than the state average, and only two of them—San Antonio and Houston—were among the “Big Four.” The five fastest-growing markets were

all smaller metro areas: Victoria, Midland, San Angelo, College Station-Bryan, and Laredo. The top ten best performers averaged a 14 percent growth rate. The 15 markets that grew at a slower rate than the state average grew at only 1 percent.

As growth accelerated after 4Q2014, the big markets performed exceptionally well. The average growth rate across all 25 MSAs was 12 percent, but this growth was concentrated in fewer markets. Only five markets grew faster than the state average, and three of these—Dallas-Fort Worth, Austin, and Houston—were from the Big Four. The 20 markets that grew slower than the state average grew at 5 percent. Figure 1 shows how much growth rates increased or decreased in each MSA in the five years before and after 2014.

What about growth over the longer term?

**Figure 1. Percent Change in Market Growth Rates Between Five Years Before/After 2014**



Sources: Texas Real Estate Research Center at Texas A&M University and Costar Group Inc.

Based on how they fared during the five national expansions and four recessions since 1982, individual markets tend to perform consistently. Markets that grow faster tend to grow faster throughout the business cycle. There is a 65 percent positive correlation between a market's performance over expansions and recession periods.

Table 1 shows how markets ranked in terms of growth rates across the business cycle phases. For instance, Abilene's average rank across all nine phases of the business cycle was 22<sup>nd</sup> out of 25. It performed a little better during the five expansionary phases, ranking 19<sup>th</sup>. It ranked 22<sup>nd</sup> again during the four recessions. The top-ranked markets in terms of growth over all business cycle phases since 1982 were Laredo, Austin, San Antonio, Dallas-Fort Worth, and McAllen. See the data appendix for detailed growth statistics for all markets over each business cycle phase.

**Table 1. How Markets Ranked Over the Entire Business Cycle Since 1982**

MSA	All Cycle Phases	Expansions	Recessions
Abilene	22	19	22
Amarillo	18	16	19
Austin	2	2	6
Beaumont	18	19	16
Brownsville-Harlingen	13	9	18
College Station-Bryan	7	4	14
Corpus Christi	15	16	11
Dallas-Fort Worth	4	6	4
El Paso	10	8	14
Houston	6	7	1
Killeen	16	21	10
Laredo	1	1	2
Longview	9	11	6
Lubbock	21	24	16
McAllen	4	5	8
Midland	8	10	5
Odessa	12	13	11
San Angelo	24	23	25
San Antonio	3	3	9
Sherman-Denison	17	15	19
Texarkana	20	14	23
Tyler	23	22	21
Victoria	11	16	3
Waco	13	12	13
Wichita Falls	25	25	24

Note: Average rank out of 25 markets. Green = better performers, Red = poorer performers. Ties are possible in the rankings.

Sources: Texas Real Estate Research Center at Texas A&M University and CoStar Group Inc.

## Finding 2. How Texas Markets Clustered

When markets are grouped by their overall performance since 1982, a few geographic patterns emerge. These patterns can be defined by classifying markets in terms of whether they grew faster than the state average over each business cycle phase. Doing this shows some markets consistently grew faster than the average in all or most expansions and recessions, some consistently grew slower than average, and some had mixed results.

The three-by-three matrix in Figure 2 assigns each market to a cell. The columns define the number of expansions in which the market grew faster than average in expansions, and the rows define the same for recessions. The closer to the upper right, the better the MSA's performance; the closer to the lower left, the worse the MSA's performance. At first inspection, three groups of markets emerge.

The top-tier performing markets—those that tended to grow continuously—were all along the I-35 corridor. A

second tier includes mostly energy leaders that grew faster than the MSA average during most expansions and at least one recession. McAllen and College Station-Bryan also fall into this performance tier. A third cluster of poorer-performing markets include ten smaller metro areas that are mostly in West Texas or East Texas, outside the major growth corridors of the Texas Triangle. Other markets do not fall into these neat categories.

The apparent spatial clustering of markets in terms of inventory growth is not completely surprising. This raises more questions about local market differences and how they experience broader business cycles. Opportunities for future research include exploring how factors such as workforce skills and industry structure might explain the divergence and clustering of Texas industrial markets. ➔

Dr. Oney ([doney@tamu.edu](mailto:doney@tamu.edu)) is research director with the Texas Real Estate Research Center at Texas A&M University.

**Figure 2. Geography and Growth:  
Relative Performance Over the Business Cycle**

		Number of Times MSA Grew Faster than Average During Five Expansions		
		Zero to Two Times	Three Times	Four to Five Times
Number of Times MSA Grew Faster than Average During Four Recessions	Two to Three Times		Houston Longview Midland Odessa	Austin Dallas-Fort Worth Laredo San Antonio
	One Time	Killeen Victoria Waco	McAllen	College Station-Bryan
	Zero Times	Abilene Amarillo Beaumont Corpus Christi Lubbock San Angelo Sherman-Denison Texarkana Tyler Wichita Falls		Brownsville-Harlingen El Paso

Sources: Texas Real Estate Research Center at Texas A&M University and CoStar Group Inc.

# Business Cycles 101

The term “business cycle” is a helpful shorthand for economic ups and downs over a long time.

The broadest way of measuring the business cycle is with Gross Domestic Product (GDP). This statistic is calculated by the U.S. Bureau of Economic Analysis (BEA) for each calendar quarter. It is defined as the final dollar value of all goods and services sold in that quarter. Figure 3 plots the change in U.S. GDP since 1982 and indicates recessions with gray vertical bands.

While the BEA produces GDP estimates, it does not define the stages of the business cycle (Table 2). That role is assumed by a private entity with a government-sounding name: the National Bureau of Economic Research (NBER). A group of eight leading academic economists at NBER have identified what they consider to be the turning points in the U.S. economy since just before the American Civil War.

The NBER does not use the commonly assumed definition of a recession as two consecutive quarterly declines in GDP. In practice, they look at many economic indicators. Their careful deliberations

**Table 2. Business Cycle Phases Since 1982**

Business Cycle Period	Cycle Period
1980s Expansion	4Q1982 to 3Q1990
1991 Recession	3Q1990 to 1Q1991
1990s Expansion	1Q1991 to 1Q2001
DotCom Recession	1Q2001 to 4Q2001
Pre Great Recession Expansion	4Q2001 to 4Q2007
Great Recession	4Q2007 to 2Q2009
Post Great Recession Expansion	2Q2009 to 4Q2019
COVID Recession	4Q2019 to 2Q2020
Post COVID Expansion	3Q2020 to Present

Source: NBER

**Figure 3. YOY Change in Real U.S. GDP (Recessions in Gray)**



take time, and the economy may be in a new phase before the last phase has been officially named. The U.S. economy could be in a recession now, but NBER may not declare a recession for some months.

## Data Appendix

This data appendix presents inventory change details for all 25 Texas MSAs.

Table 3 shows total percent inventory change over each phase of the business cycle since 1982. Table 4 indicates what percent of current industrial inventory was delivered during each phase of the business cycle.

The color coding in each table classifies the metro areas' performance within each phase. That is, the color coding changes in each column. Larger numbers are shaded green, smaller numbers are shaded red, and the average numbers are yellow.

**Table 3. MSA Inventory Growth Over Business Cycle Phases**

	1980s Expansion	1991 Recession	1990s Expansion	DotCom Recession	Pre Great Recession Expansion	Great Recession	Post Great Recession Expansion	COVID Recession	Post COVID Expansion
Abilene	19.6%	0.1%	8.2%	0.0%	5.4%	2.1%	5.8%	0.0%	0.8%
Amarillo	6.5%	0.1%	7.5%	0.0%	8.7%	1.8%	7.7%	0.3%	7.0%
Austin	46.1%	0.8%	49.5%	3.6%	12.9%	3.1%	16.8%	1.5%	19.8%
Beaumont	21.8%	0.9%	8.7%	0.0%	3.0%	0.9%	9.6%	0.2%	0.8%
Brownsville-Harlingen	28.1%	1.8%	53.3%	0.0%	10.8%	0.4%	2.2%	0.0%	1.7%
College Station-Bryan	33.0%	0.0%	23.3%	0.0%	11.6%	2.0%	22.3%	1.3%	10.2%
Corpus Christi	13.8%	0.9%	12.8%	0.0%	4.5%	1.2%	14.4%	0.3%	1.4%
Dallas-Fort Worth	27.7%	0.8%	26.9%	2.6%	11.6%	4.1%	18.3%	2.0%	8.4%
El Paso	50.6%	1.5%	51.7%	0.0%	5.0%	0.4%	1.8%	0.2%	6.6%
Houston	14.2%	0.9%	18.1%	1.6%	11.8%	4.5%	20.0%	2.5%	9.3%
Killeen	13.3%	0.3%	12.6%	0.0%	8.3%	1.0%	5.4%	6.3%	0.5%
Laredo	43.9%	15.6%	154.0%	0.0%	25.9%	3.6%	23.5%	1.2%	4.6%
Longview	10.5%	16.7%	10.8%	0.0%	11.6%	5.6%	15.9%	0.0%	5.6%
Lubbock	13.2%	0.3%	12.1%	0.0%	5.3%	1.7%	3.5%	0.2%	0.8%
McAllen	41.3%	0.9%	52.6%	0.0%	35.5%	5.2%	14.1%	0.2%	2.7%
Midland	6.8%	0.2%	7.1%	0.0%	13.1%	8.4%	77.9%	3.3%	5.2%
Odessa	6.1%	0.1%	7.9%	0.0%	13.3%	3.1%	16.7%	1.3%	4.9%
San Angelo	13.2%	0.0%	7.4%	0.0%	4.6%	0.1%	23.1%	0.0%	0.5%
San Antonio	32.0%	0.3%	19.7%	0.0%	16.3%	3.3%	20.1%	2.1%	9.6%
Sherman-Denison	18.2%	0.3%	16.8%	0.0%	7.5%	0.6%	3.3%	0.3%	1.8%
Texarkana	34.9%	0.0%	8.7%	0.0%	10.0%	1.3%	1.1%	0.0%	2.2%
Tyler	11.7%	0.8%	37.0%	0.0%	3.4%	0.8%	1.1%	0.1%	2.0%
Victoria	14.8%	1.1%	5.8%	0.0%	7.6%	5.4%	42.1%	0.3%	-0.3%
Waco	18.4%	4.1%	7.6%	0.0%	7.1%	1.0%	10.0%	0.1%	9.3%
Wichita Falls	3.4%	0.1%	3.8%	0.0%	1.1%	0.2%	-0.5%	0.0%	0.2%
All TX MSAs	21.7%	1.9%	25.0%	0.3%	10.2%	2.5%	15.0%	0.9%	4.6%

Sources: Texas Real Estate Research Center at Texas A&M University and CoStar Group Inc.

**Table 4. Percent of MSA Current Inventory Added During Each Business Cycle Phase**

	1980s Expansion	1991 Recession	1990s Expansion	DotCom	Pre Great Recession Expansion	Great Recession	Post Great Recession Expansion	COVID Recession	Post COVID Expansion
Abilene	13.2%	0.1%	6.6%	0.0%	4.7%	1.9%	5.5%	0.0%	0.8%
Amarillo	4.5%	0.0%	5.4%	0.0%	6.8%	1.5%	6.6%	0.2%	6.5%
Austin	12.2%	0.3%	19.3%	2.1%	7.8%	2.1%	11.8%	1.2%	16.5%
Beaumont	14.2%	0.7%	7.0%	0.0%	2.6%	0.8%	8.7%	0.2%	0.8%
Brownsville-Harlingen	12.2%	1.0%	30.1%	0.0%	9.3%	0.4%	2.1%	0.0%	1.6%
College Station-Bryan	12.9%	0.0%	12.2%	0.0%	7.5%	1.4%	16.3%	1.2%	9.2%
Corpus Christi	8.7%	0.6%	9.2%	0.0%	3.7%	1.0%	12.4%	0.3%	1.3%
Dallas-Fort Worth	10.9%	0.4%	13.6%	1.7%	7.6%	3.0%	14.0%	1.8%	7.8%
El Paso	19.0%	0.8%	29.7%	0.0%	4.3%	0.4%	1.7%	0.2%	6.1%
Houston	6.5%	0.5%	9.6%	1.0%	7.5%	3.2%	14.9%	2.2%	8.5%
Killeen	8.5%	0.2%	9.1%	0.0%	6.7%	0.8%	4.8%	5.9%	0.5%
Laredo	6.1%	3.1%	35.6%	0.0%	15.2%	2.6%	18.0%	1.1%	4.4%
Longview	5.1%	9.0%	6.8%	0.0%	8.0%	4.3%	13.0%	0.0%	5.3%
Lubbock	9.3%	0.2%	9.6%	0.0%	4.7%	1.6%	3.4%	0.2%	0.7%
McAllen	11.3%	0.4%	20.6%	0.0%	21.2%	4.2%	12.0%	0.2%	2.7%
Midland	2.5%	0.1%	2.8%	0.0%	5.5%	4.0%	40.3%	3.1%	4.9%
Odessa	3.7%	0.1%	5.1%	0.0%	9.2%	2.4%	13.5%	1.2%	4.7%
San Angelo	8.4%	0.0%	5.3%	0.0%	3.5%	0.1%	18.7%	0.0%	0.5%
San Antonio	12.5%	0.1%	10.2%	0.0%	10.1%	2.4%	15.0%	1.9%	8.7%
Sherman-Denison	11.6%	0.2%	12.6%	0.0%	6.6%	0.5%	3.1%	0.3%	1.7%
Texarkana	20.7%	0.0%	6.9%	0.0%	8.7%	1.2%	1.0%	0.0%	2.1%
Tyler	7.0%	0.5%	25.1%	0.0%	3.2%	0.8%	1.0%	0.1%	2.0%
Victoria	7.5%	0.6%	3.4%	0.0%	4.7%	3.6%	29.6%	0.3%	-0.3%
Waco	10.6%	2.8%	5.4%	0.0%	5.5%	0.8%	8.3%	0.1%	8.5%
Wichita Falls	3.1%	0.1%	3.6%	0.0%	1.1%	0.2%	-0.5%	0.0%	0.2%
All Texas MSAs	9.7%	0.5%	13.0%	1.1%	7.8%	2.8%	13.4%	1.7%	7.8%

Sources: Texas Real Estate Research Center at Texas A&M University and CoStar Group Inc.

© 2023. Texas Real Estate Research Center. All rights reserved.