

**Dr. Harold D. Hunt**Research Economist

**Dr. Adam Perdue** Research Economist

Connor Harwell
Research Intern

Bryan Gilliland Research Intern Technical Report
2211
FOURTH QUARTER 2021

# Texas Quarterly Commercial Report: 4<sup>th</sup> Quarter 2021

# OFFICE CLASS A 73.9% 1.0% VAREHOUSE 94.2% 1.4%

AUSTIN							
	OCCUPANCY ASKING RATES RENTS						
OFFICE OFFICE CLASS A	84.3% <b>△</b> 6.2% <b>△</b> 82.0% <b>▼</b> 9.7% <b>△</b>						
RETAIL	95.9% 🛕 4.2% 🛕						
WAREHOUSE	96.1% 🛕 10.6% 🛕						

SAN ANTONIO							
	OCCUPANCY ASKING RATES RENTS						
OFFICE	87.4% = 0.9% ▼						
OFFICE CLASS A	84.0% 🔻 -2.0% 💳						
RETAIL	94.9% 🛕 2.0% 🔻						
WAREHOUSE	94.8% 🛕 19.5% 🛕						

HOUSTON								
	OCCUPANCY ASKIN RATES RENT	G S						
OFFICE	76.6% 🔻 -1.6%							
OFFICE CLASS A	71.2% 🔻 -3.5%	$\blacksquare$						
RETAIL	93.2% 🛕 3.9%	▼						
WAREHOUSE	90.4% 🛕 3.1%	•						



### Table of Contents

About this Report	3
Overview of the Texas Economy	4
Austin	8
Overall Office	
Class A Office	
Retail	
Warehouse	
Dallas-Fort Worth	10
Overall Office	
Class A Office	
Retail	
Warehouse	
Houston	
Overall Office	
Class A Office	
Retail	
Warehouse	
San Antonio	
Overall Office	
Class A Office	
Retail	
Warehouse	
Figures	
Definitions	60

## About this Report

Texas Real Estate Research Center economists continuously monitor multiple facets of the global, national, and Texas economies. The *Texas Quarterly Commercial Report* is a summary of important economic indicators that help discern commercial real estate (CRE) trends in four major Texas Metropolitan Statistical Areas—Austin, Dallas-Fort Worth, Houston, and San Antonio.

All quarterly measurements are calculated using seasonally adjusted and trend-cycled data. Seasonal adjustment smooths the quarterly fluctuations in the data, while trend-cycle adjustment provides a clearer, less volatile view of upward and downward movements. Both enrich our analysis by producing a more accurate depiction of long-term movements and trends in the data.

This report analyzes asking rents, which exclude tenant improvements and concessions, as opposed to effective rents. Rents reflect nominal year-over-year estimates, unless stated otherwise. The analysis uses industry-specific employment growth to reflect the employment most relevant to each industry. For example, the employment data for the office sector includes finance, insurance, and real estate as well as professional and business services (FIRE & PBS) employment to measure the bulk of employees working in the office sector.

This analysis uses CoStar and Dodge Analytics data. The time series varies by sector and geography, depending on the data available. Sectors with shorter time series limit the interpretation of the data. The data reflect nonowner-occupied space. No raw data are published in this report. Both CoStar and Dodge Analytics make changes to their historical data.

This quarterly publication provides data and insights on the Texas commercial real estate markets. We hope you find them useful. Your feedback is always appreciated. Send comments and suggestions to info@recenter.tamu.edu.

Dr. Harold Hunt, Dr. Adam Perdue, Bryan Gilliland, and Connor Harwell

### Overview of the Texas Economy

Economic activity within Texas improved during the fourth quarter. Increased hiring in December resulted in solid fourth-quarter payroll expansion, although joblessness in the Lone Star State was still higher than the national average. Moreover, headline wage numbers accelerated in real terms despite rising inflation. Oil industry activity accelerated as oil prices increased and the global economic recovery continued. Containment of the pandemic is vital as additional waves of infection, mainly from the Omicron variant, can weigh on consumer behavior and slow the return to pre-pandemic conditions.

Increasing COVID-19 vaccination rates have contributed to the reopening of the economy. Based on the most current data from the Texas Department of State Health Services, 64.9 percent of the state's population five years and older is fully vaccinated<sup>1</sup>. For additional commentary and statistics, see the Texas Real Estate Research Center's *Outlook for the Texas Economy*.

Texas nonfarm employment added 255,000 jobs through the fourth quarter. Total nonfarm employment in Texas is just over 13 million, surpassing the February 2020 pre-COVID peak of 12.9 million. Hiring in Houston again saw strong employment growth during the fourth quarter, recovering 50,200 jobs compared with the 51,400 positions added during the third quarter. Houston payrolls remain below pre-pandemic levels. Austin added 19,400 employees, continuing a strong recovery as the metro benefits from its substantial high-tech sector, which can socially distance and has prospered during the pandemic. Employment increased in Fort Worth, gaining 27,100 jobs. Dallas and San Antonio registered quarterly increases of 67,900 and 17,900 workers, respectively.

Texas' goods-producing sector gained 38,900 jobs during the fourth quarter following a gain of 26,500 positions in the previous quarter. Amid increasing oil prices, energy-related employment rose by 8,900 jobs. Recovering global economic conditions supported the state's manufacturing industry, which added 13,800 employees, while durable-goods payrolls recorded8,400 new jobs. Construction payrolls expanded this quarter, adding 16,200 jobs.

Texas' service-providing sector added 166,500 workers during the fourth quarter. Leisure/hospitality recouped 44,500 jobs, but arts/entertainment/recreation payrolls remained almost 10 percent below pre-pandemic levels. On the other hand, the

Data up to April 12, 2022. Source: Texas Department of Health Services

TEXAS A&M UNIVERSITY

Texas Real Estate Research Center

transportation/warehousing/utilities industry added 29,800 positions, with the total employment now surpassing pre-pandemic employment by 4 percent.

With monetary policy possibly normalizing, starting with the Federal Reserve Bank's tapering of bond purchases, economic growth forecasts for the coming years point to a slow return to the long-run structural trend as the initial and strongest stage of recovery likely reached its peak. It's becoming clearer that inflation pressures will be permanent versus temporary. The ten-year U.S. Treasury bond yield quarterly average decreased to 1.5 percent during the fourth quarter still down from pre-pandemic levels of 1.7 percent during fourth quarter 2019. The spread between apartment capitalization rates and the ten-year Treasury yield decreased through the quarter. The decrease in the spread was due to a increase in the yield for the ten-year Treasury bill. Overall apartment cap rates for Houston and San Antonio remain the highest, followed by DFW and Austin.

Texas' unemployment rate decreased to 4.8 percent, still higher than the national rate of 3.9 percent. The size of the state's labor force expanded while the labor force participation rate reached 63.1 percent. Texas' major metros reported lower unemployment rates than the statewide average, except in Houston where joblessness fell to 5.5 percent. Unemployment inched down to 4.4 percent in Fort Worth and fell in San Antonio and Dallas to 4.4 and 4.2 percent, respectively. Joblessness remained lowest in Austin, where unemployment slid to 3.4 percent. Economic growth is expected to continue supporting real estate markets across the state.

The Texas Real Estate Research Center estimated 2022 and 2023 overall and Class A vacancy rates and asking rent percent changes for the different commercial markets in the major Metropolitan Statistical Areas (MSAs) (Tables 1A, 1B, 2, and 3).

**Table 1A. Forecasted Overall Office Vacancy Rates, Asking Rents** 

	Natural Vacancy Rates (%)			As	king Ren	ts (y-o-y <sup>(</sup>	%)		
MSA	Office Vacancy Rate	2020	2021	2022	2023	2020	2021	2022	2023
Austin	13.0	12.7	16.3	16.7	16.8	4.7	2.2	2.1	2.0
Dallas-Fort Worth	18.0	19.2	21.7	22.5	22.8	3.2	2.0	1.6	0.5
Houston	14.0	21.2	22.8	23.2	23.3	0.2	-1.0	1.6	1.5
San Antonio	12.0	12.1	13.3	13.5	13.7	4.7	1.7	-0.4	0.5

Note: Annual numbers are the four-quarter average of the seasonally adjusted data. The rent growth is nominal and estimated from the previous year's average.

Source: Texas Real Estate Research Center at Texas A&M University

Table 1B. Forecasted Class A Office Vacancy Rates, Asking Rents

	Natural		Vacancy	Rates (%)		Asking Rents (y-o-y %)			
MSA	Office Vacancy Rate	2020	2021	2022	2023	2020	2021	2022	2023
Austin	15.0	12.8	17.1	18.2	18.4	3.3	2.5	2.1	3.0
Dallas-Fort Worth	21.0	22.9	25.7	26.7	26.9	2.8	1.5	0.4	0.4
Houston	16.0	24.5	26.6	27.3	28.3	-1.4	-1.5	0.7	0.3
San Antonio	14.5	14.7	15.6	15.7	15.8	6.1	0.3	-0.6	0.4

Note: Annual numbers are the four-quarter average of the seasonally adjusted data. The rent growth is nominal and estimated from the previous year's average.

Table 2. Forecasted Overall Retail Vacancy Rates, Asking Rents

	Natural Vacancy Rates (%)			Growt	th Asking	Rents (y-	o-y %)		
MSA	Retail Vacancy Rate	2020	2021	2022	2023	2020	2021	2022	2023
Austin	6.0	4.6	4.8	4.6	4.3	-0.1	0.6	0.8	1.0
Dallas-Fort Worth	8.0	6.5	7.0	6.9	6.8	-0.5	0.2	0.8	0.9
Houston	7.0	6.8	6.8	6.5	6.2	3.7	3.4	2.4	2.9
San Antonio	6.0	5.8	6.1	6.2	6.4	1.8	0.3	1.1	1.0

Note: Annual numbers are the four-quarter average of the seasonally adjusted data. The rent growth is nominal and estimated from the previous year's average.

Source: Texas Real Estate Research Center at Texas A&M University

**Table 3. Forecasted Overall Warehouse Vacancy Rates, Asking Rents** 

	Natural		Vacancy	Rates (%)		Growt	th Asking	Rents (y-c	э-у %)
MSA	Warehouse Vacancy Rate	2020	2021	2022	2023	2020	2021	2022	2023
Austin	11.0	8.5	6.3	5.9	5.7	5.4	4.3	3.9	3.8
Dallas-Fort Worth	11.0	8.4	7.4	7.2	7.0	14.3	4.6	4.2	3.9
Houston	8.0	11.5	12.6	12.3	11.6	0.9	1.5	1.9	2.2
San Antonio	8.0	6.8	5.8	5.6	5.7	4.3	9.2	3.2	2.4

Note: Annual numbers are the four-quarter average of the seasonally adjusted data. The rent growth is nominal and estimated from the previous year's average.



Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### **Overall Office (Figures 8-12)**

Coming out of the pandemic, Austin has seen fluctuating office vacancy rates that rose once again to 15.7 percent in the fourth quarter. This is still 2.7 percent above the natural vacancy rate of 13 percent. Asking rent has grown for the third straight quarter to 6.2 percent. With the rising vacancy and rent growth rates, it is hard to determine if the Austin office market is going to continue to return. Rental growth is promising for the future, but increasing vacancy rates create a sense of hesitancy. Net absorption decreased significantly, most likely due to continued hybrid working options. FIRE & PBS employment growth increased for the seventh straight quarter to 11.6 percent, indicating people are returning to the workforce at a healthy rate.

Deliveries declined heavily from last quarter, likely due to remaining high material costs and potential over-building from the last few quarters. Construction starts also declined, indicating the market is trying to balance the adjusted supply and demand that came from the pandemic. However, square feet under construction remained relatively constant. Austin is continuing to recover from pandemic abnormalities, but the overall office market's future is still uncertain.



ASKING RENT GROWTH 9.7%

EMPLOYMENT GROWTH

11.6%

NET ABSORPTION SF 121,870

CONSTRUCTION STARTS

Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Class A Office (Figures 13-17)

Actual vacancy rose for the 11th straight quarter, remaining well above the natural vacancy rate of 15 percent. Alternatively, rent growth grew for the fifth straight quarter and increased to 9.7 percent. Net absorption decreased significantly, likely due to uncertainty around returning to in-person work. Demand has continued to rise for Class A office space, but uncertainty remains about whether demand will ever return to full pre-pandemic levels.

Deliveries decreased once again, most likely due to long lead times and increased material costs. Square feet under construction decreased as well. This may be an attempt to combat

over-saturation and high vacancy rates. Developers are waiting to see whether the market fully recovers before starting new office projects.



Sources: CoStar and the Texas Real Estate Research Center
Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Retail (Figures 18-22)

Retail vacancy has steadily decreased over the past five quarters, reaching 4.1 percent this past quarter and remaining below the natural vacancy rate of 6 percent. Asking rent growth increased to 4.2 percent, showing that retailers are looking to capitalize on low vacancy rates to produce higher cash flows. Employment growth decreased slightly, likely because of the earlier boom as people began returning to work late last year. Even with varying numbers, retail is making a return in Austin as pandemic restrictions disappear.

Construction starts decreased significantly, while square feet under construction increased slightly. Retail has continually held relatively steady throughout the pandemic, even with the rise of ecommerce. Even as consumers' lives return to normal, there's some speculation that a hybrid shopping method will be the new standard.



Sources: CoStar and the Texas Real Estate Research Center
Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Warehouse (Figures 23-27)

Austin warehouse vacancy has continued the nine-quarter trend, decreasing to 3.9 percent this quarter and sitting well below the natural vacancy rate of 11 percent. Asking rent growth increased for the third straight quarter, likely due to the increasing demand for warehouse space. Warehouse continues to be one of the most popular sectors in commercial real estate, and it shows no sign of slowing.

Construction starts and deliveries decreased for the third straight quarter. Net absorption also decreased significantly. E-commerce is becoming more and more popular, but the overabundance of new warehouses has led developers to slow construction. After last year's boom, numbers should begin to steady out over the next few quarters.



OCCUPANCY 78.4%

ASKING RENT GROWTH 2.0%

EMPLOYMENT GROWTH 8.3%

NET ABSORPTION SF
-171,647

CONSTRUCTION STARTS

Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### **Overall Office (Figures 28-32)**

Overall Dallas-Fort Worth office vacancy rates increased slightly for the 12th straight quarter, sitting at 21.6 percent. This is 3.6 percent higher than the natural vacancy rate of 18 percent. Rent growth declined, likely in an attempt to bring tenants back to the office. Employment growth rose for the seventh straight quarter, indicating people returning to work, but a hybrid model may begin to dominate.

Construction values decreased significantly, most likely due to the unpredictable price of materials. However, deliveries increased significantly, indicating that, although the market is very unpredictable, construction is still happening at a significant rate. Development teams are continuing to take care to not oversaturate the market. Businesses are still looking for ways to re-integrate office space into their work, but the work-from-home option is increasingly popular among many employees.

OCCUPANCY 73.9%

ASKING RENT GROWTH

EMPLOYMENT GROWTH 8.3%

NET ABSORPTION SF 48,696

CONSTRUCTION STARTS

Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Class A Office (Figures 33-37)

Dallas Class A office vacancy rose for the eighth straight quarter to 26.1 percent, relatively high compared with the 21 percent natural vacancy rate. The vacancy rate has remained relatively stable for the past three quarters. Asking rent growth decreased slightly, likely in an attempt to combat high vacancy rates. Employment growth grew to 8.3 percent, indicating more people are returning to work. Net absorption increased significantly, another indicator that people are slowly but surely returning to the office.

occupancy **→** 93.8% ASKING RENT GROWTH

3.2%

1.144.512

CONSTRUCTION STARTS

Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Retail (Figures 38-42)

Dallas-Fort Worth retail vacancy declined for the fourth quarter in a row, remaining well below the natural vacancy rate of 8 percent. Alternatively, asking rent decreased, likely in an effort to continually bring tenants back to their spaces. Net absorption and employment growth declined, possibly due to the influx of tenants returning to in-person commerce exhibited over the past few quarters.

Deliveries increased significantly in the fourth quarter, continuing the streak of the past five quarters. Construction starts decreased, while square feet under construction increased. Retail in Dallas-Fort Worth has proven to be resilient, but conflicting data leave some uncertainty.



Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Warehouse (Figures 43-47)

Dallas-Fort Worth warehouse vacancy fell for the fifth straight quarter to 5.8 percent, well below the natural vacancy rate of 11 percent. Asking rent growth increased, indicating that the demand for warehouse space in Dallas-Fort Worth is still at an all-time high. Net absorption decreased, but employment growth increased to 7 percent. The local warehouse sector seems to be slowing slightly, but it remains a prominent player in the commercial real estate world.

The value of construction starts decreased once again, while under-construction square footage decreased significantly as well. These cyclical numbers are likely due to the varying construction costs and developers' attempts to not over-saturate the market. Industrial space is showing no signs of decreasing anytime soon as e-commerce continues to emerge as one of the main means of trade.



Sources: CoStar and the Texas Real Estate Research Center

 $Note: Arrows\ indicate\ change\ from\ previous\ quarter\ with\ the\ exception\ of\ asking\ rent\ growth\ (change\ from\ previous\ year).\ Seasonally\ adjusted\ data.$ 

### **Overall Office (Figures 48-52)**

Houston's overall office vacancy rates increased once again, rising to 23.4 percent. This is nearly ten points higher than the natural vacancy rate of 14 percent. Asking rent growth decreased once again to -1.6 percent, remaining negative for the third straight quarter. FIRE & PBS employment grew slightly to 5.4 percent. Business continues to regain strength across the state, and this is evident in Houston. However, net absorption decreased by more than half.

Deliveries increased significantly, even though space under construction decreased by more than one million square feet. Even with rising vacancy rates, construction values have continued to fluctuate due to varying material prices. The impact of these construction factors remains unknown. Many issues are at play, resulting in developers being cautious to overcommit to projects.

OCCUPANCY
ASKING RENT GROWTH
EMPLOYMENT GROWTH
NET ABSORPTION SF
CONSTRUCTION STARTS
5.4%
-572,597

Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Class A Office (Figures 53-57)

Class A office vacancy increased to 28.8 percent this quarter, remaining more than 10 percent higher than the natural vacancy rate of 16 percent. Asking rent growth decreased for the fourth straight quarter, most likely due to owners trying to combat increasing vacancy. Net absorption decreased significantly, while FIRE an PBS employment grew slightly.

Deliveries increased significantly for the fourth straight quarter. However, square feet under construction dropped by over a million. This may be due to the fluctuating material prices that the country is seeing, as well as labor shortages. The need for office space, especially in Houston, is still unpredictable. Developers are doing everything they can to predict the future of the market while also avoiding over-saturation. Hopefully, occupancy will increase in the near future as pandemic restrictions continue to ease and people return to work.

OCCUPANCY 93.2%

ASKING RENT GROWTH 3.9%

EMPLOYMENT GROWTH 2.0%

NET ABSORPTION SF

CONSTRUCTION STARTS

Sources: CoStar and the Texas Real Estate Research Center
Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Retail (Figures 58-62)

Retail vacancy in Houston declined for the fifth straight quarter, still remaining below the natural vacancy rate of 7 percent. Asking rent growth, while still positive, decreased to 3.9 percent, whereas employment growth remained the same at 2 percent. Houston retail remains resilient and is continuing to improve as pandemic restrictions ease.

Retail construction values and square feet under construction decreased. Net absorption decreased slightly. Developers may be attempting to combat over-saturation by slowing down the building process. Pandemic restrictions are continuing to ease. However, with the continuing rise of e-commerce, the future of brick-and-mortar retail is unknown.



Sources: CoStar and the Texas Real Estate Research Center
Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Warehouse (Figures 63-67)

Houston warehouse vacancy decreased for the third straight quarter to 9.6 percent. Although low, Houston's vacancy rate remains higher than all other Texas MSAs, sitting above the natural vacancy rate of 8 percent. Asking rent growth increased to 3.1 percent, showing that landlords are not that concerned about currently higher vacancy rates. Employment growth decreased to 8 percent, breaking the recent four-quarter trend of increases. Net absorption decreased as well, breaking the previous two-quarter streak of increases.

Deliveries decreased, but square feet under construction increased significantly. Companies are trying to not over-saturate the market since e-commerce is still on the rise. Even with the varying construction levels across the state, warehouse continues to be an increasingly vital part of commercial real estate in Houston.



OCCUPANCY 87.4%

ASKING RENT GROWTH 0.9%

5.0%

74.185

CONSTRUCTION STARTS

Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### **Overall Office (Figures 68-72)**

Overall office vacancies in San Antonio have remained essentially unchanged for the past five quarters, including this quarter at 12.6 percent. Asking rent growth decreased to 0.9 percent, following the decline of the past two quarters. FIRE & PBS employment growth increased once again for the seventh straight quarter.

Square feet under construction increased, breaking the previous five-quarter trend of decreases. However, deliveries decreased by quite a large number, most likely due to the varying material costs the country is experiencing. Construction starts fell for the second time in 2021. Net absorption dropped drastically as well. Pandemic restrictions are evident in San Antonio as the state continues to reopen and return to normal business.



ASKING RENT GROWTH
-2.0%

EMPLOYMENT GROWTH 5.0%

NET ABSORPTION SF

CONSTRUCTION STARTS



Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Class A Office (Figures 73-77)

San Antonio Class A office vacancy increased once again to 16 percent, sitting well above the natural vacancy rate of 14.5 percent. Asking rent growth was basically unchanged at -2 percent. Net absorption decreased dramatically, while square feet under construction increased.

Although construction looks to be continuing at a healthy pace, deliveries decreased. As pandemic restrictions bounce back and forth in certain cities, supply fluctuates as well.

occupancy 94.9%

ASKING RENT GROWTH 2.0%

EMPLOYMENT GROWTH 2.3%

NET ABSORPTION SF 920,200

CONSTRUCTION STARTS

Sources: CoStar and the Texas Real Estate Research Center

Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

### Retail (Figures 78-82)

San Antonio retail declined for the fourth straight quarter, reaching 5.1 percent this quarter and remaining below the natural vacancy rate of 6 percent. Asking rent growth declined, likely in an attempt to keep vacancy rates low. Net absorption increased considerably for the second straight quarter, while employment growth decreased slightly.

Deliveries nearly doubled this quarter, while square feet under construction decreased. Construction starts also decreased, following the past few months of increased material costs and labor shortages. Employment growth decreased but still remains positive, indicating that San Antonio retail has remained steady as pandemic restrictions ease.



Sources: CoStar and the Texas Real Estate Research Center
Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

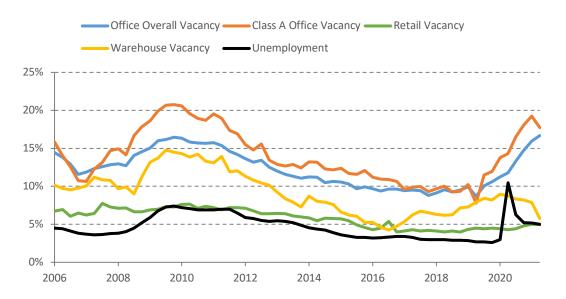
### Warehouse (Figures 83-87)

San Antonio warehouse vacancy has continued to decline over the past four quarters, settling at 5.2 percent in 4Q2021 and remaining below the natural vacancy rate of 8 percent. Asking rent growth increased significantly to 19.5 percent, while employment growth, although still positive, decreased to 5.3 percent. As the usage of warehouse space continues to change, developers are using different methods to stick with the ever-changing demand.

Deliveries increased this quarter, while square feet under construction decreased slightly. Construction starts decreased dramatically this quarter, following the trend of the previous three quarters. All of these factors could be due to the continuing labor shortage and high materials costs. However, net absorption increased, showing that warehouse space is being increasingly used in San Antonio. With these easing factors and pandemic restrictions disappearing, expect the market to begin to steady over the next few quarters.

# Figures

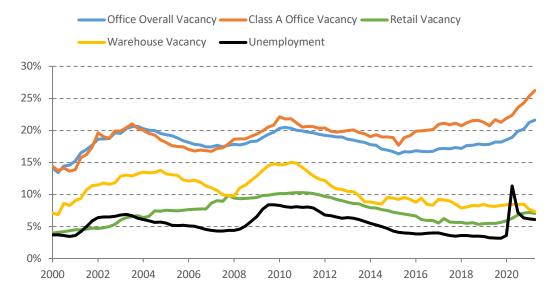
Figure 1. Austin Commercial Vacancy Rates and Unemployment (SA and TC)\*



<sup>\*</sup> Vacancy rates seasonally adjusted and trend-cycled, unemployment seasonally adjusted.

Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

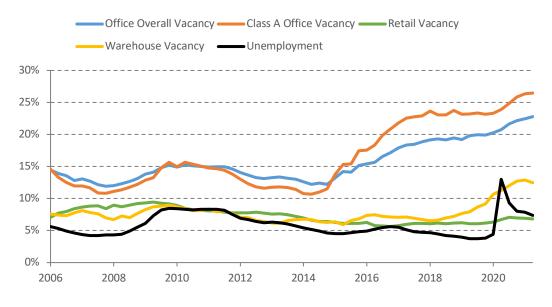
Figure 2. DFW Commercial Vacancy Rates and Unemployment (SA)\*



<sup>\*</sup> Vacancy rates seasonally adjusted and trend-cycled, unemployment seasonally adjusted.

Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

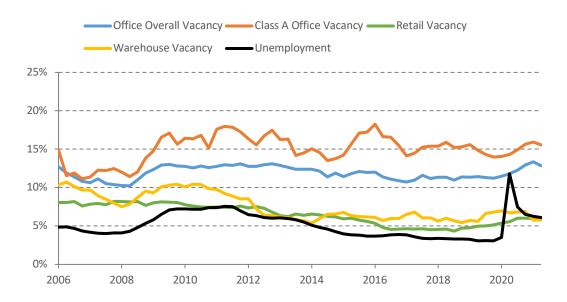
Figure 3. Houston Commercial Vacancy Rates and Unemployment (SA)\*



<sup>\*</sup> Vacancy rates seasonally adjusted and trend-cycled, unemployment seasonally adjusted.

Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

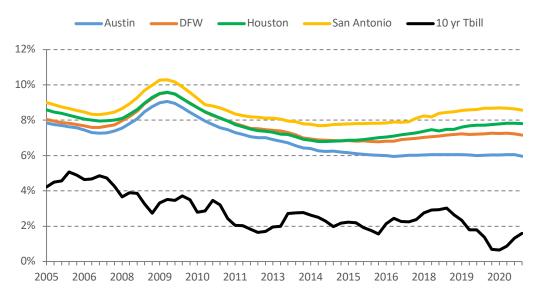
Figure 4. San Antonio Commercial Vacancy Rates and Unemployment



<sup>\*</sup> Vacancy rates seasonally adjusted and trend-cycled, unemployment seasonally adjusted.

Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 5. Texas Major MSAs Office Cap Rates



Austin DFW Houston SA — 10 yr Tbill

10%

8%

6%

4%

Figure 6. Texas Major MSAs Retail Cap Rates

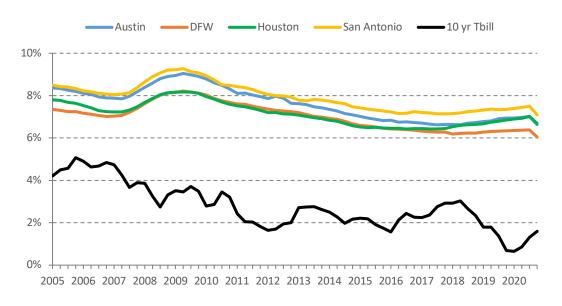


Figure 7. Texas Major MSAs Warehouse Cap Rates

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

### **Austin**

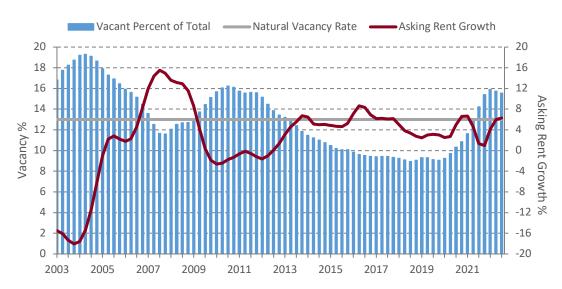


Figure 8. Austin Office Overall Vacancy and Asking Rent Growth (SA and TC)\*

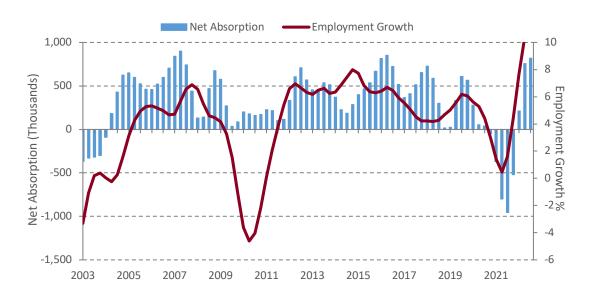


Figure 9. Austin Office Overall Net Absorption and Employment Growth (SA and TC)\*

<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

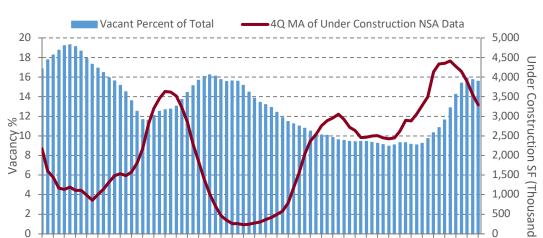


Figure 10. Austin Office Overall Vacancy and Under Construction (SA and TC)\*

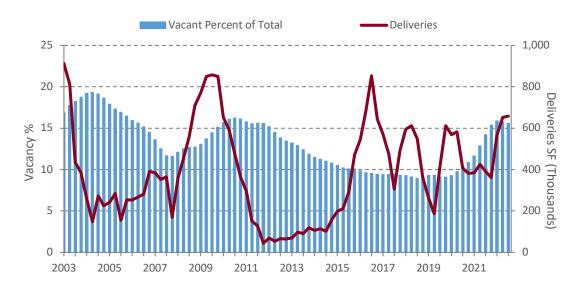
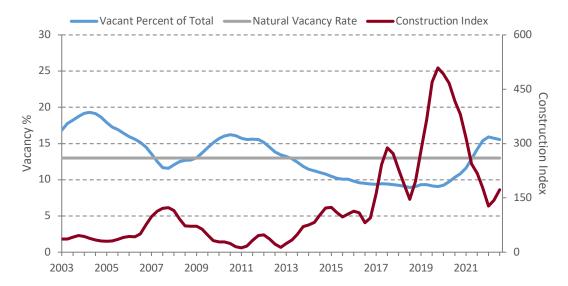


Figure 11. Austin Office Overall Vacancy (SA and TC)\* and Deliveries

<sup>\*</sup>No Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

<sup>\*</sup> Four-quarter moving average used for deliveries, seasonal adjustment and trend cycling used for vacant percent of total. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

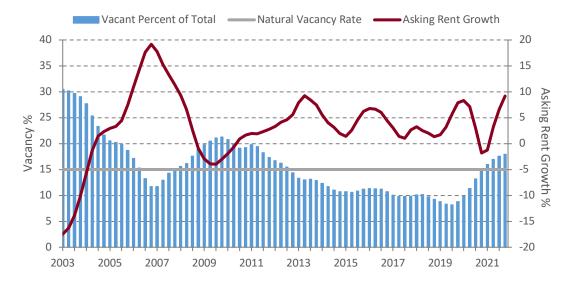
Figure 12. Austin Office Overall Vacancy and Construction Index (SA and TC)\*
(Index 2000 Q4 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

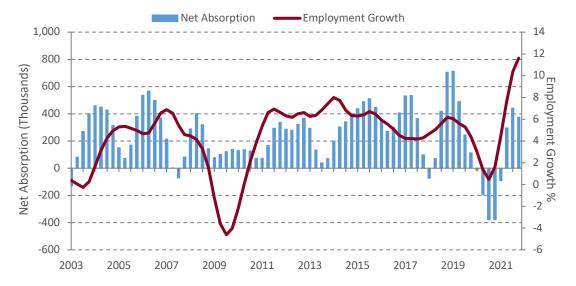
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 13. Austin Office Class A Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

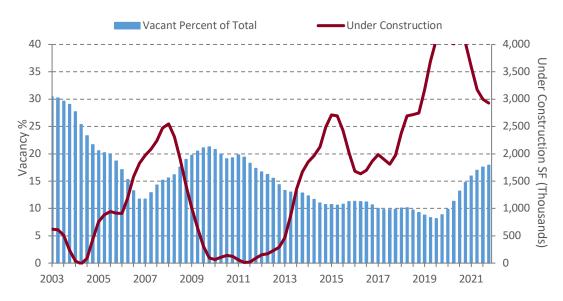




<sup>\*</sup>N Seasonally adjusted and trend-cycle component.

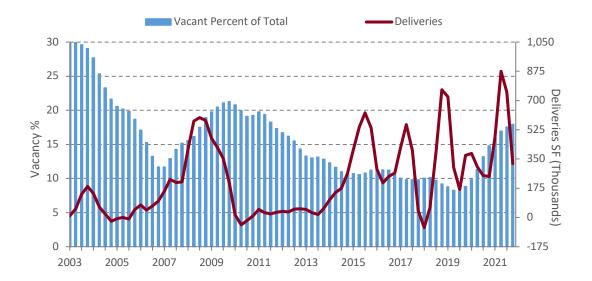
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 15. Austin Office Class A Vacancy and Under Construction (SA and TC)\*



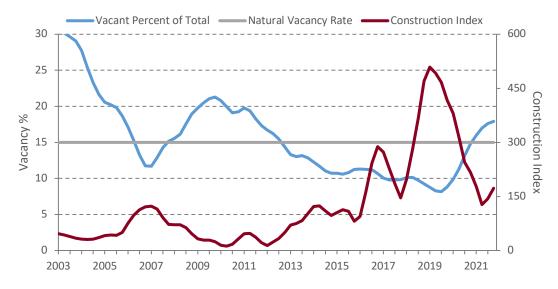
<sup>\*</sup> Seasonally adjusted and trend-cycle component.





<sup>\*</sup> Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

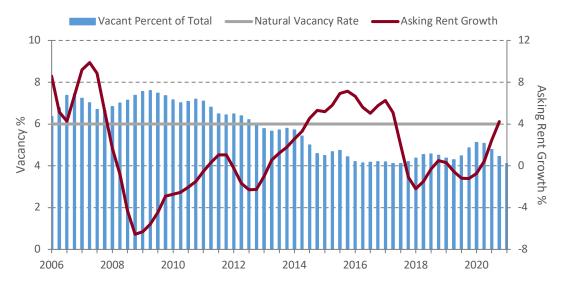
Figure 17. Austin Office Class A Vacancy and Construction Index (SA and TC)\*
(Index 2000 Q4 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

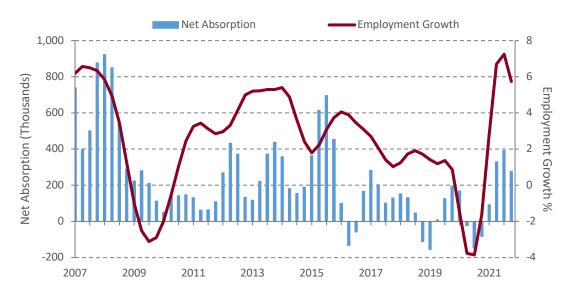
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 18. Austin Retail Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

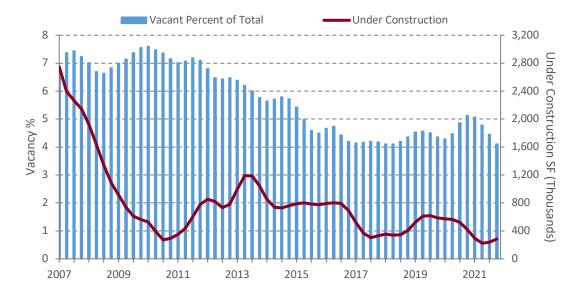
Figure 19. Austin Retail Net Absorption SF and Employment Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

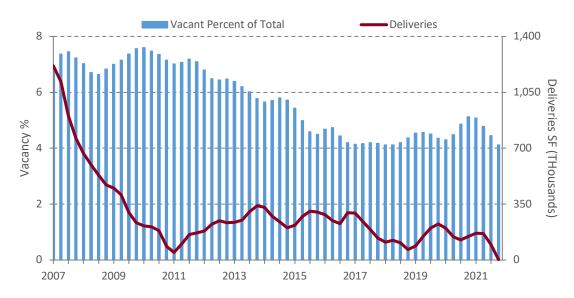
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 20. Austin Retail Vacancy and Under Construction (SA and TC)\*



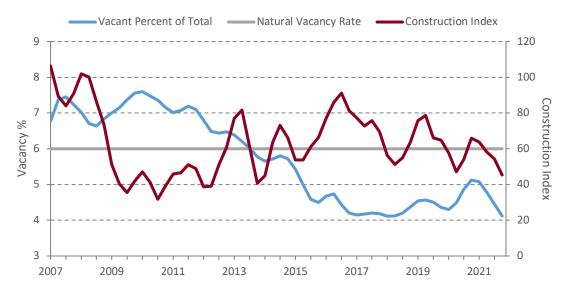
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Figure 21. Austin Retail Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

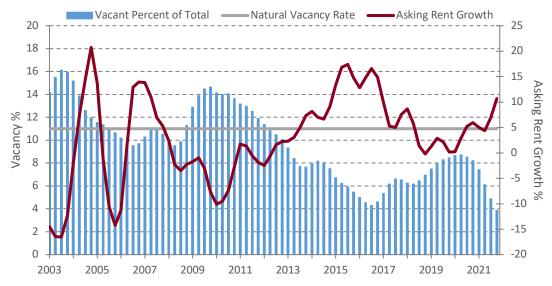
Figure 22. Austin Retail Vacancy and Construction Index (SA and TC)\* (Index 2006 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

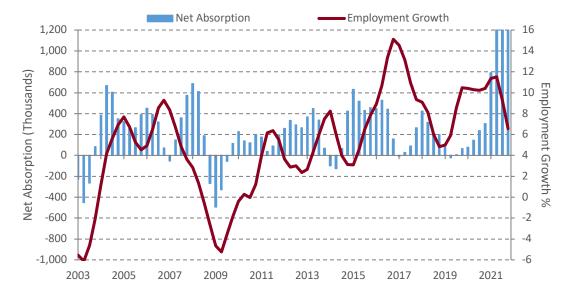
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 23. Austin Warehouse Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

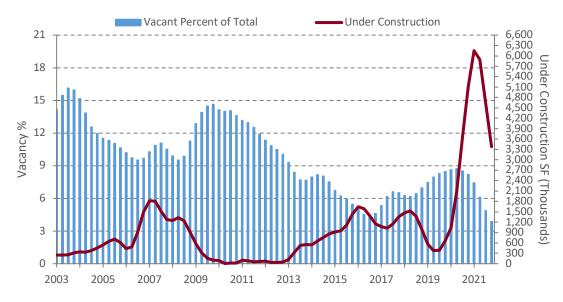




<sup>\*</sup> Seasonally adjusted and trend-cycle component.

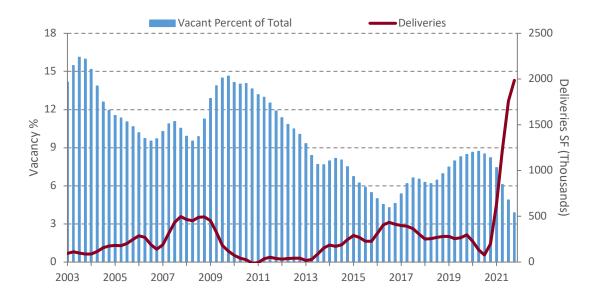
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 25. Austin Warehouse Vacancy and Under Construction (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

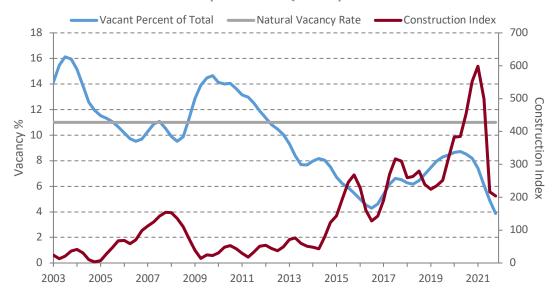




<sup>\*</sup> Seasonally adjusted and trend-cycle component.

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

Figure 27. Austin Warehouse Vacancy and Construction Index (SA and TC)\*
(Index 2000 Q4 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

### **DFW**

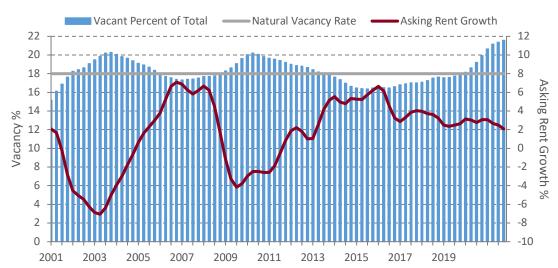


Figure 28. DFW Office Overall Vacancy and Asking Rent Growth (SA and TC)\*

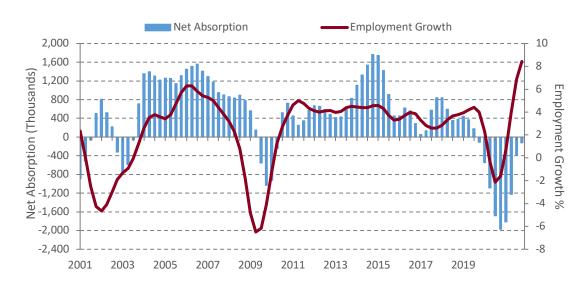
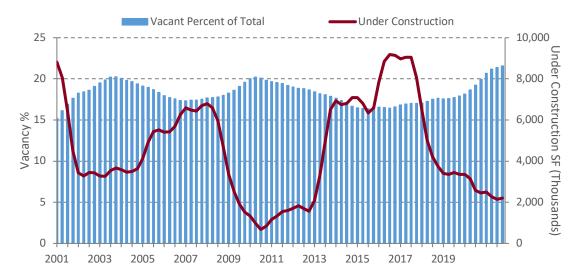


Figure 29. DFW Office Overall Net Absorption and Employment Growth (SA and TC)\*

<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

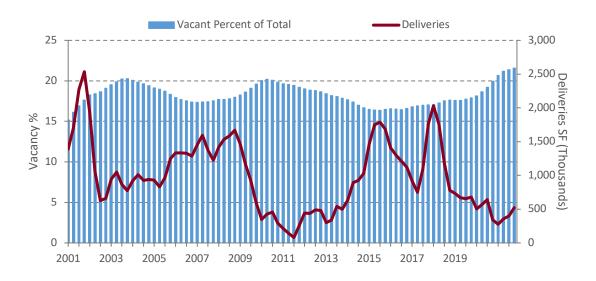
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 30. DFW Office Overall Vacancy and Under Construction (SA and TC)\*



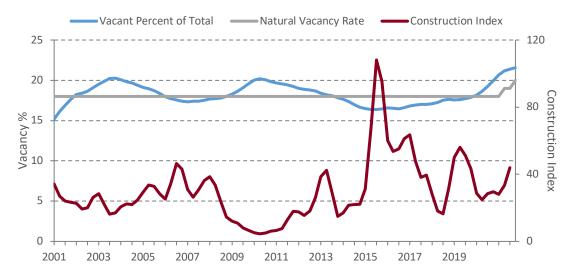
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Figure 31. DFW Office Overall Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

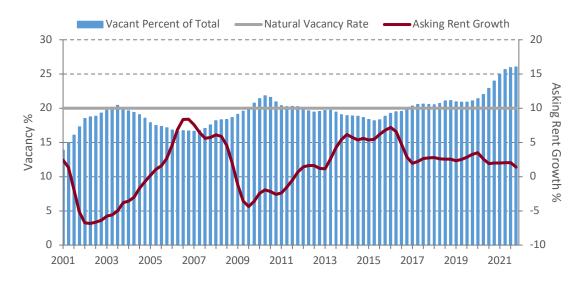
Figure 32. DFW Office Overall Vacancy and Construction Index (SA and TC)\*
(Index 1982 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

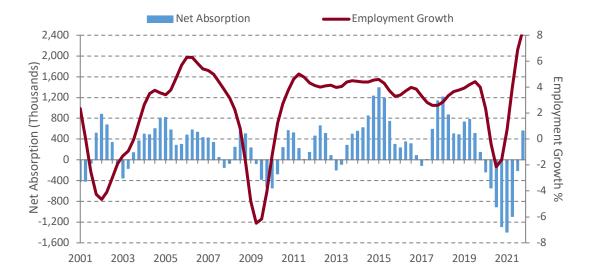
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 33. DFW Office Class A Vacancy and Asking Rent Growth (SA and TC)\*



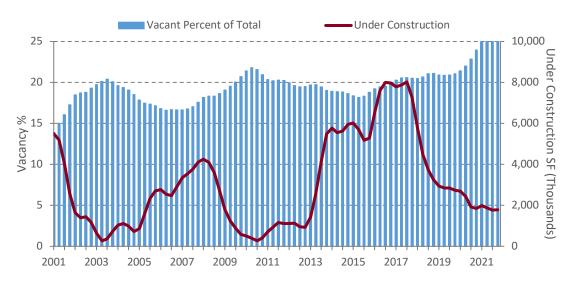
<sup>\*</sup> Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University





<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 35. DFW Office Class A Vacancy and Under Construction (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

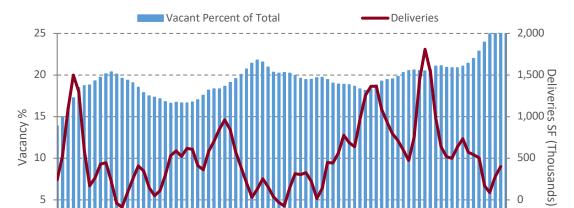
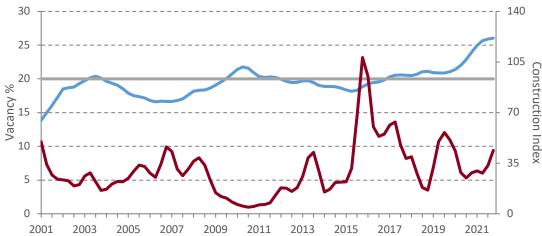


Figure 36. DFW Office Class A Vacancy and Deliveries (SA and TC)\*

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



Figure 37. DFW Office Class A Vacancy and Construction Index (SA and TC)\*

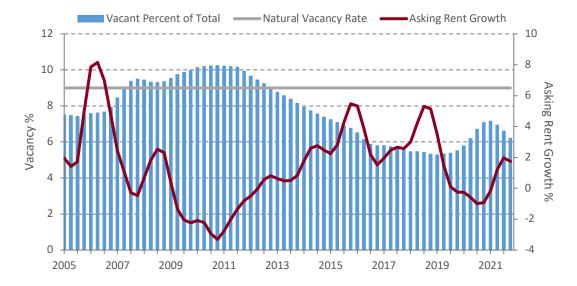


<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component. Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

-500

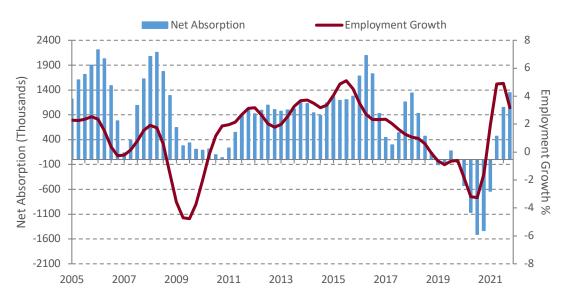
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Figure 38. DFW Retail Vacancy and Asking Rent Growth (SA and TC)\*



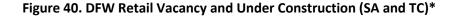
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

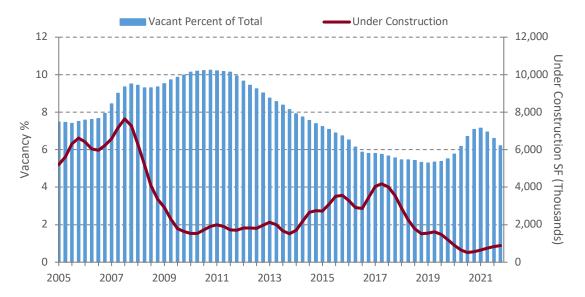
Figure 39. DFW Retail Net Absorption and Employment Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

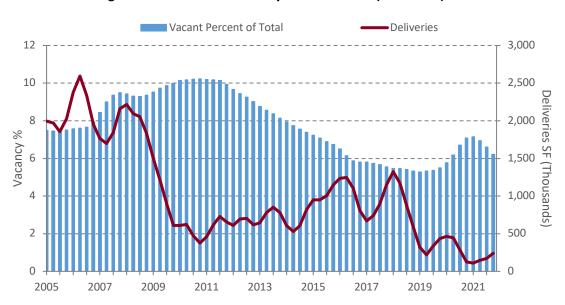
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University





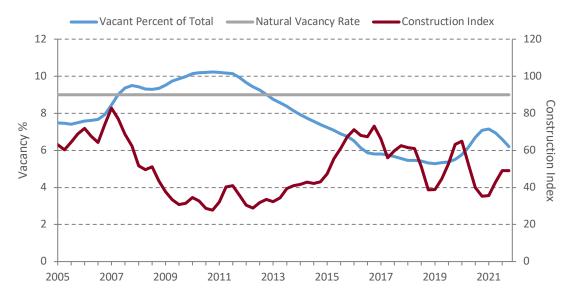
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Figure 41. DFW Retail Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

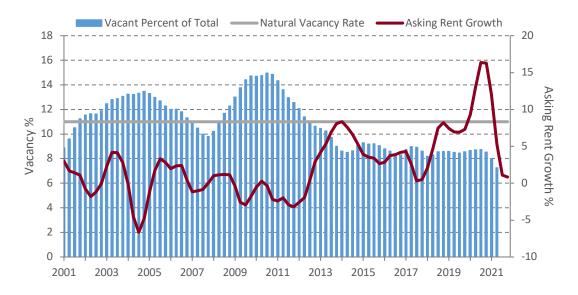
Figure 42. DFW Retail Vacancy and Construction Index (SA and TC)\*
(Index 2000 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

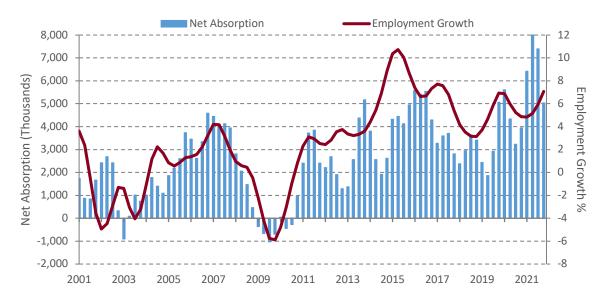
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 43. DFW Warehouse Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

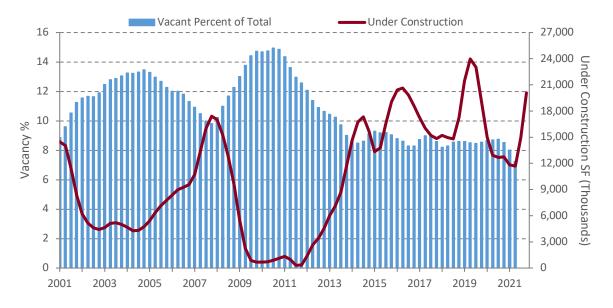




<sup>\*</sup> Seasonally adjusted and trend-cycle component.

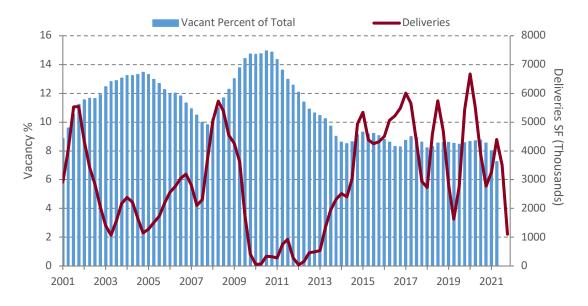
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 45. DFW Warehouse Vacancy and Under Construction (SA and TC)\*



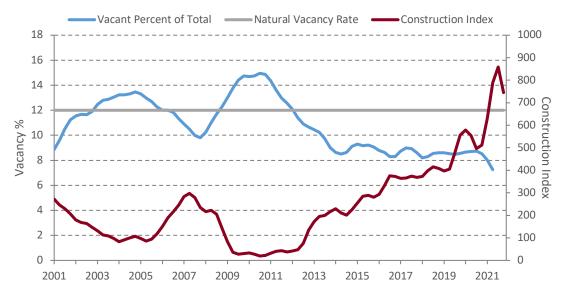
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University





<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

Figure 47. DFW Warehouse Vacancy and Construction Index (SA and TC)\*
(Index 1995 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

## **Houston**

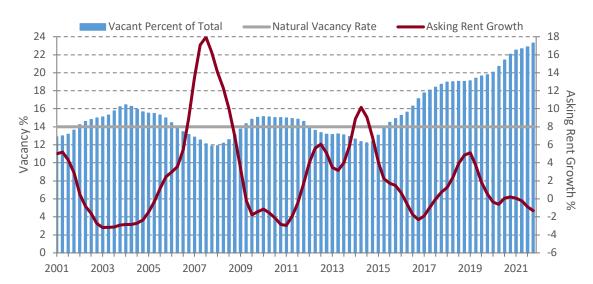


Figure 48. Houston Office Overall Vacancy and Asking Rent Growth (SA and TC)\*

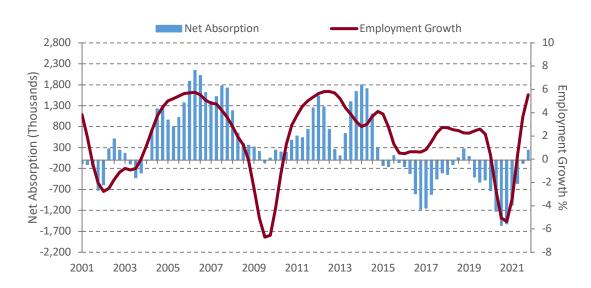
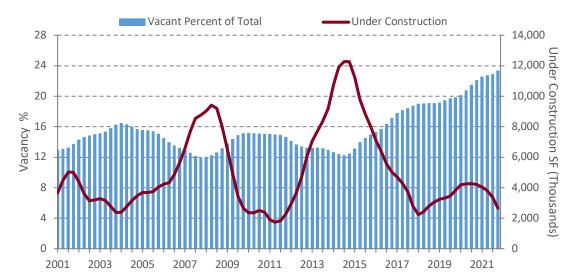


Figure 49. Houston Office Overall Net Absorption and Employment Growth (SA and TC)\*

<sup>\*</sup> Seasonally adjusted and trend-cycle component.

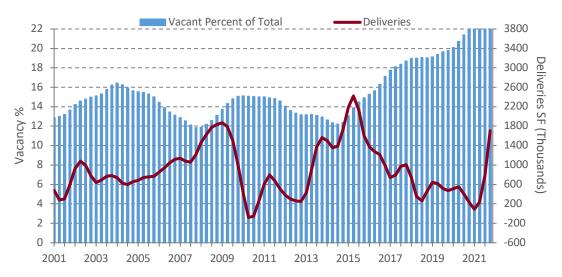
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University





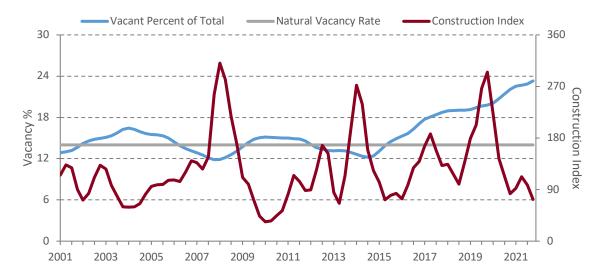
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Figure 51. Houston Office Overall Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

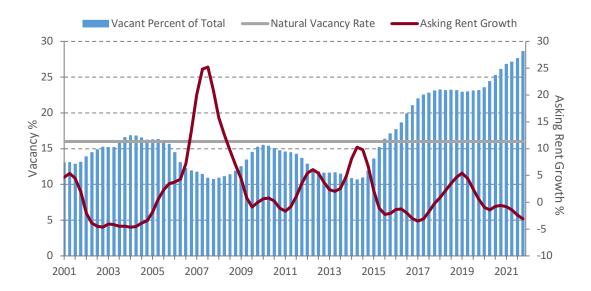
Figure 52. Houston Office Overall Vacancy and Construction Index (SA and TC)\*
(Index 1999 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

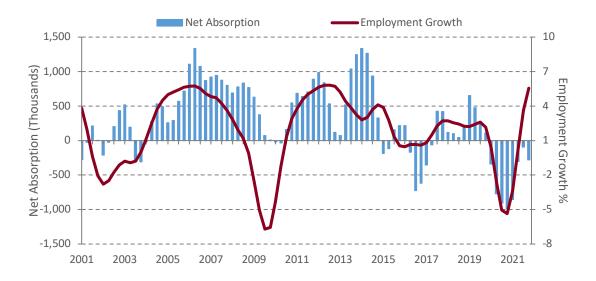
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 53. Houston Office Class A Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

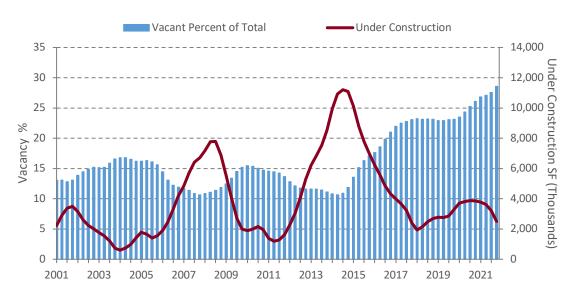
Figure 54. Houston Office Class A Net Absorption and Employment Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

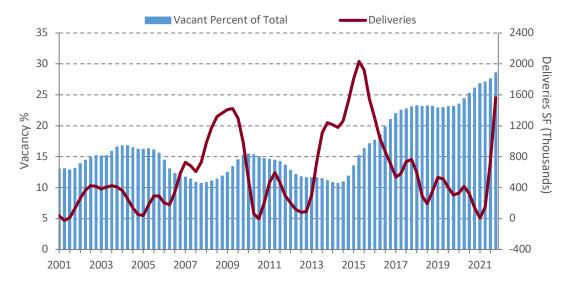
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 55. Houston Office Class A Vacancy and Under Construction (SA and TC)\*



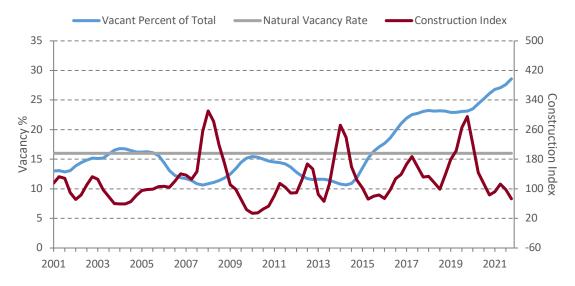
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

Figure 56. Houston Office Class A Vacancy and Deliveries (SA and TC)\*



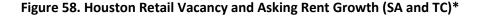
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

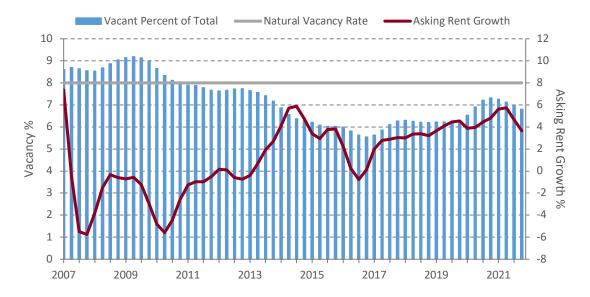
Figure 57. Houston Office Class A Vacancy and Construction Index (SA and TC)\* (Index 1999 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

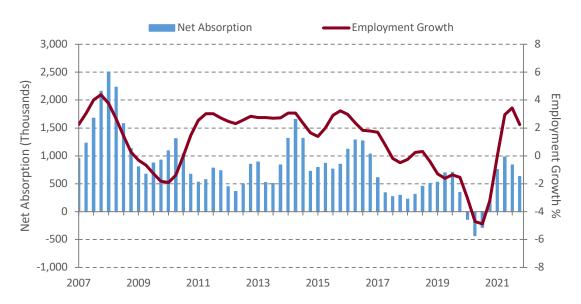
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University





<sup>\*</sup> Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

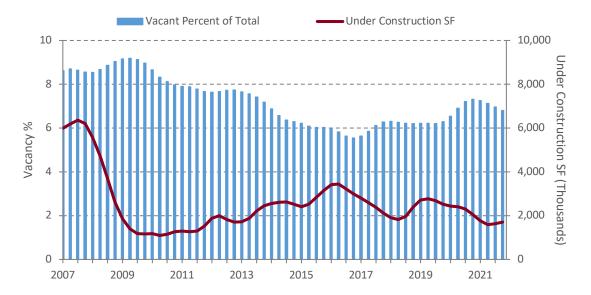
Figure 59. Houston Retail Net Absorption and Employment Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

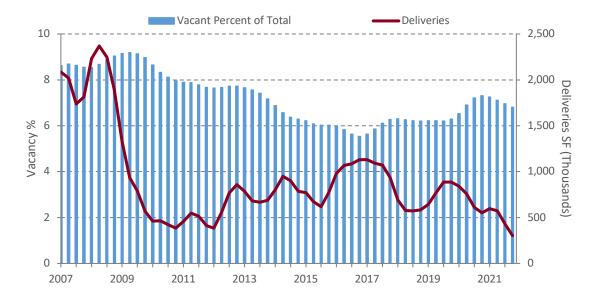
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 60. Houston Retail Vacancy and Under Construction (SA and TC)\*



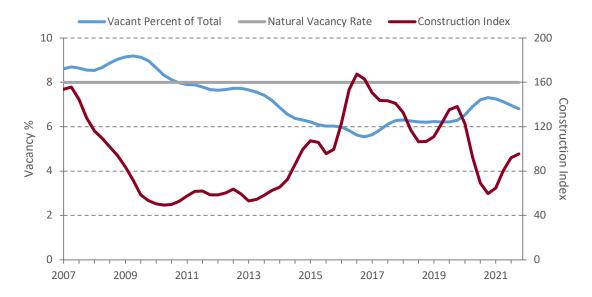
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

Figure 61. Houston Retail Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

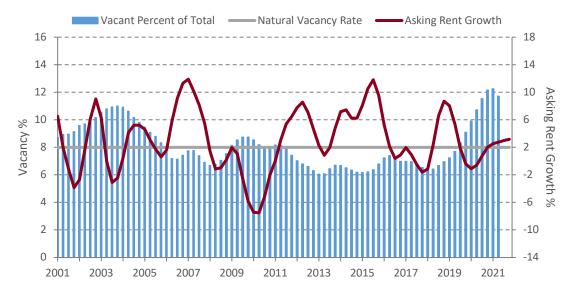
Figure 62. Houston Retail Vacancy and Construction Index (SA and TC)\*
(Index 2006 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

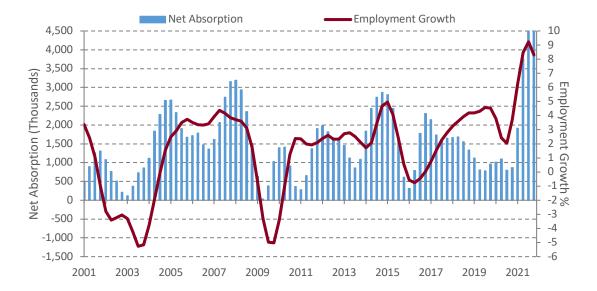
Figure 63. Houston Warehouse Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

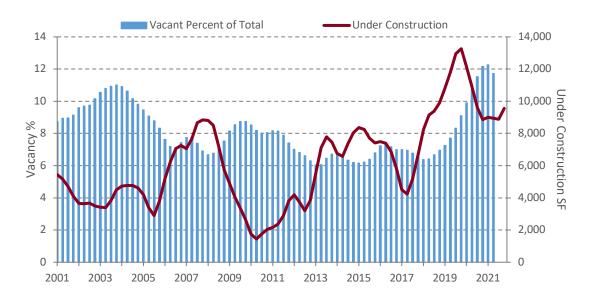
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University





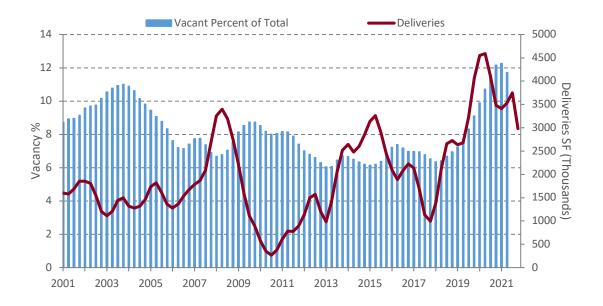
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 65. Houston Warehouse Vacancy and Under Construction (SA and TC)\*



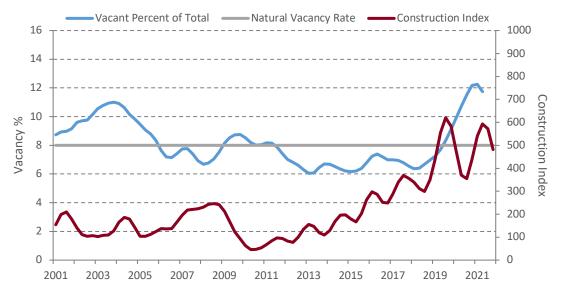
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

Figure 66. Houston Warehouse Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

Figure 67. Houston Warehouse Vacancy and Construction Index (SA and TC)\*
(Index 1999 Q1 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

# **San Antonio**

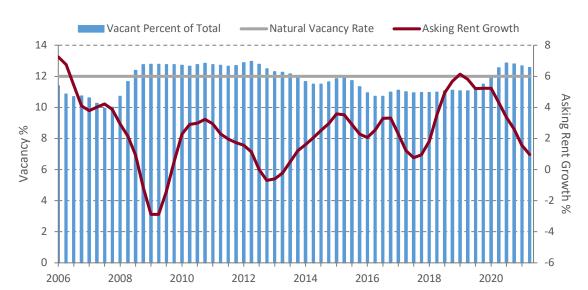


Figure 68. San Antonio Office Overall Vacancy and Asking Rent Growth (SA and TC)\*

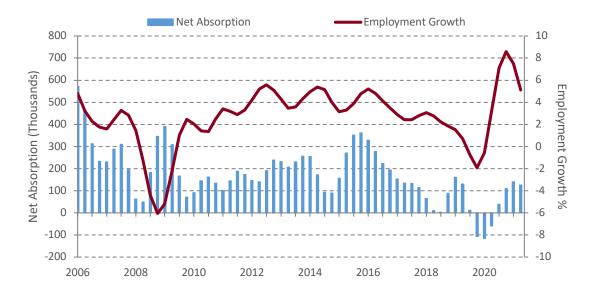


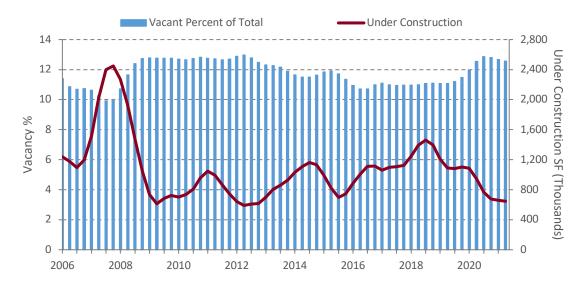
Figure 69. San Antonio Office Overall Net Absorption and Employment Growth (SA and TC)\*

<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

<sup>\*</sup> Seasonally adjusted and trend-cycle component.

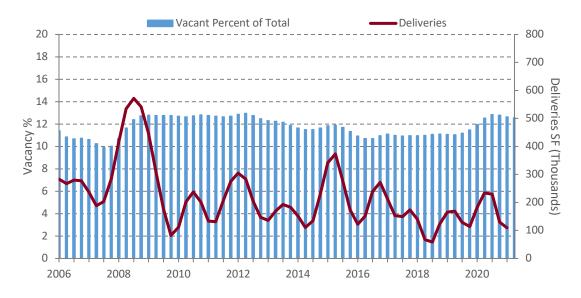
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University





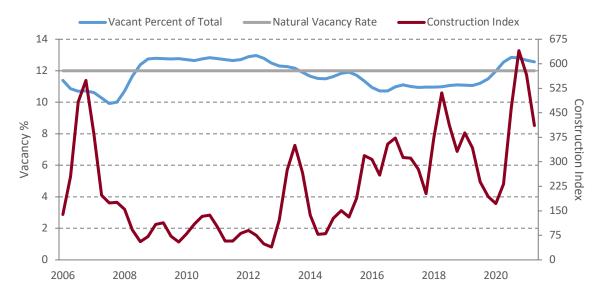
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Figure 71. San Antonio Office Overall Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

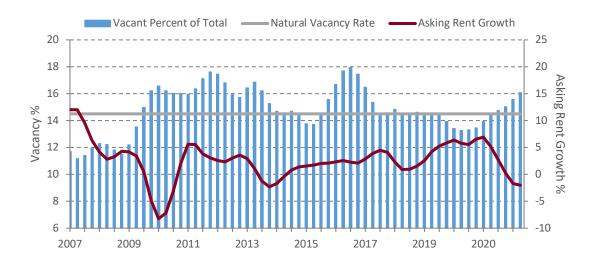
Figure 72. San Antonio Office Overall Vacancy and Construction Index (SA and TC)\*
(Index 2005 Q3 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

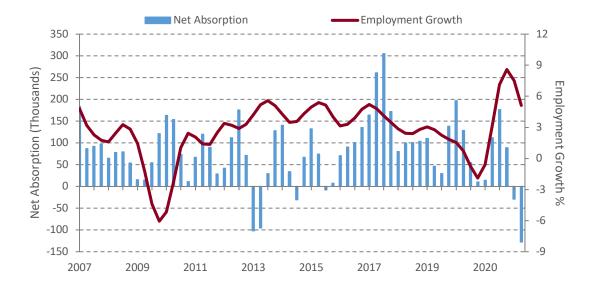
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 73. San Antonio Office Class A Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

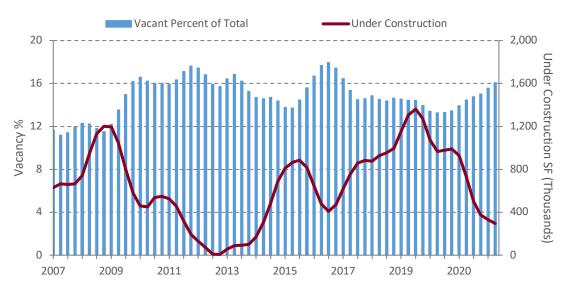




<sup>\*</sup> Seasonally adjusted and trend-cycle component.

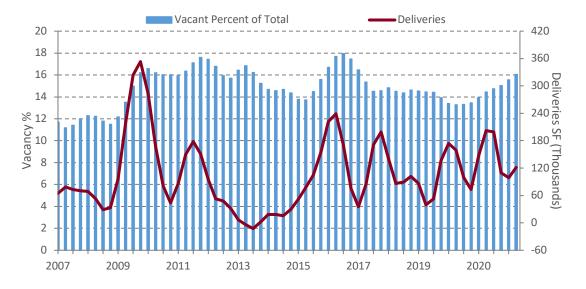
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 75. San Antonio Office Class A Vacancy and Under Construction (SA and TC)\*



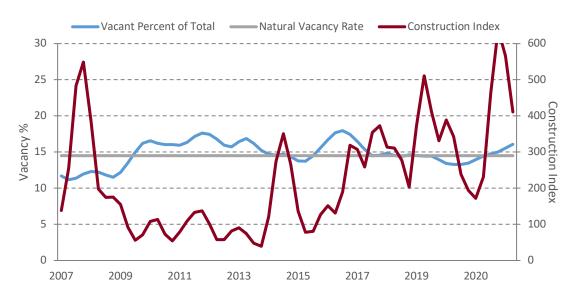
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University





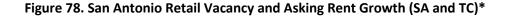
<sup>\*</sup> Seasonally adjusted and trend-cycle component.

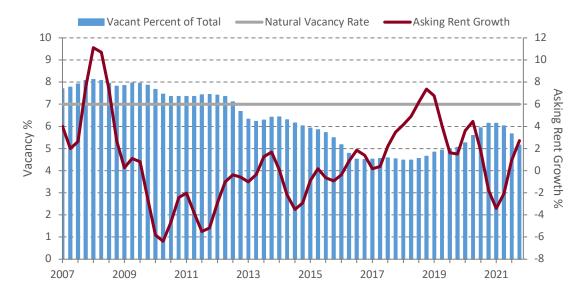
Figure 77. San Antonio Office Class A Vacancy and Construction Index (SA and TC)\*
(Index 2005 Q3 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

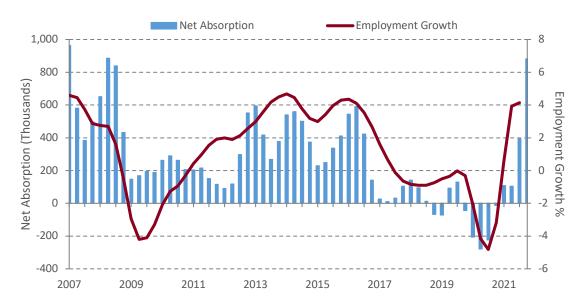
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University





<sup>\*</sup> Seasonally adjusted and trend-cycle component.

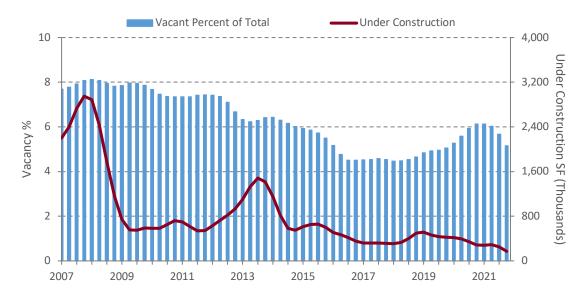
Figure 79. San Antonio Retail Net Absorption and Employment Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

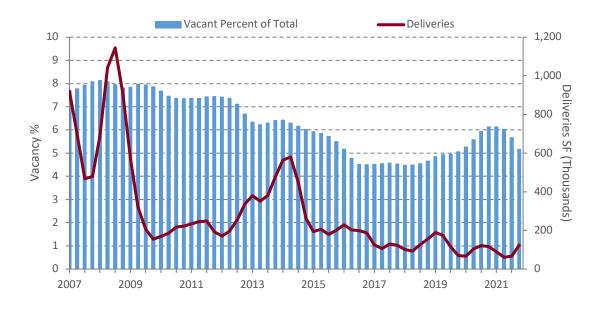
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 80. San Antonio Retail Vacancy and Under Construction (SA and TC)\*



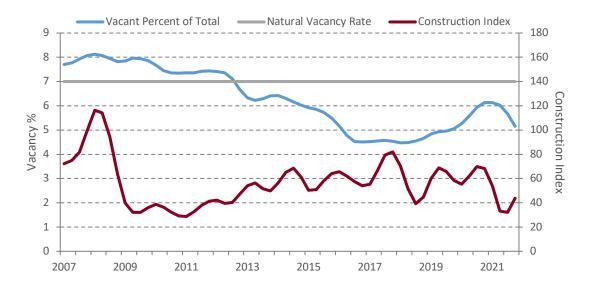
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

Figure 81. San Antonio Retail Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

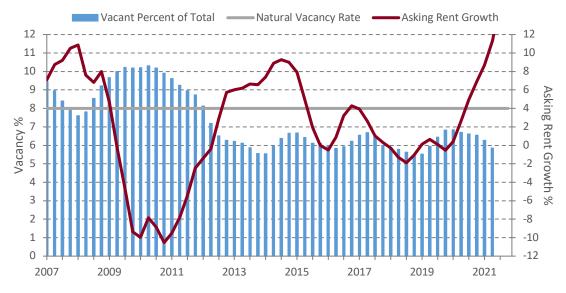
Figure 82. San Antonio Retail Vacancy and Construction Index (SA and TC)\*
(Index 2005 Q3 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component.

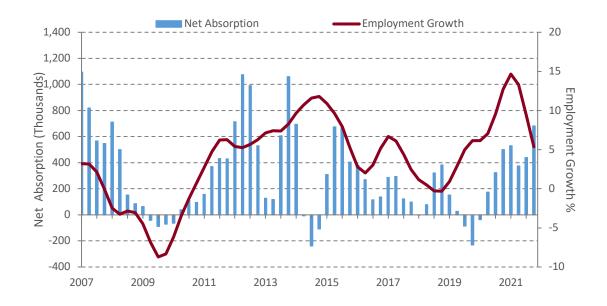
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

Figure 83. San Antonio Warehouse Vacancy and Asking Rent Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

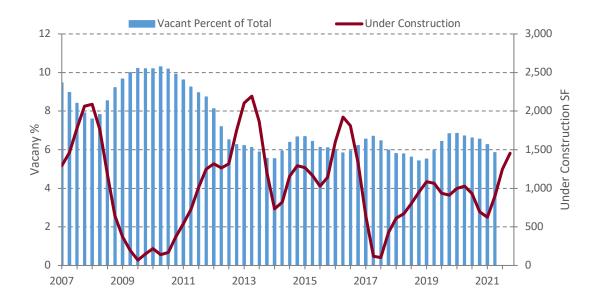
Figure 84. San Antonio Warehouse Net Absorption and Employment Growth (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

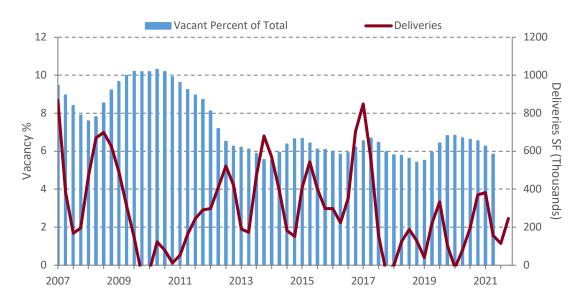
Sources: Bureau of Labor Statistics, CoStar, and Texas Real Estate Research Center at Texas A&M University

Figure 85. San Antonio Warehouse Vacancy and Under Construction (SA and TC)\*



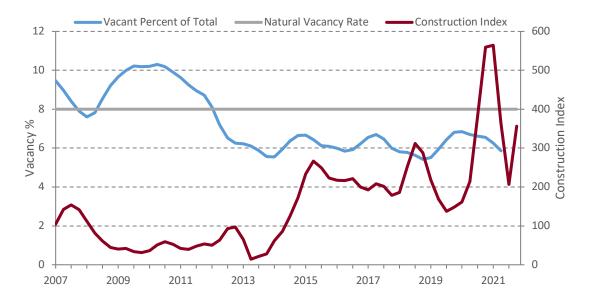
<sup>\*</sup> Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

Figure 86. San Antonio Warehouse Vacancy and Deliveries (SA and TC)\*



<sup>\*</sup> Seasonally adjusted and trend-cycle component.

Figure 87. San Antonio Warehouse Vacancy and Construction Index (SA and TC)\*
(Index 2005 Q3 = 100)



<sup>\*</sup> Inflation adjusted, seasonally adjusted, and trend-cycle component. Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

# Definitions

**Asking rents.** The dollar amount per square foot the landlord requests from a tenant, excluding tenant improvements and concessions. Leases typically dictate this amount paid annually.

**Capitalization rate/cap rate.** The cap rate is computed by dividing expected net operating income (NOI) generated from the property by the current property value (V) and expressing it as a percentage. NOI is rent minus the owners share of expenses, such as taxes, insurance, maintenance, and management costs. Mortgage costs and any other costs of financing are not included in expenses.

In general, the higher the cap rate, the higher the risk. Investors compare cap rates for potential projects with their cost of funds when selecting investment projects, considering only those investments where the cap rates exceed the cost of funds.

Risk can be estimated by computing the "spread," the difference between the cap rate and some risk-free rate. Because commercial real estate investments are expected to generate streams of income over a long period, investors commonly use the U.S. ten-year Treasury rate as a risk-free rate.

**Construction Starts Index.** Reflects the dollar value of construction starts in relation to a specified base year and is a precursor to future units under construction.

Dodge Analytics tracks commercial construction start figures as soon as a new project kicks off to estimate its total construction "value," which is essentially total construction cost. We realize that some real estate professionals may question whether calling the total dollars to be spent on a project's "construction value" actually equates to its "market value" at completion. However, for consistency, this report will use Dodge's terminology.

**Trend-cycle component.** Removes the effects of accumulating data sets from a trend to show only the absolute changes in values while allowing potential cyclical patterns to be identified.

**FIRE & PBS.** A sector of the economy composed of finance, insurance, and real estate. PBS employment represents professional and business services.

**Net absorption.** The net change in occupied space, measured in square feet, over a given period. Net absorption reflects the amount of space occupied as well as the amount of space vacated. Net absorption includes direct and sublease space.

**Nominal.** Value or rate reflecting current prices or rates without adjusting for inflation.



**Real**. Value or rate reflecting current prices or rates adjusted for inflation.

**Seasonal adjustment.** A statistical method for removing the seasonal patterns in time series data.

SF. Square feet.

**Under construction.** The square footage being built within a particular market; applies to buildings that have not received a certificate of occupancy.

**Vacancy rate.** A measurement expressed as a percentage of the total amount of physically vacant space divided by the total amount of existing inventory.

### Natural and actual vacancy.

The projected vacancy rates and rents for each commercial use in the four major metro areas are made relative to each area's natural vacancy rate for each property type.

The natural vacancy rate is the point at which zero real (inflation-adjusted) rent growth will occur. Natural vacancy reflects the level to which current vacancy rates gravitate over the long term.

The actual vacancy rate is seasonally adjusted and trend-cycled to smooth fluctuations in the data and provide a clearer, less volatile view of upward and downward movements.

Natural vacancies used to estimate the possibility of new construction are calculated separately using historical construction data. The calculated natural vacancies were compared with the actual vacancies to estimate whether new development could be expected in the various commercial real estate markets. When actual vacancy in a local market falls below natural vacancy, developers may consider building new space.

When actual vacancy in a local market falls below (rises above) natural vacancy, building managers may consider increasing (decreasing) rents. A comparison of natural vacancy and actual vacancy along with historical vacancy trends allows researchers to anticipate the future direction of CRE rental rates in real terms. However, changes in asking rents in this report reflect nominal changes since real estate professionals typically think in nominal terms.

Aggregate natural vacancy in an overall market may not reflect the vacancy rate an individual CRE professional uses to make decisions affecting a specific property or project. However, these measures indicate the direction of rents and new construction within the broader market.



### DIVISION OF ACADEMIC AND STRATEGIC COLLABORATIONS

Texas A&M University 2115 TAMU College Station, TX 77843-2115 http://recenter.tamu.edu 979-845-2031

### **EXECUTIVE DIRECTOR**

GARY W. MALER

### **ADVISORY COMMITTEE**

DOUG JENNINGS, CHAIRMAN DOUG FOSTER, VICE CHAIRMAN

Fort Worth Lockhart

TROY ALLEY, JR. BESA MARTIN

DeSoto Boerne

RUSSELL CAIN TED NELSON

Port Lavaca Houston
VICKI FULLERTON BECKY VAJDAK

The Woodlands Temple

PATRICK GEDDES BARBARA RUSSELL, EX-OFFICIO

Dallas Denton









