

Dr. Luis B. TorresResearch Economist

Brendan Harrison Research Intern **Dr. Harold D. Hunt**Research Economist

Connor Harwell
Research Intern

Technical Report

2211
SECOND QUARTER 2021

Texas Quarterly Commercial Report: 2nd Quarter 2021

FOR	OCCUPANCY ASKING RATES RENTS
OFFICE	78.4% 🔻 2.8% 🔺
OFFICE CLASS	
RETAIL	93.0% 0.9% 🛕
WAREHOUSE	92.7% ▲ 5.8% ▼
AU	STIN
	OCCUPANCY ASKING RATES RENTS
OFFICE	83.3% 🔻 3.9% 🛕
OFFICE CLASS A	82.3% 🔻 4.2% 🛦

WAREHOUSE

	OCCUPANCY RATES	/ ASKING RENTS
OFFICE	86.7%	3.2% 🛕
OFFICE CLASS A	84.6%	0.2% 🔻
RETAIL	93.9%	-3.2%
WAREHOUSE	94.2%	10.6%

пос	JSTON	
	OCCUPANCY RATES	ASKING RENTS
OFFICE	77.2%	-0.6% 🔻
OFFICE CLASS A	73.5% ==	-1.7%
RETAIL	93.2%	4.0%
WAREHOUSE	87.5%	3.3%



Table of Contents

About this Report	3
Overview of the Texas Economy	
Austin	10
Overall Office	
Class A Office	
Retail	
Warehouse	
Dallas-Fort Worth	12
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	20
Definitions	66



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 (MSAs)—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. Luis Torres, Dr. Harold Hunt, Brendan Harrison, and Connor Harwell



Overview of the Texas Economy

Economic activity in Texas improved during second quarter 2021 and is expected to continue its strong growth for the remainder of the year. Improved hiring in June resulted in solid second-quarter payroll growth, although joblessness in the Lone Star State was still higher than the national average. Moreover, inflation-adjusted headline wage numbers flattened due to supply bottlenecks, generating price pressures and driving up inflation. On the bright side, oil industry activity grew as oil prices increased, and the global economic recovery continues. The relative health of the state's economy and favorable business practices attracted migrants and firms from other parts of the country, bolstering population growth and housing demand.

The economic recovery continues due to increasing COVID-19 vaccination rates that have allowed the reopening of the economy. Based on the most current data from the Texas Department of State Health Services, 54.5 percent of the state's population is fully vaccinated. Unfortunately, after months of decline in COVID-19 cases, the number of new cases has increased because of the number of people not yet vaccinated and the emergence of the Delta variant, which has shown to be more contagious. This has increased uncertainty surrounding the end of the pandemic. Until the virus is beaten, a full recovery cannot be secured. For additional commentary and statistics, see the Texas Real Estate Research Center's *Outlook for the Texas Economy*.

The Texas Nonresidential Construction Cycle (Coincident) Index, which measures current construction levels, ticked up during June due to increasing construction put in place values. The statewide Nonresidential Construction Leading Index overall trend points toward further declines in nonresidential construction activity amid falling construction value starts. In contrast, Austin's office, retail, and warehouse leading indexes are pointing toward increases in commercial construction activity in the near future as the value of construction starts increase. DFW leading indexes point toward increased activity in retail and warehouse, while future office construction should slow as a result of falling construction start values. Houston's leading indexes, with the exception of warehouse, are signaling higher construction activity going forward due to increasing construction start values. San Antonio leading indexes, with the exception of office, indicate less activity going forward. See Figures 1-5 for the Nonresidential Coincident Index and Leading Indicator for Texas and the four major metros.

Texas nonfarm employment added 55,800 jobs in June, rising 4.4 percent on a seasonally adjusted annual rate (SAAR). Based on the state's solid employment performance, the Federal Reserve Bank of Dallas forecasts annual employment will increase 5.6 percent in 2021, reaching



13 million workers in December. Hiring in Houston slowed during the second quarter, recovering 19,600 jobs compared with the first quarter's gain of 33,700. Houston payrolls are still 5.4 percent off from pre-pandemic levels, a larger gap than the other major metros. Dallas added 33,400 employees in the second quarter, registering the highest number of job gains of the four major MSAs. San Antonio and Austin registered net quarterly increases of 9,800 and 9,400 workers, respectively. Payroll expansions were largely concentrated in the leisure/hospitality, professional/business services, wholesale trade, government, and education/health services industries across the major metros. Employment declined only in Fort Worth, which shed 1,000 positions during the second quarter as global supply chains negatively affected the manufacturing industry. Goods-producing employment in Fort Worth decreased due to falling construction jobs.

Texas' goods-producing sector gained 2,600 positions in June. Even after registering two straight months of increases, the sector still lost 15,600 jobs during 2Q2021. Amid increasing oil prices, energy-related employment rose by 2,300 jobs in the second quarter but remained around a fifth fewer than year-ago levels. Recovering global economic conditions supported the state's manufacturing industry, which added 4,900 employees. Durable-goods payrolls recorded a 4,100-job gain during the second quarter. Construction payrolls fell last quarter, shedding 22,900 jobs.

Texas' service-providing sector, which was hit hardest by the pandemic, continues to recover jobs. It is 2 percent below pre-pandemic levels after adding 128,500 jobs in the second quarter. Leisure/hospitality recouped 58,000 jobs in 2Q2021, but arts/entertainment/ recreation payrolls remained almost a fifth below pre-pandemic levels. On the other hand, the transportation/warehousing/utilities industry added 11,300 positions, surpassing pre-pandemic employment by 1.2 percent.

Texas' unemployment rate decreased to 6.5 percent in June, still greater than the national rate of 5.9 percent. The state's labor force expanded, but that didn't increase the labor force participation rate, which remained at 62.2 percent below pre-pandemic levels. Joblessness in Houston also fell, albeit at a higher rate of 7.1 percent. The local labor force expanded from the previous month. On the other hand, unemployment inched down to 6.2 percent in Fort Worth and 6.0 and 5.9 percent in San Antonio and Dallas, respectively. The metric remained lowest in Austin, where the jobless rate slid to 4.9 percent.

The decrease in unemployment after 2Q2020 is important for commercial vacancies given the relationship between unemployment rates and vacancy rates. The longer unemployment rates remain elevated, the stronger the negative impact on vacancies and rents. As would be expected, the increase in the unemployment rate back in 2Q2020 pushed up vacancy rates in



the major metros, and the declining unemployment rates have alleviated some of the pressures on rising vacancy rates (Figures 6-9).

Rising oil prices, accelerating vaccination rates, and optimistic national economic data during the second quarter resulted in higher growth and inflation expectations for 2021. However, the liquidity in the financial markets is a consequence of large-scale asset purchases by the Fed that include mortgage-backed securities and U.S. Treasuries, which have pushed down interest rates. The ten-year U.S. Treasury bond yield decreased to 1.52 percent in June after reaching a pandemic high of 1.64 in April. The spread between commercial capitalization rates and the ten-year Treasury yield decreased from 1Q2021 to 2Q2021. Rising inflation expectations and the Federal Reserve's tapering of assets purchases should push up interest rates at the end of 2021. As a result, the spread between commercial cap rates and the ten-year Treasury bill should continue to decline somewhat the rest of the year.

Office cap rates (Figure 10) decreased during the first half of 2021 in Texas' major MSAs after increasing during 2020. The increasing vaccination rates among the population has reduced the uncertainty surrounding the end of the pandemic, allowing for the full reopening of the economy and the slow return of white-collar workers to the office helping to lower the risk in the office cap rate. San Antonio and Houston continued to register the highest cap rates. With the exception of Austin, the office cap rate spread with the ten-year Treasury bill has decreased since 2Q2020 in the rest of Texas' major MSAs. Austin was the least risky market for office real estate during the first half of 2021 based on the spread with the ten-year Treasury bill.

Retail cap rates (Figure 11) have decreased since 2Q2020 in Texas' major MSAs. The same decreasing trend has been observed in the spread between retail cap rates and the ten-year Treasury. The drop in the spread reflects the change in sentiment regarding future expectations for the retail sector from devastating to a relatively more positive one. Austin and San Antonio are the least risky and lowest return markets for retail real estate.

Industrial cap rates (Figure 12) decreased during 2Q2021 in Texas' major MSAs and have decreased for two consecutive quarters. San Antonio and Houston recorded the highest cap rates. Similar to the other two markets, the spread between the ten-year Treasury decreased during the first quarter of 2021 in all four MSAs. DFW is the least risky and lowest return market for industrial real estate based on the spread with ten-year Treasury bill.



Commercial Real Estate Outlook from COVID-19

Office

- The office market has been exposed to some pervasive underlying changes in the work environment that will not be fully evident until employees return safely to the office. The appearance of the Delta variant has delayed this return further.
- Occupancy cannot improve significantly until COVID-19 variants are subdued.
- The uncertainty surrounding the future hybrid work landscape will probably cause vacancies to remain high, resulting in subdued rent growth in the coming years.
- The relationship between business employment growth and office demand has changed.
 The pandemic showed firms can hire employees without increasing their demand for office space.
- Office space will still be needed in sectors such as technology, life sciences, professional business, and financial activities.

Retail

- The pandemic has accelerated the shift to e-commerce from brick-and-mortar retail. Still, some purchasing experiences cannot be duplicated online.
- Retailers are increasingly using a hybrid store model that integrates the on-site experience with the online one.
- Both the preference for the physical purchasing experience for some goods and services and the hybrid model suggest brick-and-mortar retail will continue for the foreseeable future.
- The following factors will aid the retail sector during 2021 and should continue in 2022:
 - The reopening of the economy due to the vaccines has led to strong economic growth and solid consumer demand.
 - Household preference for social interaction after being locked up during the pandemic.

Industrial

- This sector has benefited greatly from the shift to e-commerce and need for distribution and warehousing centers.
- Industrial space will continue to be aided by the shift to e-commerce, increased inventory requirements, and supply chain diversification in the coming years.
- A possible future concern could be overbuilding driven by increasing investor interest in the sector. This occurred in the Houston warehouse market during the last part of 2019 and 2020, causing vacancy rates to reach double-digit levels and moderating rent growth, in some cases severely.



The Texas Real Estate Research Center estimated 2021, 2022, and 2023 vacancy rates and asking rent percent changes for the different commercial markets and major MSAs (Tables 1-3).

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

	Natural Vacancy Rates (%)			As	king Ren	ts (y-o-y	%)		
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 (%)			As	king Ren	ts (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-c	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	o-y %)
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 13 - 17)

Since hitting a record low at the end of 2017, vacancy rates have gradually increased, surpassing the natural vacancy rate of 13 percent for a fourth consecutive quarter. Asking rent growth has increased for the first time in four quarters. With an increase in vacancy and rent growth, the Austin market still feels the effects of COVID-19 but is beginning a shift back to prepandemic levels. Net absorption was slightly negative before the pandemic but has increased significantly, further reaching a positive value this quarter. FIRE & PBS employment growth continued higher for the fourth consecutive quarter, moving up to just below 10 percent. Employment growth jumped significantly across the state, particularly in Austin and San Antonio.

Deliveries recovered from their sharp drop in 4Q2020, increasing significantly to over 900,000 square feet. Additionally, the value of construction starts increased while square feet under construction continued to decline. The COVID-19 crisis has caused apprehension, impacting new Austin office construction and increasing vacancy rates.



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 18 - 22)

Actual vacancy climbed to 17.7 percent, stretching the trend into its eighth quarter of decreased occupancy. This is the third consecutive quarter that vacancy levels have risen above the natural vacancy rate of 15 since 2012. Asking rent growth and net absorption both increased, continuing the quarterly improvements from 1Q2021. These changes signal demand should improve for Class A space.

Deliveries continued to increase to over 900,000, while square feet under construction declined as the pipeline cleared up. Construction activity has reduced because of the negative impact



the COVID-19 crisis is having on vacancy rates and the uncertainty surrounding the future office work.



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 23 - 27)

For the past five years, actual retail vacancy has remained relatively constant between 4 and 5 percent. Despite the pandemic, 2Q2021 continued this trend, with actual vacancy holding steady at 4.75 percent, still below the natural vacancy rate of 6 percent. Asking rents have remained muted over the past five quarters, with the positive growth from 1Q2021 continuing up to 1.2 percent in 2Q2021. Employment in the retail sector saw huge growth, jumping to just over 13 percent. This supports last quarter's prediction for demand returning to retail in Austin as employment growth corrects from the negative growth of 2Q2020.

The value of construction starts increased moderately in 2Q2021 after a slight drop last quarter. Square feet under construction continued to decrease while deliveries continued to increase for the third straight quarter. Rent collection is also a major concern related to the pandemic. This is particularly relevant to retailers, who have seen their brick-and-mortar sales decrease considerably. The retail sector will likely continue to be negatively affected as the crisis plays out, with some signs of resiliency occurring in a few of its subsectors.



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 28 - 32)

Actual vacancy decreased from last quarter, finishing at 5.8 percent, remaining well below the natural vacancy rate of 11 percent. Asking rent growth continued to decrease to 5.1 percent. Demand appears to be increasing in the Austin market, even after declining the previous quarter. Second quarter 2021 saw occupancy, rent, and employment hold steady after positive growth in the previous quarter as Austin warehouse demand proved resilient to the effects of COVID-19.

Construction starts decreased this quarter while net absorption increased, remaining positive. Additionally, with the pandemic showing the importance of e-commerce, demand for industrial space in Austin is increasing to pre-pandemic highs. The movement of manufacturing firms, such as Tesla, to Austin should increase demand for industrial space.





OCCUPANCY 78.4%

ASKING RENT GROWTH 2.8%

EMPLOYMENT GROWTH

6.4%

NET ABSORPTION SF -740,043

CONSTRUCTION STARTS

V

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 33 - 37)

Historically, vacancy rates have hovered around the natural vacancy rate of 18 percent. However, this trend began to deviate in 3Q2020, with vacancy rates in 2Q2021 continuing to climb to 21.6 percent. Asking rent growth remained constant, lingering around 2.8 percent. Employment growth has finally become positive for the first time since 1Q2020, increasing to 6.4 percent.

The value of construction starts has decreased from the last quarter, but still remains up. Developers and investors are keen to pursue less risky properties like build-to-suit space, and/or some speculative properties with perceived long-run growth potential like industrial developments. COVID-19's impact on the Dallas-Fort Worth office market is still unclear. Buyers will likely shop for a different type of office space post-pandemic. With more people working from home than ever before, the days of cubicles and desks in a bullpen may be numbered. More employees will likely split their time between home and the office. As a result, some current office space will require remodeling to remain competitive as the use for office space changes.

OCCUPANCY 73.8%

ASKING RENT GROWTH 2.3%

EMPLOYMENT GROWTH

6.4%

NET ABSORPTION SF -1,076,936

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 38 - 42)

Class A office vacancy rates in Dallas-Fort Worth have been relatively stable since the Great Recession, generally hovering around the natural vacancy rate of 20 percent. However, rates have begun to climb steadily as the pandemic-driven recession drags on, reaching 26.2 percent in 2Q2021. After decreasing in the last quarter of 2020, asking rent growth increased to 2.3 percent, falling within the 2-4 percent standard range since 2017. Employment growth turned positive for the first time in five quarters, reaching 6.4 percent. Net absorption increased from last quarter, but still remains negative for a sixth straight quarter.



occupancy 93.0%

ASKING RENT GROWTH

0.9%

EMPLOYMENT GROWTH

NET ABSORPTION SF 618.617

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 43 - 47)

Actual vacancy held steady on an upward trend that started on 4Q2018, holding at 7 percent this quarter while actual vacancy remains well below the natural vacancy rate of 9 percent. Asking rents have registered negative growth for the past year but grew positive in 2Q2021 to 0.9 percent. Net absorption increased considerably in 2Q2021, marking the first positive quarter in the last year. Net absorption has registered a downward trend since 2019. Such a low level of net absorption was not even approached during the Great Recession, highlighting how unexpected the disruption was to an already overbuilt market. Hopefully, this indicates the retail sector is starting to emerge from the pandemic. Employment growth provides a similar narrative, with continued growth becoming positive and jumping to 10.2 percent. The future of in-store retail demand is unclear, hinging largely on public perception of personal safety while shopping in the aftermath of COVID-19. However, as widespread vaccination occurs, movement should be toward pre-pandemic demand.

Deliveries and square footage under construction saw moderate increases in 2Q2021. The value of construction starts also increased in 2Q2021, recovering from a slight drop in the previous quarter. The retail sector appears to be showing signs of improvement as pandemic-related issues continue to ease up.



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 48 - 52)

Demand for Dallas-Fort Worth warehouse space remains quite strong, outperforming every other sector over previous years in most demand metrics. Actual vacancy remained low at 7.3 percent, far below the natural vacancy rate of 11 percent. Additionally, asking rent growth slowed considerably from a year-long period of around 15 percent growth to 5.8 percent. Net absorption decreased considerably from 1Q2021, returning near the 1Q2020 peak. The warehouse employment growth rate increased slightly this quarter, jumping to 6.8 percent.

The value of construction starts in DFW increased this quarter and still remain high. At the same time, deliveries rose considerably while square footage under construction rose minimally. Even though supply seems to be slowing, the supply metrics should be monitored going



forward when new starts begin to affect the balance between demand and supply in the DFW warehouse market.





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 53 - 57)

Vacancy rates have continued to climb, following a trend that began in 2015. This quarter, they reached another historic high of 22.8 percent. This is significantly higher than its natural vacancy rate of 14 percent. Along with the higher vacancy rates, asking rent growth rates have decreased to just under 0 percent, which has followed the trend in the overall office market. FIRE & PBS employment growth have jumped over eight percentage points from 1Q2021 to 2Q2021. This increase is likely due to re-opening economies across the country as pandemic restrictions continue to ease. Net absorption increased but remains negative following the increasing vacancy rates.

Although vacancy has continued to rise since 2015, square feet under construction moved up this quarter, continuing its upward momentum since the end of 2019. Although vacancy is still trending upward, construction activity has remained higher than expected despite a large increase in building material costs. Even with the upward trend in vacancy rates, construction activity remained higher than expected. Deliveries in 2Q2021 decreased dramatically compared with their 1Q2021 increase, while square feet under construction increased. As the COVID-19 crisis ensues, material prices remain high, labor demand rises, and the value of construction starts has continued to decrease, following the trend over the past several quarters. Multiple negative factors are leading to an uneasy future for Houston's overall office market.



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 58 - 62)

Class A Office vacancy reached another historic high of 25.5 percent this quarter, lingering considerably higher than the natural vacancy rate of 16 percent. Asking rent once again decreased while continuing to follow the negative annual growth trend. The lowered asking rent is an attempt to counteract the rising amount of vacant space. Net absorption remained



negative, although improving from the previous quarter, while FIRE and PBS employment growth significantly increased.

Houston Class A Office deliveries notably decreased after a large increase in 1Q2021. However, the number of square feet under construction slightly increased compared with 1Q2021. With construction factors slowly increasing, overall and Class A office may struggle to come back from the pandemic and short-term oil downturn. As uncertainty continues to surround the office market and its tenants, multiple submarkets in Houston continue to be negatively affected. Luckily, Houston remains a highly segmented market with relatively independent districts that move to their own supply and demand schedules. As energy continues to struggle, office space in their sector continues to remain uncertain, while the rest of the MSA is starting to recover. Overall, the Class A office market is slowly on the rise but should eventually recover to pre-pandemic levels.



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 63 - 67)

Actual vacancy continued declining in 2Q2021 to 6.8 percent, which is still below the natural vacancy rate of 8 percent. Asking rent growth has slowed to 4 percent, while employment growth increased tremendously to 8.2 percent. All of these factors show that, alongside increased net absorption, Houston retail space has continued to remain steady during the pandemic and is starting to rise once again.

Increased square feet under construction, value of construction starts, and deliveries during 1Q2021 and 2Q2021 indicate developers are predicting an increased demand that will positively affect the supply of retail space. As pandemic restrictions ease, tenants' ability to use retail space has increased, although it is still unclear if retail will ever return to pre-pandemic models. Tenants are finding different ways to use retail space as delivery services and online shopping become increasingly popular. Retail is becoming a more diverse field of work, and businesses are learning to adapt beyond the traditional brick-and-mortar stores through their use of retail space as inventory management areas, rather than just in-person sales.



ASKING RENT GROWTH

EMPLOYMENT GROWTH

NET ABSORPTION SF

CONSTRUCTION STARTS

3.3%

4 9.6%

3,542,895

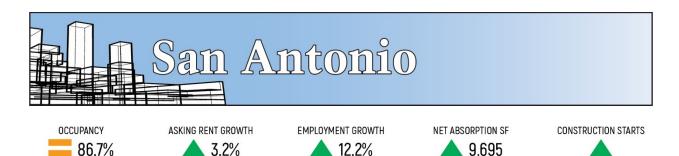
Sources: CoStar and the Texas Real Estate Research Center Note: Arrows indicate change from previous quarter with the exception of asking rent growth (change from previous year). Seasonally adjusted data.

Warehouse (Figures 68 - 72)

Actual vacancy of 12.5 percent slightly decreased during 2Q2021, moving down from its former historical high. This decrease in vacancy broke the over two-year trend of increasing vacancy, bringing occupancy to 87.5 percent. Houston's vacancy rate has been considerably higher than other Texas MSAs, compared with its natural vacancy rate of 8 percent, possibly due to more large-scale distribution centers in areas such as Dallas. Asking rent growth has increased to 3.3 percent, following inversely with the decreasing vacancy rate. Employment growth increased to 9.6 percent, following the increasing trend of high demand for distributed and delivered goods over traditional shopping methods. Net absorption increased dramatically this quarter after its 1Q2021 decline.

Deliveries have continued to decline, following the previous quarter's drop from the higher rates of 2020. Square feet under construction increased once again since 4Q2020, although still significantly lower than what it was before COVID in 2019. This is likely because of the continual decrease of supply due to significant construction in previous years. The shift to e-commerce is still on the rise as consumers continue to order many items online rather than purchase them in stores. This, along with numerous companies moving to Texas, will likely lead to continued increased demand for warehouse space. As economies return to normal and construction start values and square feet under construction slow down, vacancy rates across the board will likely begin to even out.





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 73 - 77)

Overall office vacancies in San Antonio stayed almost exactly the same between 1Q2021 and 2Q2021, staying at 13.33 percent and maintaining the recent upward trend. Asking rent growth increased to 3.2 percent, still falling below 5 percent for the fourth time since 1Q2020. San Antonio's FIRE & PBS employment growth improved once again, jumping 7 percent.

Square feet under construction increased dramatically, most likely due to people returning to their offices. Deliveries decreased significantly, breaking the trend of increases over the past three quarters that followed the economic shutdown of 2020 and going well below the normal range of the past ten years. The value of construction starts continued to rise considerably between 1Q2021 and 2Q2021. FIRE & PBS employment growth rose dramatically due to easing economic restrictions, while net absorption rose slightly. These factors offer a positive outlook on San Antonio's overall office sector, but the long-term effects of the pandemic still remain unclear.



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 78 - 82)

Class A office actual vacancy decreased to 15.4 percent in 2Q2021, higher than the natural vacancy rate of 14.5 percent. Asking rent growth also declined to just over 0 percent, showing another significant decrease from the previous quarter. Net absorption decreased significantly after two quarters of growth, while square feet under construction actually increased for the first time in three quarters.

Following last quarter's dramatic increase, deliveries in 2Q2021 fell significantly. As pandemic restrictions ease, supply is expected to increase. Supply could bring about negative effects, rather than benefitting the economy. As economic uncertainty still remains, the true impact of COVID-19 has yet to be known.





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.

9.1%

Retail (Figures 83 - 87)

Actual vacancy increased to just above 6 percent, extending the three-year increase. This continues the nine-year trend of remaining lower than the natural vacancy rate of 7 percent. Asking rent growth continued to remain negative, falling to -3.2 percent. Net absorption decreased once again this quarter, while retail employment growth dramatically rose to over 9 percent due to people returning to work in the beginning of the summer.

Deliveries decreased quite a bit, but square footage under construction increased for the second quarter in a row after a five-year gradual decline. The consistent square footage under construction over the past couple of quarters is likely what is holding vacancies steady. The value of construction starts decreased once again, most likely due to high material costs and limited labor. Growing employment shows that the retail sector should improve in the future. However, negative net absorption indicates the full effects of the pandemic are not over and retail may never return to what it once was.





EMPLOYMENT GROWTH

NET ABSORPTION SF 234.017

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.

Warehouse (Figures 88 - 92)

Similar to other MSAs, San Antonio warehouse has continued to perform well with another quarter of increased and steady growth. Actual vacancy continued to decline in 2Q2021 to 5.8 percent, continuing the multiple-year streak of remaining below the natural vacancy rate of 8 percent. Asking rent growth increased to 10.6 percent this quarter, whereas net absorption surprisingly decreased significantly. Employment growth dropped slightly by 0.2 percent. It has remained relatively constant over the past two quarters due to the changing dynamic of using warehouses and distribution rather than traditional retail areas for shopping and purchasing.

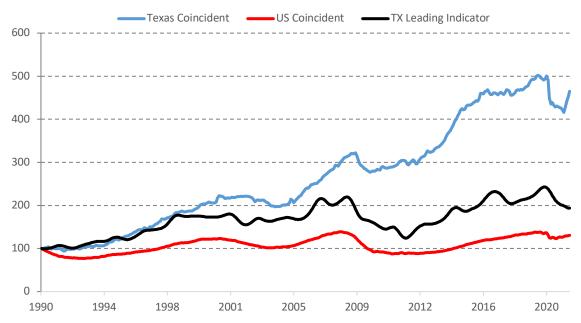
Deliveries continued their recent downward trend, dropping considerably after rebounding strongly over the past two quarters. San Antonio's construction start values dropped as well in 2Q2021, which could be due to lack of labor and material costs similar to other MSAs. Square feet under construction has also continued its downward trend for the fifth quarter in a row, while net absorption decreased significantly as well. If deliveries continue to trend downward along with square footage under construction, vacancy rates should decline.





Figure 1. Texas Nonresidential Construction Coincident and Leading Indicators

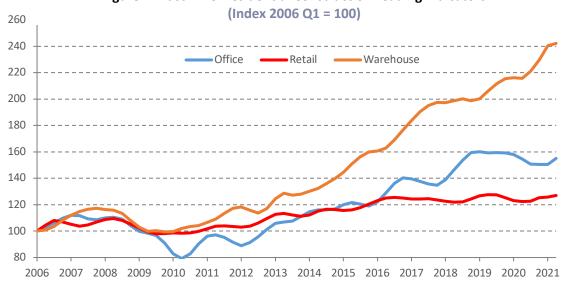
(Index Oct. 1990 = 100)



Note: Trend-cycle component.

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

Figure 2. Austin Nonresidential Construction Leading Indicators

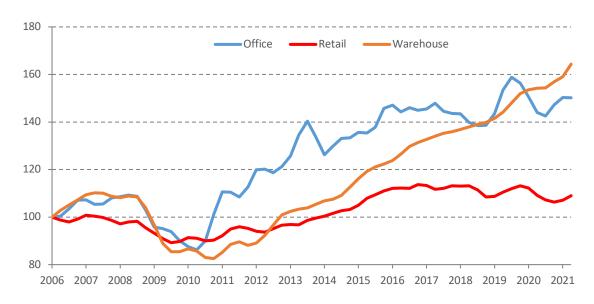


Note: Trend-cycle component.



Figure 3. DFW Nonresidential Construction Leading Indicators

(Index 2006 Q1 = 100)



Note: Trend-cycle component.

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

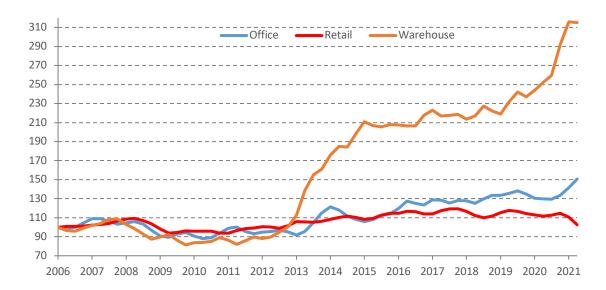
Figure 4. Houston Nonresidential Construction Leading Indicators (Index 2006 Q1 = 100)



Note: Trend-cycle component.



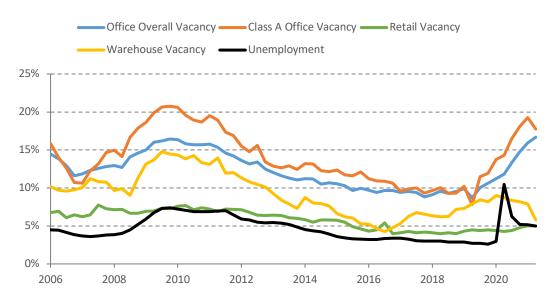
Figure 5. San Antonio Nonresidential Construction Leading Indicators (Index 2006 Q1 = 100)



Note: Trend-cycle component.

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

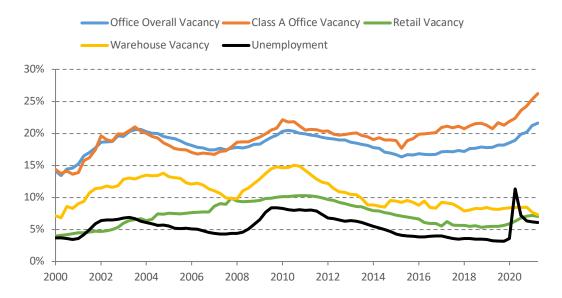
Figure 6. Austin Commercial Vacancy Rates and Unemployment (SA and TC)*



*Note: 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

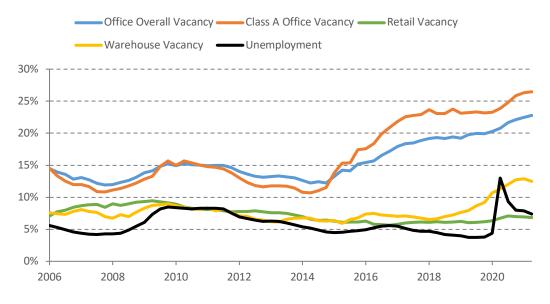


Figure 7. DFW Commercial Vacancy Rates and Unemployment (SA)*



*Note: 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

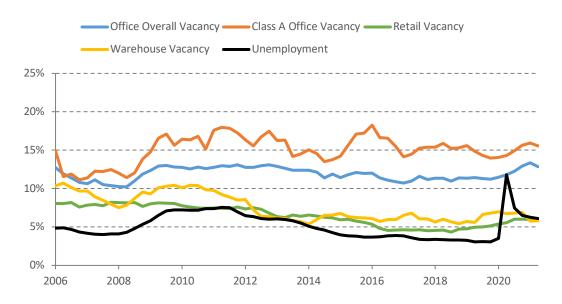
Figure 8. Houston Commercial Vacancy Rates and Unemployment (SA)*



*Note: 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

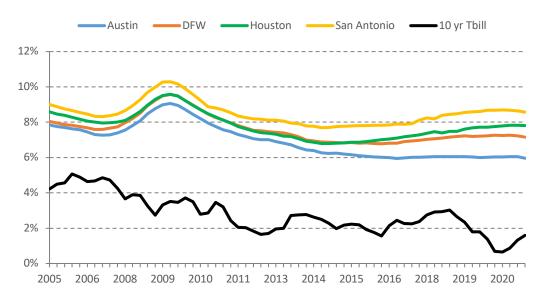
Figure 9. San Antonio Commercial Vacancy Rates and Unemployment



Note: 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

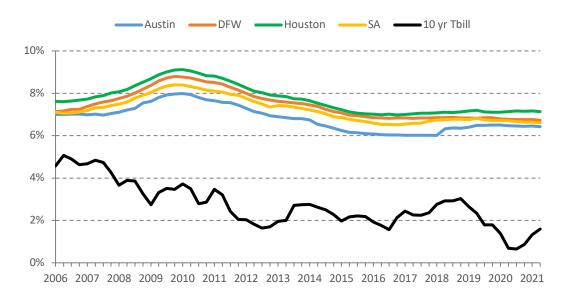
Figure 10. Texas Major MSAs Office Cap Rates



Note: Seasonally adjusted data.



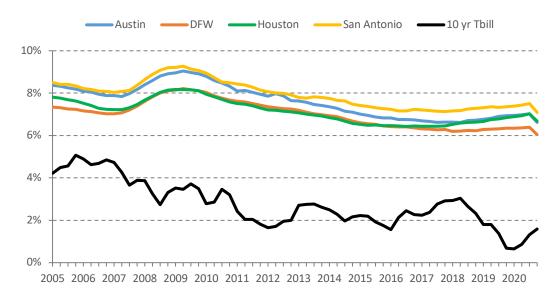
Figure 11. Texas Major MSAs Retail Cap Rates



Note: Seasonally adjusted data.

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

Figure 12. Texas Major MSAs Warehouse Cap Rates



Note: Seasonally adjusted data.



Austin

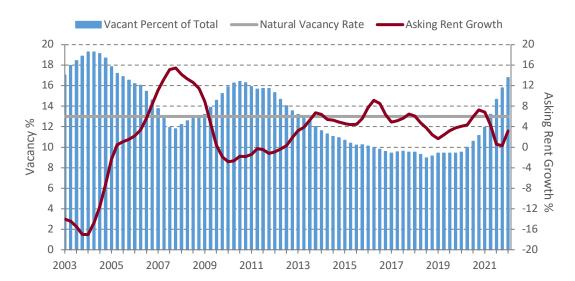


Figure 13. Austin Office Overall Vacancy and Asking Rent Growth (SA and TC)*

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

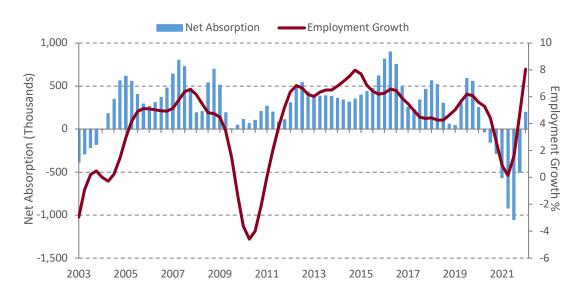


Figure 14. Austin Office Overall Net Absorption and Employment Growth (SA and TC)*

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



 $^{{}^{*}}$ Note: Seasonally adjusted and trend-cycle component.

^{*}Note: Seasonally adjusted and trend-cycle component.

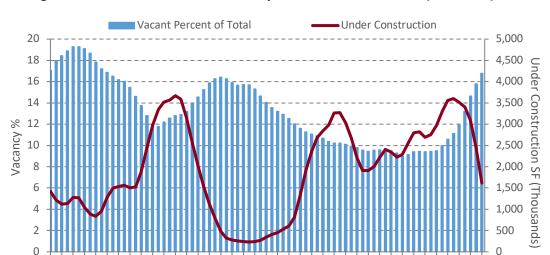
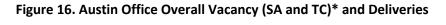
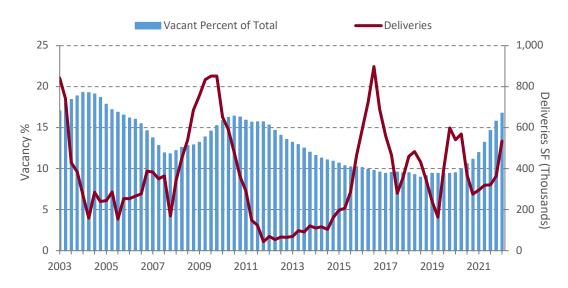


Figure 15. Austin Office Overall Vacancy and Under Construction (SA and TC)*

*Note: Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University

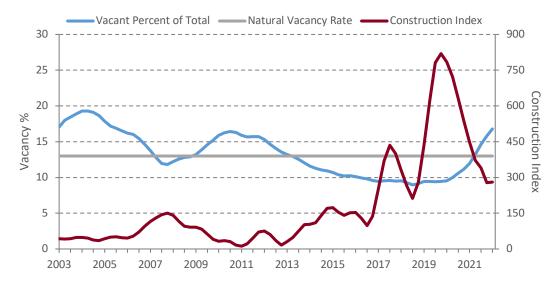




*Note: Four-quarter moving average used for deliveries, seasonal adjustment and trend cycling used for vacant percent of total. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University



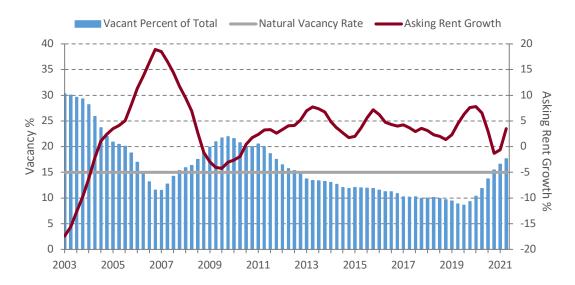
Figure 17. Austin Office Overall Vacancy and Construction Index (SA and TC)*
(Index 2000 Q4 = 100)



*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

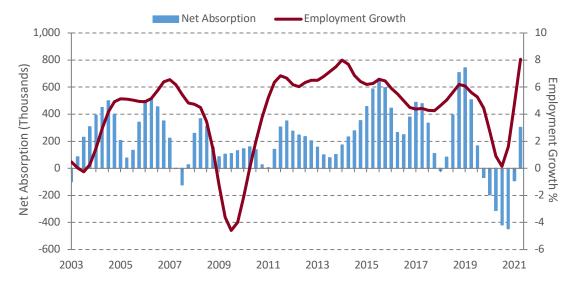
Figure 18. Austin Office Class A Vacancy and Asking Rent Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.



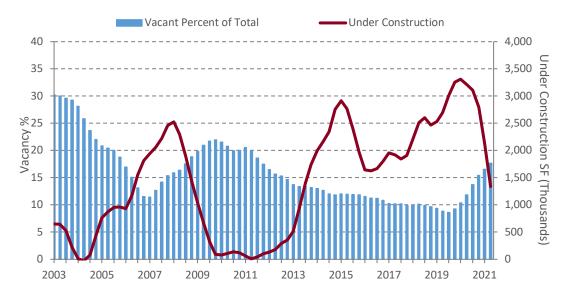
Figure 19. Austin Office Class A Net Absorption and Employment Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

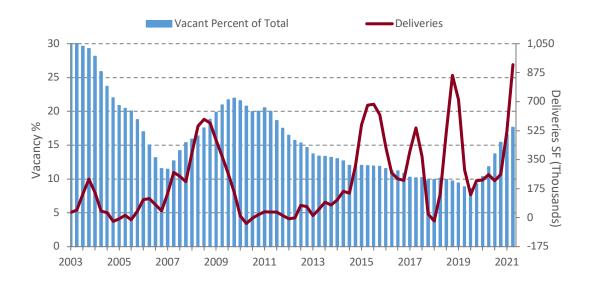
Figure 20. Austin Office Class A Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



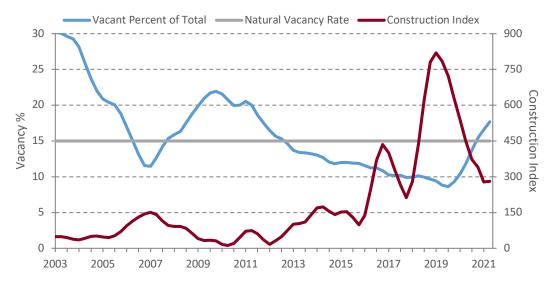
Figure 21. Austin Office Class A Vacancy and Deliveries (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

Figure 22. Austin Office Class A Vacancy and Construction Index (SA and TC)*
(Index 2000 Q4 = 100)

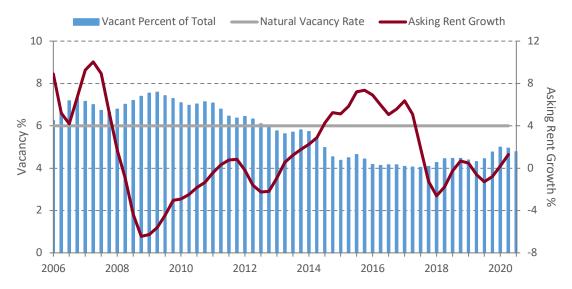


^{*}Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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



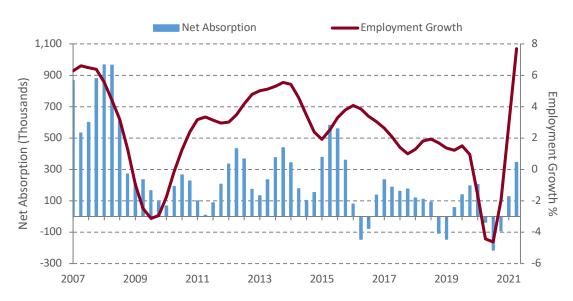
Figure 23. Austin Retail Vacancy and Asking Rent Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

Figure 24. Austin Retail Net Absorption SF and Employment Growth (SA and TC)*

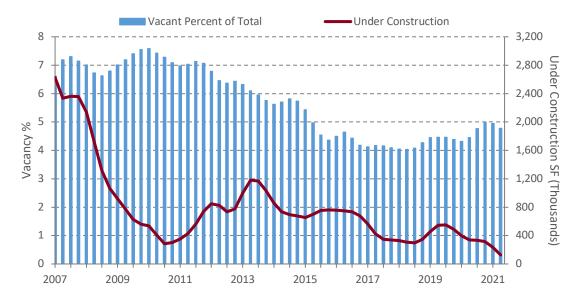


^{*}Note: Seasonally adjusted and trend-cycle component.

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



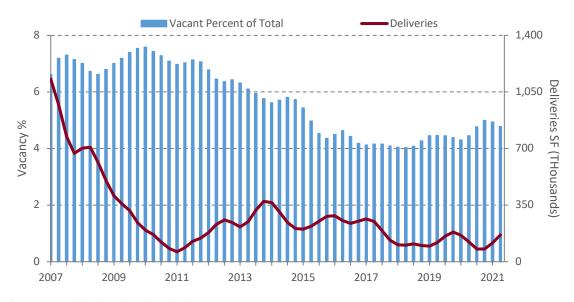
Figure 25. Austin Retail Vacancy and Under Construction (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

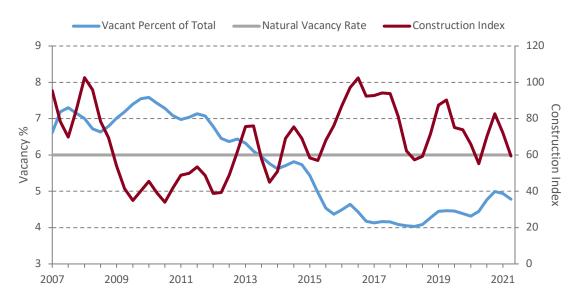
Figure 26. Austin Retail Vacancy and Deliveries (SA and TC)*



 $\hbox{*Note: Seasonally adjusted and trend-cycle component.}$



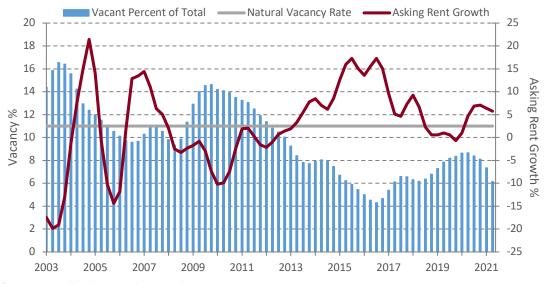
Figure 27. Austin Retail Vacancy and Construction Index (SA and TC)*
(Index 2006 Q1 = 100)



^{*}Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

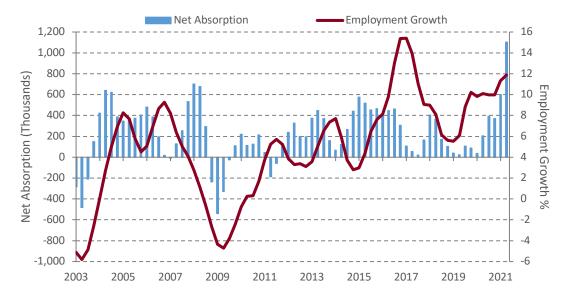
Figure 28. Austin Warehouse Vacancy and Asking Rent Growth (SA and TC)*



 $[\]hbox{*Note: Seasonally adjusted and trend-cycle component.}$



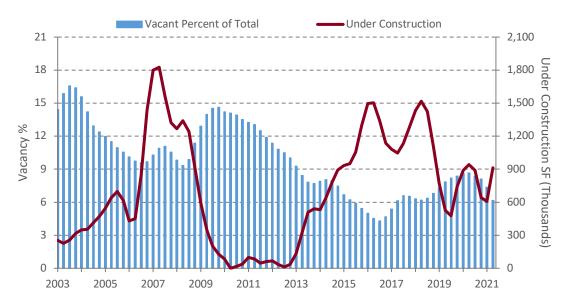




^{*}Note: Seasonally adjusted and trend-cycle component.

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

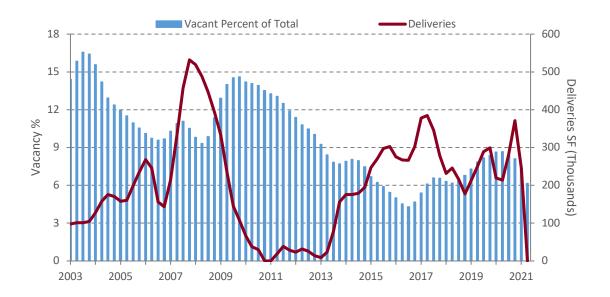
Figure 30. Austin Warehouse Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



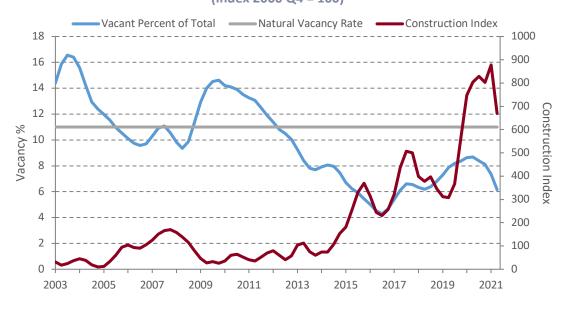
Figure 31. Austin Warehouse Vacancy and Deliveries (SA and TC)*



 $\ensuremath{^{*}}\mbox{Note:}$ Seasonally adjusted and trend-cycle component.

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

Figure 32. Austin Warehouse Vacancy and Construction Index (SA and TC)*
(Index 2000 Q4 = 100)



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



DFW

Natural Vacancy Rate Asking Rent Growth Vacancy %

Figure 33. DFW Office Overall Vacancy and Asking Rent Growth (SA and TC)*

*Note: Seasonally adjusted and trend-cycle component.

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

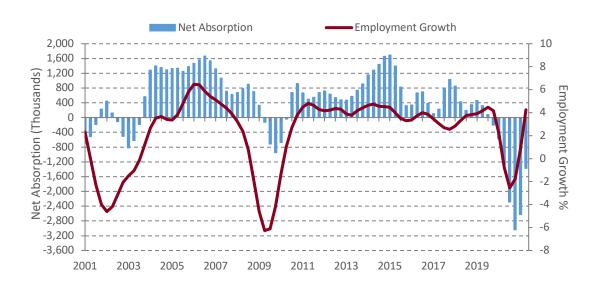


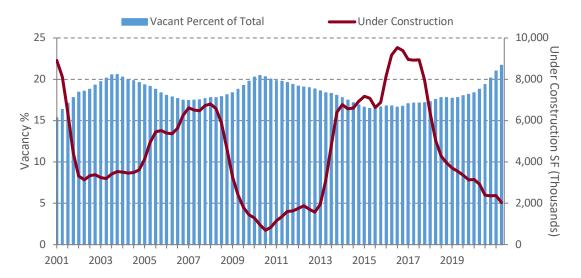
Figure 34. DFW Office Overall Net Absorption and Employment Growth (SA and TC)*

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



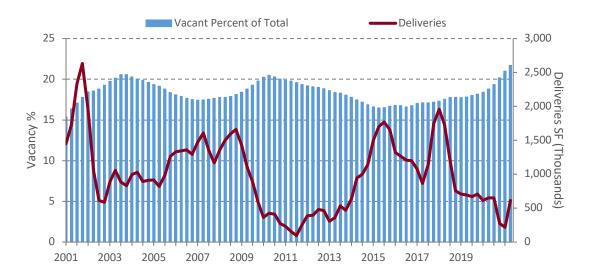
^{*}Note: Seasonally adjusted and trend-cycle component.

Figure 35. DFW Office Overall Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

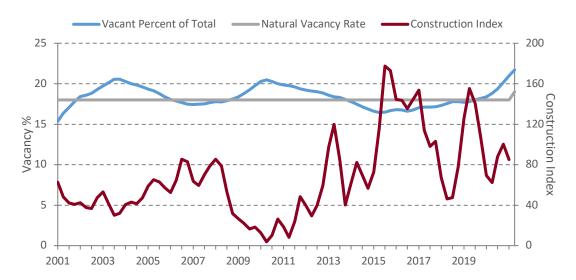
Figure 36. DFW Office Overall Vacancy and Deliveries (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



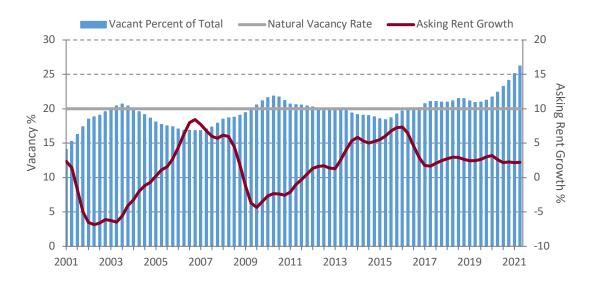
Figure 37. DFW Office Overall Vacancy and Construction Index (SA and TC)*
(Index 1982 Q1 = 100)



*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

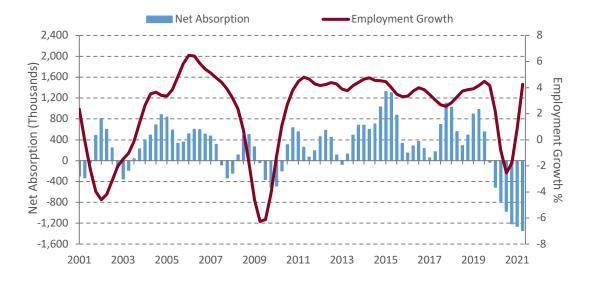
Figure 38. DFW Office Class A Vacancy and Asking Rent Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.



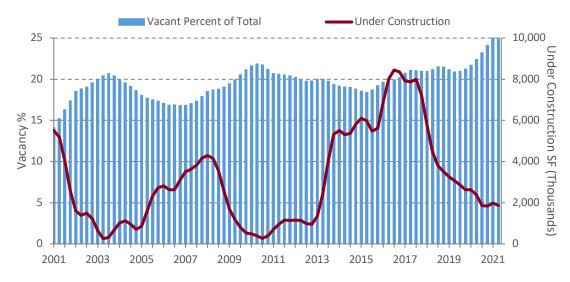
Figure 39. DFW Office Class A Net Absorption and Employment Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

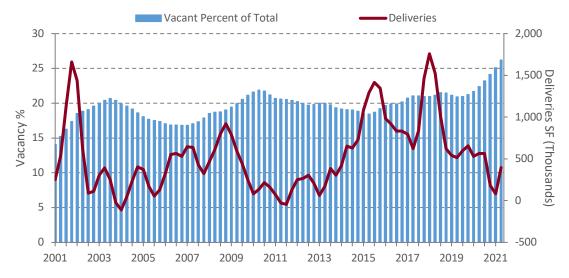
Figure 40. DFW Office Class A Vacancy and Under Construction (SA and TC)*



 $\hbox{*Note: Seasonally adjusted and trend-cycle component.}$



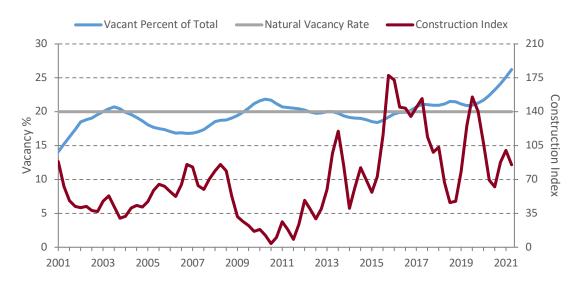
Figure 41. DFW Office Class A Vacancy and Deliveries (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 42. DFW Office Class A Vacancy and Construction Index (SA and TC)* (Index 1982 Q1 = 100)

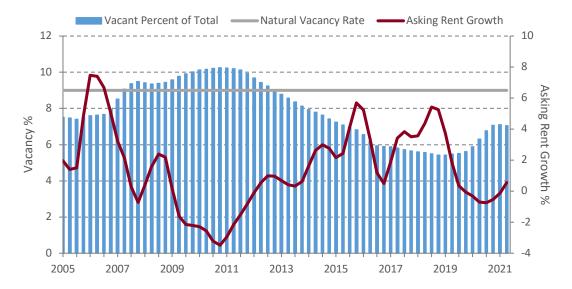


*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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



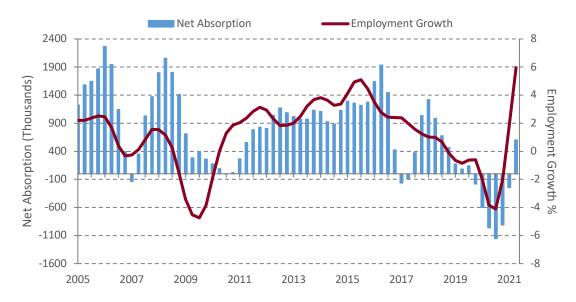
Figure 43. DFW Retail Vacancy and Asking Rent Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 44. DFW Retail Net Absorption and Employment Growth (SA and TC)*

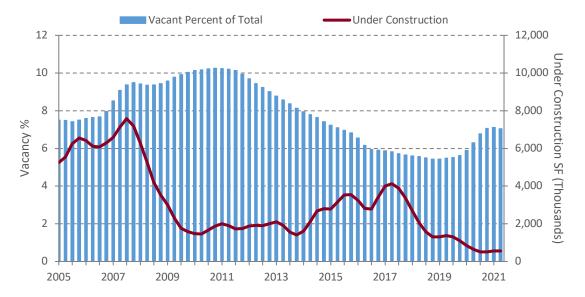


 * Note: Seasonally adjusted and trend-cycle component.

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



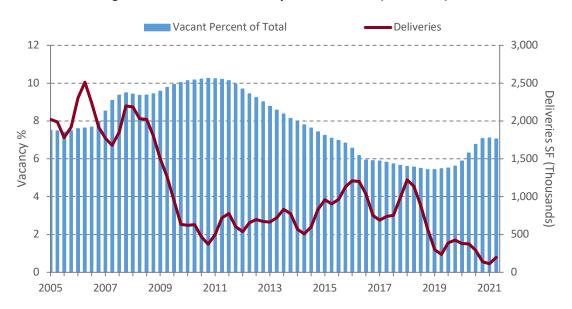
Figure 45. DFW Retail Vacancy and Under Construction (SA and TC)*



 $\hbox{*Note: Seasonally adjusted and trend-cycle component.}$

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

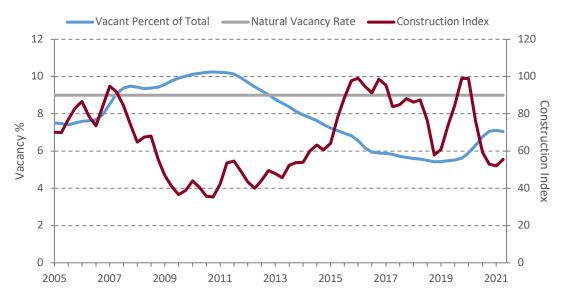
Figure 46. DFW Retail Vacancy and Deliveries (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

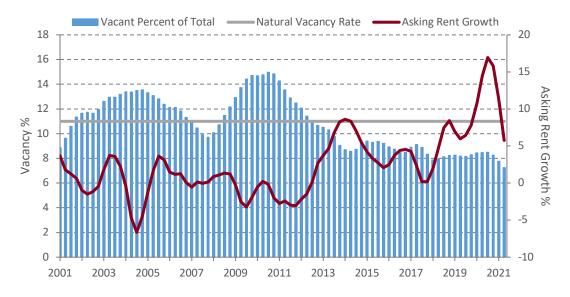


Figure 47. DFW Retail Vacancy and Construction Index (SA and TC)*
(Index 2000 Q1 = 100)



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

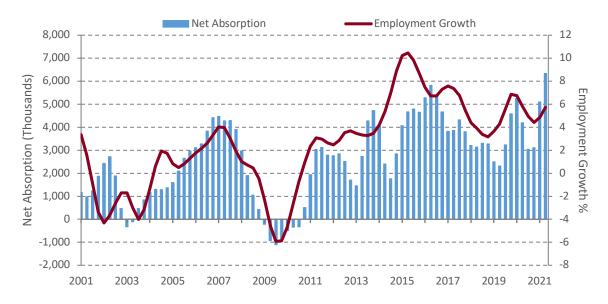
Figure 48. DFW Warehouse Vacancy and Asking Rent Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University



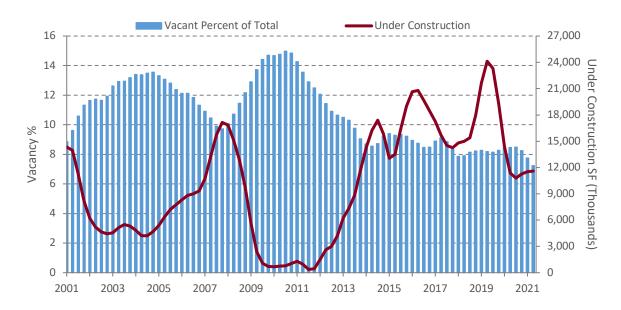
Figure 49. DFW Warehouse Net Absorption and Employment Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

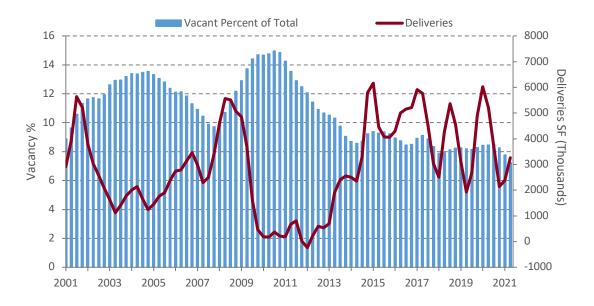
Figure 50. DFW Warehouse Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

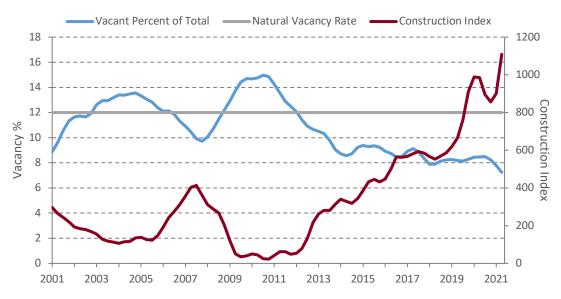


Figure 51. DFW Warehouse Vacancy and Deliveries (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

Figure 52. DFW Warehouse Vacancy and Construction Index (SA and TC)*
(Index 1995 Q1 = 100)



^{*}Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University



Houston

Vacant Percent of Total Natural Vacancy Rate Asking Rent Growth **Asking Rent Growth** Vacancy %

Figure 53. Houston Office Overall Vacancy and Asking Rent Growth (SA and TC)*

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

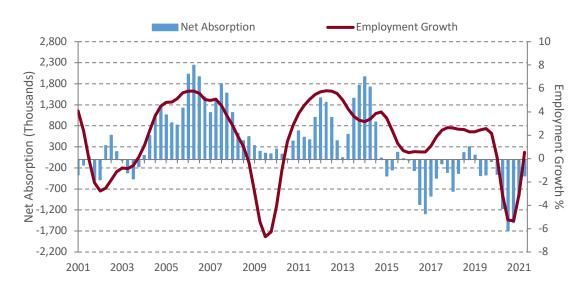


Figure 54. Houston Office Overall Net Absorption and Employment Growth (SA and TC)*

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

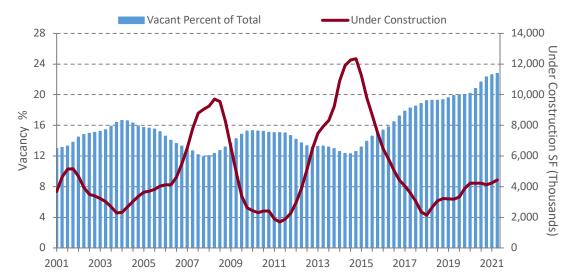


-6

^{*}Note: Seasonally adjusted and trend-cycle component.

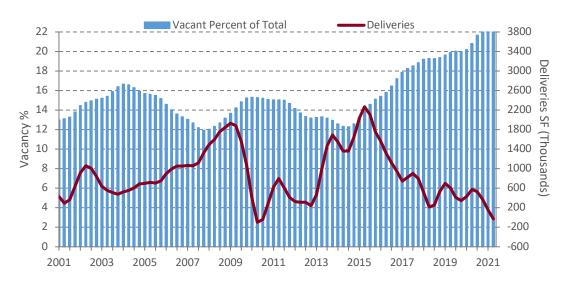
^{*}Note: Seasonally adjusted and trend-cycle component.

Figure 55. Houston Office Overall Vacancy and Under Construction (SA and TC)*



 $[\]hbox{*Note: Seasonally adjusted and trend-cycle component.}$

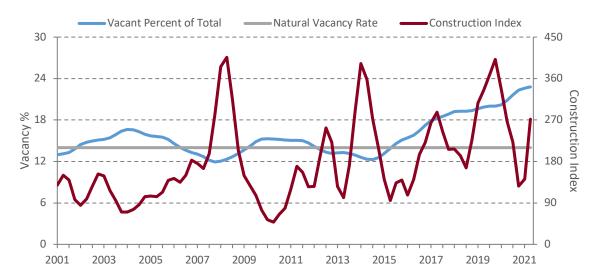
Figure 56. Houston Office Overall Vacancy and Deliveries (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.



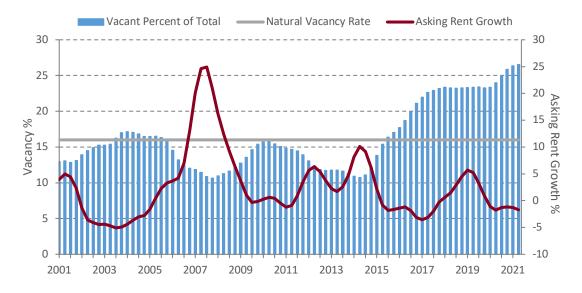
Figure 57. Houston Office Overall Vacancy and Construction Index (SA and TC)*
(Index 1999 Q1 = 100)



*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

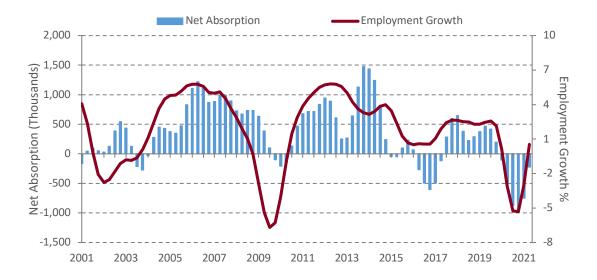
Figure 58. Houston Office Class A Vacancy and Asking Rent Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University



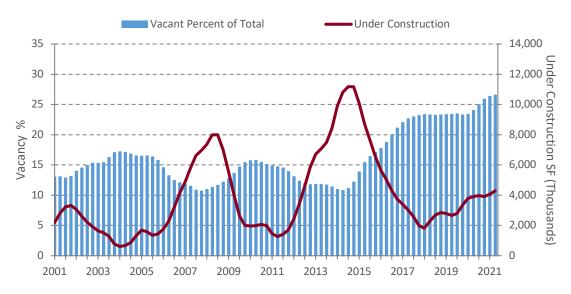
Figure 59. Houston Office Class A Net Absorption and Employment Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

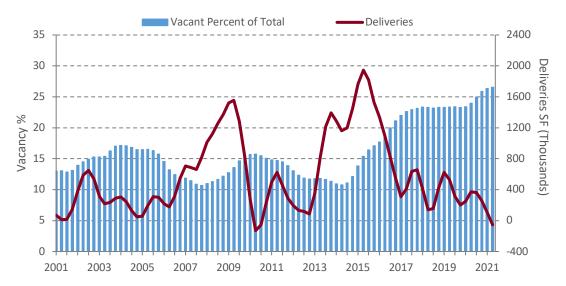
Figure 60. Houston Office Class A Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



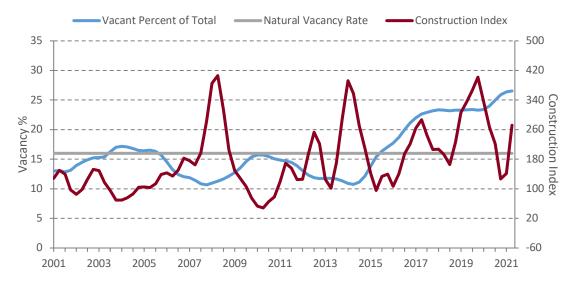
Figure 61. Houston Office Class A Vacancy and Deliveries (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 62. Houston Office Class A Vacancy and Construction Index (SA and TC)* (Index 1999 Q1 = 100)

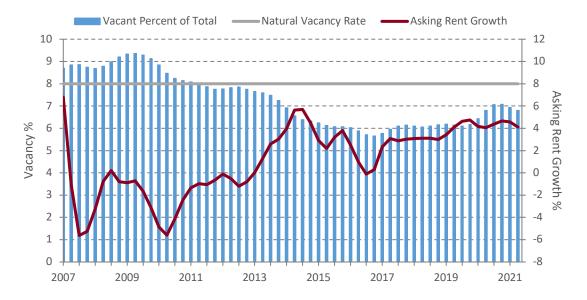


*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

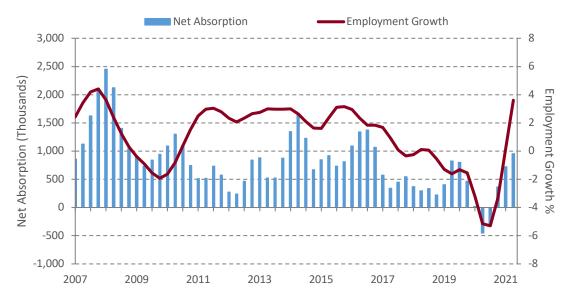


Figure 63. Houston Retail Vacancy and Asking Rent Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

Figure 64. Houston Retail Net Absorption and Employment Growth (SA and TC)*

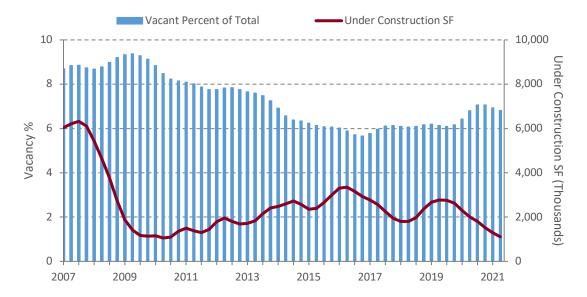


^{*}Note: Seasonally adjusted and trend-cycle component.

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



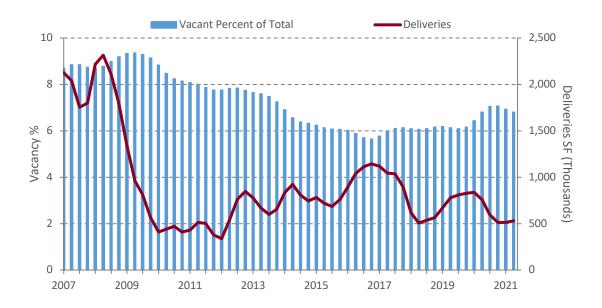
Figure 65. Houston Retail Vacancy and Under Construction (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

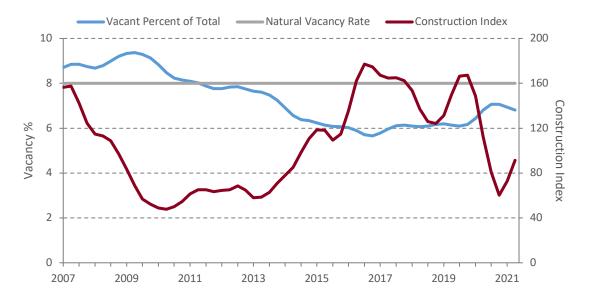
Figure 66. Houston Retail Vacancy and Deliveries (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.



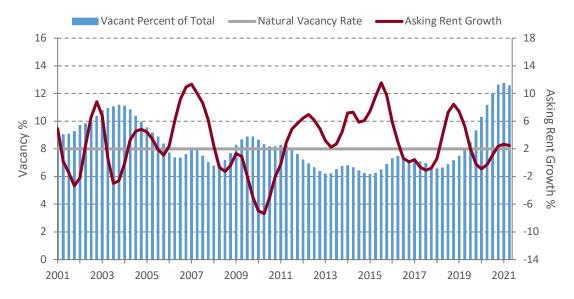
Figure 67. Houston Retail Vacancy and Construction Index (SA and TC)*
(Index 2006 Q1 = 100)



^{*}Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

Figure 68. Houston Warehouse Vacancy and Asking Rent Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



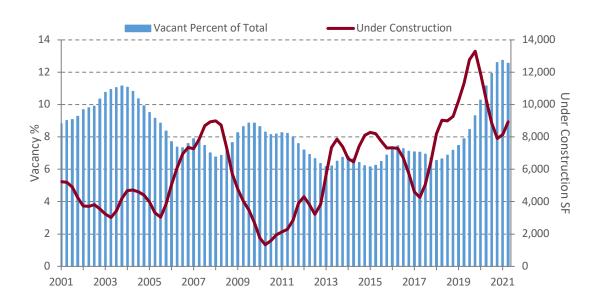
Figure 69. Houston Warehouse Net Absorption and Employment Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

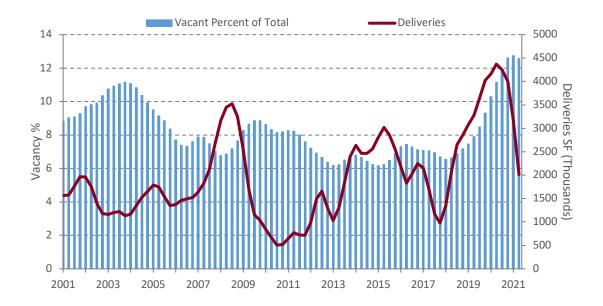
Figure 70. Houston Warehouse Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

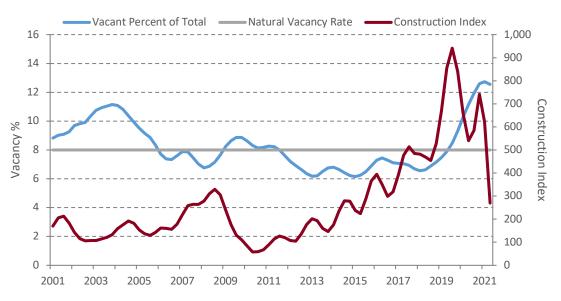


Figure 71. Houston Warehouse Vacancy and Deliveries (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

Figure 72. Houston Warehouse Vacancy and Construction Index (SA and TC)*
(Index 1999 Q1 = 100)

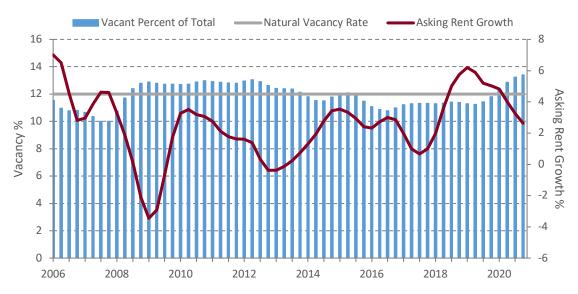


^{*}Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University



San Antonio

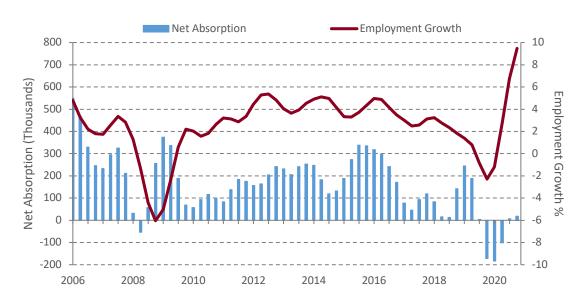
Figure 73. San Antonio Office Overall Vacancy and Asking Rent Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

Figure 74. San Antonio Office Overall Net Absorption and Employment Growth (SA and TC)*

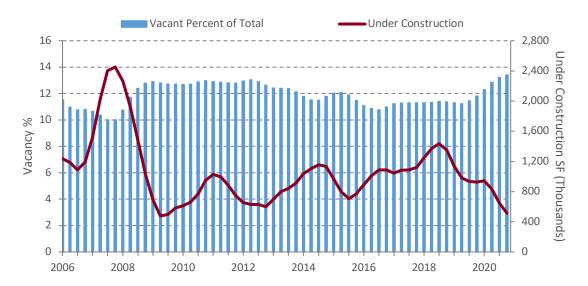


^{*}Note: Seasonally adjusted and trend-cycle component.

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

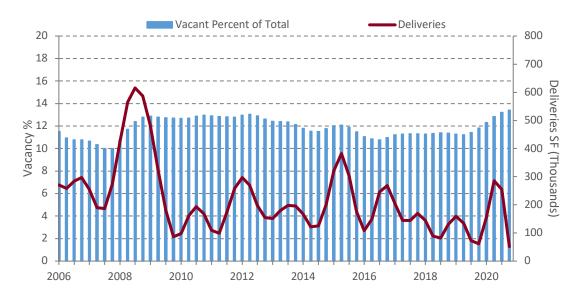


Figure 75. San Antonio Office Overall Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

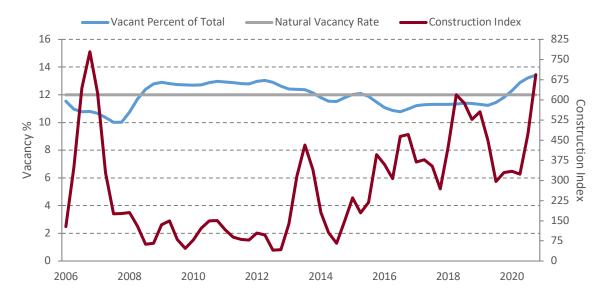
Figure 76. San Antonio Office Overall Vacancy and Deliveries (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



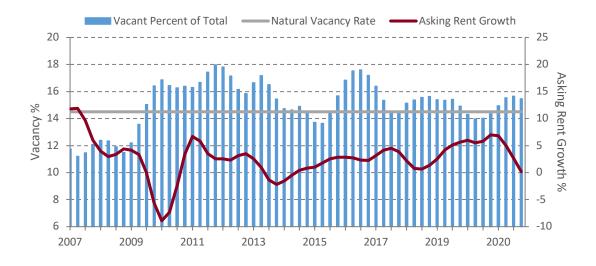
Figure 77. San Antonio Office Overall Vacancy and Construction Index (SA and TC)*
(Index 2005 Q3 = 100)



*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

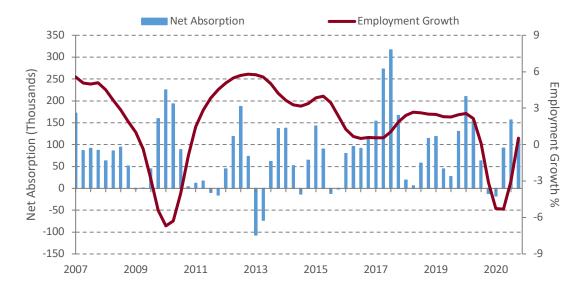
Figure 78. San Antonio Office Class A Vacancy and Asking Rent Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.
Sources: CoStar and Texas Real Estate Research Center at Texas A&M University



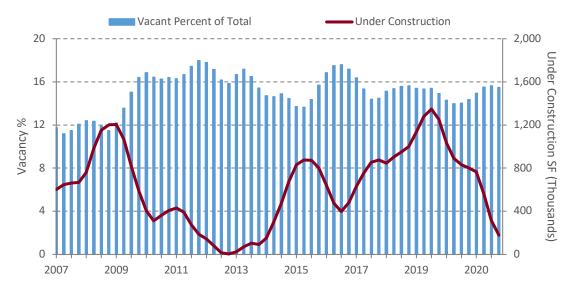




^{*}Note: Seasonally adjusted and trend-cycle component.

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

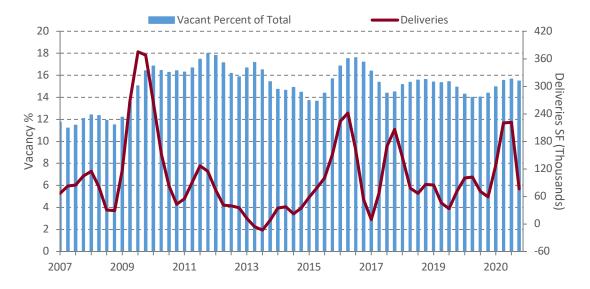
Figure 80. San Antonio Office Class A Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



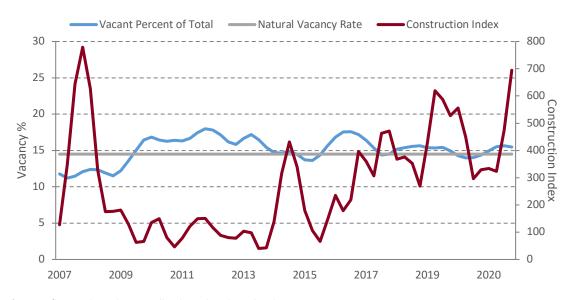
Figure 81. San Antonio Office Class A Vacancy and Deliveries (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 82. San Antonio Office Class A Vacancy and Construction Index (SA and TC)*
(Index 2005 Q3 = 100)

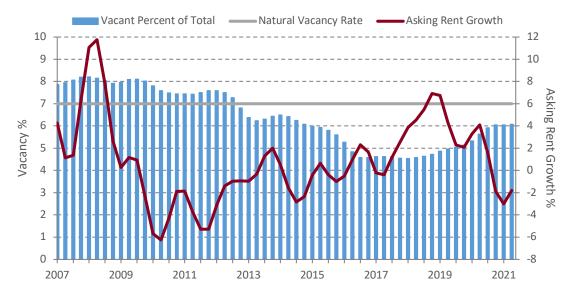


*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.

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

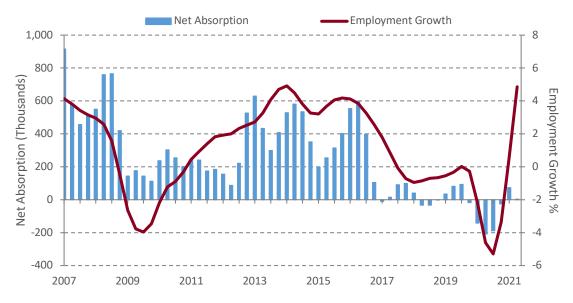


Figure 83. San Antonio Retail Vacancy and Asking Rent Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

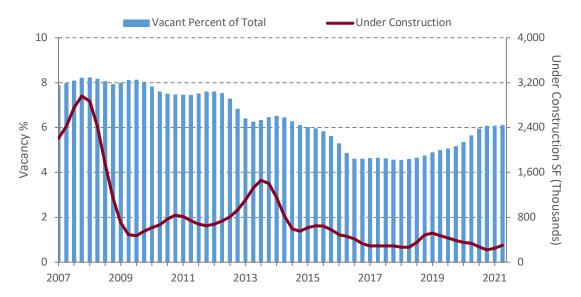


^{*}Note: Seasonally adjusted and trend-cycle component.

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

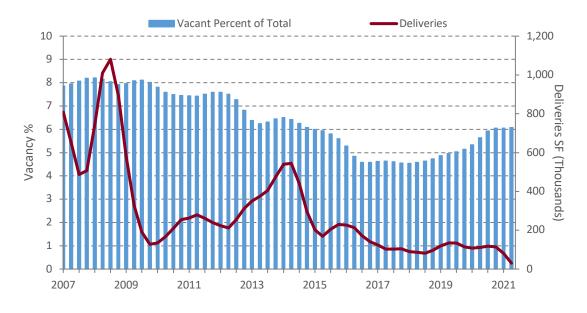


Figure 85. San Antonio Retail Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

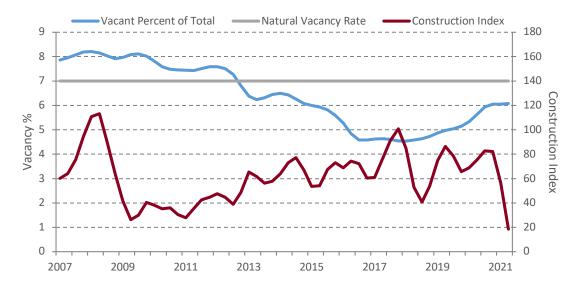
Figure 86. San Antonio Retail Vacancy and Deliveries (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

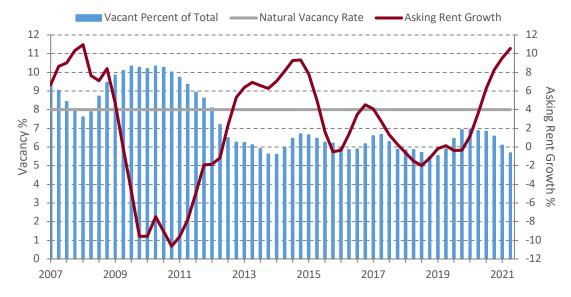


Figure 87. San Antonio Retail Vacancy and Construction Index (SA and TC)*
(Index 2005 Q3 = 100)



^{*}Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.
Sources: CoStar, Dodge Analytics, and Texas Real Estate Research Center at Texas A&M University

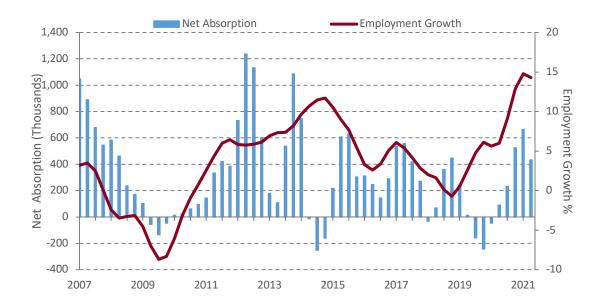
Figure 88. San Antonio Warehouse Vacancy and Asking Rent Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component. Sources: CoStar and Texas Real Estate Research Center at Texas A&M University



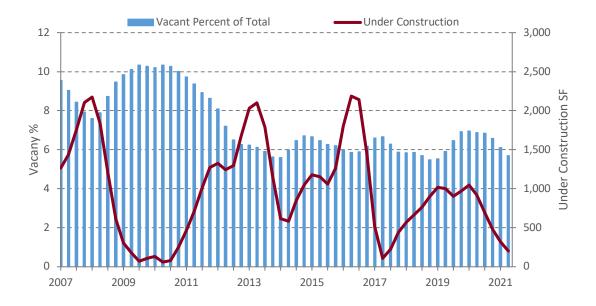
Figure 89. San Antonio Warehouse Net Absorption and Employment Growth (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.

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

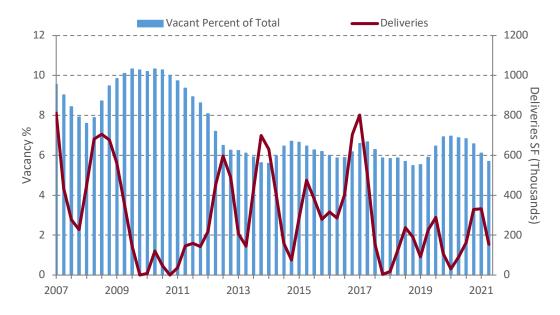
Figure 90. San Antonio Warehouse Vacancy and Under Construction (SA and TC)*



^{*}Note: Seasonally adjusted and trend-cycle component.



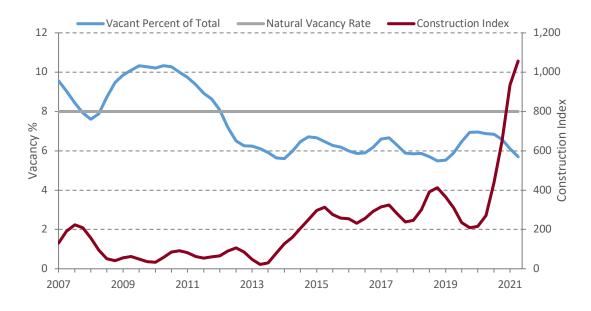
Figure 91. San Antonio Warehouse Vacancy and Deliveries (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 92. San Antonio Warehouse Vacancy and Construction Index (SA and TC)*
(Index 2005 Q3 = 100)



*Note: 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.





MAYS BUSINESS SCHOOL

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

RUSSELL CAIN, CHAIRMAN Port Lavaca

DOUG JENNINGS, VICE CHAIRMAN Fort Worth

TROY ALLEY BESA MARTIN
DeSoto Boerne

DOUG FOSTER TED NELSON
Lockhart Houston

VICKI FULLERTON BECKY VAJDAK
The Woodlands Temple

PATRICK GEDDES BARBARA RUSSELL, EX-OFFICIO

Dallas Denton









