

Dr. James P. GainesChief Economist

Dr. Luis B. TorresResearch Economist

Dr. Harold D. HuntResearch Economist

Clare Losey
Research Intern

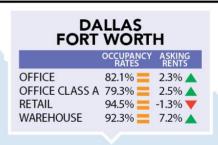
Trenton Forbes
Research Intern

Technical Report

2211

THIRD QUARTER 2019

Texas Quarterly Commercial Report: 3rd Quarter 2019



AUSTIN						
	OCCUPANCY RATES	ASKING RENTS				
OFFICE	89.8%	3.6%				
OFFICE CLASS A	88.3%	3.1%				
RETAIL	95.4%	1.0% 🛕				
WAREHOUSE	92.6%	8.1% 🛕				

SAN ANTONIO					
	OCCUPANCY RATES	ASKING RENTS			
OFFICE	88.2% 🛕	2.5% ▼			
OFFICE CLASS A	87.1%	1.4% V			
RETAIL	94.4%	0.7%			
WAREHOUSE	92.2%	0.8%			

HOUSTON						
OCCUPANCY RATES	ASKING RENTS					
79.8%	0.6% 🔻					
77.0% 🔻	1.2%					
94.1%	5.7% 🛕					
91.1%	2.2%					
	OCCUPANCY RATES 79.8% = 77.0% ▼ 94.1% =					



Table of Contents

About this Report	3
Overview of the Texas Economy	4
Austin	6
Forecasting Results	
Office	
Overall Class A Office	
Retail	
Warehouse	
Dallas-Fort Worth	
Forecasting Results	
Office	
Overall Class A Office	
Retail	
Warehouse	
Houston	
Forecasting Results	
Office	
Overall Class A Office	
Retail	
Warehouse	
San Antonio	
Forecasting Results	
Office	
Overall Class A Office	
Retail	
Warehouse	
Figures	
Definitions	



About this Report

Real Estate 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.

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. James Gaines, Dr. Luis Torres, Dr. Harold Hunt, Clare Losey, and Trenton Forbes



Overview of the Texas Economy

Texas' economy remained healthy in the longest U.S. economic expansion on record. Payroll growth slowed, but unemployment rates hovered at historical lows. Average hourly earnings failed to make positive headway after adjusting for inflation; second-quarter real income per capita, however, increased. Retail sales improved, but overall perceptions were tainted by political and trade-related concerns. Energy prices remained low amid record-breaking production and lowered expectations of global demand in 2020. Escalating trade tensions, political uncertainty, and the slowing world economy continue to be the largest headwinds to the current business-cycle expansion. For additional commentary and statistics, see <u>Outlook for the Texas Economy</u> at recenter.tamu.edu.

The Texas Nonresidential Construction Coincident Index, which measures current construction activity, indicates further expansion. However, the Texas Nonresidential Construction Leading Indicator, which measures potential future construction activity, suggests activity may slow going forward due to a decline in construction values even though commercial loans registered growth as interest rates have fallen. See Figures 1-5 for the Nonresidential Coincident Index and Leading Indicator for Texas and the four major metros.

Texas' nonfarm employment growth slowed to 2.6 percent seasonally adjusted annual rate (SAAR) during the third quarter, resulting in only 49,300 jobs added. The deceleration is unsurprising given the 112,000-job gain last quarter (almost double the post-recession average). Nonetheless, the Dallas Fed's annual employment growth projection slowed from 2.3 to 2.1 percent. Overall labor market conditions, however, remained strong. The unemployment rate posted 3.4 percent for the fourth consecutive month. The U.S. economy slowed in 2019, and growth is expected to be around 2.4 percent, back to its expected growth potential of around 2 percent. The U.S. economy is expected to slow in 2020 but still register positive growth, achieving a growth rate of around 2.1 percent.

Houston and Austin employment growth decelerated in the third quarter, resulting in a net 5,400 and 200 jobs, respectively. Houston's education/health and leisure/hospitality sectors dragged the three months ending in September, contributing to the third-quarter slowdown in overall employment growth compared with double-digit average monthly additions in the second quarter. Austin's primary detractors were education/health services and mining/logging/construction. Dallas contributed to over half of Texas' payroll expansion, adding 24,900 new jobs in the third quarter. Much of the growth occurred in the mining/logging/construction



and financial activities sectors. The GM strike started after the September employment survey and thus did not affect 3Q2019 numbers. San Antonio was the runner-up in terms of number of jobs created, expanding employment by 10,500. Hiring in education/health services accelerated, while leisure/hospitality recovered second-quarter losses. The same industries contributed to a gain of 3,700 positions in Fort Worth, offsetting contractions in retail trade and transportation/utilities. For additional commentary and statistics, see <u>Outlook for the Texas</u> <u>Economy</u> at recenter.tamu.edu.





OCCUPANCY 89.8%

ASKING RENT GROWTH 3.6%

EMPLOYMENT GROWTH

-1.044.314

CONSTRUCTION STARTS



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

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

2.9%

Overall Office (Figures 6 - 10)

After falling below 9 percent in 2Q2019, actual vacancy rose to slightly above 10 percent in 3Q2019. Demand for office space continues to remain strong, as actual vacancy has not risen above the natural vacancy rate of 13 percent since 3Q2012. FIRE & PBS employment growth has slowed since 2014. Despite the downward trend, employment growth remains strong and positive, just shy of 3 percent in 3Q2019. Net absorption has declined since the beginning of 2019. While demand indicators are slowing, they remain modestly optimistic. Vacancy is forecasted to average 9.8 percent through 2019 and 10.5 percent in 2020. Asking rent growth slowed in response to moderating demand. Despite the recent drop in rent growth, it remains positive and is projected to register 3.2 percent in 2019, slowing to 2.6 percent in 2020.

After peaking in 2018, construction starts declined sharply through 2019. Square footage under construction has begun to slow, and deliveries have followed suit. The decrease in the supply of office space coming to market is likely developers' response to the weakening demand and concerns of the timing in the current economic cycle.



ASKING RENT GROWTH 3.1%

EMPLOYMENT GROWTH 2.9%

-1.123.544

CONSTRUCTION STARTS

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

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 11 - 15)

Actual vacancy trended slightly upward during the previous five quarters. The demand for Austin's class A office space was consistently strong over the years as actual vacancy has remained comfortably below the natural vacancy of 15 percent since mid-2012. Despite the slowing of FIRE and PBS employment growth, they have remained positive. Following five robust quarters of positive net absorption, 3Q2019 had a significant loss in space absorbed. With low actual vacancies and positive employment growth, the outlook for the demand of class A office space in Austin remains positive. Vacancy rates are forecasted to average 10.2 and



10.7 percent in 2019 and 2020, respectively. Asking rent growth has recently trended upward. However, the upward trend of rent growth is moderating, and growth is forecasted to average 2.3 percent over 2019 and 2.8 percent over 2020.

Construction starts peaked in 2018 and have since declined significantly through 2019. Space under construction and deliveries have begun to dampen. The decrease in the supply of office space coming to market is likely developers' response to slowing demand and concerns regarding the timing in the current economic cycle.



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

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

Retail (Figures 16 - 20)

Actual vacancy has remained between 4 and 5 percent since mid-2015 and has not exceeded the natural vacancy of 6 percent since 2013. Retail employment growth has trended downward since 2016 but has always been positive. Employment growth has increased in 2019 reinforcing the demand for retail space. 2Q2019 and 3Q2019 registered positive net absorption after experiencing negative absorption in the three preceding quarters. The demand for retail space is expected to remain steady. Vacancies are projected to rise slightly, averaging 4.4 percent in 2019 and 4.5 in 2020. Despite the fairly consistent demand, asking rent growth declined dramatically through 1Q2018, eventually falling into the negative territory. Asking rent growth began to rebound in 2019, crossing back into positive territory in 3Q2019. Rent growth is expected to average 0.6 and 1.0 percent in 2019 and 2020, respectively.

Construction starts showed a significant increase in 1Q2019, only to later fall in 2Q2019 and 3Q2019. Square footage under construction remains low in relation to pre-recessionary numbers. However, it increased slightly in the past year, and the square footage delivered has begun to reflect this same trend. Inconsistent and negative rent growth has resulted in a long-run dampening of employment growth. Concerns surrounding increasing e-commerce sales continue to discourage growth in construction activity.





ASKING RENT GROWTH

8.1%

EMPLOYMENT GROWTH

3.2%

NET ABSORPTION SF

CONSTRUCTION STARTS

81.166

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

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

Warehouse (Figures 21 - 25)

While actual vacancy rose since mid-2016, registering just above 7.0 percent in the previous two quarters, it remains comfortably below the natural vacancy of 11.0 percent. Warehouse employment growth fell from an all-time high of more than 16.0 percent in 2017. However, employment growth bottomed out at 2.0 percent, increasing in 3Q2019 to above 3.0 percent. Net absorption was slightly negative in the previous three quarters. Despite slight increases in vacancies and slowing warehouse employment growth and space absorption, the low vacancy rates suggest demand for warehouse space remains strong in the MSA. Vacancies are forecasted to average 7.2 percent in both 2019 and 2020. Despite recent increases in vacancies, asking rent growth has been on the rise since dipping into negative territory in late 2018. Rent growth is forecasted to remain positive in 2019 and 2020, averaging 2.5 and 1.5 percent, respectively.

Construction starts decreased sharply after reaching an all-time high in late 2017, stabilizing in the last four quarters. Square footage under construction has slightly increased, and deliveries have stabilized following the recent stabilization of construction starts.

Table 1. Projected Overall Vacancy Rates and Asking Rent Growth

Vacancy Rates (%)

Asking Rents (v-o-v %)

		vacancy nates (70)			Asking Kerits (y-0-y 70)			
Property Type	Natural Vacancy Rate	2018	2019	2020	2018	2019	2020	
Office								
Overall	13.0	9.4	9.8	10.5	2.0	3.2	2.6	
Office Class								
Α	15.0	9.7	10.2	10.7	1.9	2.3	2.8	
Retail	6.0	4.1	4.4	4.5	3.7	0.6	1.0	
Warehouse	11.0	6.0	7.2	7.2	2.1	2.5	1.5	

Note: Annual numbers represent the four-quarter average of the seasonally adjusted data. Rent growth is nominally estimated from the previous year's average.

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





OCCUPANCY 82.1%

ASKING RENT GROWTH 2.3%

EMPLOYMENT GROWTH

4.7%

NET ABSORPTION SF

CONSTRUCTION STARTS

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

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

Overall Office (Figures 26 - 30)

Actual vacancy hovered just below the natural vacancy of 18.0 percent for over a year, coming in at 17.9 percent for 3Q2019. FIRE & PBS employment growth has been on the rise since 4Q2019, reaching close to 5.0 percent this quarter. Net absorption registered only slightly negative in 3Q2019, the result of a steep decline in the last two quarters. The low levels of absorption and high vacancy rates suggest demand for office space in the MSA is weakening despite strong levels of employment growth. Vacancy rates are forecasted to average 17.9 percent for both 2019 and 2020, hovering near the natural vacancy rate. Asking rent growth has remained positive despite slowing demand for space. Asking rent growth steeply fell in mid-2016 to early 2017, registering a more modest decline through 3Q2019. This steady decline in asking rent growth is expected to continue. The forecast for average rent growth in 2019 and 2020 is 2.0 and 1.8 percent, respectively.

Construction starts declined from record values in 2015 but have since been on the rise for the past year. Following suit, the amount of space under construction declined significantly since late-2016 and is now showing signs of moderating, possibly trending upward in the near future. Square footage delivered declined in conjunction with the levels of square footage under construction. The recent increase in construction starts is likely developers' response to wide-spread population growth, employment growth, and consistently positive asking rent growth.

OCCUPANCY 79.3%

ASKING RENT GROWTH 2.5%

EMPLOYMENT GROWTH

4.7%

NET ABSORPTION SF

CONSTRUCTION STARTS

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

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 31 - 35)

Actual vacancy remains right at the natural vacancy of 21.0 percent, registering between 20.0 and 21.2 percent since 4Q2019. FIRE & PBS employment growth remains consistently strong in the MSA and has recently moved upward. Unlike overall office net absorption, class A office net



absorption was strong and positive since 2Q2017, suggesting demand is stronger for new class A office space than in the overall market. Vacancy rates are projected to stay just below the natural vacancy, averaging 20.0 percent in 2019 and 2020. Asking rent growth took a steep nose dive in the last half of 2016 in response to increased vacancies. Since 2017, asking rent growth has remained modestly positive between 1.5 and 2.5 percent. Rent growth is forecasted to average 1.7 and 2.3 percent in 2019 and 2020, respectively.

After declining from record values in 2015, construction starts have rebounded in the past year. In response, the square footage under construction is now beginning to increase moderately and is expected to continue that trend in the near future. Space delivered declined in line with levels of construction. The recent increase in construction starts is likely developers' response to widespread population growth, employment growth, and consistently positive asking rent growth.



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

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

Retail (Figures 36 - 40)

Overall actual vacancy has trended downward since late 2010, remaining well below the natural vacancy of 9.0 percent for years. Recently, actual vacancy has trended slightly upward through 2019, registering 5.5 percent in 3Q2019. Retail employment growth continues to trend downward, but that has not yet resulted in strong increases in vacancy rates. Similar to retail employment growth, net absorption indicates weakening demand for space in the DFW market. Net absorption trended downward after a modest increase in 4Q2017-2Q2018. Hardly any square footage was absorbed in 2019. Vacancy is expected to continue a slight upward trend, averaging 5.5 and 5.6 percent in 2019 and 2020, respectively. Despite strong vacancy rates, asking rent growth has plummeted after peaking in 1Q2018. Asking rent growth entered negative territory in 2Q2019 and is forecasted to remain there in 2019 and 2020, averaging -0.1 and -0.5 percent, respectively.

Construction starts have declined since 2017 in response to weaker demand for retail space in the MSA. Square footage under construction and delivered have been low and are continuing to decrease as new projects are not being sought out by developers. e-commerce sales continue to taking their toll on the demand for retail space in the market.



7.2%



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

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

3.3%

Warehouse (Figures 41 - 45)

Actual vacancy has hovered between 7 and 9 percent since 2014, well below the natural vacancy of 11.0 percent, generally trending downward during this time. While vacancy rates suggest a growing demand for industrial space, warehouse employment growth and net absorption tell a different story. Employment growth has decreased after a record increase in 2015. Net absorption has declined after peaking in mid-2016. However, both employment growth and net absorption remain positive. Despite both trending downward, the demand for warehouse space remains strong. Employment growth recorded over 3.0 percent growth for 3Q2019, and the square footage absorbed remains strong. Vacancy rates are projected to average 7.8 and 7.7 percent for 2019 and 2020, respectively. From 4Q2017 to 4Q2018, asking rent growth increased solidly. Rent growth has since slowed through 2019. However, it remains extremely strong, registering over 7.0 percent in 3Q2019. Asking rent growth is forecasted to average 7.0 and 3.2 percent for 2019 and 2020, respectively.

Construction starts were at record levels in 2016-18, but they have declined since. Square footage under construction increased in 2016, as expected, declining through 2017 before increasing moderately in 2018-19. Deliveries declined sharply in 2019, possibly due to many projects reaching completion in 2018. The supply of new warehouse space has caught up to the large spike in demand experienced in the MSA from 2015-16. As vacancies continue to decrease and rent and employment growth remain strong, developers may consider starting new projects.

Table 2. Projected Overall Vacancy Rates and Asking Rent Growth

Vacancy Rates (%) Asking Rents (y-o-y %) Natural **Property** 2018 2019 2020 2018 2019 2020 Vacancy Type Rate Office Overall 17.9 17.9 2.0 18.0 17.7 2.5 1.8 Office Class 20.7 20.2 Α 21.0 21.0 1.7 1.7 2.3 Retail 9.0 5.5 5.5 5.6 3.2 -0.1 -0.5 7.7 7.8 7.7 4.0 7.0 Warehouse 11.0 3.2

Note: Annual numbers represent the four-quarter average of the seasonally adjusted data. Rent growth is nominally estimated from the previous year's average.

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





occupancy 79.8%

ASKING RENT GROWTH

EMPLOYMENT GROWTH

NET ABSORPTION SF

CONSTRUCTION STARTS

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

Note: Arrows indicate change from previous quarter with the exception of asking rept group.

0.6%

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

4.1%

Overall Office (Figures 46 - 50)

Following the oil downturn that began in mid-2014, vacancy rates soared and have yet to recover. Actual vacancy has continued to increase, exceeding the natural vacancy of 16.0 percent and registering 20.2 percent in 3Q2019. FIRE & PBS employment growth remained positive after the recovery from the Great Recession and has trended upward since 1Q2017, coming in at 4.1 percent in 3Q2019. In the last ten years, net absorption has been relatively inconsistent. Recently, net absorption decreased for the last four quarters, turning negative in the last two. Despite strong employment growth, the high vacancy rates and decreasing net absorption paint a negative picture for overall demand in Houston office space. Forecasted at 19.9 percent in 2019 and 20.2 in 2020, vacancy is expected to continue increasing and remain well above the natural vacancy rate. Asking rent growth plummeted in the wake of the 2014 oil downturn, eventually entering negative territory. Rent growth began to bounce back in 2Q2017, trending upward until recently. Since 1Q2019, rent growth has declined in response to struggling demand in the MSA. Rent growth is expected to average 2.6 and 1.0 percent in 2019 and 2020, respectively.

Construction starts have been historically sporadic. They spiked in 2Q2017 and 2Q2019. These spikes can, in part, explain recent negative absorption and high sustained vacancy rates. Square footage under construction and delivered has declined significantly since the oil downturn. The amount of space under construction moved up slightly in 2018. Deliveries followed suit in the last two quarters as those projects were completed.





ASKING RENT GROWTH

1.2%

EMPLOYMENT GROWTH
4.1%

NET ABSORPTION SF

CONSTRUCTION STARTS

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

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 51 - 55)

Parallel to Houston's overall office market, class A office vacancies climbed sharply in the wake of the 2014 oil downturn. Actual vacancy exceeded the natural vacancy of 15.0 percent for 18 consecutive quarters, averaging 21.2 percent. Having remained positive following the Great Recession, FIRE & PBS employment growth has trended upward since 1Q2017, coming in at 4.1 percent in 3Q2019. Net absorption has historically been mostly positive. Net absorption turned negative from 2Q2016 to 2Q2017, remaining positive until this quarter when it dipped slightly back into negative territory. Demand for class A office space has been weak with high vacancy rates and absorption trending down in the short term. These negatives overshadow the strong employment growth. Vacancies are forecasted to remain high, averaging 22.8 and 23.0 percent in 2019 and 2020, respectively. Asking rent growth collapsed into negative territory preceding the oil downturn. After bottoming out in 2Q2017, rent growth began a strong recovery until 2019. Through 2019, rent growth remained positive while slowing. Asking rent growth is expected to average 3.1 and 1.0 percent in 2019 and 2020, respectively.

Spikes in construction starts in 2Q2017 and 2Q2019 can, in small part, explain recent negative numbers of square footage absorbed and high sustained vacancy rates. Office space under construction and delivered declined since the oil downturn. Space under construction moved upward slightly through 2018. Deliveries followed suit in the most recent two quarters as those projects were completed.











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

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

Retail (Figures 56 - 60)

After rising above the natural vacancy of 8.0 percent during the Great Recession, actual vacancy has since trended downward, remaining stable between 5.5 and 6.0 percent since 2Q2015. Retail employment growth trended downward from 2016 to the end of 2019, entering negative growth in 3Q2017. Beginning in 1Q2019, employment growth increased through 3Q2019 while still remaining negative. Net absorption for retail space in the MSA has been strong and positive since before the Great Recession. Despite negative employment growth, low vacancies and solid net absorption suggest a strong demand for retail space in Houston. Actual vacancy is projected to average 5.9 and 5.8 percent for 2019 and 2020. Asking rent growth trended downward in response to the oil downturn in 2014, barely dipping into negative territory in



mid-2016 before trending back upward. Rent growth is expected to remain healthy, averaging 4.7 percent in 2019 and 3.0 percent in 2020.

Construction starts have been consistently declining since their peak in 3Q2016. Square footage under construction and delivered followed suit, though their trend is much more gradual. A brief increase in the square feet under construction occurred during the first half of 2019. Deliveries increased in the last three quarters as these projects reached completion.



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

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

Warehouse (Figures 61 - 65)

Actual vacancy climbed above natural vacancy (8.0 percent) for the second consecutive quarter in 3Q2019. Vacancies have been on the rise since the last half of 2018. Warehouse employment growth fell from a record peak in 1Q2015, entering into negative territory in 2016. Since this fall, employment growth has skyrocketed. 3Q2019 employment growth is just shy of the 1Q2015 record. Contrary to employment growth, net absorption has generally declined since 2015, with the exception of two modest increases. The trend indicates negative levels of absorption in coming quarters. While strong warehouse employment growth is promising, the upward trend in vacancies and downward trend in net absorption suggest weakening demand for warehouse space in Houston. Actual vacancy is forecasted to average 8.2 and 8.4 percent in 2019 and 2020, respectively. Asking rent growth fell sharply after the oil downturn of 2014, entering negative territory for five consecutive quarters (1Q2017-1Q2018), before bouncing back. Rent growth has slowed in all three quarters of 2019 while still remaining positive. Asking rent growth is expected to average 3.0 and 1.4 percent in 2019 and 2020, respectively.

Generally, construction starts have trended upward since the recovery of the Great Recession. However, they began to fall sharply in 2019, likely a response of developers' concern for weakening demand for space and declining rent growth in the MSA. The amount of space under construction has surged since 2Q2017 due to the high value of construction starts over the years. As expected, deliveries have lagged just behind the space under construction, having begun their surge in 2Q2018.



Table 3. Projected Overall Vacancy Rates and Asking Rent Growth

Vacancy Rates (%)

Asking Rents (y-o-y %)

Property Type	Natural Vacancy Rate	2018	2019	2020	2018	2019	2020
Office							
Overall	14.0	19.9	19.9	20.2	2.6	2.6	1.0
Office Class							
Α	16.0	23.8	22.8	23.0	1.6	3.1	1.0
Retail	8.0	6.0	5.9	5.8	3.4	4.7	3.0
Warehouse	8.0	6.7	8.2	8.4	4.0	3.0	1.4

Note: Annual numbers represent the four-quarter average of the seasonally adjusted data. Rent growth is nominally estimated from the previous year's average.

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





OCCUPANCY 88.2%

ASKING RENT GROWTH 2.5%

EMPLOYMENT GROWTH

NET ABSORPTION SF 344.219

CONSTRUCTION STARTS

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

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

2.4%

Overall Office (Figures 66 - 70)

Actual vacancy gradually increased toward the natural vacancy rate (12.0 percent) since 1Q2017. Through all three quarters of 2019, actual vacancy remained just below the natural vacancy. FIRE & PBS employment growth has been strong and steady since the Great Recession. Employment growth has remained between 2.0 and 3.0 percent since the start of 2017. Net absorption was weak from 3Q2017 to 1Q2019, registering positive only in 3Q2017. However, net absorption increased in 2Q2019 and 3Q2019. It is hard to determine whether the demand for office space in the MSA is weakening, strengthening, or holding consistent with years past. Actual vacancy is expected to average 11.7 percent in 2019 and 11.8 percent in 2020, holding just below the natural vacancy. Asking rent growth has fluctuated since 2015, yet remained positive. Recently, rent growth trended slightly downward. Asking rent growth is forecasted to average 2.7 and 2.1 percent in 2019 and 2020, respectively.

Construction starts have fluctuated since 2015 but have generally trended upward. After peaking in 4Q2018, construction starts declined over 1Q2019 and 2Q2019. An increase in construction starts occurred in 3Q2019. Square footage under construction has trended downward since 2017. However, a spike in deliveries occurred in 2Q2019 and 3Q2019.

OCCUPANCY **87.1%**

ASKING RENT GROWTH

EMPLOYMENT GROWTH 2.4%

NET ABSORPTION SF 422,709

CONSTRUCTION STARTS

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

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 71 - 75)

Actual vacancy rose above natural vacancy (14.5 percent) following the Great Recession. In 2013 vacancies dipped below the natural vacancy before rising back over from 2Q2015-4Q2016. Since 2017, actual vacancy remained close to the natural vacancy and have declined in the previous five quarters. FIRE & PBS employment growth has been strong and steady since the recovery of the Great Recession. Employment growth remained between 2.0 and 3.0



percent since the start of 2017. Class A net absorption has been relatively strong compared with the MSA's overall office market since the beginning of 2016. The last two quarters registered high square footage absorption. With vacancies trending downward, steady employment growth, and high volumes of net absorption in recent quarters, the demand for class A office space in San Antonio is strengthening. Actual vacancy is projected to average 13.4 percent in 2019 and 13.6 percent in 2020. Asking rent growth has historically fluctuated greatly. Rent growth has remained positive since 2Q2015. In the near term, asking rent growth trended downward in the first three quarters of 2019. Asking rent growth is forecasted to average 2.3 and 2.1 percent in 2019 and 2020, respectively.

While construction starts have fluctuated greatly since 2015, they generally increased until peaking at the end of 2018. Construction starts declined over the first half of 2019. However, 3Q2019 experienced a spike. Space under construction has trended downward since 2017. More recently, deliveries spiked through 2Q2019 and 3Q2019.



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

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

Retail (Figures 76 - 80)

Actual vacancy dropped below natural vacancy (7.0 percent) in 2012 and continued to trend downward until 3Q2016. Vacancies remained relatively flat from 3Q2016 to 4Q2018. Since then, vacancies trended upward while remaining comfortably below the natural vacancy. Retail employment growth fell from high rates in 2015-16 into negative territory, eventually bottoming out in 2Q2018. Employment growth returned to positive territory in 2019 and should continue this upward trend in the near term. Negative employment growth took its toll on net absorption. Net absorption for the MSA has been bleak since 1Q2017, registering negative in the previous five quarters. Demand for retail space is weakening as vacancy rates rise, employment growth remains relatively low, and net absorption remains negative. The rise of e-commerce sales is a factor in the weakening demand for space. Actual vacancy is expected to average 5.3 and 5.4 percent in 2019 and 2020, respectively. Weakening demand has impacted asking rent growth in the near term. After peaking in 4Q2018, asking rent growth plummeted through 2019, nearing negative territory. Asking rent growth is projected to average 2.2 and 2.4 percent in 2019 and 2020.

Construction starts have modestly trended upward following recovery from the Great Recession, reaching a peak in 4Q2017. From the end of 2017, construction trended downward before increasing once again from 4Q2018 to 2Q2019. Construction starts have slowed in 3Q2019. From 4Q2018 to 2Q2019, space under construction rose slightly as expected. Projects reaching completion are reflected in the deliveries data the last three quarters.







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

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

0.9%

San Antonio Warehouse (Figures 81 - 85)

Actual vacancy began falling during the recovery from the Great Recession, dropping below natural vacancy (8.0 percent) in 2012. Vacancies have stayed below the natural vacancy while experiencing some natural fluctuations. Actual vacancy has moderately increased toward natural vacancy since 2018. Warehouse employment growth has slowed since 2015 with a momentary spike in late 2016 and early 2017. Employment growth then fell below zero, bottoming out in 4Q2018 before moving back into positive territory this quarter (3Q2019). Net absorption followed the downward trend of employment growth that began in late 2016. Net absorption in the first three quarters of 2019 was negative. Demand for warehousing space in San Antonio looks to be weakening with rising vacancy and declining net absorption. Increasing warehouse employment growth provides some hope of a future demand increase. Actual vacancy is expected to continue rising steadily, averaging 7.2 percent in 2019 and 7.4 percent in 2020. Asking rent growth followed a declining trend from 2016, reaching negative rates in late 2017. Despite weakening demand, rent growth has increased through 2019, registering positive in 3Q2019. Asking rent growth is forecasted to continue increasing, averaging 1.0 and 1.5 percent in 2019 and 2020.

Construction starts attained a record peak in 4Q2018, moving lower as developers have responded to the declining demand for space. Square footage under construction followed construction starts, ticking upward before falling in 2019. Deliveries followed suit as well, having increased before declining in this quarter (3Q2019).

Table 4. Projected Overall Vacancy Rates and Asking Rent Growth

		Vac	Vacancy Rates (%)			Asking Rents (y-o-y %)		
Property Type	Natural Vacancy Rate	2018	2019	2020	2018	2019	2020	
Office								
Overall	12.0	11.4	11.7	11.8	2.7	2.7	2.1	
Office Class								
Α	14.5	14.4	13.4	13.6	3.7	2.3	2.1	
Retail	7.0	4.6	5.3	5.4	4.8	2.2	2.4	
Warehouse	8.0	6.6	7.2	7.4	-1.2	1.0	1.5	

Note: Annual numbers represent the four-quarter average of the seasonally adjusted data. Rent growth is nominally estimated from the previous year's average.

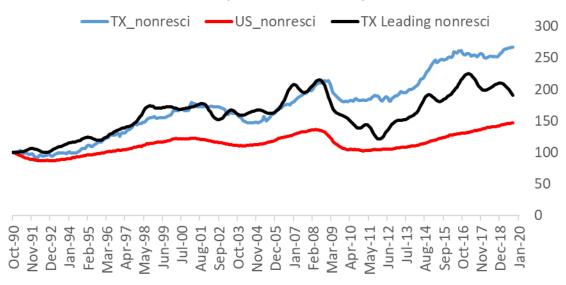
Sources: CoStar and the Real Estate Center at Texas A&M University





Figure 1. Texas Nonresidential Construction Coincident and Leading Indicators

(Index Oct. 1990 = 100)



Source: Real Estate Center at Texas A&M University

Figure 2. Austin Nonresidential Construction Leading Indicators

(Index 2006 Q1 = 100)

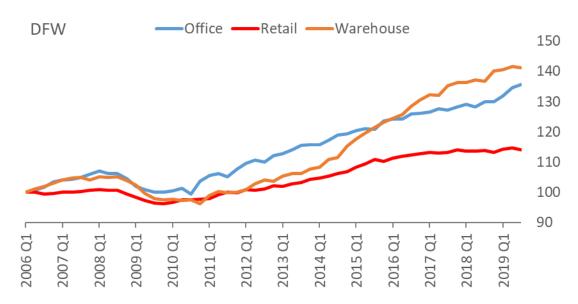


Source: Real Estate Center at Texas A&M University



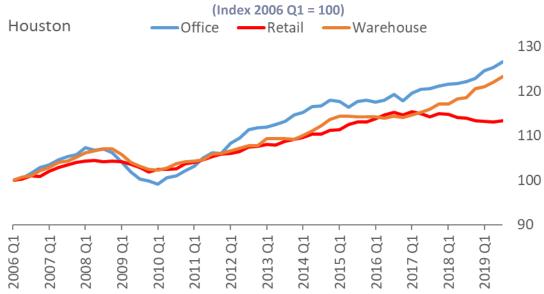
Figure 3. DFW Nonresidential Construction Leading Indicators

(Index 2006 Q1 = 100)



Source: Real Estate Center at Texas A&M University

Figure 4. Houston Nonresidential Construction Leading Indicators

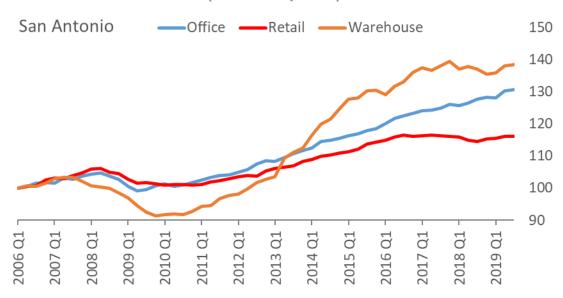


Source: Real Estate Center at Texas A&M University



Figure 5. San Antonio Nonresidential Construction Leading Indicators

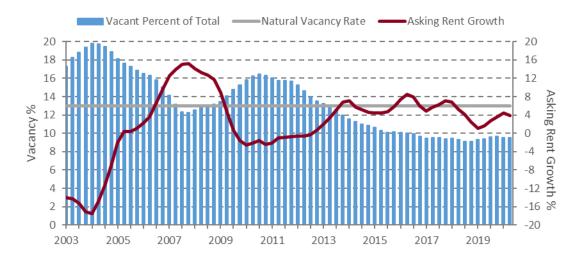
(Index 2006 Q1 = 100)



Source: Real Estate Center at Texas A&M University

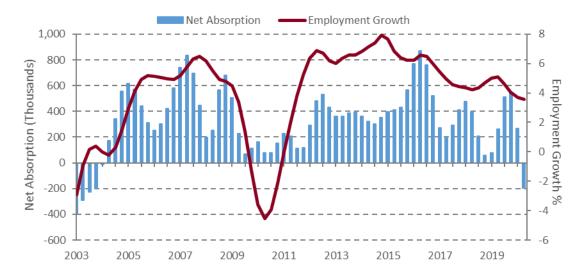
Austin

Figure 6. Austin Office Overall Vacancy and Asking Rent Growth (SA and TC)*



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

Figure 7. Austin Office Overall Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.
Sources: Bureau of Labor Statistics, CoStar, and Real Estate Center at Texas A&M University



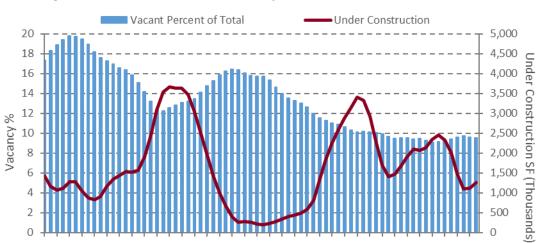


Figure 8. Austin Office Overall Vacancy and Under Construction (SA and TC)*

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

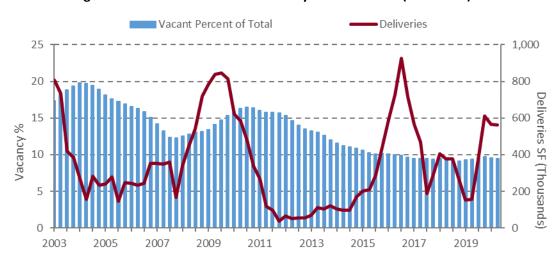


Figure 9. Austin Office Overall Vacancy and Deliveries (SA and TC)*

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

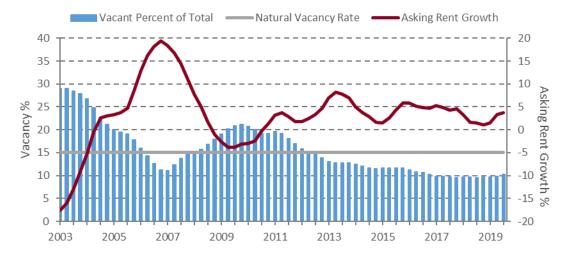


Figure 10. Austin Office Overall Vacancy and Construction Index (SA and TC)*
(Index 2000 Q4 = 100)



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

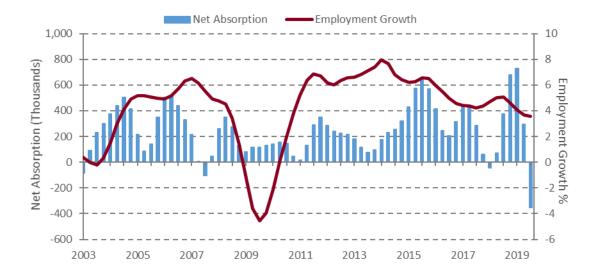
Figure 11. Austin Office Class A Vacancy and Asking Rent Growth (SA and TC)*



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



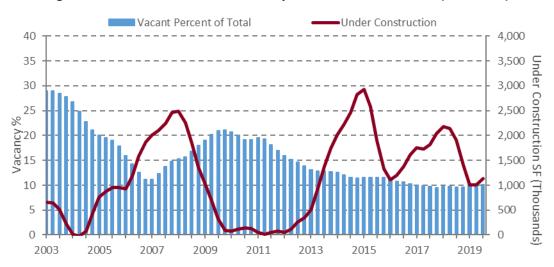
Figure 12. Austin Office Class A Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 13. Austin Office Class A Vacancy and Under Construction (SA and TC)*



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

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



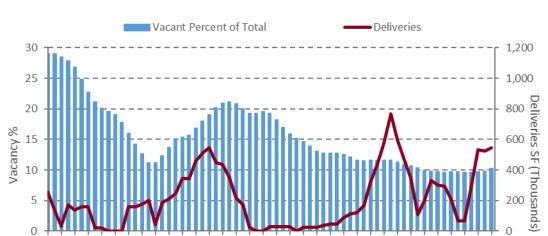


Figure 14. Austin Office Class A Vacancy and Deliveries (SA and TC)*

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

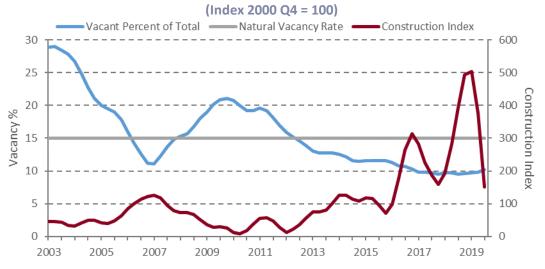
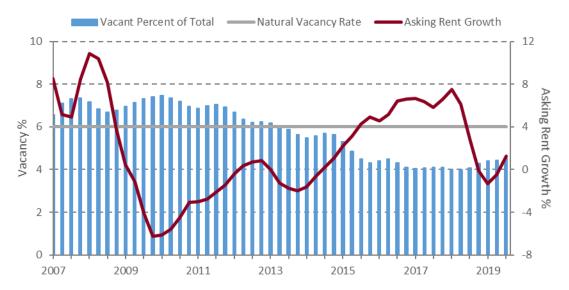


Figure 15. Austin Office Class A Vacancy and Construction Index (SA and TC)*

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



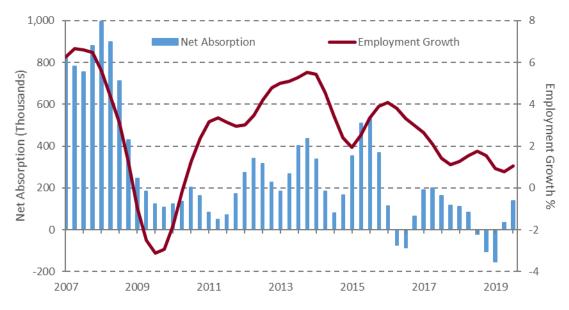
Figure 16. Austin Retail Vacancy and Asking Rent Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 17. Austin Retail Net Absorption SF and Employment Growth (SA and TC)*

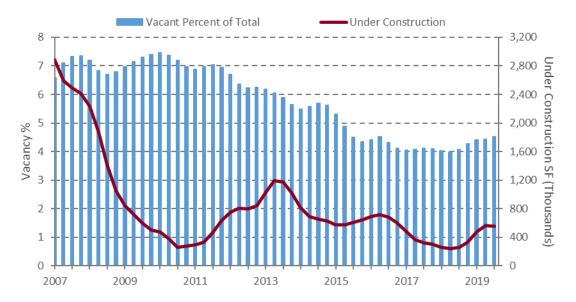


*Note: Seasonally adjusted and trend-cycle component.

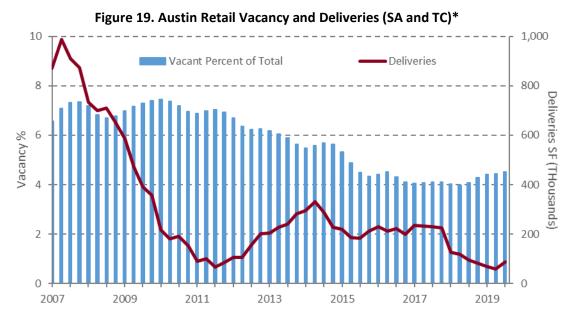
Sources: Bureau of Labor Statistics, CoStar, and Real Estate Center at Texas A&M University



Figure 18. Austin Retail Vacancy and Under Construction (SA and TC)*



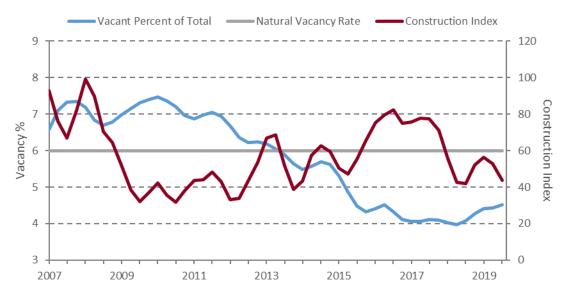
*Note: Seasonally adjusted and trend-cycle component. Sources: CoStar and Real Estate Center at Texas A&M University



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

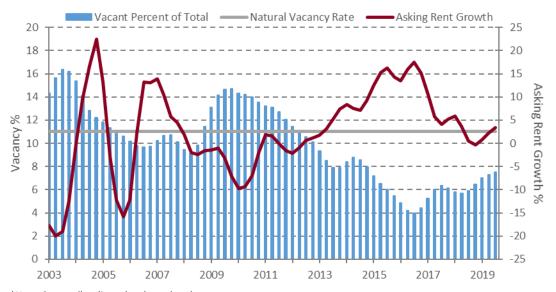
Figure 20. Austin Retail Vacancy and Construction Index (SA and TC)*

(Index 2006 Q1 = 100)



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

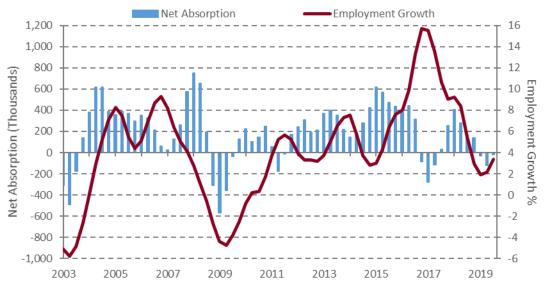
Figure 21. Austin Warehouse Vacancy and Asking Rent Growth (SA and TC)*



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



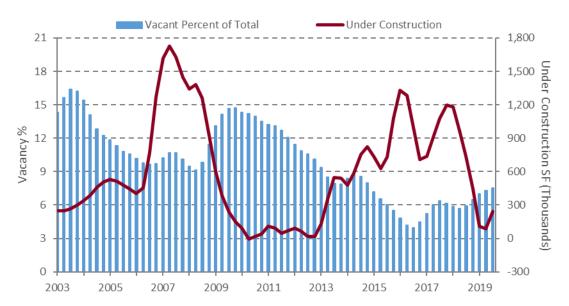
Figure 22. Austin Warehouse Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 23. Austin Warehouse Vacancy and Under Construction (SA and TC)*

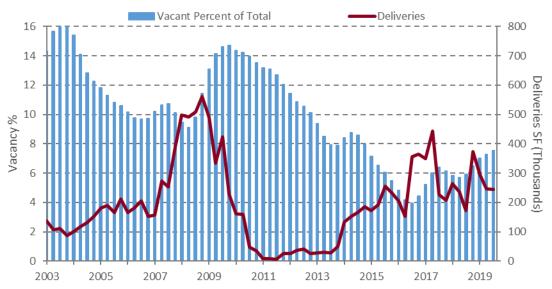


 $\hbox{*Note: Seasonally adjusted and trend-cycle component.}$

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

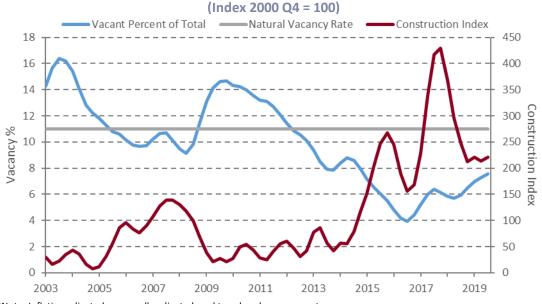


Figure 24. Austin Warehouse Vacancy and Deliveries (SA and TC)*



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

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



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



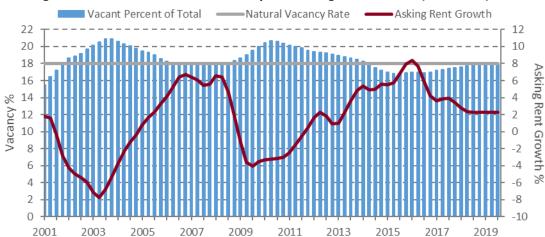


Figure 26. DFW Office Overall Vacancy and Asking Rent Growth (SA and TC)*

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

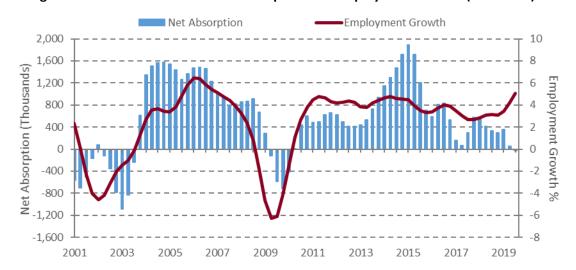


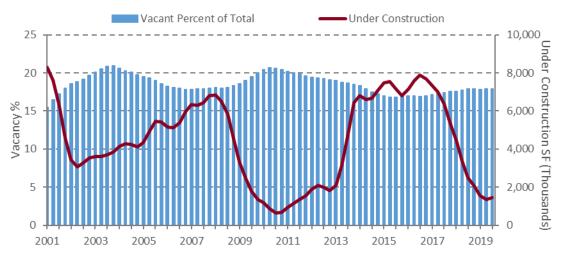
Figure 27. DFW Office Overall Net Absorption and Employment Growth (SA and TC)*

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



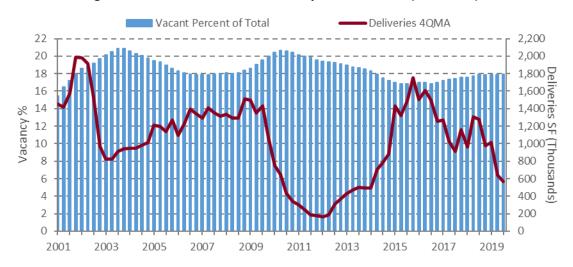
^{*}Note: Seasonally adjusted and trend-cycle component.

Figure 28. DFW Office Overall Vacancy and Under Construction (SA and TC)*



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

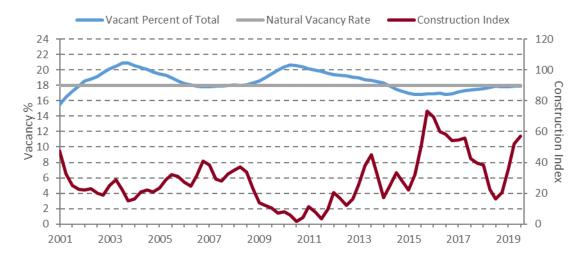
Figure 29. DFW Office Overall Vacancy and Deliveries (SA and TC)*



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

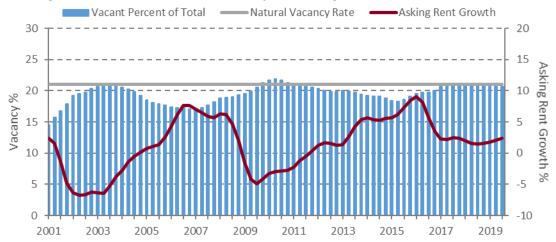


Figure 30. DFW Office Overall Vacancy and Construction Index (SA and TC)*
(Index 1982 Q1 = 100)



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

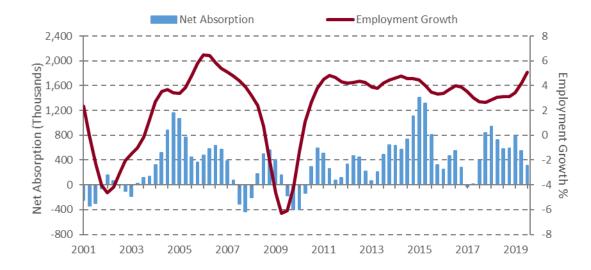
Figure 31. DFW Office Class A Vacancy and Asking Rent Growth (SA and TC)*



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



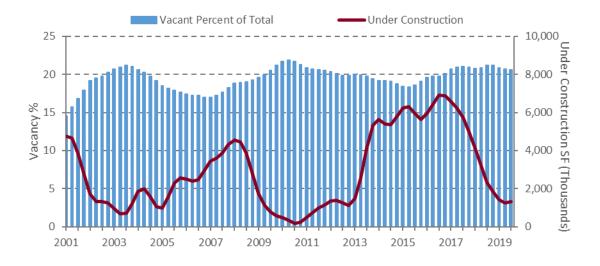
Figure 32. DFW Office Class A Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 33. DFW Office Class A Vacancy and Under Construction (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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



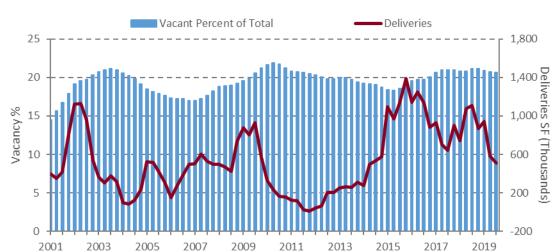


Figure 34. DFW Office Class A Vacancy and Deliveries (SA and TC)*

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

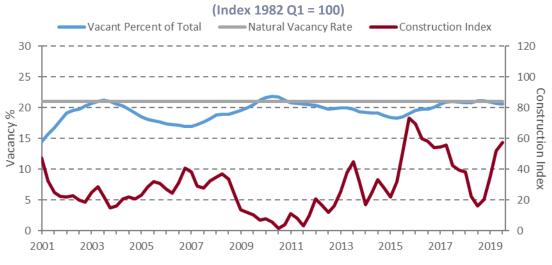


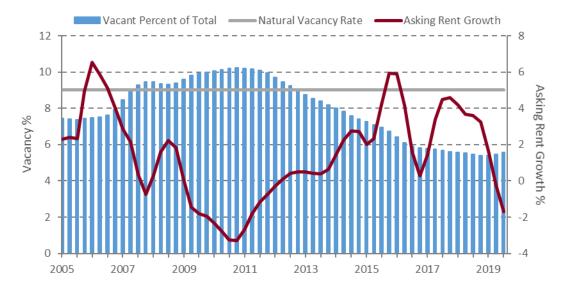
Figure 35. DFW Office Class A Vacancy and Construction Index (SA and TC)*

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

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

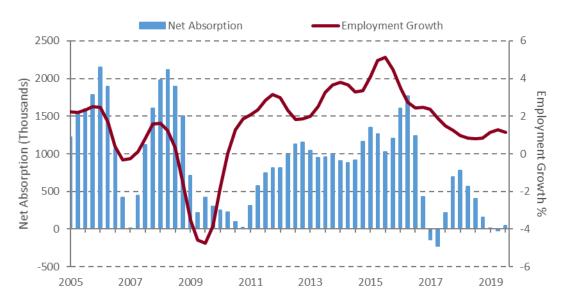


Figure 36. DFW Retail Vacancy and Asking Rent Growth (SA and TC)*



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

Figure 37. DFW Retail Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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



Vacant Percent of Total

12,000

10,000 of Thousands)

Vacant Percent of Total

12,000

10,000 of Thousands)

2,000 of Thousands)

2013

2015

2017

2019

Figure 38. DFW Retail Vacancy and Under Construction (SA and TC)*

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

2007

2005

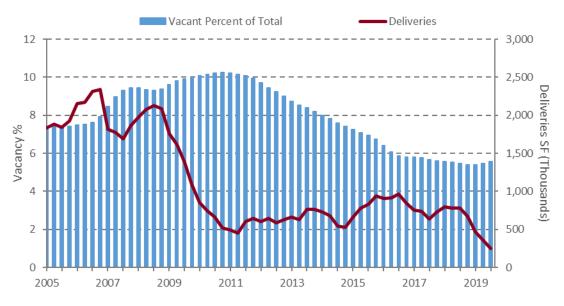
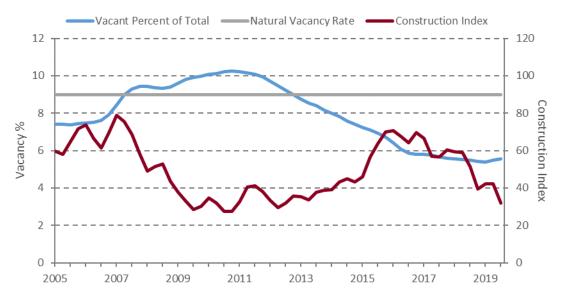


Figure 39. DFW Retail Vacancy and Deliveries (SA and TC)*



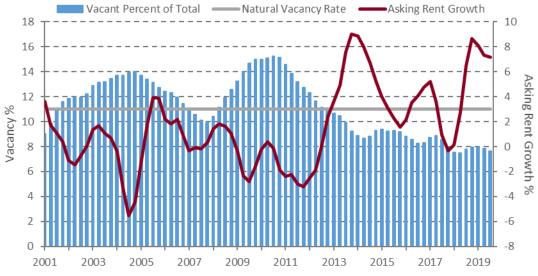
Figure 40. DFW Retail Vacancy and Construction Index (SA and TC)*

(Index 2000 Q1 = 100)



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

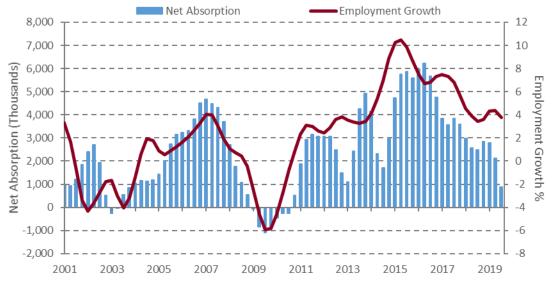
Figure 41. DFW Warehouse Vacancy and Asking Rent Growth (SA and TC)*



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



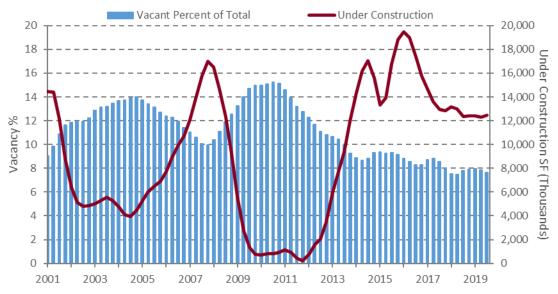
Figure 42. DFW Warehouse Net Absorption and Employment Growth (SA and TC)*



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

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

Figure 43. DFW Warehouse Vacancy and Under Construction (SA and TC)*



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

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



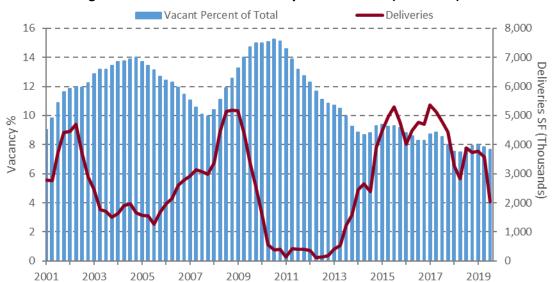


Figure 44. DFW Warehouse Vacancy and Deliveries (SA and TC)*

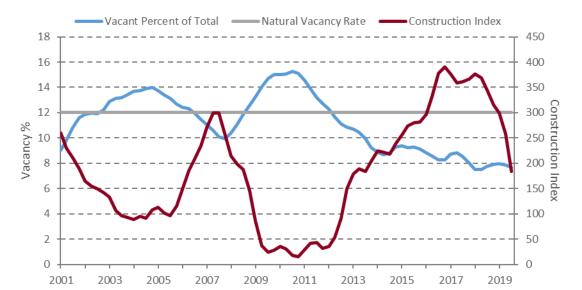


Figure 45. DFW Warehouse Vacancy and Construction Index (SA and TC)*
(Index 1995 Q1 = 100)



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

Houston

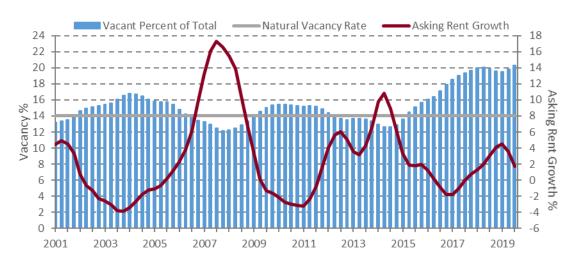


Figure 46. Houston Office Overall Vacancy and Asking Rent Growth (SA and TC)*

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

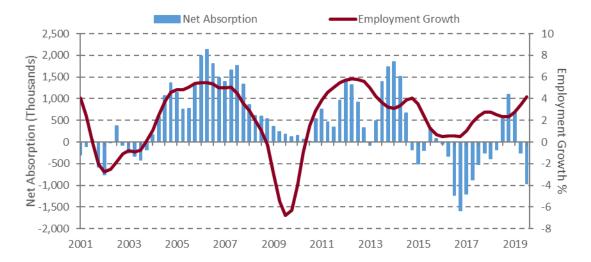
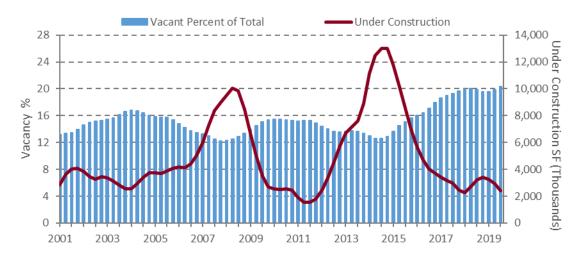


Figure 47. Houston Office Overall Net Absorption and Employment Growth (SA and TC)*

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



Figure 48. Houston Office Overall Vacancy and Under Construction (SA and TC)*



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

Figure 49. Houston Office Overall Vacancy and Deliveries (SA and TC)*

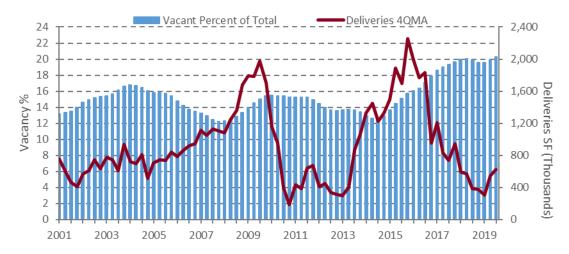
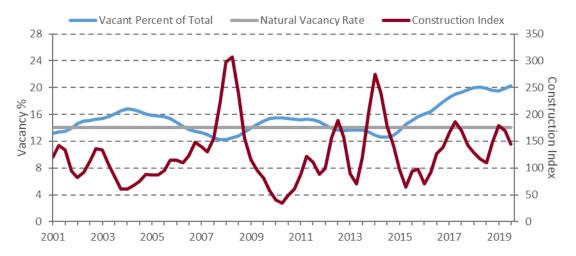


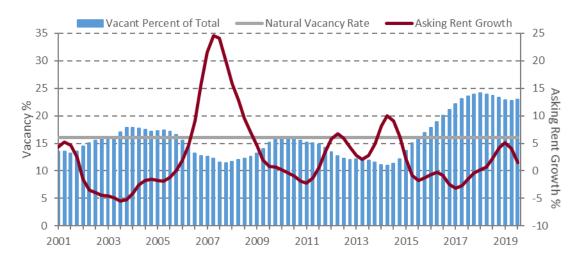


Figure 50. Houston Office Overall Vacancy and Construction Index (SA and TC)*
(Index 1999 Q1 = 100)



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

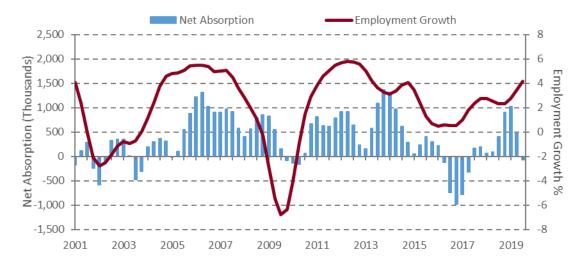
Figure 51. Houston Office Class A Vacancy and Asking Rent Growth (SA and TC)*



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



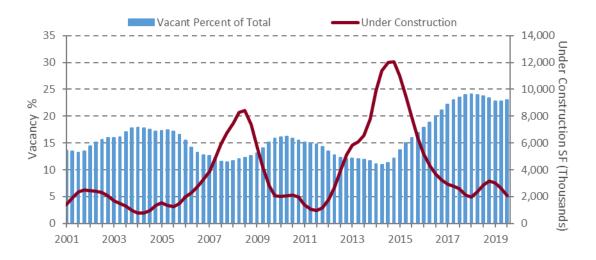




^{*}Note: Seasonally adjusted and trend-cycle component.

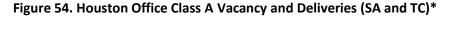
Sources: Bureau of Labor Statistics, CoStar, and Real Estate Center at Texas A&M University

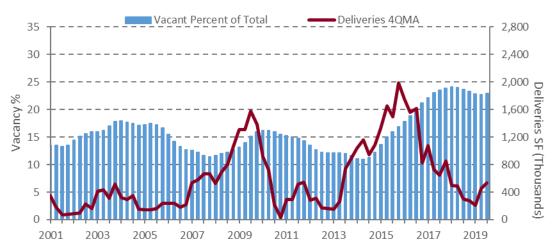
Figure 53. Houston Office Class A Vacancy and Under Construction (SA and TC)*



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

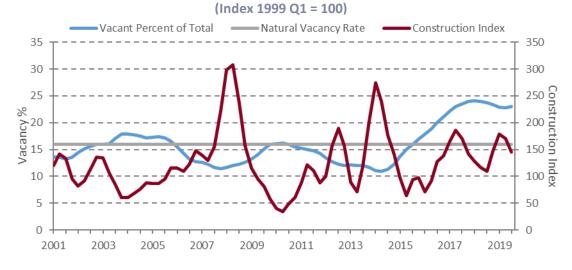






^{*}Note: Four quarter moving average used for deliveries, seasonal adjustment and trend cycling used for vacant percent of total. Sources: CoStar and Real Estate Center at Texas A&M University

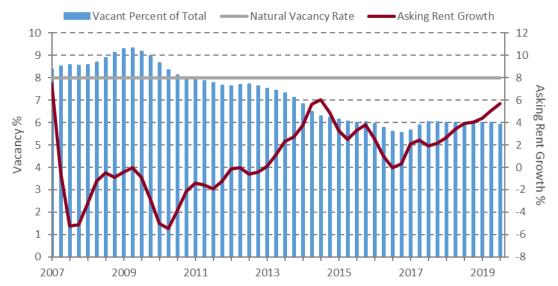
Figure 55. Houston Office Class A Vacancy and Construction Index (SA and TC)*



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



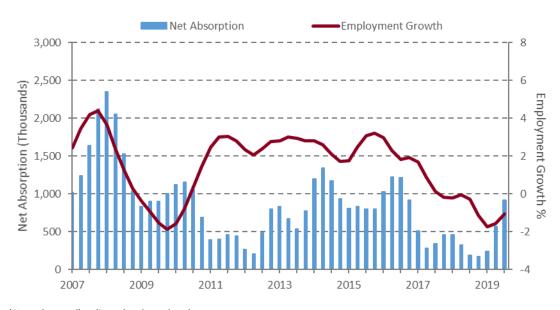
Figure 56. Houston Retail Vacancy and Asking Rent Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 57. Houston Retail Net Absorption and Employment Growth (SA and TC)*



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

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



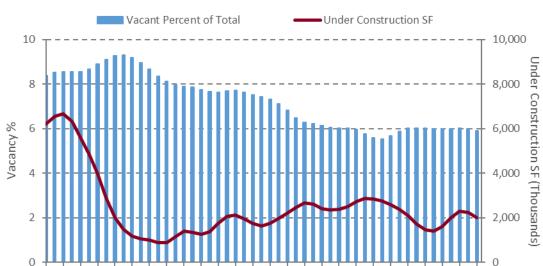


Figure 58. Houston Retail Vacancy and Under Construction (SA and TC)*

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

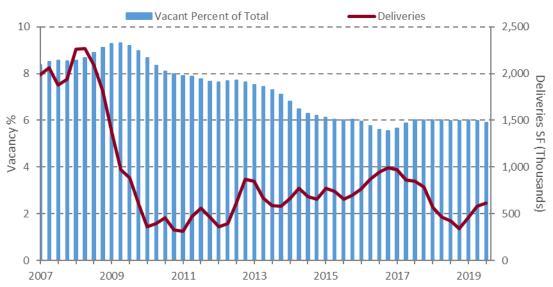
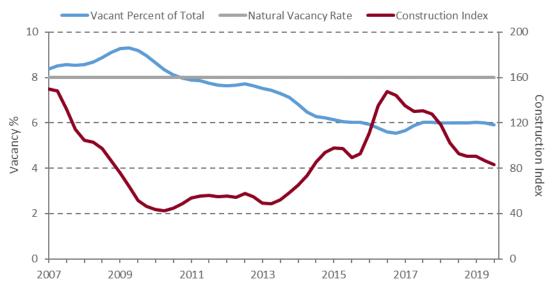


Figure 59. Houston Retail Vacancy and Deliveries (SA and TC)*



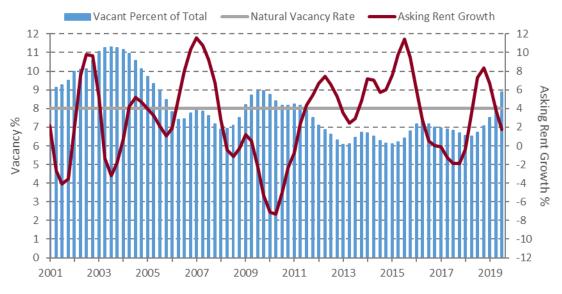
Figure 60. Houston Retail Vacancy and Construction Index (SA and TC)*
(Index 2006 Q1 = 100)



 $\hbox{*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.}$

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

Figure 61. Houston Warehouse Vacancy and Asking Rent Growth (SA and TC)*

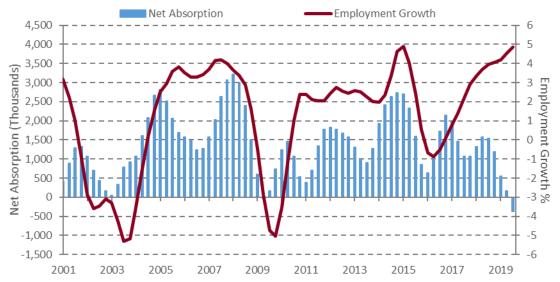


*Note: Seasonally adjusted and trend-cycle component.

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



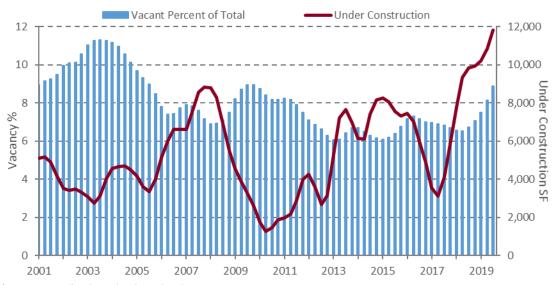
Figure 62. Houston Warehouse Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 63. Houston Warehouse Vacancy and Under Construction (SA and TC)*



 * Note: Seasonally adjusted and trend-cycle component.

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



Vacant Percent of Total Deliveries 3,500 3,000 Vacancy %

Figure 64. Houston Warehouse Vacancy and Deliveries (SA and TC)*

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

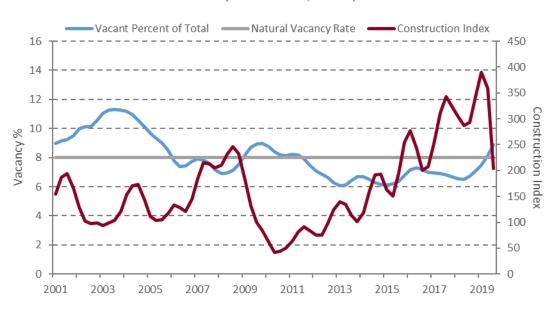


Figure 65. Houston Warehouse Vacancy and Construction Index (SA and TC)*
(Index 1999 Q1 = 100)

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



San Antonio

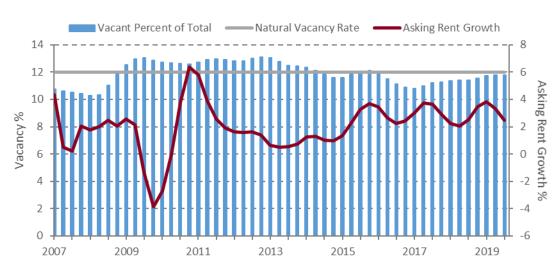


Figure 66. San Antonio Office Overall Vacancy and Asking Rent Growth (SA and TC)*

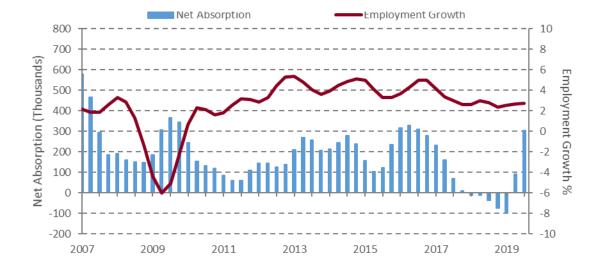


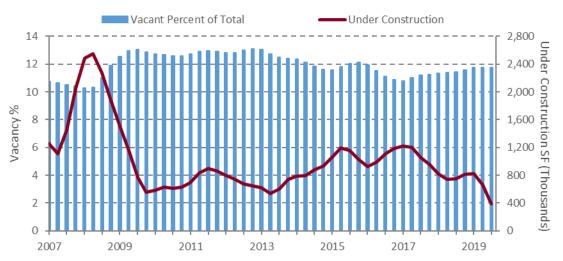
Figure 67. San Antonio Office Overall Net Absorption and Employment Growth (SA and TC)*

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



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

Figure 68. San Antonio Office Overall Vacancy and Under Construction (SA and TC)*



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

Figure 69. San Antonio Office Overall Vacancy and Deliveries (SA and TC)*

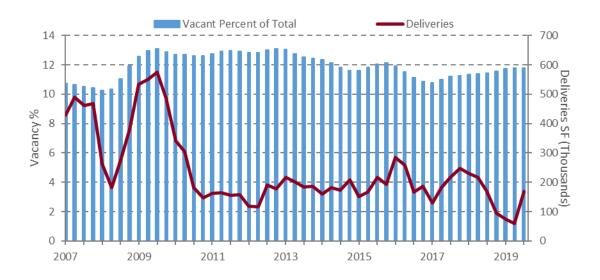
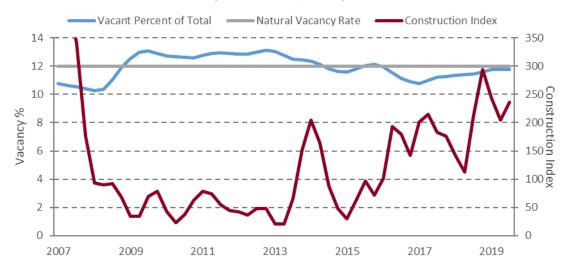


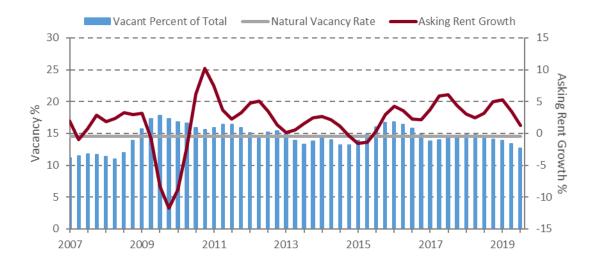


Figure 70. San Antonio Office Overall Vacancy and Construction Index (SA and TC)*
(Index 2005 Q3 = 100)



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

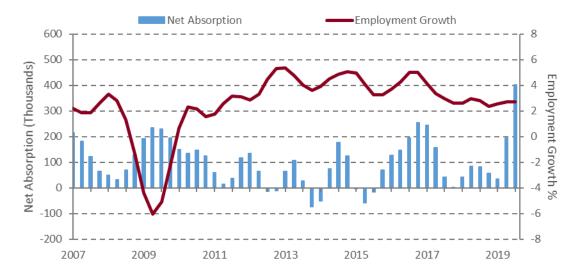
Figure 71. San Antonio Office Class A Vacancy and Asking Rent Growth (SA and TC)*



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



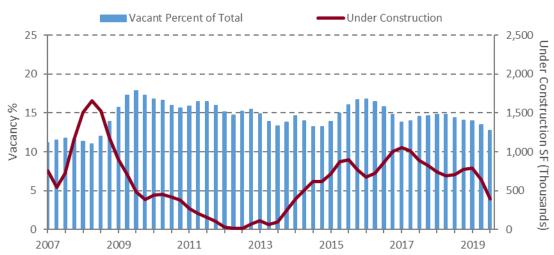




^{*}Note: Seasonally adjusted and trend-cycle component.

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

Figure 73. San Antonio Office Class A Vacancy and Under Construction (SA and TC)*



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

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



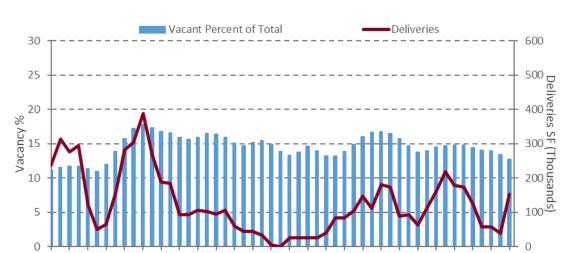


Figure 74. San Antonio Office Class A Vacancy and Deliveries (SA and TC)*

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

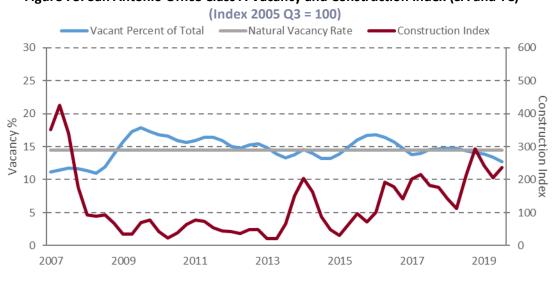
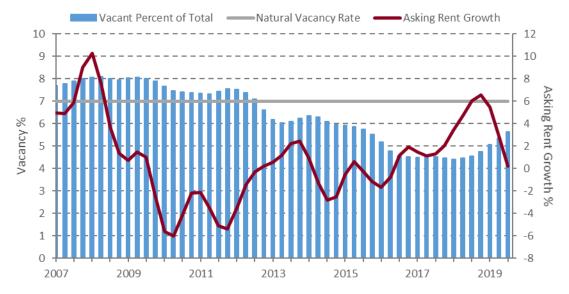


Figure 75. San Antonio Office Class A Vacancy and Construction Index (SA and TC)*

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

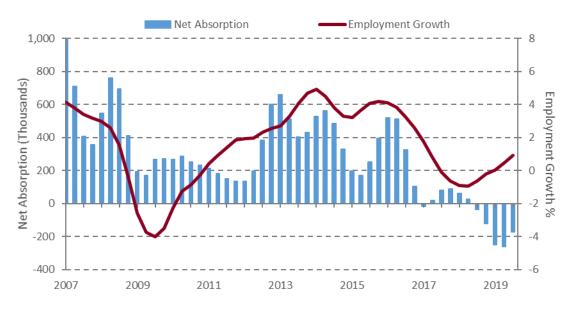


Figure 76. San Antonio Retail Vacancy and Asking Rent Growth (SA and TC)*



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

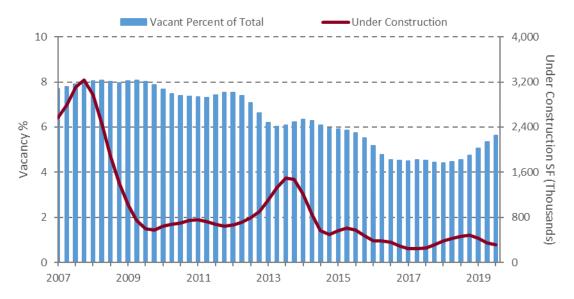
Figure 77. San Antonio Retail Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.
Sources: Bureau of Labor Statistics, CoStar, and Real Estate Center at Texas A&M University



Figure 78. San Antonio Retail Vacancy and Under Construction (SA and TC)*



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

Figure 79. San Antonio Retail Vacancy and Deliveries (SA and TC)*

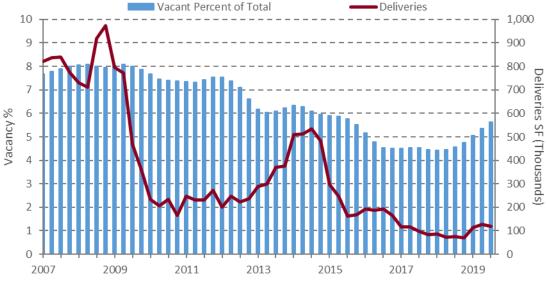
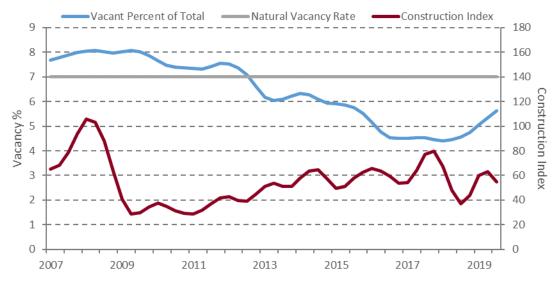


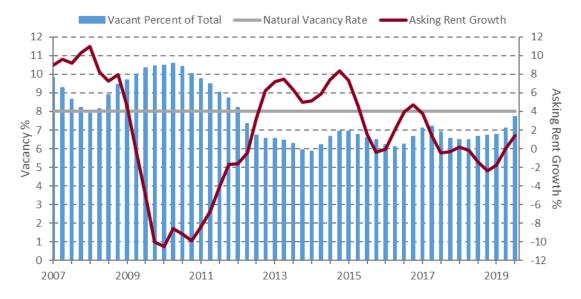


Figure 80. San Antonio Retail Vacancy and Construction Index (SA and TC)*
(Index 2005 Q3 = 100)



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

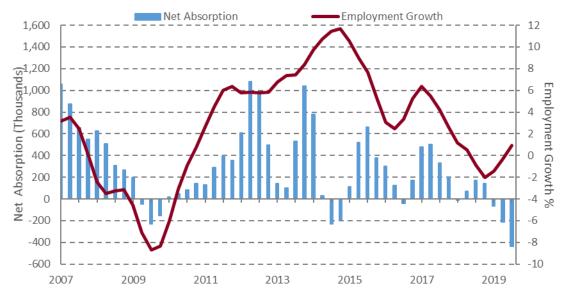
Figure 81. San Antonio Warehouse Vacancy and Asking Rent Growth (SA and TC)*



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



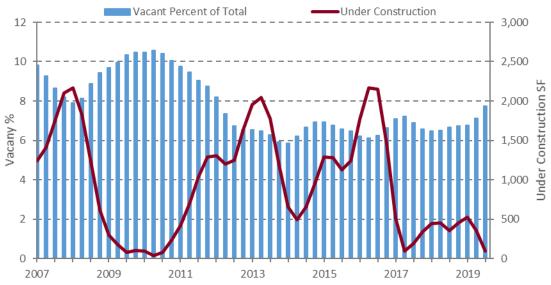
Figure 82. San Antonio Warehouse Net Absorption and Employment Growth (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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

Figure 83. San Antonio Warehouse Vacancy and Under Construction (SA and TC)*



*Note: Seasonally adjusted and trend-cycle component.

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



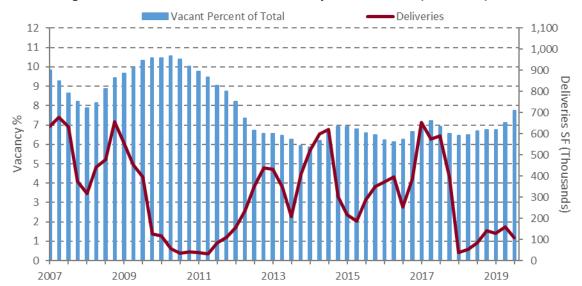


Figure 84. San Antonio Warehouse Vacancy and Deliveries (SA and TC)*

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



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

*Note: Inflation adjusted, seasonally adjusted, and trend-cycle component.
Sources: CoStar, Dodge Analytics, and Real Estate 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.

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 comprised 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

DIRECTOR

GARY W. MALER

ADVISORY COMMITTEE

ALVIN COLLINS, CHAIRMAN JJ CLEMENCE, VICE CHAIRMAN

Andrews Sugar Land

TROY ALLEY, JR. TED NELSON

DeSoto Houston

RUSSELL CAIN DOUG ROBERTS

Port Lavaca Austin

DOUG JENNINGS C. CLARK WELDER Fort Worth Fredericksburg

BESA MARTIN JAN FITE-MILLER, EX-OFFICIO

Boerne Dallas









