Research

Independent market review

Phoenix/Chandler

November 2021

Prepared for: DBS Trustee Limited
(in its capacity as trustee of Manulife US Real Estate Investment Trust)
12 Marina Boulevard, Level 44
Marina Bay Financial Centre Tower 3
Singapore 018982

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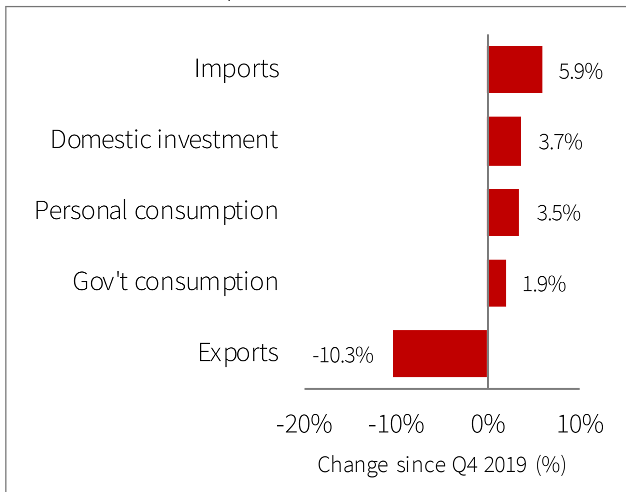
National economic overview

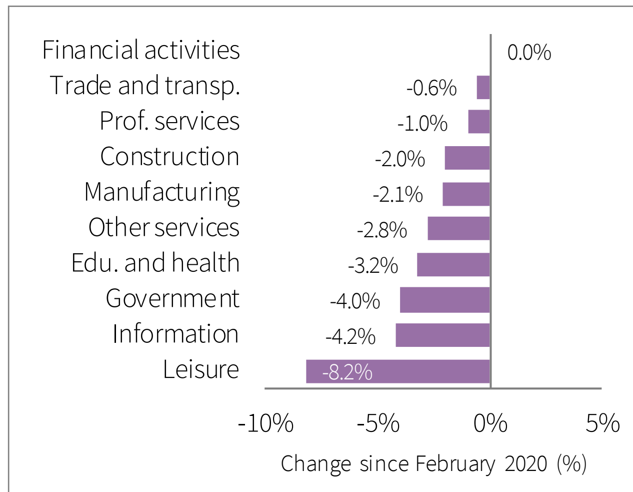
The U.S. economy continues to make progress in its recovery from the effects of the COVID-19 pandemic. While employment inches ever closer to a full rebound, GDP surpassed its pre-pandemic peak in Q3 2021, making the U.S. one of the first developed countries to pass this milestone. Consumer spending remains high, while both short- and long-term prospects are bolstered by newly passed government stimulus surrounding infrastructure. At the same time, inflation as a result of global supply chain disruption and acute labor shortages poses a meaningful impediment to even greater gains, although these are likely transitory in nature, even if they are taking longer than initially expected to be resolved.

GDP stood at $23.2 trillion in Q3 2021 and in real terms is now 1.4% above the previous high recorded in Q4 2019. Fueling this has been a consistent increase in personal consumption expenditures, which is 3.5% above year-end 2019 levels; while GDP is up $262.9 billion in real terms, consumption rose by $470.3 billion since Q4 2019. Private domestic investment and imports also rose.



At the same time, net exports continue to feel the effects of supply chain disruptions, having fallen by 10.3% over the past seven quarters and widening the trade gap to $1.3 trillion. Imports, on the other hand, are incrementally improving, up $200.3 billion over the same time period.

Job creation is also trending the right direction despite Delta variant-induced headwinds. 18.1 million of the 22.4 million jobs lost from February to April 2020 have been recovered, with employment now down just 2.8% from its 152.5-million-job high. This has helped the unemployment rate fall to 4.6%, 110 basis points above its previous low of 3.5%.



At the industry level, office-using as well as transportation and trade are outperforming the broader labor market, having been less affected by shutdowns in in-person activities, whereas leisure is farther from recovery at 8.2% below February 2020 levels. The unlocking of international travel in November combined with continually increasing vaccination rates will help to spur further gains in leisure and hospitality.

Divergence also exists geographically. Unemployment in numerous Sun Belt markets such as Atlanta, Austin, Charlotte, Nashville, Phoenix, Raleigh and Tampa is now below the 4% mark and, in the case of Atlanta and Phoenix, is below the previous low recorded in early 2020. Meanwhile, gateway cities are still dealing with the effects of

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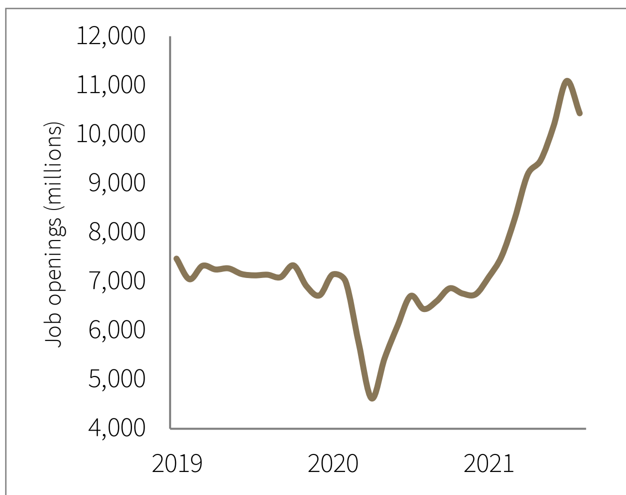
National economic overview

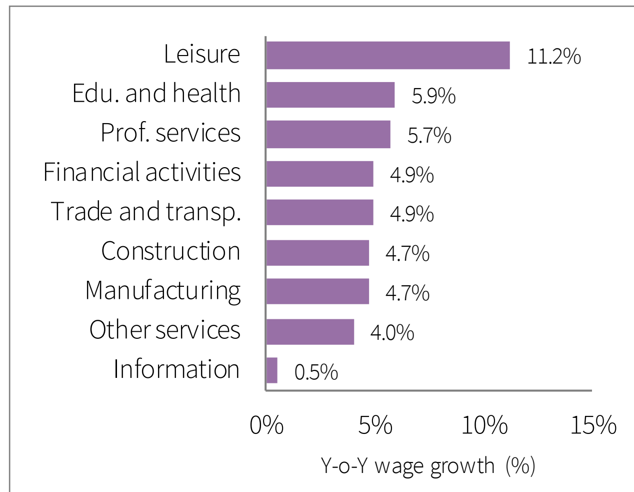
exposure to arts, leisure and tourism, all of which are taking longer to recover. As a result, unemployment is still above 5.5% in Los Angeles, New York and Chicago.

In recent months, labor shortages and inflation have become predominant headwinds complicating further improvements to the economy. In the case of labor shortages, this is likely a structural change given a shift in composition of the labor force, while inflation is broadly transitory on the back of supply chain disruptions, in particular for chips and energy, which has placed significant pressure on segments of the Consumer Price Index such as used car sales.



Job openings data has been among the most dramatic in recent quarters. Since the beginning of 2021, total openings have spiked by 47%, while hiring has grown by only 15.7% so far this year. Compounding this is a 29.2% jump in quits, spurred on by a feedback loop of greater worker confidence in the job market.

This gap in unfilled positions – estimated at 4.1 million – is exerting significant pressure on employers to boost wages and provide higher levels of non-wage or non-salary compensation. Initially boosted by temporary schemes such as Pandemic Unemployment Assistance (PUA) and subsequently due to staffing shortages and an above-average rate of retirement from older workers, wages have grown by 8.6% over the course of the pandemic. Year-over-year increases in wages are high across sectors, but particularly in non-office-using industries such as leisure, which is up an unprecedented 11.2% over the year.



Despite some of these concerns, the broader economic picture remains robust by historic norms, with predicted GDP growth by year-end likely in the 5-7% range and additional runway for output, productivity and employment gains. Consumer sentiment remains high even in the face of inflation, just as venture capital and other financial investments are reaching new highs.

Moving into 2022, a stabilization of the global supply chain's backlogs, resumption of international travel and the beginnings of the $1.2 trillion Infrastructure Investment and Jobs Act being felt will catalyze additional economic growth and ease residual investor and consumer concerns about inflation. The roll-out of under-12 vaccinations will provide a supplementary buffer against another COVID-19 wave, enabling corporates to push for office re-entry and investment at scale.

Source: JLL Research

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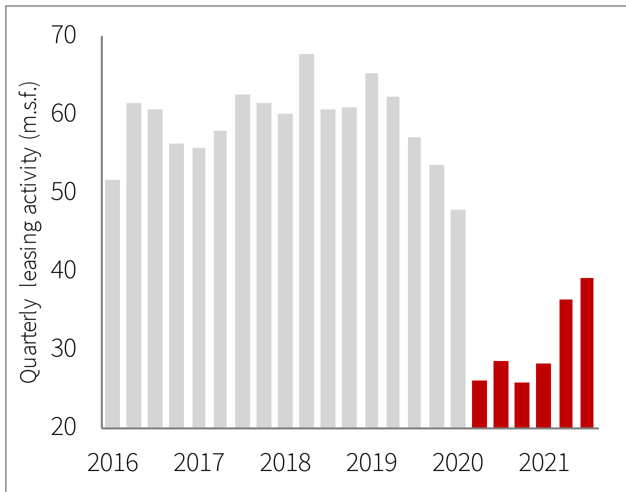
National office overview

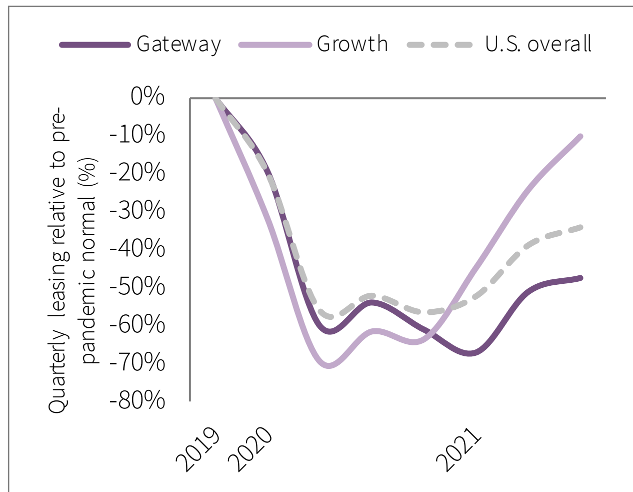
Throughout the first half of 2021, employees and employers alike expected Labor Day in early September to mark a major shift in working conditions, with numerous large and high-profile companies – particularly in but not limited to tech – announcing that most of their remote workforce would be returning to the office in either a full-time or hybrid arrangement.

By mid-summer, however, the arrival of the Delta variant led to a pause in the office market's recovery as mounting cases and stalling vaccination rates created cause for concern among corporates, leading numerous major tenants to extend their timeframes for occupancy either to later in 2021 or out to 2022. At the same time, an intense labor shortage and the prolonged duration of work-from-home policies well beyond initial expectations have forced employers to adjust their workplace planning to provide additional flexibility, creating a much longer period of trial-and-error before the market settles.



The office market showed signs of promise and the beginnings of tenants firming their longer-term utilization plans. Gross leasing volumes rose incrementally by a further 7.8% during the third quarter, approaching 40 million square feet for the first time since the onset of COVID-19. As a result, total transactions are up 1.7% compared to this time in 2020, but are still 43.8% below 2019 levels.

This recovery in leasing is not geographically equal. Lower-cost secondary markets in the Sun Belt and the West dominated during the third quarter, seeing tractions jump by 18.7% relative to the 7.5% rise in gateway geographies as a result of looser business regulations as well as individual and corporate movement towards affordability. In turn, growth markets are only 10.1% away from pre-pandemic "normal" leasing velocity, whereas gateway markets are still 47.4% below 2019. This flow has been an overarching theme of the office market and national demographic shifts over the past decade.



Segmented by industry, tech continues to be the dominant driver of leasing activity. Over the course of 2021, 22.9% of all leasing has come from tech users and has not been limited to "Big Tech" companies, but also from mid- and smaller-sized users. In comparison, the second-largest sector, finance, represented 15.4% of year-to-date volumes. Law firms, defense, health, life sciences and government also contributed to at least 4% of leasing each; notably, the largest deal of 2021 came from AmLaw 100 firm Kirkland & Ellis at Salesforce

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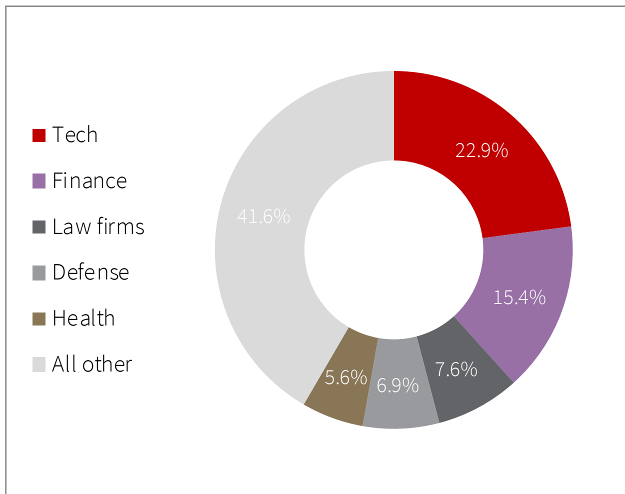
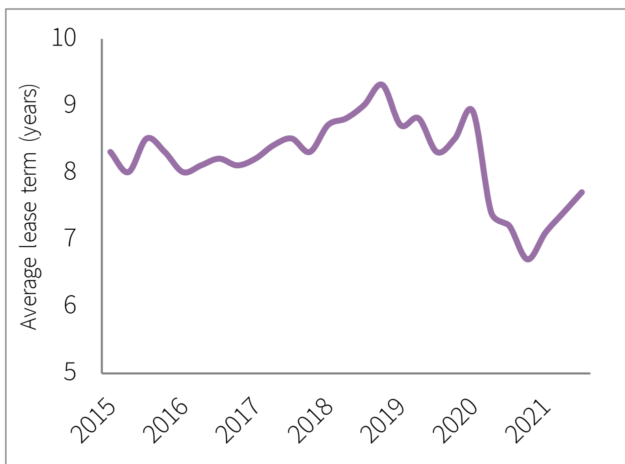
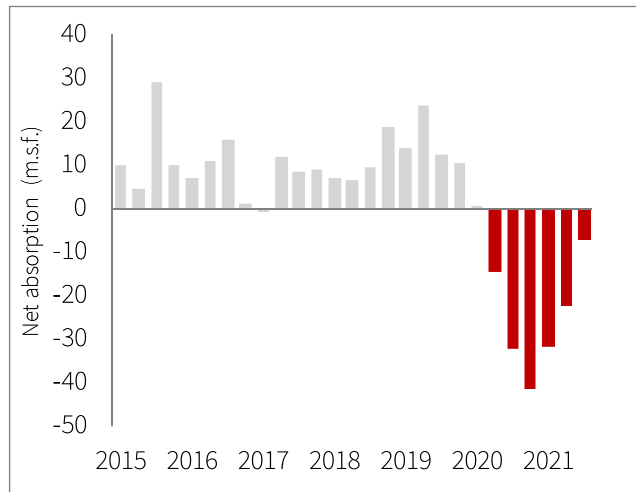
Tower in Chicago for 662,400 square feet. Two other companies – Anduril and Amazon – also took on at least 600,000 square feet of space in 2021.



Importantly, tenants are becoming more comfortable with longer-term leasing, albeit still below normal term lengths. After dropping to just 6.7 years by the end of 2020, the typical term length rose by 14.9% to 7.7 years in Q3 2021. Driving this change was 43% of leasing coming in the form of deals longer than 10 years, the first time since the onset of the pandemic that more than 40% of activity fell into this category.



Despite incremental improvements, the office market is still in correction mode. Net absorption was once again negative in the third quarter at -7.3 million square feet, but occupancy losses slowed for the third consecutive quarter. The market is likely to stabilize by the end of 2021 or early 2022, providing additional momentum for the recovery to begin in earnest.



At the regional level, most markets are still seeing year-to-date decreases in occupancy, although a few have re-entered positive territory. Atlanta, Austin, Miami, Salt Lake City, Silicon Valley and West Palm Beach all recorded net growth in Q3 2021, continuing a trend of faster rebounds in Sun Belt and western geographies. On the other hand, New York, San Francisco, Washington, DC and Los Angeles saw a combined 3.2 million square feet of outflows in the third quarter. The finalization of large-scale transactions and sustained demand from big tech users for space in core markets, however, will see this trend shift in the coming quarters.

As is the case with numerous economic and office indicators, absorption is not occurring in a unified fashion. Flight to quality, already a prominent theme even before the pandemic, is intensifying to

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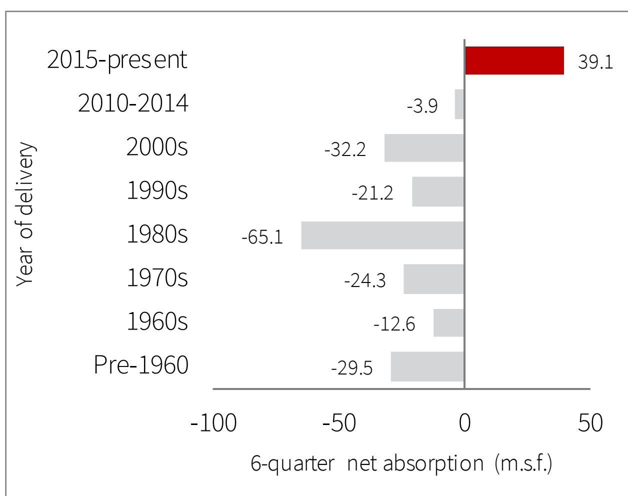
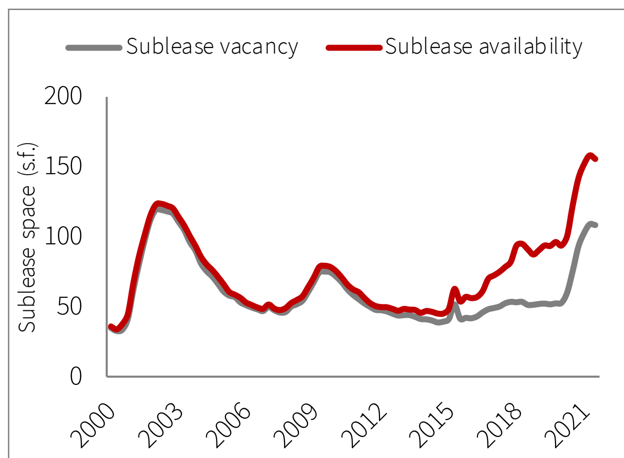
unprecedented levels. Over the past six quarters, the U.S. office market has seen negative net absorption of 149.5 million square feet, but this obscures 39.1 million square feet of net expansion in office buildings delivered since 2015. Tenant and employee preferences for buildings with amble flexibility for workspace arrangements, top-tier levels of amenitization and extensive in-building wellness features, further exacerbated by a robust supply pipeline, will create even greater divergence in asset performance based on age moving forward.



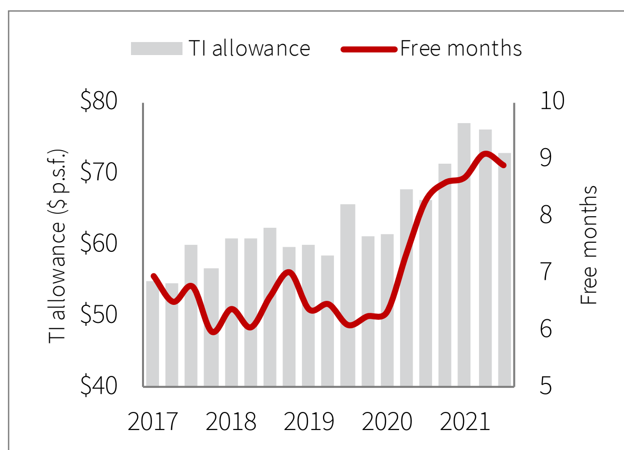
As a result of these rapid shifts in conditions, office vacancy nationally now stands at a new high of 19.4%. Largely contributing to this was a 64.3-million-square-foot surge in sublease availability from Q1 2020 to Q2 2021, when it peaked at 157.9 million square feet, or roughly 3.6% of inventory, a figure higher than the previous record set during the dot-com bubble two decades ago.

In Q3 2021, sublease reached an inflection point and contracted modestly by 1.6% as large-scale give-backs cooled and withdrawals of sublease blocks accelerated. Importantly, this is happening in the majority of markets, primary, secondary and tertiary alike. Although greatest in Sun Belt cities with higher levels of in-migration such as Nashville (-16.5), Miami



(-14.3%), Austin (-10.6%) and Atlanta (-3.7%), this contraction was also observed in Seattle (-10.7%), Boston (-4.8%), New York (-4.3%) and Los Angeles (-1.0%). Sublease is traditionally one of the best forward-looking barometers for tenant demand for office space.

From a pricing perspective, this is among the most tenant-favorable environments ever recorded. The extremely fast shift in occupancy combined with high levels of uncertainty regarding vaccine development and re-entry protocols in 2020 led to a 34% increase in concession packages. In top-tier product, these average $72 per square foot with 8.9 months free on a notional 10-year term.



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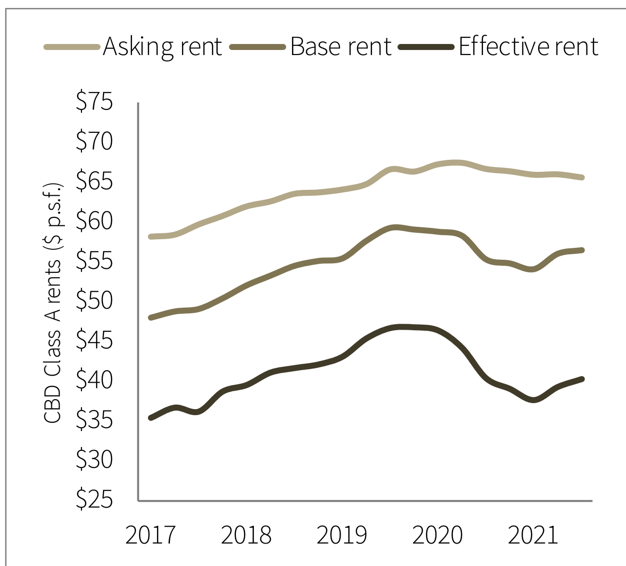
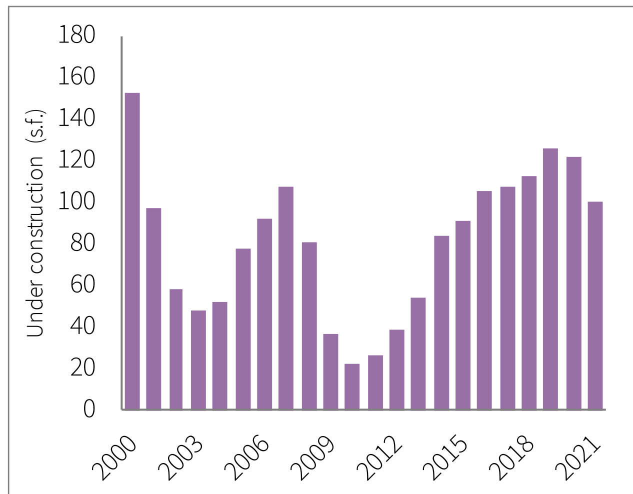
In turn, effective rents have experienced extreme volatility compared to historical norms. From Q1 2020 to Q1 2021, effective rents declined by 18.7% despite asking rents barely nudging at -2.2%. Since that trough, they have risen by 6.9%, but are still 13.8% below pre-pandemic peaks.

Similar to absorption, effective rent recovery will be widely divergent based on asset quality, location and industry clustering. New construction, thoughtfully repurposed second-generation product and life science, creative and other niche spaces will see an accelerated rebound in pricing, while commodity vintage without necessary capital investment will face a much longer recovery.



Finally, the development pipeline remains robust, albeit steadily cooling off. There is currently just over 100 million square feet of office space under construction nationally, falling from a peak of 126.1 million square feet in 2019. This comes after one of the largest development cycles on record, which fundamentally reshaped expectations for new construction in terms of quality, location and build-outs. While this will provide much-needed product to counter aging in many core geographies, it will also prolong a period of elevated vacancy that will likely need some level of out-of-office conversion to help with correction.



Construction is also concentrated geographically, mainly in gateway geographies and high-growth Sun Belt and western markets. Primary markets alone contain 49.3% of all product underway, while Atlanta, Austin, Dallas, Charlotte, Denver, Miami, Nashville, Phoenix and Raleigh are home to a further 21.8% of the pipeline. Outside of these metros, construction is relatively scant and mostly in the form of mid-sized build-to-suit or boutique spec development.

Heading into 2022, the office market will enter its next phase as a slew of high-profile companies begin physical re-occupancy. Federal and company-specific vaccine mandates will help to boost employee comfort with returning to in-person work, albeit with significant changes such as hybrid arrangement, greater emphasis on collaborative spaces and higher levels of flexibility. Just as the pandemic has shown companies that many functions can be done well from remote locations, so too has it underlined the importance of the office as a place for fostering innovation, productivity and corporate culture.

Source: JLL Research

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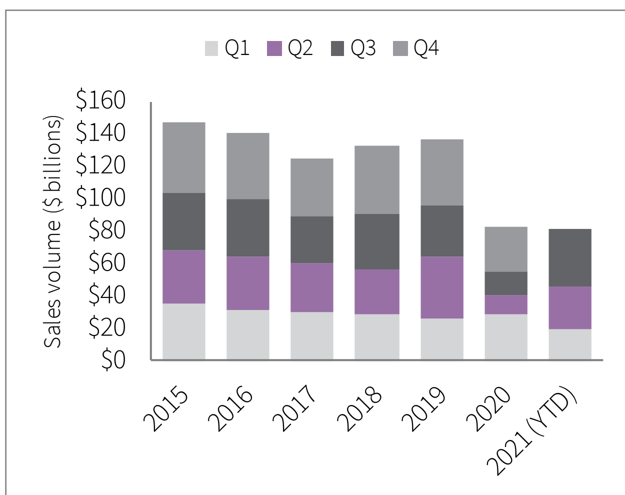
National sales overview

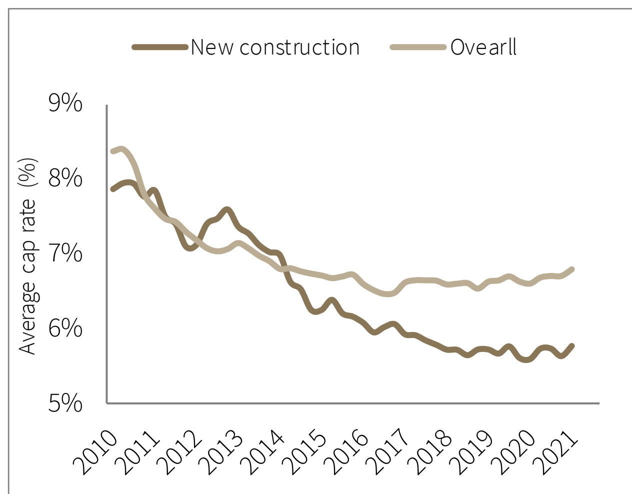
Like the leasing market, the office investment sales environment is showing consistent, albeit incremental, improvements in fundamentals over the course of 2021. Year-to-date, office sales have totaled $81.8 billion, nearly surpassing all activity in 2020 and up 48.7% year-over-year. This is still 14.4% below year-to-date 2019 levels, a much smaller gap than leasing volume. Comparatively, multi-family and industrial sales are 25.1% and 14.7% above YTD 2019 activity, indicating that office may be a better opportunistic play and potential overheating of non-office asset classes.



At the market level, the life sciences boom has pushed Boston far into the lead with $10.6 billion in sales over the past 12 months. In comparison, the three following markets – San Francisco, Seattle and New York – all recorded between $4.4 and $4.8 billion in sales over the same time period.

Like leasing, however, the Sun Belt and West are much closer to normal annualized volumes. While gateways on aggregate are 39.8% off from 2017-2019 average volumes, Miami is 12.6% above pre-pandemic sales activity, while Raleigh, Nashville, San Diego, Denver and Austin are less than 30% below normal. This shift in sentiment is placing consistent pressure on cap rates, which have fallen from 6.7% at the beginning of 2020 to 6.4% in Q3 2021. Still higher than the 5.9% average for gateways, investor appetite is likely to remain robust.

Just like tenants, investors are also flocking to new construction. The cap rate spread between the overall market and new product continued to widen over the course of the pandemic to 100 basis points (5.8% vs 6.8%). As pricing adjusts at the top end of the market, there will be increased interest in repositioned assets and value-add plays.



Other emergent trends in the investment landscape include a significant increase in value-add buyer pools, which have jumped by 13.8% in terms of bids received per transaction in 2021 compared to 2020. Additionally, buyers are placing greater emphasis on WALT for long-term stability and ensuring highly creditworthy tenant rosters. Fully occupied assets traditionally comprised 33-40% of annual sales, but are now roughly 42%-59% of quarterly deals in the post-COVID-onset era.

Moving forward, office sales will benefit from a reset in expectations, an injection of assets available for sale as developments deliver and more favorable pricing than non-office asset classes that prevailed during the pandemic.

Source: JLL Research

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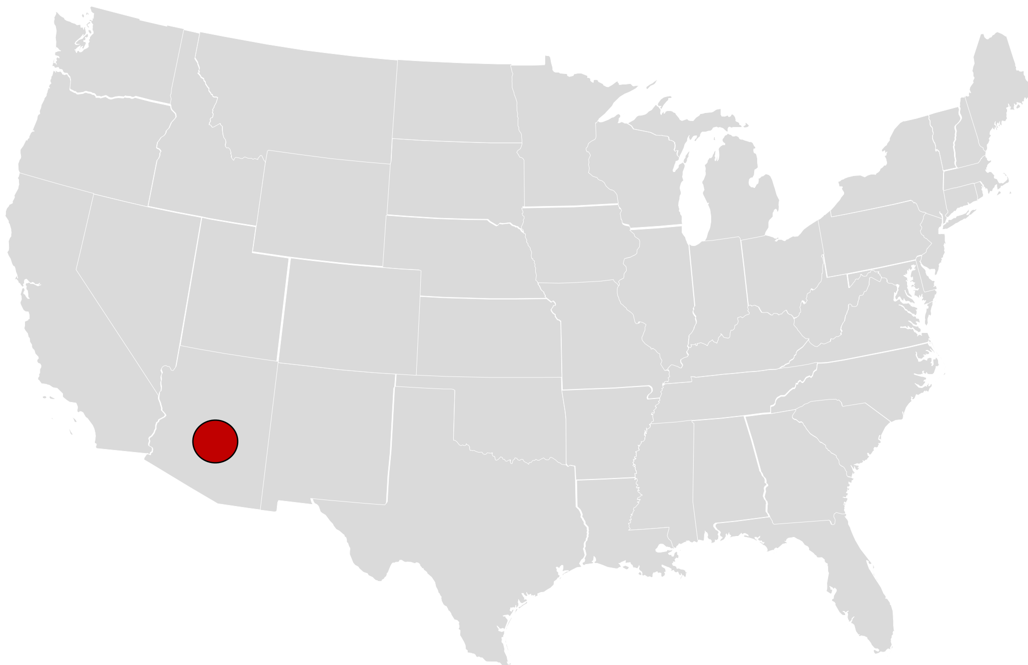
Market introduction (economy and demographics)

The capital of the state of Arizona, Phoenix is the 11th-largest metropolitan area in the United States, home to more than 4.8 million people. Buoyed by a low cost of living and warm climate, it has been one of the fastest-growing areas of the country in recent decades, more than doubling its metropolitan population since 1990.

Traditionally growing due to its status as a major retirement hub and mining outpost rather than business destination, more recent years have seen a sharp diversification of Phoenix's economy and demographic composition, becoming more educated, affluent, skilled and cosmopolitan in the process. Corporates have been attracted to its low office rents, often leading to a more than 50% discount in real estate prices, as well as lower salaries and labor costs.

As spillover and outflows from higher-cost coastal markets such as Los Angeles, San Francisco, San Diego, Chicago and New York have accelerated, so too has its rate of educational attainment, particularly for the prized science, technology, engineering and math (STEM) fields.

Phoenix is not without its challenges, however. The city's location in the Sonoran Desert places significant stress on critical utilities such as water supply, while rising temperatures will require additional climate-related adaptations. Similarly, rapid growth and few barriers to development have led to a highly sprawling urban form with minimal public transit or walkability outside of select neighborhoods until recently. The city has begun to tackle these challenges through large-scale investments in light rail, renewable energy and water conservation initiatives, which are already beginning to show returns. This will help to create a feedback loop for more sustainable growth.



Source: JLL Research

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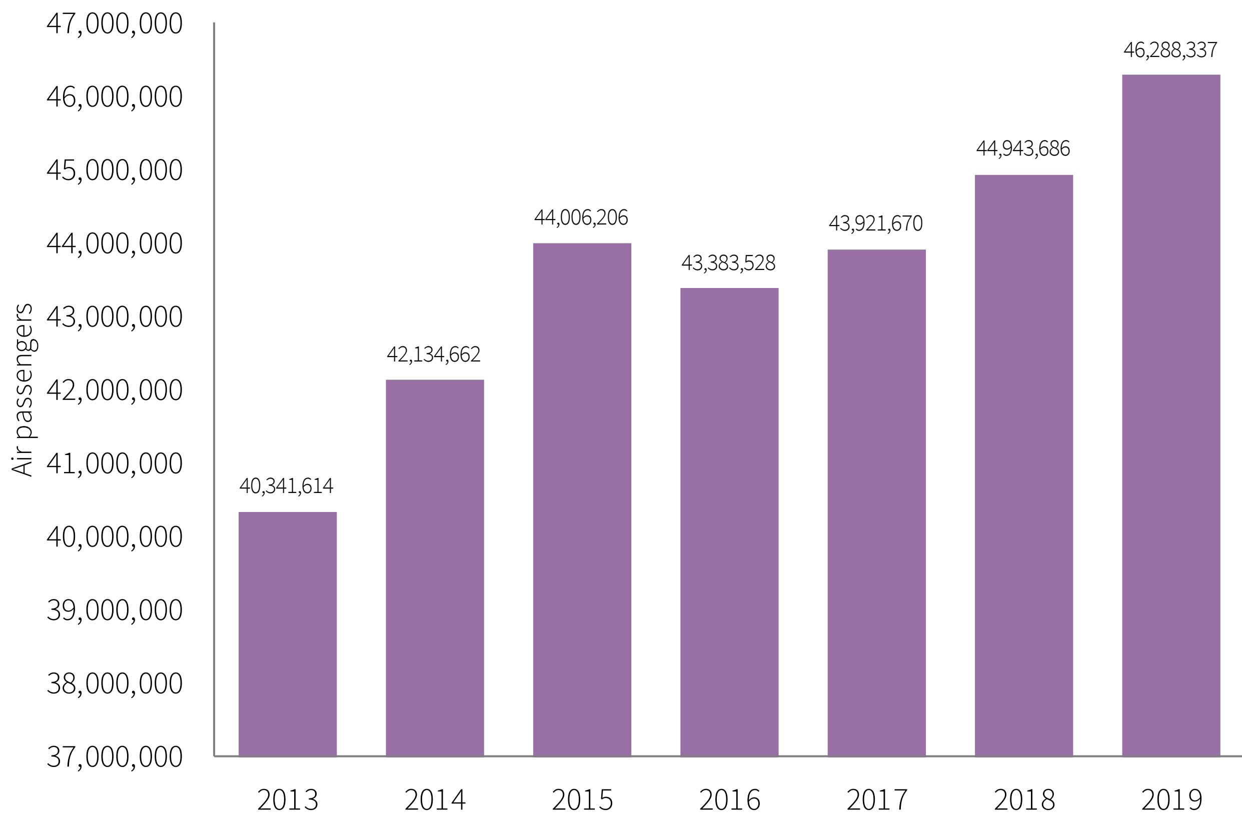
Access and connectivity

Phoenix is a major passenger and freight hub with extensive and growing domestic and hemispheric connectivity. In 2019, Phoenix Sky Harbor International Airport (PHX) recorded nearly 46.3 million travelers, a record high and up 9.9% over the past five years. This made it the 13th-busiest airport nationally. Provisional 2020 figures show that travel was more resilient during the pandemic than in many other hubs, dropping by 52.5% compared to the more than 60% declines in gateway geographies.

Phoenix benefits from being a hub for both a major legacy (American) and low-cost (Southwest) carrier, creating an extensive network of direct flights to primary, secondary and tertiary cities throughout the U.S. Proximity to Central America also means that Phoenix is easily accessible from cities such as Mexico City, Guadalajara, Monterey and Cancun in Mexico and San Jose in Costa Rica. British Airways and Air Canada also provide direct service to London, Toronto and Montreal, with additional flights by WestJet to Calgary, Edmonton and Vancouver, among other Canadian destinations.

Over the longer-term, PHX will be expanded through modernization of existing infrastructure at Terminal 3 as well as a new concourse at Terminal 4 and expansion of the automated people mover, aimed at catering for a projected 55% increase in passengers and 88% rise in cargo throughput through 2037.



Source: JLL Research, FAA

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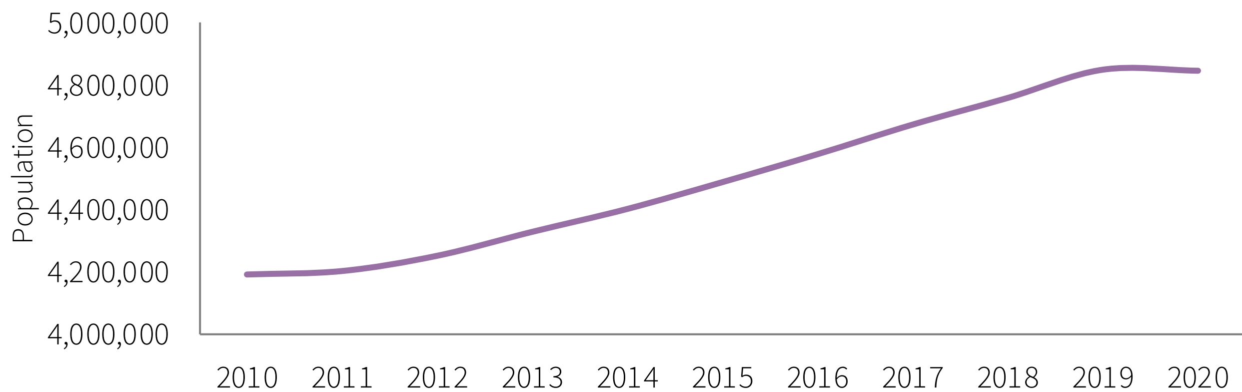
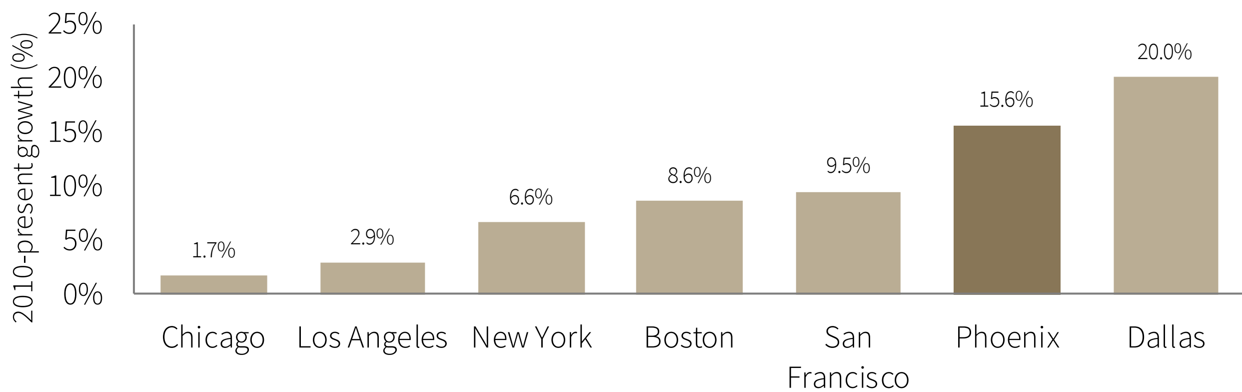
Population growth and demographics

Due to its relatively low cost of living and climate, Phoenix continues to be one of the fastest-growing major metro areas nationally. Since 2010, the region's population has grown by 15.6% to 4.8 million people, surpassing Seattle and Detroit and on the verge of overtaking Boston. In turn, this places Phoenix eighth among metropolitan areas with more than 2 million residents in terms of growth over that time period.

Driving these gains has been a combination of both the traditional retiree segment as well as outflows of younger talent from high-cost markets in search of more affordable housing and lower tax rates, among other reasons. Phoenix's 20-34-year-old population segment rose by a strong 16.6% from 2010 to 2020, in line with broader socio-economic diversification regionally and outperforming the local market as a whole.

Domestic migration has also been highly favorable and among the highest in the country: net inflows from other parts of the country over the past decade have totaled 398,715 people. Phoenix is also a rising location for international migration, recording 106,785 new foreign-born residents in the same time period. The continued expansion of major corporate users – particularly back-office tech, finance and professional services – and abundant housing will keep these trends in place in the coming years.





Source: JLL Research, U.S. Census Bureau

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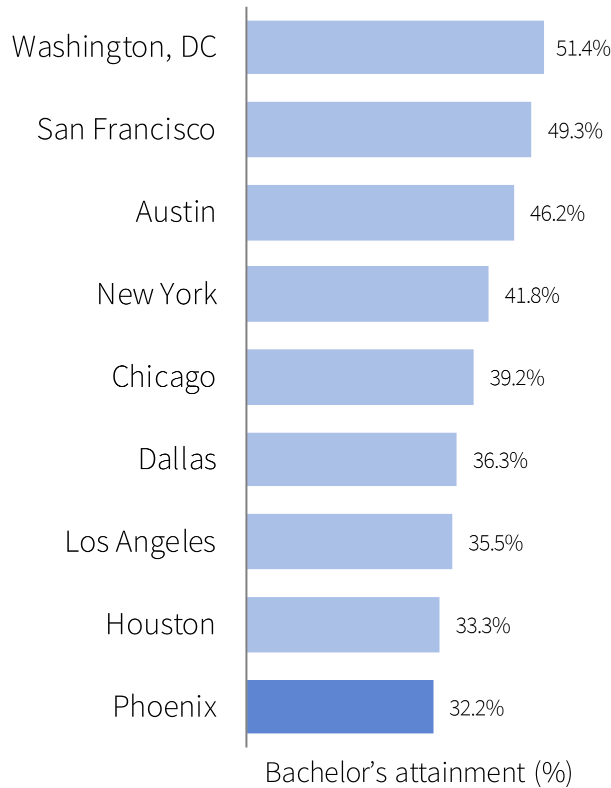
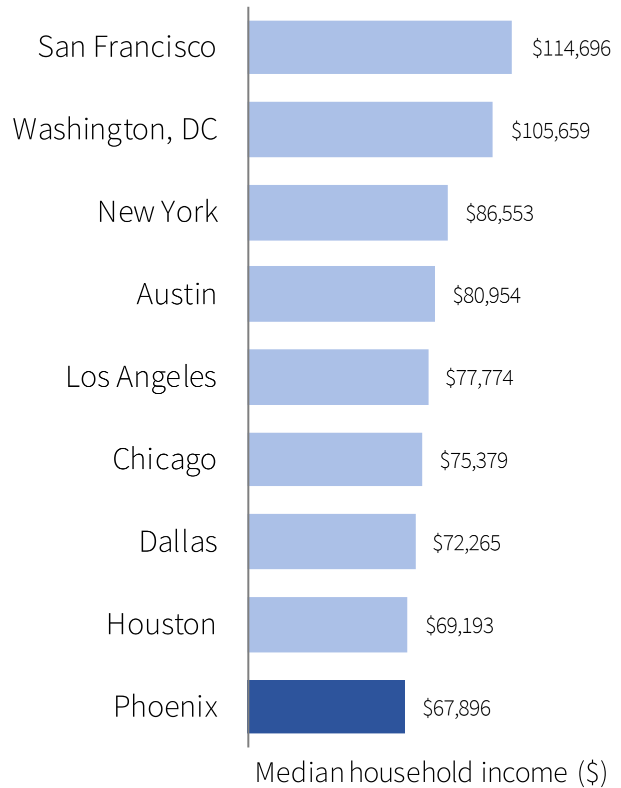
Education and income

Like many secondary markets in the Sun Belt, Phoenix's advantages in terms of cost living and doing business have been hampered by a relatively small skilled talent pool. Over the past decade, this has begun to change, with an increase of more than 342,900 residents with a bachelor's or master's degree, or an increase of 46.9%. This is more than triple the rate of overall population growth.

Although Phoenix's bachelor's degree attainment rate of 32.2% still lags gateway markets (with the notable exception of Los Angeles) considerably. Despite this, it is only marginally lower than corporate growth hubs such as Dallas and Houston, with 36.3% and 33.3% of residents over 25 having a bachelor's degree, respectively.

Similarly, household incomes in Phoenix tend to be lower than gateway markets as well as peer geographies, but this is offset with lower home prices. Lower compensation is routinely cited by major companies as a key consideration for satellite expansion in the market. Whereas a software developer in Silicon Valley, for instance, has an average salary of $157,480, a similar position in Phoenix asks $105,270 per year, a 33.2% reduction. In an environment increasingly dominated by labor shortages and rapidly increasing labor costs, this is a significant advantage for employers.





Source: JLL Research

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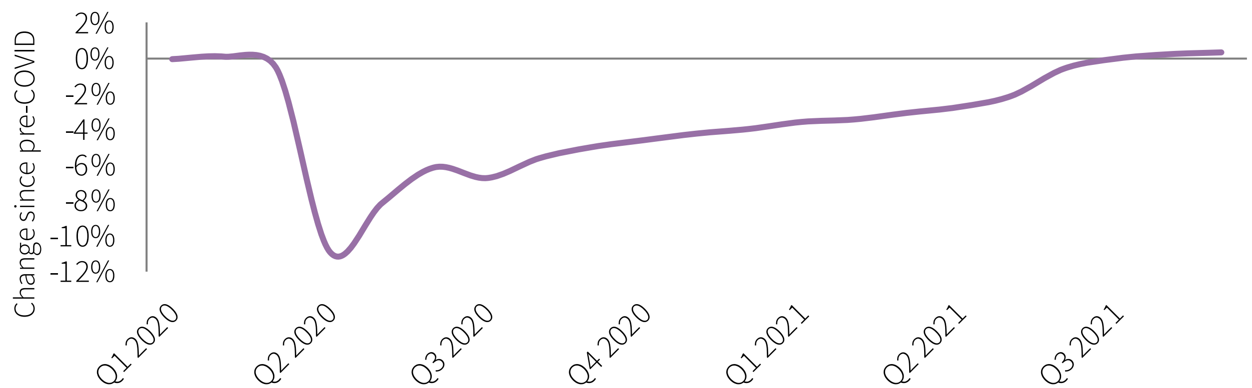
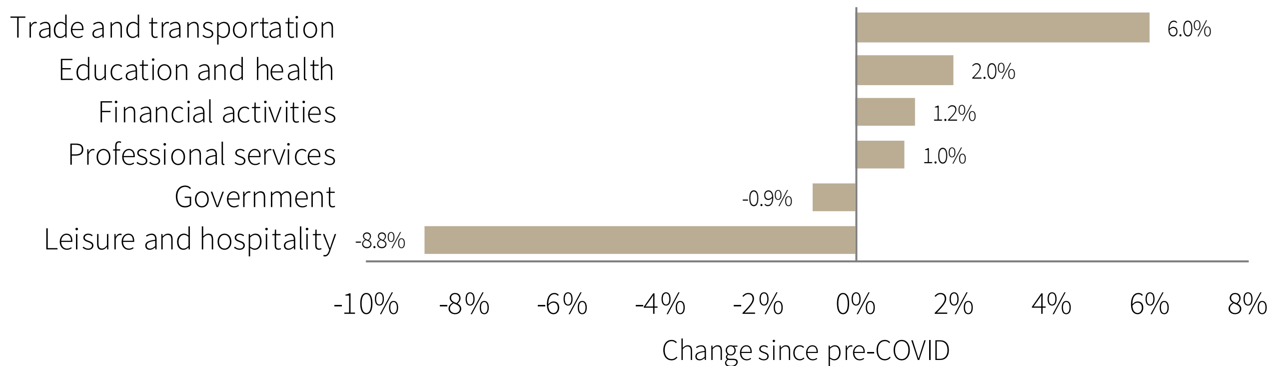
Employment growth

Phoenix is one of the first major metro areas in the United States to exceed pre-pandemic employment levels, finally surpassing its February 2020 totals in August 2021. After seeing a pandemic-induced decline in regional employment of 10.9% by April 2020, total employment in Phoenix is now 0.4% higher than it was before the onset of COVID-19.

Compared to the United States as a whole, this represents both a lower trough and a faster recovery: national employment fell by 14.5% from January to April of 2020 and is still 3.1% away from a full recovery. Driving this divergence is Phoenix's lower reliance on international travel, live events and other in-person sectors of the economy combined with fewer COVID-19 restrictions than many other states.

From an industry perspective, most key sectors are near, at or above pre-pandemic levels. The main exception, as is the case throughout the country, is leisure and hospitality, which is still 8.8% below normal. Labor shortages and structural shifts in this sector will make a full recovery take much longer, while gains in trade, transportation, finance, health and professional services will be aided by sustained inbound migration and improved comfortability by the majority of the population with travel and other in-person activities.





Source: JLL Research, Bureau of Labor Statistics

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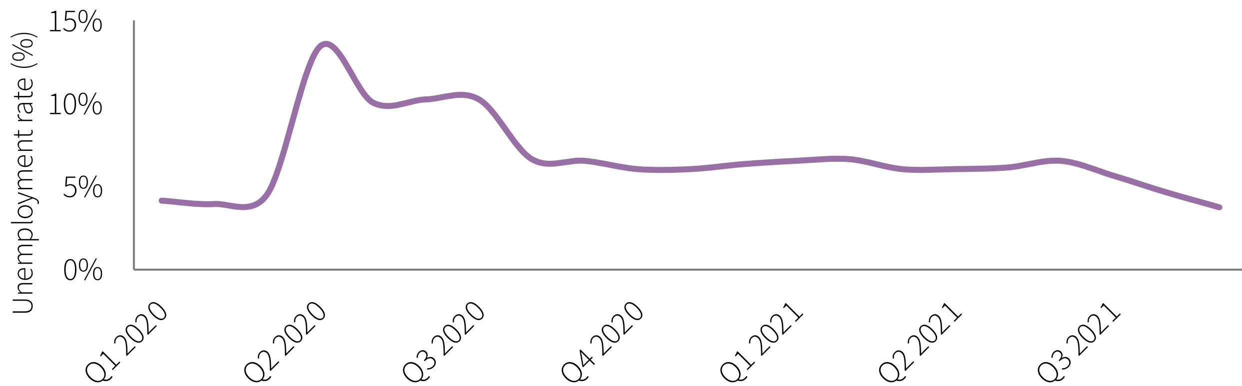
Unemployment

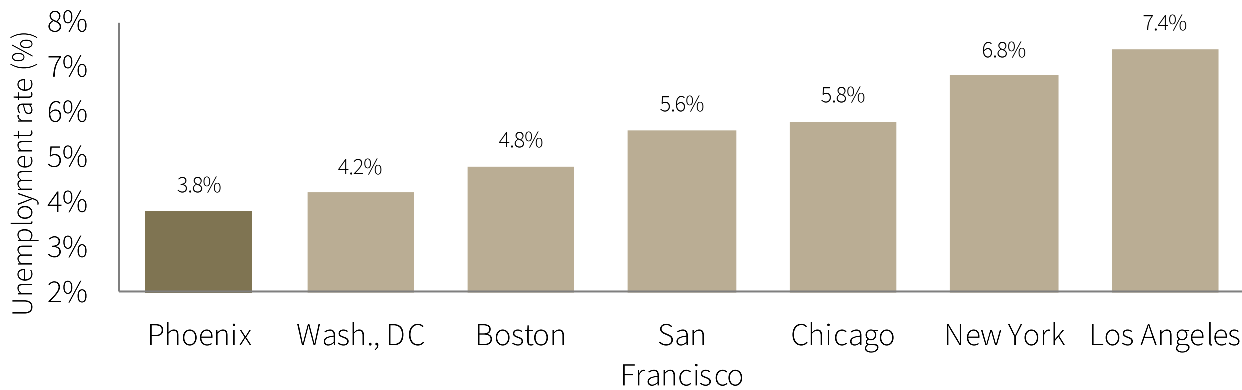
Just as Phoenix's overall employment is now above pre-pandemic levels, the region's unemployment rate of 3.8% is now on par with late 2019 and early 2020 levels. This comes after the pandemic saw unemployment in Phoenix spike to a high of 13.5%, roughly 130 basis points below the national peak of 14.8% recorded in April 2020.

This rate is also significantly lower than gateway markets – most notably Los Angeles at 7.4% - and similar to peer secondary geographies. Other primary metro areas such as New York, Chicago and San Francisco remain above 5% in terms of unemployment and significantly above the national average of 4.8%.

Unemployment is being pushed down faster than employment growth as labor shortages kick into gear and a large swath of the workforce both nationally and regionally has either temporarily or permanently left the workforce.

Over the course of the current recovery, employment has grown 36.3% faster than the expansion of the regional civilian labor force. This will place significant pressure on employers with respect to compensation and benefits to remain attractive in a war for talent. This will be the case across skill levels, but particularly apparent in areas such as leisure and hospitality.





Source: JLL Research, Bureau of Labor Statistics

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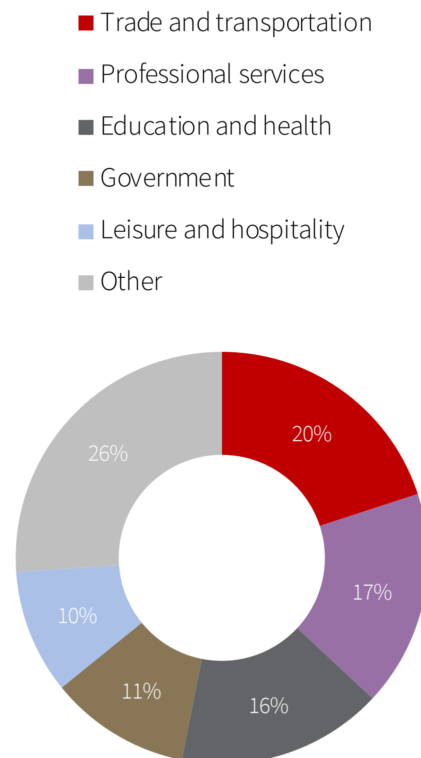
Economic diversity

Phoenix's local economy is highly diversified, with particular focus on tourism, health and back-office professional and financial services activities, the latter of which is being bolstered by tech (notably data processing and hosting) and operations being moved out of higher-cost markets. Moody's most recent scoring of economic vitality placed Phoenix 18th among all 403 metro areas nationally, with a relative score of 83% and noting only modest volatility relative to the U.S. as a whole.

Underlining this remains the dominance of major health systems in terms of overall employment: Banner Health and HonorHealth combined employ 58,147 people in the metropolitan area. From a corporate perspective, however, financial institutions such as Wells Fargo, Bank of America and JPMorgan Chase all have more than 10,000 people in recently established hubs throughout the market, with further expansion from companies such as State Farm, American Express and Freedom Financial in recent years.

On the tech side, domain hosting company GoDaddy has become a breakout user of office space. This presence is helping to bolster other tech firms' expansion into Phoenix. Large educational institutions such as Arizona State University are also driving sustained office demand and younger population attraction.

Employers	Employed
Banner Health	45,984
Walmart	33,619
Fry's	20,165
Wells Fargo	16,700
Arizona State University	14,889
HonorHealth	12,163
Intel	10,400
Bank of America	10,000
JPMorgan Chase	10,000
Freeport-McMoRan	9,300



Source: JLL Research, Bureau of Labor Statistics, Moody's

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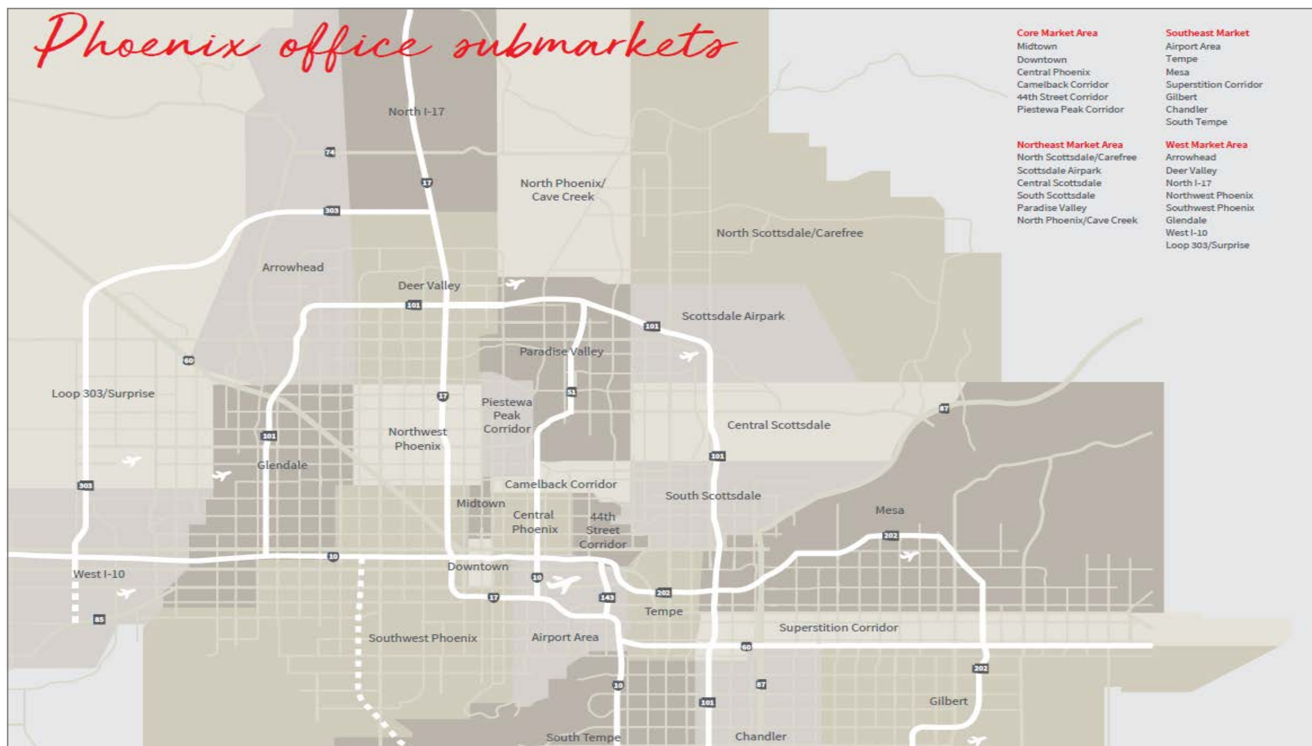
Market introduction (office)

Phoenix is one of the larger mid-sized office markets in the United States. Comprising just over 97 million square feet of space, it is comparable in size to Denver (117.9 million square feet), Seattle (99.4 million square feet) and Orange County (96.3 million square feet), all three of which have also benefitted from the diversification of office investment and growth in skilled employment sectors such as tech, media, engineering and professional services.

Phoenix is highly dispersed and polycentric compared to many of the United States' more established and larger office markets, most similar to Los Angeles, Dallas and Houston than other primary geographies. Its traditional Downtown represents only 16.9% of regional office inventory, with satellite subs focused but not exclusively found along the eastern range of the metro area in clusters such as Tempe, Scottsdale, Chandler, Mesa and the Camelback Corridor, among others.

Connecting these hubs is an extensive highway and arterial roadway network, leading to widespread car dependence. Increasingly, Phoenix has invested in light rail to tackle rising congestion and climate change. Since its opening in 2008, the Valley Metro light rail network has expanded to 38 stations along 28 miles of track, providing a key connection between the inner northern suburbs, Downtown Phoenix, Sky Harbor Airport, Tempe and Mesa and spurring large-scale mixed-use development along its route. Future extensions under construction and in the planning phases could lead to a doubling of the size of the system.

The shift to more walkable, amenitized and climate-centric development will reshape the Phoenix office market in the coming years, making it even more competitive and attractive as it rides a wave of in-migration and search for affordability from individuals and corporations alike.



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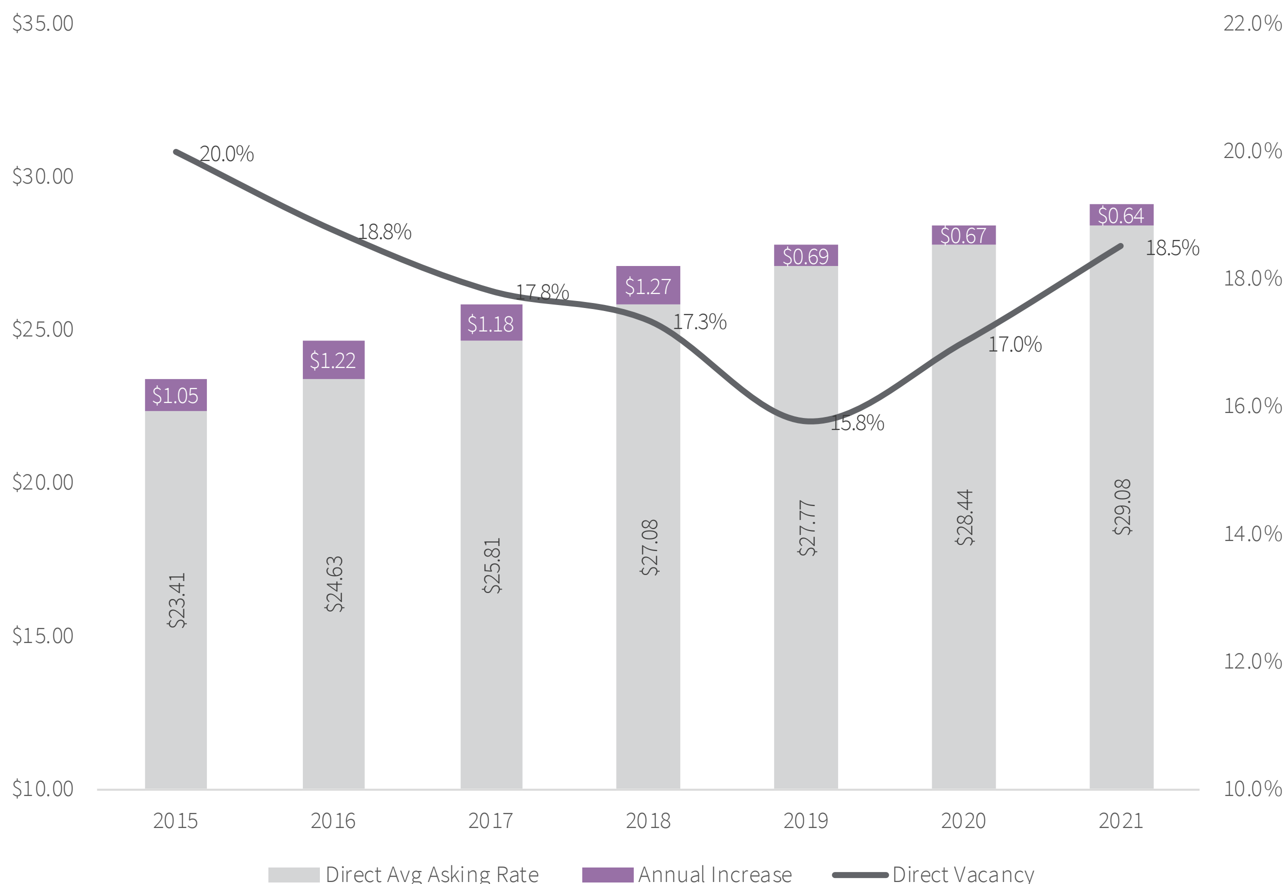
Metro Phoenix poised to become a major player in semiconductor industry

The fundamentals of a business-friendly environment, along with a diverse workforce, continue to stir interest in Phoenix as one of the nation's most attractive metro areas to relocate and expand. This is evidenced by a recent increase in out-of-state companies looking at Phoenix as a long-term investment to take advantage of the lower costs of doing business and a rapidly growing talent pool.

Despite being one of the largest metropolitan areas in the country, Phoenix has only recently gained recognition as one of the top secondary markets for tech companies. With low costs of living and doing business, companies from across the country have chosen to relocate or expand into the Valley of the Sun, especially as large tech markets on the coasts become increasingly unaffordable.

The Greater Phoenix metro is poised to become a major player in America's semiconductor manufacturing industry, thanks to a large existing cluster of industry-leading firms, such as Intel who recently announced a $20 billion expansion along with new companies like Taiwan Semiconductor Manufacturing Co.'s, which has invested over $12 billion to enter the Phoenix market.

The direct average asking rate for office space has increased year-over-year for the past seven years. In recent months, landlords have opted to adjust concessions rather than asking rates, with more willingness to provide relief for credit-worthy tenants. Rents for new product is likely to keep rent levels elevated.



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Phoenix Biomedical Campus

A partnership between Northern Arizona University and the University of Arizona, the Phoenix Biomedical Campus (PBC) is a 30-acre medical and bioscience campus located in the Phoenix metropolitan area.

At full build-out, the Phoenix Biomedical Campus is anticipated to generate an economic impact of $2.1 billion annually.

This innovative campus – anchored by leading institutions of higher education – will help diversify the Phoenix economy and provide growth potential within one of the hottest segments of the economy.

Source: JLL Research

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Office statistics by submarket

	Inventory (s.f.)	YTD net absorption (s.f.)	YTD net absorption (% of inv.)	Total vacancy (%)	Direct asking rent ($ p.s.f.)	YTD deliveries (s.f.)	Under const. (s.f.)
Downtown	7,538,734	-553,555	-7.3%	25.6%	$33.72	227,113	0
Midtown	8,811,739	-60,022	-0.7%	24.0%	$24.15	0	0
CBD	16,350,473	-613,577	-3.8%	24.7%	$28.73	227,113	0
Central Scottsdale	5,220,392	-133,436	-2.6%	16.5%	$28.84	0	100,000
North Scottsdale	246,019	38,153	15.5%	12.6%	$27.07	0	0
Paradise Valley	1,796,559	37,446	2.1%	10.1%	$29.06	0	0
Scottsdale Airpark	9,026,045	212,684	2.1%	19.0%	$31.57	635,111	150,000
South Scottsdale	4,653,846	-241,489	-5.2%	19.8%	$36.07	0	244,998
Northeast Market Area	20,942,861	-86,642	-0.5%	17.7%	$31.78	635,111	494,998
44th Street Corridor	2,457,726	-50,911	-2.1%	22.2%	$27.53	0	0
Camelback Corridor	7,362,360	-95,297	-1.3%	22.8%	$36.09	0	263,766
Central Phoenix	1,309,852	16,803	1.3%	7.5%	$19.32	0	0
Piestewa Peak Corridor	1,790,555	21,841	1.2%	18.3%	$23.89	0	0
Outer Core Market Area	12,920,493	-107,564	-0.8%	20.5%	$32.65	0	263,766
Airport Area	8,206,706	-228,179	-2.8%	24.8%	$24.16	0	0
Chandler	7,158,466	-20,988	-0.3%	23.6%	$30.06	420,000	0
Gilbert	371,476	8,557	2.3%	6.6%	$23.00	0	0
Mesa	717,467	164,459	22.9%	17.4%	$32.83	238,349	0
South Tempe	4,647,786	-210,532	-4.5%	21.1%	$26.11	0	0
Superstition Corridor	2,318,031	-24,483	-1.1%	15.4%	$21.82	0	0
Tempe	9,492,420	-4,893	-0.1%	16.3%	$34.35	93,125	470,526
Southeast Market Area	32,912,352	-316,059	-1.0%	20.5%	$28.65	751,474	470,526
Arrowhead	582,181	-13,999	-2.4%	12.9%	$26.84	0	0
Deer Valley	6,676,957	-55,084	-0.8%	25.2%	$25.69	144,000	0
Glendale	814,413	-47,083	-5.8%	17.2%	$26.73	0	0
Loop 303/Surprise	201,084	10,772	5.4%	17.3%	$27.09	0	0
North I-17	65,218	0	0.0%	100.0%	$25.33	0	0
Northwest Phoenix	4,853,463	-17,112	-0.4%	27.3%	$20.95	0	0
Southwest Phoenix	417,615	-28,970	-6.9%	41.3%	$27.82	0	0
West I-10	269,828	6,084	2.3%	11.1%	$26.77	0	228,628
West Market Area	13,880,759	-145,392	-1.0%	25.4%	$23.61	144,000	228,628
Phoenix	97,006,938	-1,269,234	-1.3%	21.3%	$29.08	1,757,698	1,457,918

Source: JLL Research

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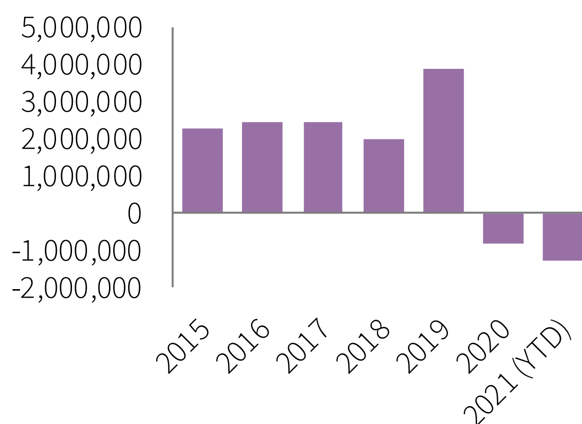
Key performance indicators (Phoenix)

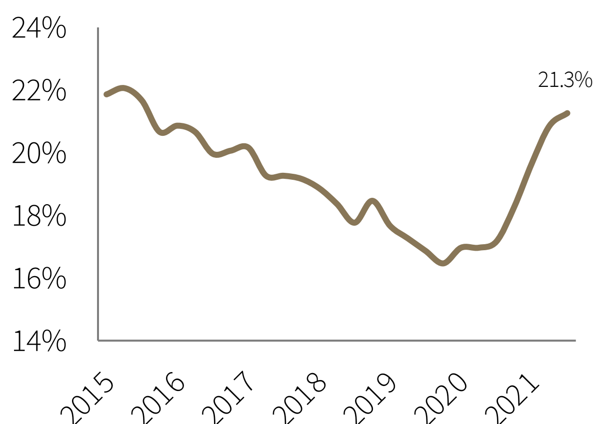
Net absorption

Before the onset of COVID-19, Phoenix registered 13.1 million square feet of occupancy growth from 2015 through 2019; since then, pandemic-related negative net absorption has totaled -2.1 million square feet. At 2.5% of inventory, this drop is much lower than the 3.4% seen across the United States, indicating a greater level of resilience and more acute rebound.



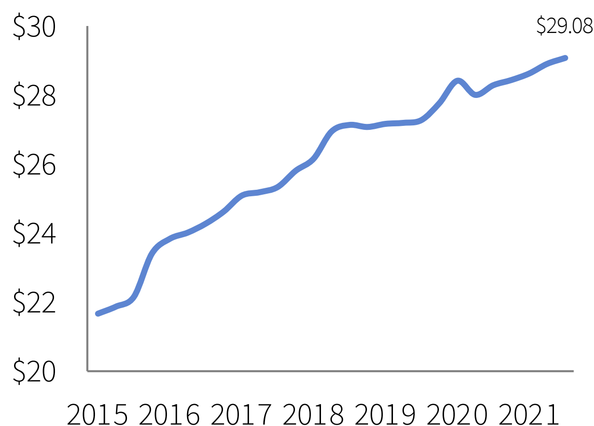
Vacancy

Unlike many other markets, Phoenix's pandemic-induced move-outs have not brought vacancy above pre-pandemic highs, in part due to a slower recovery from the financial crisis and more subdued development pipeline. After falling from a peak of 22.1% in 2015 to 16.5% in 2019, vacancy spiked to 21.3% by Q3 2021. Although it will rise further, vacancy is likely to top out around 2015 levels rather than sharply exceed it.



Rent

Asking rent growth has remained consistent throughout 2020 and into 2021 despite large-scale headwinds surrounding the office sector, instead being offset modestly by elevated concession packages. Since the onset of the pandemic, asking rents are up 2.3% across Phoenix to a new high of $29.08 per square foot, slightly lower than the 3.7% seen nationally. The delivery of top-tier new blocks of space will place additional upward pressure on rents through 2022.



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Largest tenants (Phoenix)

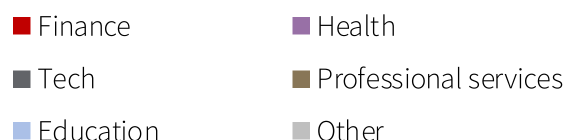
Phoenix's economic diversity is mirrored in the industry composition of office utilization. The largest sector by occupancy – finance – represents just 26.7% of all occupied space, while just under 60% of occupancy comes from the top five largest industries. Health, tech, professional services and education round out the region's largest users of office space.

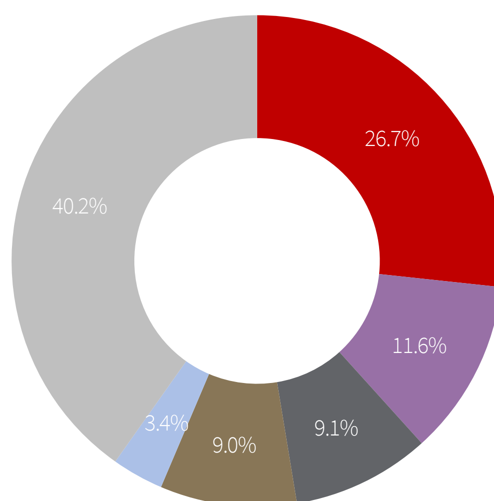
At the company level, major financial and institutional tenants such as Wells Fargo, USAA and Vanguard are well represented, while city and state governments have an outsized presence given Phoenix's status as the capital of Arizona.

Alongside these high-profile names, corporations including American Express, Discover, Freedom Financial, Charles Schwab, JPMorgan Chase and Bank of America all have established presences in Phoenix due to the metro area's strengths in payment processing, operations, financial technology and payroll support.

With the exception of Carvana, however, there are no tech users with more than 500,000 square feet of space in the market as of yet, speaking to the growth of mid-sized tenancies and ad-hoc expansion plans. DoorDash, Intel, Amazon, PayPal, GoDaddy and Indeed all have between 100,000 and 400,000 square feet of space, with additional tenants to join them as Phoenix becomes increasingly attractive as a secondary tech hub.

Tenant	Size (s.f.)
Wells Fargo	1,370,029
Banner Health	1,345,308
City of Phoenix	1,191,397
USAA	1,052,544
Arizona DoA	706,443
Vanguard	626,519
University of Phoenix	617,254
McKesson	571,659
Boeing	550,000
Carvana	511,954





Source: JLL Research

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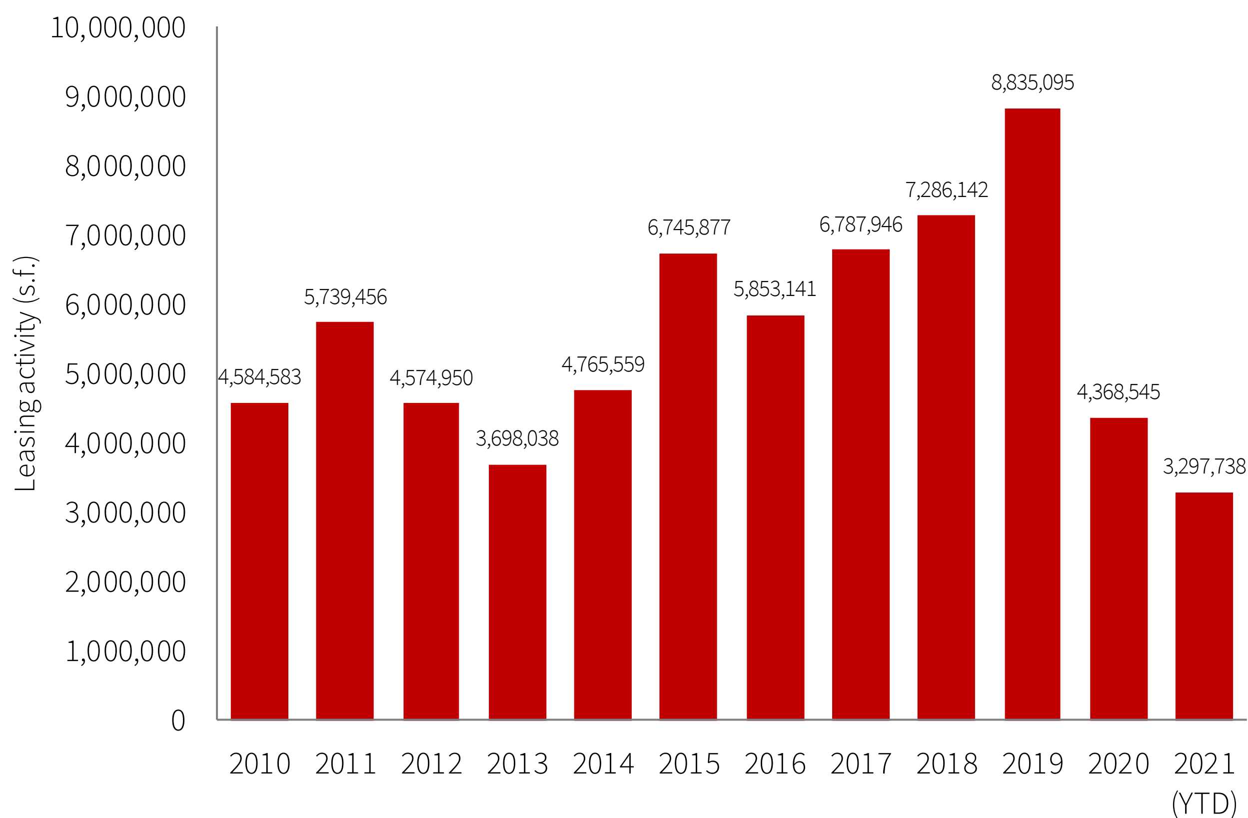
Leasing activity (Phoenix)

After averaging 5.9 million square feet per year from 2010 through 2019, leasing activity in Phoenix slowed by 25.8% in 2020 to 4.4 million square feet and a similar annualized rate in 2021. As with other economic and real estate indicators for Phoenix, this represented a shallower contraction than the U.S. as a whole, a sign of the market's underlying diversity and fundamentals.

Since the onset of COVID-19, Phoenix has recorded 6.1 million square feet of leasing. Of this activity, 63% came in the form of new leases, with 27% being renewals, 7% expansion and the remainder relocations or blend-and-extend deals. This level of new activity is much higher than the national average, indicative of high rates of inbound movement and organic expansion.

Geographically, three submarkets – Tempe, Downtown and the Camelback Corridor – have been responsible for one-third of all pandemic leasing activity, driven by financial, professional services, health and tech users. Wells Fargo's 214,303-square-foot renewal was the largest since the onset of COVID-19, while The Grove at 4300 E Camelback Road saw three pre-leases from Banner Health, Sendoso and JPMorgan Chase. Additionally, deals from Carvana and Peloton further emphasized sustained demand from high-growth occupiers in Tempe.



Source: JLL Research

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Notable recent leases (Phoenix)

	Wells Fargo	Banner Health	Sendoso
Address	1150 W Washington	4300 E Camelback	4300 E Camelback
Submarket	Tempe	Camelback Corridor	Camelback Corridor
Size (s.f.)	214,303	70,000	60,000
Year 1 rent ($ p.s.f.)	$31.00 FSG	$31.50 FSG	$46.00 FSG
Term (months)	44	120	132
Lease type	Renewal	New lease	New lease
Industry	Finance	Health	Tech

	Western Alliance	Carvana	Peloton
Address	101 E Washington	1621 W Rio Salado	615 S River Dr
Submarket	Downtown	Tempe	Tempe
Size (s.f.)	57,691	51,789	46,371
Year 1 rent ($ p.s.f.)	$37.50 FSG	$19.50 NNN	$25.50 FSG
Term (months)	103	-	30
Lease type	Expansion	New lease	Renewal
Industry	Finance	Tech	Consumer goods

Source: JLL Research

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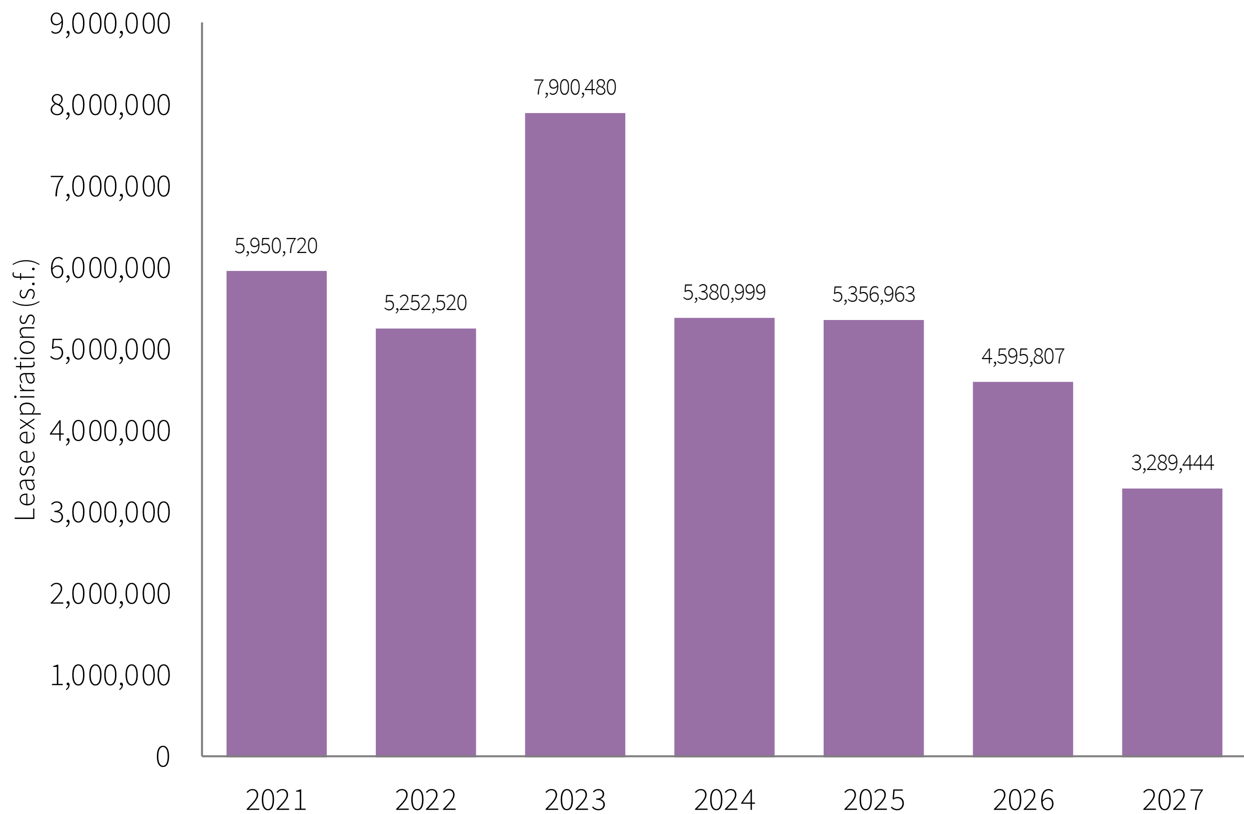
Lease expirations (Metro Phoenix)

The Metro Phoenix office market is poised to experience nearly 38 million square feet of lease expirations by 2027 with over 20% of those occurring in 2023. The finance, insurance and real estate (FIRE) sectors account for 21% of the total square feet

With one of the largest footprints in the Valley, Banner Health has nearly 800,000 square feet of space expiring over the next six/seven years. However, this is of little concern due to Banner's continued growth year over year.

Regus, one of the first co-working companies in Phoenix currently occupies over 345,000 square feet set to roll over in the coming years. What Regus decides to do, could influence other co-working companies such as WeWork who currently occupies over 250,000 square feet.

Accounting for more than 11% of the expirations, the airport area will be hit the hardest with such tenants as University of Phoenix vacating over 450,000 square feet, without plans to renew.



Source: JLL Research

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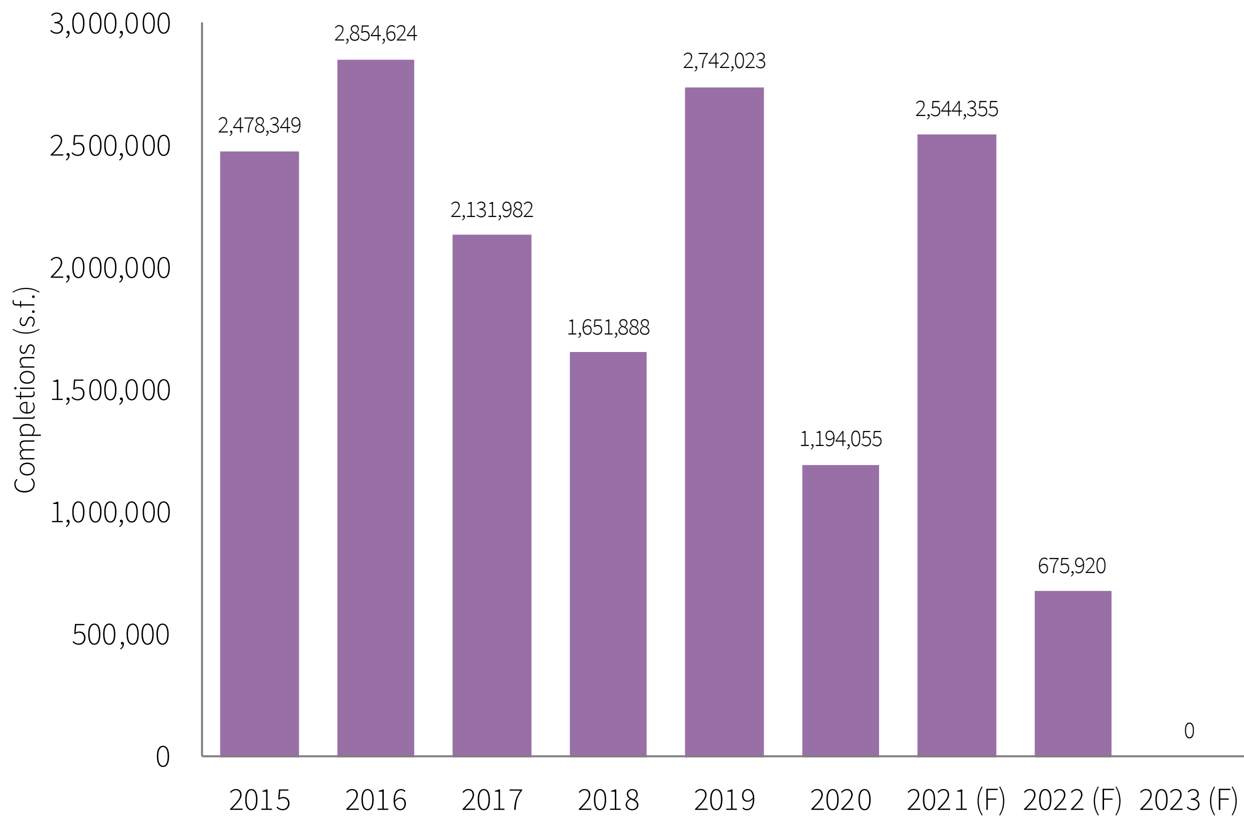
Development pipeline (Phoenix)

Since 2015, more than 14.8 million square feet of new supply has hit the Phoenix office market, with a further 1.5 million square feet currently under construction or renovation, all of which will be delivered by the end of 2022. This pullback in construction volumes, predominately the result of COVID-19 but also that of a general slowdown in new speculative developments, will help to balance market conditions moving forward.

The development pipeline remains focused in Scottsdale (494,998 square feet) and Tempe (470,526 square feet), with the remainder found in the Camelback Corridor and the West-10 Corridor. In contrast, 34.7% of all new construction since 2015 has been in Tempe, the dominant development hub by a wide margin more broadly this cycle. This is clearly evidenced by the success of Cousins Properties and Hines' 100 S Mill Avenue in Tempe, which has been pre-leased by Amazon, Deloitte and Neudesic. Nearby, WageWorks is now occupying the majority of The Union in Mesa.

Of properties under the construction, the largest is the office component of the mixed-use Scottsdale Entrada development, where all 248,006 square feet remain available. Similarly, the Beam on Farmer, which will deliver 183,526 square feet of new space to Tempe, has also yet to secure an anchor tenant, providing needed options in the tight submarket.



Source: JLL Research

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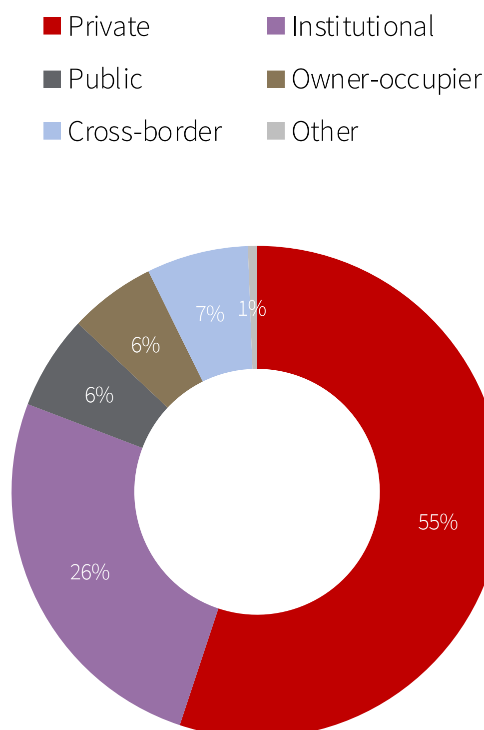
Ownership composition (Phoenix)

The majority of the Phoenix office market is held by local or West Coast-based private investors, developers and operators, but the market has long maintained a sizable institutional presence. Institutional ownership of the Phoenix office market saw flux during the past cycle, peaking at around 32.0 percent of the market in 2015, but sell-side activity among institutional landlords in recent years has driven down that share. Still, institutional groups have largely targeted increased allocations to secondary markets, particularly those in the Southeast and Sun Belt with strong demographics, so institutional appetite for Phoenix office remains healthy.

Cross-border groups actively expanded their holdings in Phoenix during the past cycle, rising from 5.3% ownership of the market in 2010 to 6.7% currently. While Canada comprises the majority of cross-border ownership in Phoenix, there has been acquisition activity from all major global regions in the past decade.

The share of owner-occupied product in Phoenix mirrors the overall U.S. office market, as Phoenix remains a predominantly secondary location for corporate occupiers as opposed to a headquarters location.

Owner	Owned (s.f.)
Wells Fargo	2,181,305
American Express	2,089,000
Transwestern	2,079,000
LBA Realty	1,964,813
ViaWest Group	1,926,367
Oaktree Capital Management	1,799,673
Douglas Allred Company	1,775,311
Cousins Properties	1,563,663
Harvard Investments	1,560,000
Lincoln Property Company	1,415,495



Source: JLL Research, Real Capital Analytics

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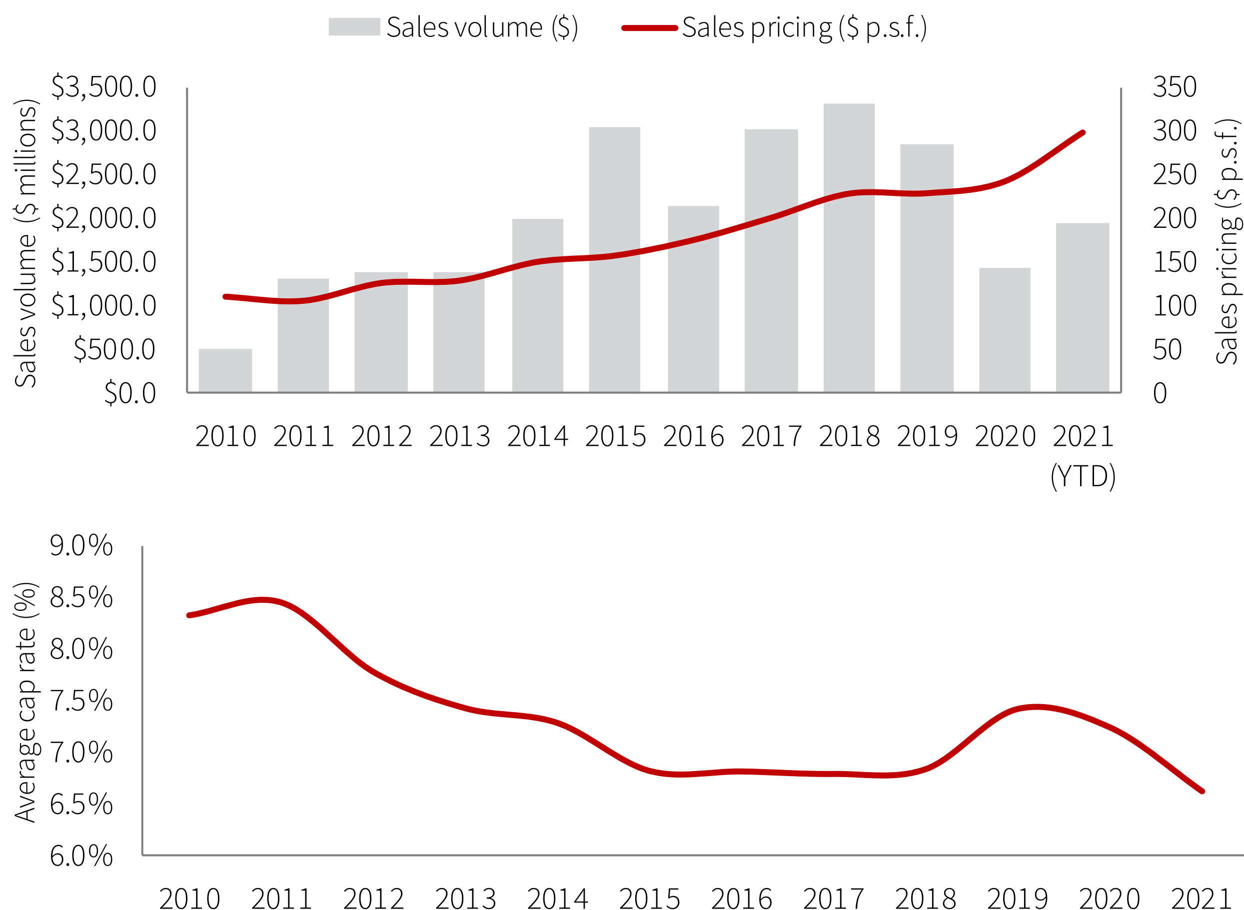
Sales volume, pricing and cap rates (Phoenix)

Despite boasting among the nation's strongest demographics, Phoenix has slightly underperformed the U.S. average for transaction volume since the pandemic began, falling by about 43 percent relative to pre-COVID averages on an annualized basis, but there has been positive momentum in 2021 year-to-date. Phoenix has benefitted from an influx of new entrants and groups seeking to gain exposure, as part of a broader investment thesis targeting marketing with strong demographic momentum. One way this has manifested is in strong large-scale liquidity: five single-asset transactions in Phoenix above $100.0 million have closed in the past 12 months, compared to just seven transactions larger than $100.0 million closing from 2017-2019 combined.

Pricing in Phoenix was moderately impacted by the pandemic, seeing a sharper impact than some peer Sun Belt markets including Salt Lake City, Austin and Nashville, but outperforming West Coast gateways including Los Angeles and San Francisco. Pricing continues to trend upwards throughout 2021, with the strongest appetite found for well-leased assets with credit tenancy and new construction. Three of the five transactions over $100.0 million were assets constructed since 2019 as differentiation of physical product becomes increasingly important.



Source: JLL Research, Real Capital Analytics

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Notable recent sales (Phoenix)

	Norterra West II	Rio 2100	Fountainhead Plaza
Date sold	2021 Q4	2021 Q3	2021 Q3
Address	25800 N Norterra	2116 E Freedom	1601 W Fountainhead
Submarket	Deer Valley	Tempe	Airport Area
RBA (s.f.)	150,000	300,848	446,000
Sales price ($)	$48,500,000	$132,000,000	$117,500,000
Sales price ($ p.s.f.)	$323	$439	$263
Cap rate (%)	N/A	N/A	N/A
Buyer	SCD Norterra	Strategic Office Partners	Shorenstein
Seller	Anthony Hepner	Boyer Co.	KBS Realty

Owner	CASA	Gainey Ranch Corp Ctr	Chandler Business Ctr
Date sold	2021 Q3	2021 Q3	2021 Q3
Address	7878 N 16th	8877 N Gainey	6150 W Chandler
Submarket	Piestewa Peak	Central Scottsdale	South Tempe
RBA (s.f.)	181,188	203,642	106,986
Sales price ($)	$56,428,571	$39,000,000	$19,100,000
Sales price ($ p.s.f.)	$311	$192	$179
Cap rate (%)	N/A	6.11%	5.29%
Buyer	Macquarie Goup	Dansons	ScanlanKemperBard
Seller	George Oliver Co.	Nationwide Insurance	Fullerton Properties

Source: JLL Research, Real Capital Analytics

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Market outlook (Phoenix)

Already bouncing off an above-average rate of recovery, Phoenix is poised to continue its outperformance streak in the coming years. Structural macroeconomic advantages regarding the cost of living and doing business, a more favorable tax and regulatory environment and amicable climate will induce further in-migration that will increase demand for office product.

In common with other fast-growing Sun Belt markets such as Dallas, Houston, Atlanta and Raleigh, urban form means that there are few barriers to entry, which has the disadvantage of reducing capital appreciation because of the surplus of developable sites. However, there is a significant disconnect between the quality and location of existing stock and where corporates and employees want to work, leading to a shortfall in competitive space.

The relatively swift rate of population and job growth in the region will keep this imbalance elevated over the near-term, reducing concerns of oversupply. Standing to benefit from this will be submarkets proximate to “hot” locations such as Tempe and Scottsdale, where pricing may be more affordable and still within readily commutable distance from critical pools of talent.

As Phoenix continues to mature, it will emerge more prominently as a leader in operations, systems and web hosting, leading to the development of an innovation cluster that will boost organic growth in small-, medium and large-sized enterprises and spur additional office demand. The reshaping of Phoenix’s urban environment will also prove appealing for workers potentially moving from gateway geographies but hesitant to leave denser and more active environments.

- Affordability and climate are key drivers of quality of life and ease of doing business.

- Investments in infrastructure and changes in development patterns will ease accommodation of growth.

- A mismatch between supply and demand buffers against concerns of overbuilding.

Source: JLL Research

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Submarket introduction (Chandler)

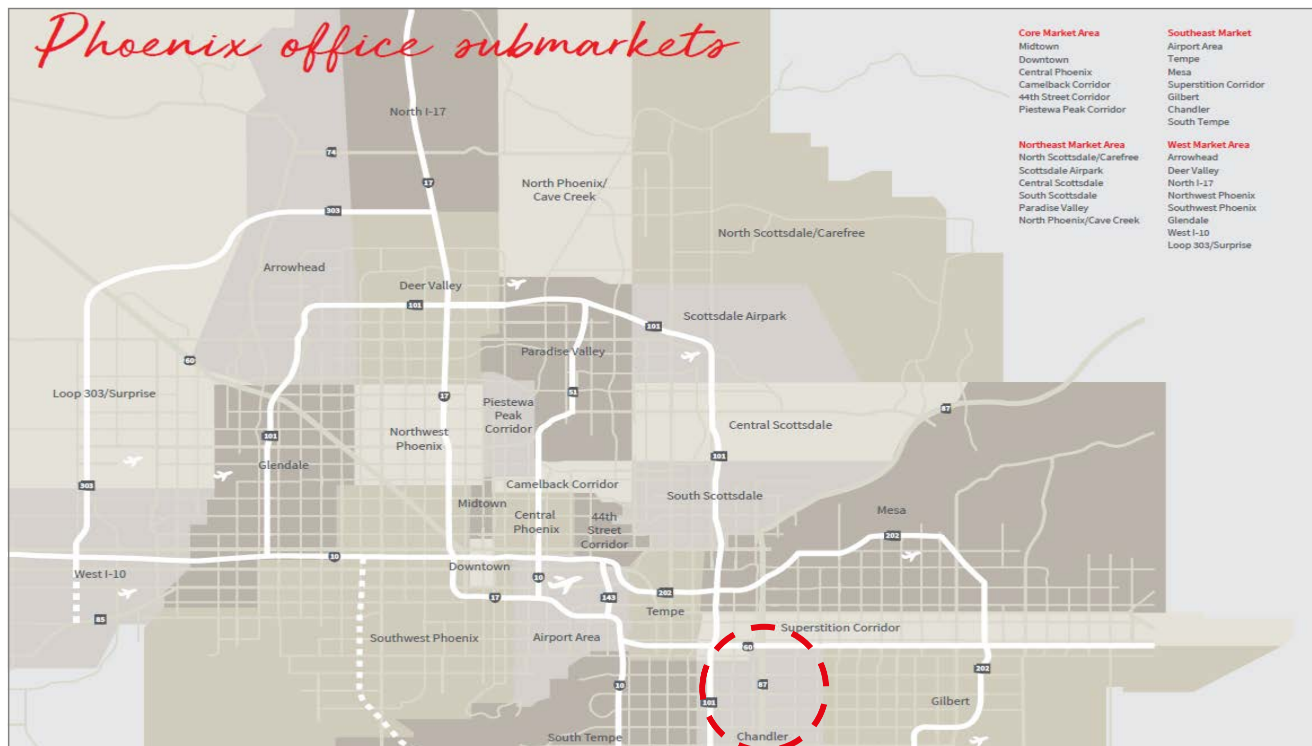
Chandler is a southeastern suburb in the Phoenix metropolitan area, home to 275,987 people as of 2020 and containing 7.2 million square feet of corporate-grade office space, making it one of the largest suburbs in the metropolitan area. By car, Chandler is roughly 20-25 miles from Downtown Phoenix, placing it at the southeastern edge of the region's urbanized area.

Despite its position as an outer suburb, Chandler is readily accessible by road. Three core highways – Interstate 10, Loop 101 and Loop 202 – provide direct access to Downtown Phoenix, Sky Harbor Airport, Temp, Mesa, Gilbert and the region's growing southwestern suburbs. There are no immediate plans for a light rail extension to Chandler, however.

As with most of the Phoenix office market, Chandler's inventory is dispersed across a range of sprawl without a focal point or traditional downtown. In general, the largest concentration of office assets is found along the Price Road corridor from Queen Creek Road in the south to Chandler Boulevard in the north, particularly near the important highway junction of Loops 101 and 202.

In recent years, Chandler has established itself as a major destination for satellite office space for insurance, financial, semiconductor manufacturing and engineering firms looking to move some of their operations out of higher-cost markets. Health and professional services tenants are also expanding in the suburb.

With semiconductors and computer chips becoming a point of international attention due to supply shortages, Chandler's emergence as a hub for this type of manufacturing is significant for longer-term growth.



Source: JLL Research

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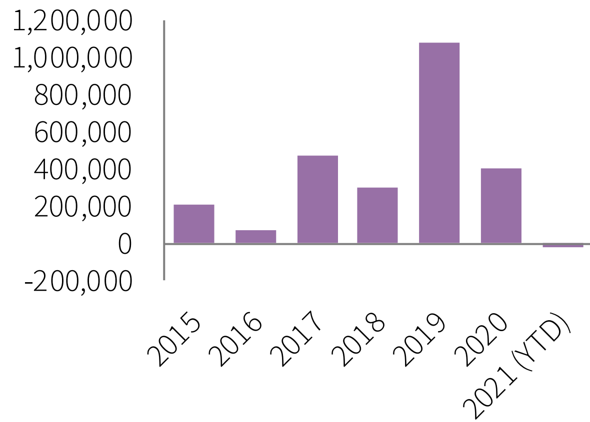
Key performance indicators (Chandler)

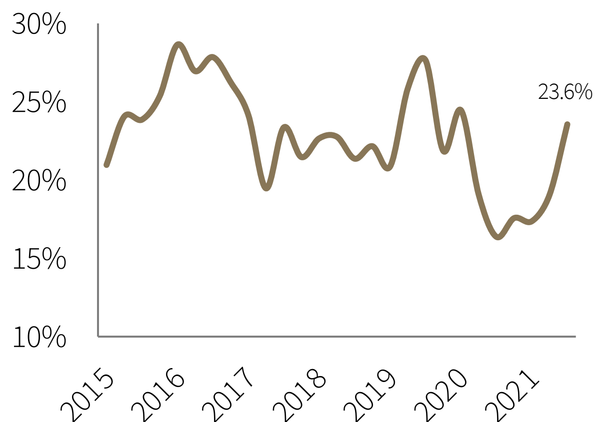
Net absorption

Occupancy has been highly resilient in Chandler since the onset of the pandemic. Despite large-scale uncertainty, net absorption totaled 408,633 square feet in 2020, while year-to-date 2021 occupancy losses have amounted to just 20,988 square feet. This represents a 100-basis-point slower rate of occupancy loss than the market as a whole.



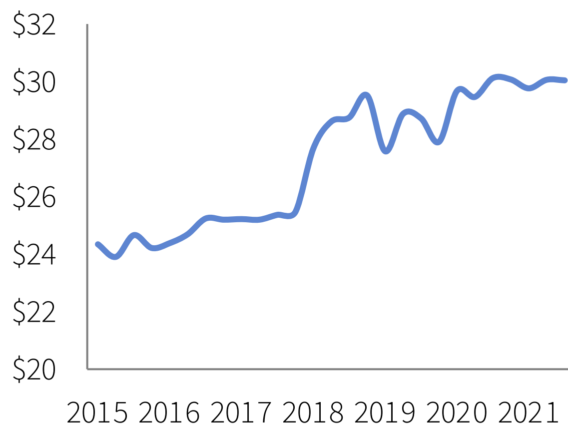
Vacancy

Chandler's vacancy rate is structurally elevated, ranging mostly between 20% and 30% since 2015, with a small dip closer to 16% in early 2020. As a result of modest give-backs and new construction in recent quarters, the submarket's vacancy rate has increased to 23.6%, but like many areas of Phoenix, this is below previous highs.



Rent

Rents in Chandler have risen meaningfully since 2015, but at a slower rate than Phoenix as a whole (23.6% vs. 34.2%), largely due to a higher baseline as well as more limited new blocks of space hitting the market. Compared to other submarkets, Chandler is relatively expensive at $30.06 per square foot, but affordable when placed against Tempe, Scottsdale Airpark, Downtown or Mesa, making it a key relief valve in the market.



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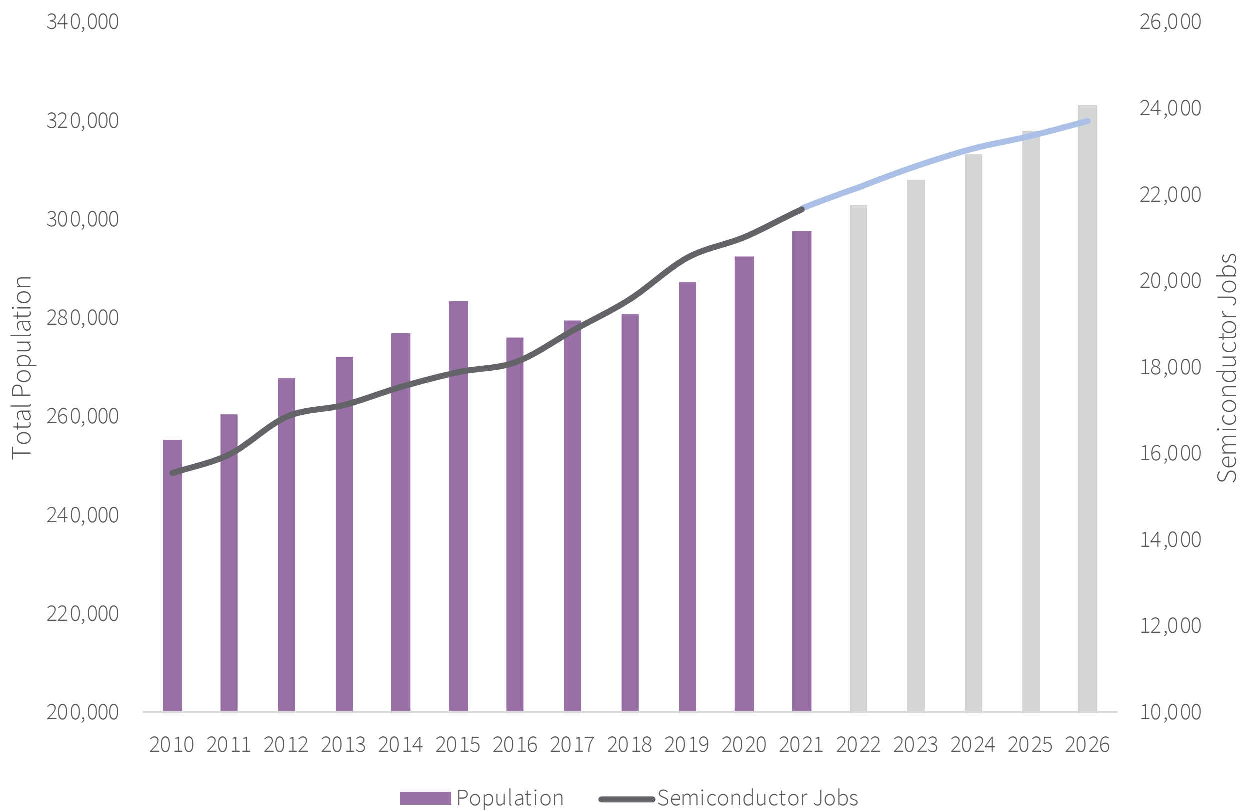
Chandler – the “Community of Innovation”

Chandler, also known as the "Community of Innovation“, has a rich history in high-tech manufacturing and development that dates back more than 50 years and has become a popular base of operations for leading manufacturing employers.

- Intel – The multinational technology company located in Chandler in 1980 and has approximately 12,000 employees spread across two campuses. In 2020, Intel opened its Fab 42 facility at its Ocotillo campus, a $7-billion investment planned to create 3,000 jobs here in Chandler. In March 2021, Intel announced that it will invest $20 billion to build two additional fabrication facilities in Chandler, anticipated to create another 3,000 high-wage jobs.

- NXP Semi Conductors – The global semiconductor company has a manufacturing and R&D campus in Chandler with approximately 1,700 employees. NXP most recently completed a $100 million expansion at its Chandler campus dedicated to manufacturing 5G network transistors andd RF power amplifiers.

- Microchip Technology – Microchip is a leading provider of microcontroller and analog semiconductors. The global company has approximately 1,500 employees in Chandler. Microchip was founded in 1987, but its history in Chandler dates back to the 1970s when it was the microelectronics division of General Instrument.



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Largest tenants (Chandler)

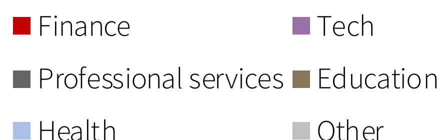
Chandler's tenant base, like much of Phoenix, is heavily but not exclusively focused in areas such as banking, insurance, payment technologies, engineering and consulting. Anchored by Wells Fargo, Bank of America, PayPal, Liberty Mutual and Voya, Chandler's finance, insurance and technology sectors represent nearly half of all occupancy in the submarket. In contrast, these sectors are slightly less than 36% of market-wide occupancy.

Most major tenants in Chandler fall within the 100,000-30,0000-square-foot bracket, emblematic of the submarket's success in attracting satellite operational offices for full-building occupancy in campus settings. Whereas ten companies occupy more than 500,000 square feet in Phoenix, only one – Wells Fargo – does so in Chandler.

Unlike nearby Tempe, tech in Chandler tends to be focused on payments, hardware, software, semiconductor manufacturing and engineering applications rather than application and media development. This shift is emphasized by Intel and PayPal's dominance in Chandler's tech scene, with smaller tenants such as ViaSat, ARM and ASML.

Also of note is the large and growing presence of insurance back-office centers, such as Liberty Mutual, Voya Financial and Aetna, who alone occupy 411,180 square feet in Chandler.

Tenant	Size (s.f.)
Wells Fargo	509,412
Northrop Grumman	354,578
Intel	320,000
Bank of America	295,000
Infusionsoft	268,622
Deloitte	199,682
PayPal	188,000
QBE	183,000
General Motors	170,000
Liberty Mutual	158,855



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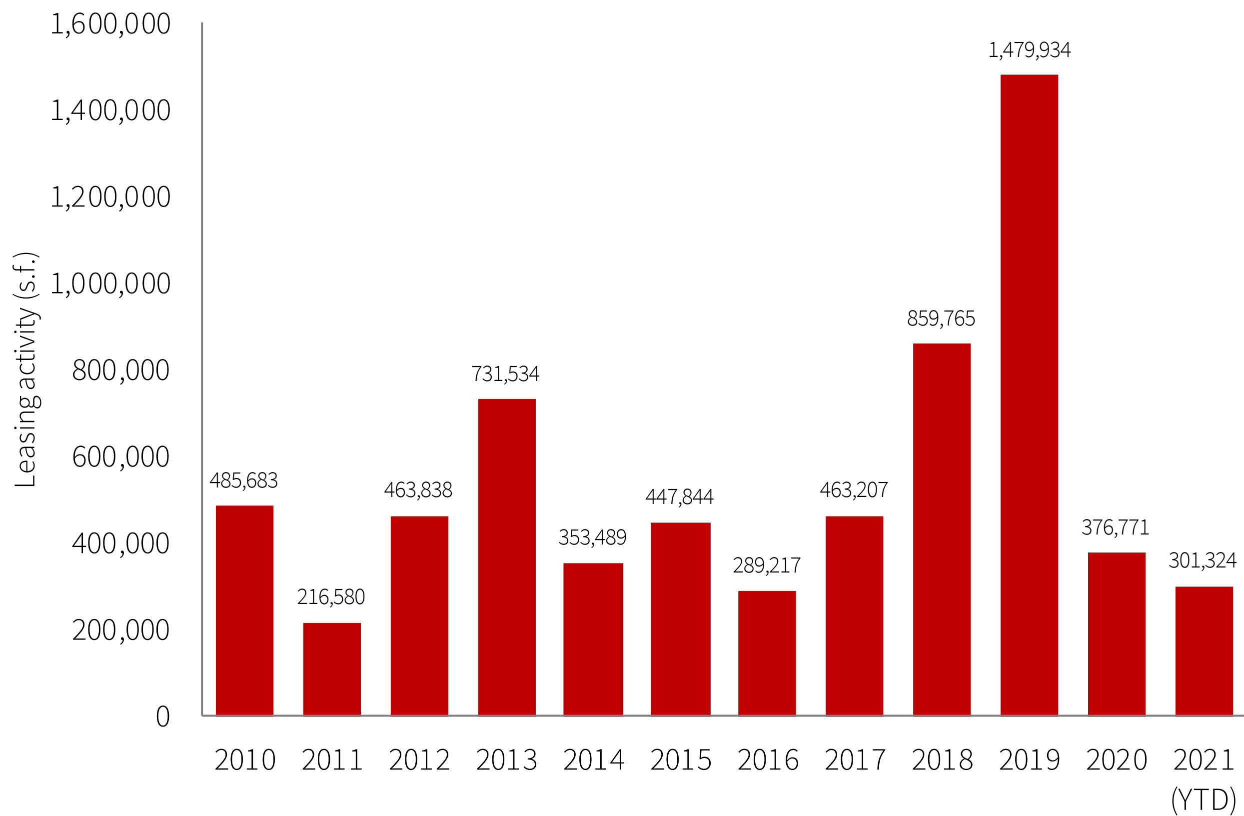
Leasing activity (Chandler)

Leasing activity over the past cycle has been robust in Chandler, with the nearly 6.5 million square feet of deals transacted equating to roughly 9.8% of all leasing velocity in Phoenix since 2010. This is disproportionate relative to Chandler's share of overall regional inventory at 7.4%.

Lease signings have come from a variety of users with respect to industry and size brackets. Deals from Northrop Grumman, eBay, PayPal, and QBE, Nationstar and Voya Financial underscore Chandler's growing attractiveness as a satellite destination for defense, tech and insurance companies with 100,000-to-200,000-square-foot requirements, a healthy and sustainable growth segment. The health segment, in line with much of Phoenix, is particularly notable, as Aetna, CVS, Apria, Healthways, Ports America and Tivity have all taken down space in recent years.

Engineering and semiconductor manufacturing are also becoming differentiators for Chandler. Along with Northrop Grumman, tenants such as ASML, CDW, Orbital ATK, Marvell, International Rectifier and Stantec are establishing a presence in the submarket. Logistics and production companies Crown Castle, OnTrac and Hanjin complemented this activity with an additional 167,869 square feet of leasing in recent years, furthering Chandler's diversification.



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Notable recent leases (Chandler)

	Savvas	Toyota Motor Credit	LoanDepot
Address	3075 W Ray	1650 S Price	1333 S Spectrum
Size (s.f.)	64,438	63,295	34,945
Year 1 rent ($ p.s.f.)	$32.50 FSG	$26.50 FSG	$26.00 FSG
Term (months)	18	87	88
Lease type	Renewal	Expansion	Expansion
Industry	Education	Finance	Finance

	ASML	Applied Materials	Array
Address	2625 W Geronimo	2525 W Frye	3133 W Frye
Size (s.f.)	31,722	26,769	28,608
Year 1 rent ($ p.s.f.)	$27.00 FSG	$16.80 FSG	$33.50 FSG
Term (months)	82	68	96
Lease type	Sublease	Sublease	New lease
Industry	Manufacturing	Manufacturing	Energy

Source: JLL Research

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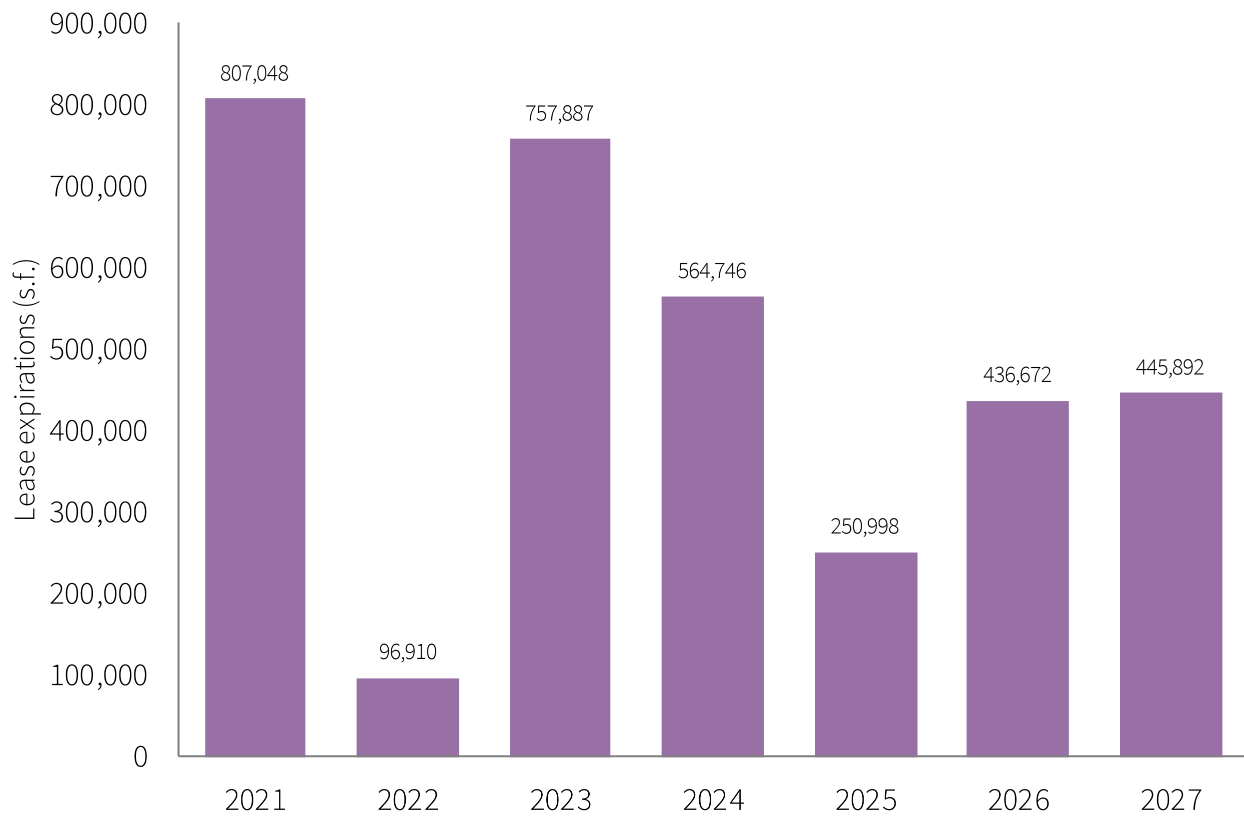
Lease expirations (Chandler)

- Total lease expirations 2021 – 2027 = 3,771,739 s.f.
- Average lease size = 29,475 s.f.
- Major industries = Banks, Savings Institutions & Credit Unions, Advertising/PR, Finance, Planners and Advisors, Insurance
- Major Tenants = Infusionsoft, CVS, General Motors



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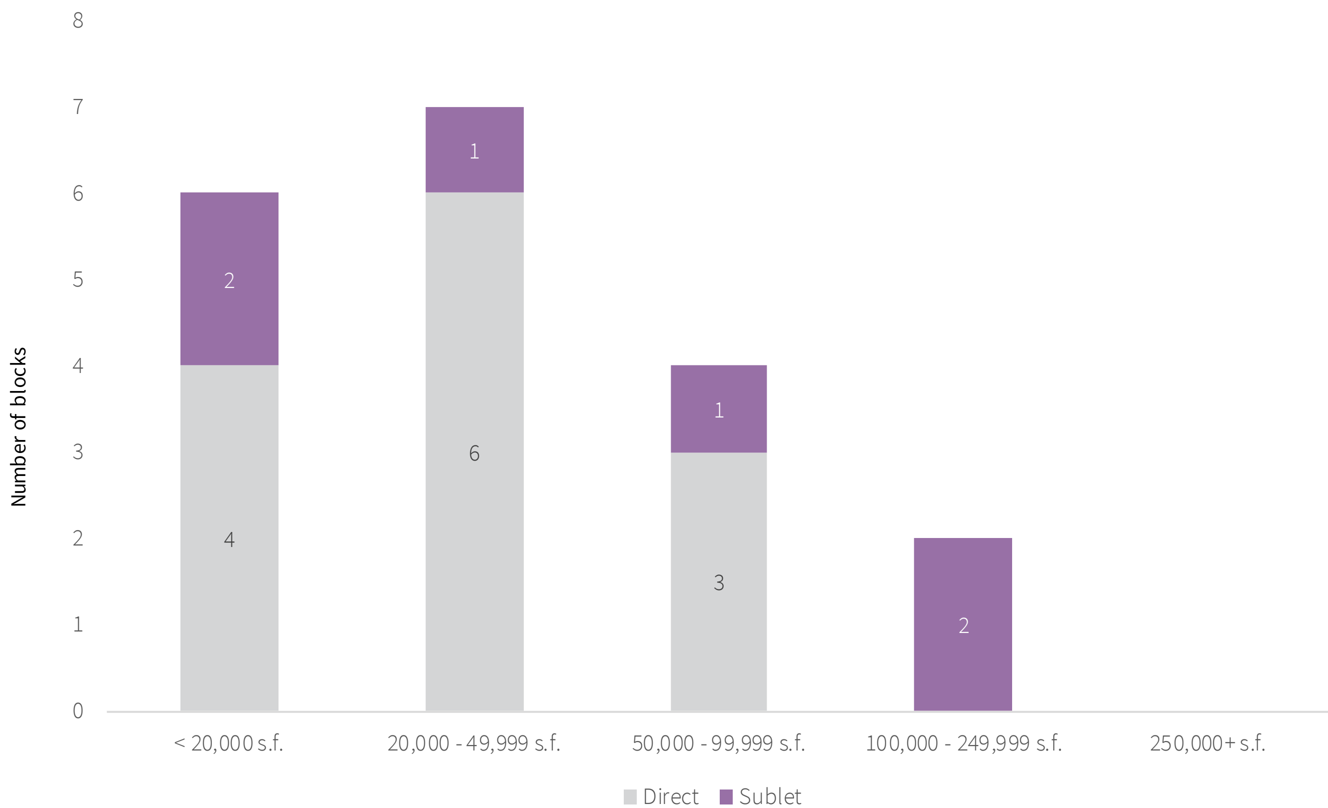
Large availabilities (Chandler)

- Total large-block space = 851,656 square feet
- Direct large-block space = 514,378 square feet
- Sublet large-block space = 337,278 square feet
- Average large block = 44,824 square feet
- Average weighted age of buildings = 2011
- Average time on market = 159 days
- Direct Asking Rate = $31.26 per square foot
- Sublet Asking Rate = $24.63 per square foot

"Large block" defined as contiguous space > 10,000 s.f.



Source: JLL Research

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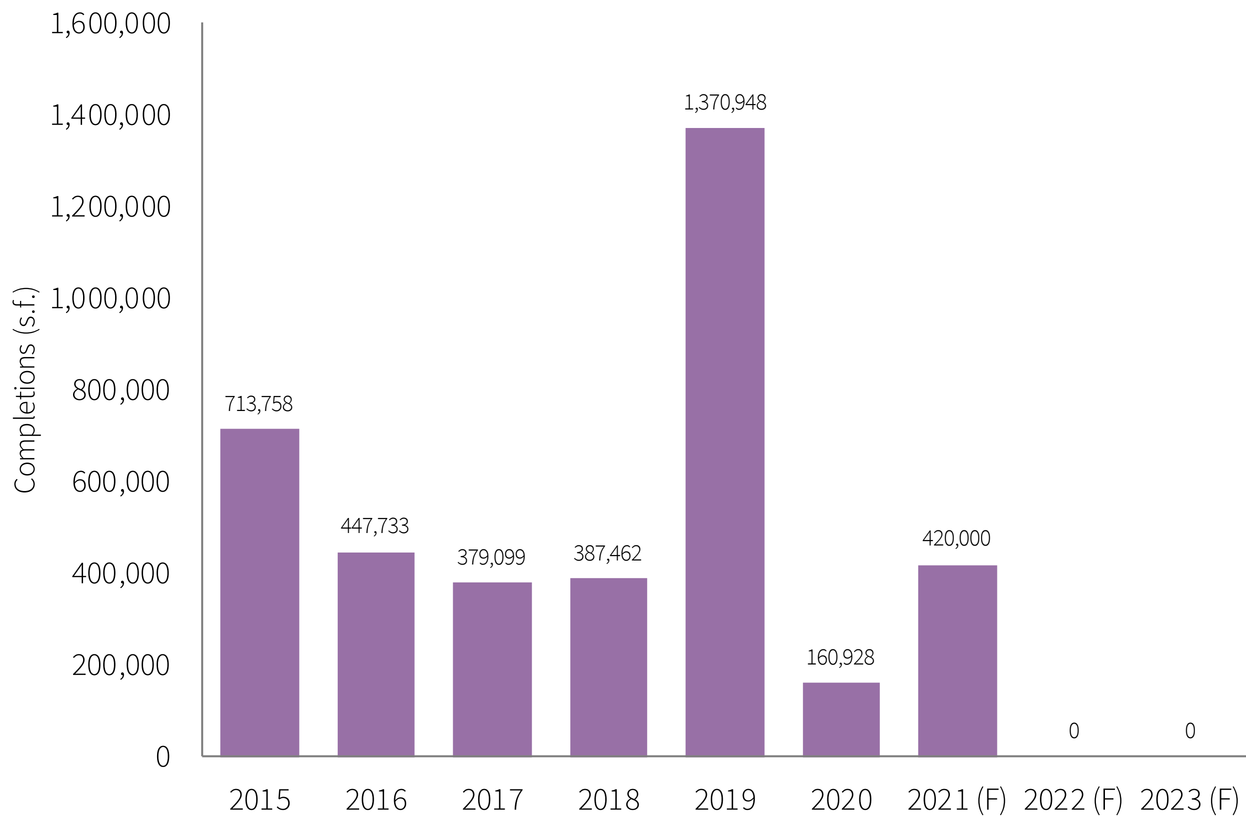
Development pipeline (Chandler)

Chandler has been one of the more active submarkets in terms of development in Phoenix this cycle, recording 3.9 million square feet of completions since 2015. This is 1 million square feet less than in Tempe, but much higher than the 1.6 million square feet delivering throughout Scottsdale over the past six years.

Development in Chandler in recent years has concentrated largely on the 100,000-250,000-square-foot segment, with anchor tenancies driving new construction rather than going full spec. Many of the largest new projects this cycle have been leased to full-building users, particularly those in defense contracting, including Park Place (Lockheed Martin) and 1715 N McQueen Road (Northrop Grumman).

Outside of the defense industry, financial, insurance, education and marketing users such as Liberty Mutual (Mach One), Isagenix (155 E Rivulon), Progressive (Reserve at San Tan) and Zovio (1181 E Northrop) have been active in pre-leasing space.

Chandler currently has no buildings under construction, which will bring vacancy back down incrementally over the coming quarters, while also providing fewer options for tenants seeking quality space and, in turn, placing upward pressure on rents.



Source: JLL Research

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Ownership composition (Chandler - Phoenix)

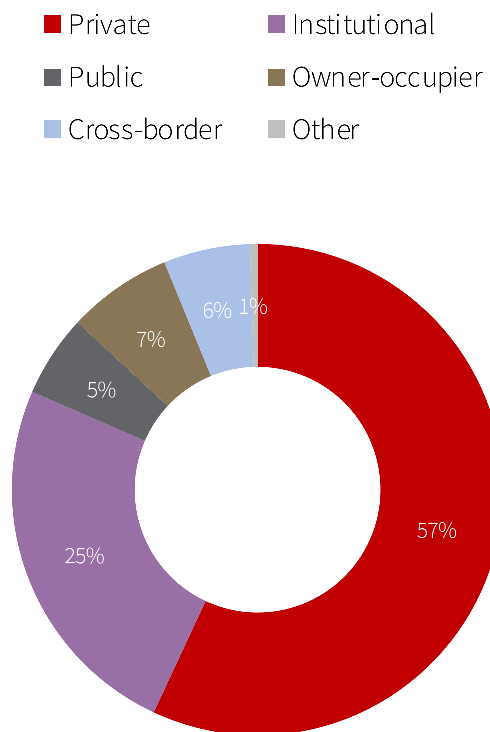
Institutional groups have maintained a presence in Chandler throughout the past cycle, but in recent years many institutional landlords have sold their holdings to private investors or operators. The institutional share of Chandler was 40.9% in 2010, but sales since then have drawn their share down to just under 25% currently.

Public REITs own a small share of the Phoenix office market after having no exposure at the beginning of the past cycle, but as Phoenix is not a core market for office REITs, the majority of these holdings are medical offices.

Users have a small presence, but as Phoenix is not a traditional headquarters location, ownership shares are less than other western markets.

Cross-border groups have increased their exposure to Chandler in the past cycle, with BMA International from UAE acquiring El Dorado Tech Center in a joint venture in 2018, and Redstone Holdings of Canada purchasing Chandler Airport Center Phase II in 2012.

Owner	Owned (s.f.)
Douglas Allred Company	1,587,185
Wells Fargo	810,000
Nationwide Realty Investors	734,667
SW Value Partners	463,658
Mark IV Capital, Inc.	424,718
Orsett Properties LTD	399,509
The Delta Companies	377,460
VanTrust	320,000
Intel	320,000
Insight Direct USA	298,704



Source: JLL Research, Real Capital Analytics

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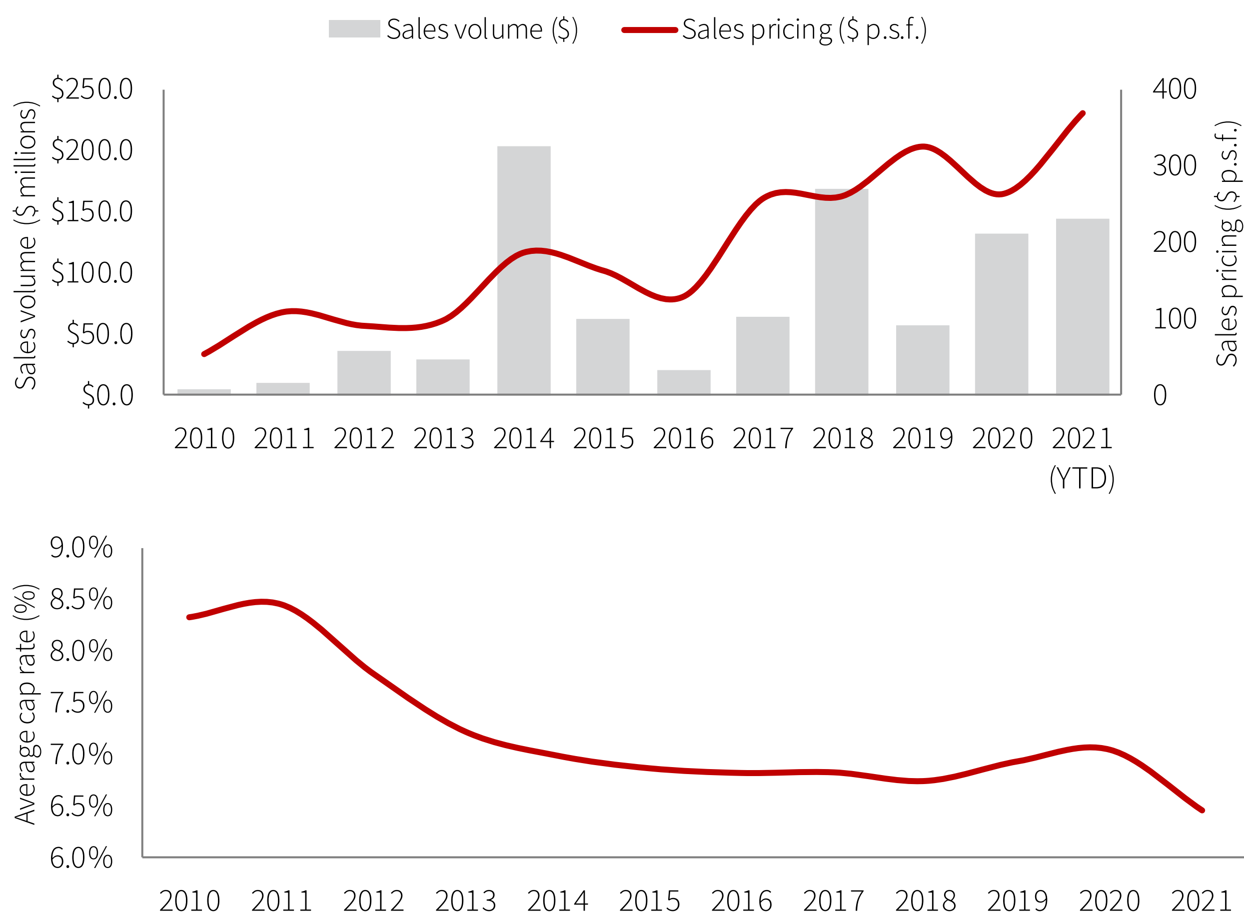
Sales volume, pricing and cap rates (Chandler - Phoenix)

Chandler has been among Phoenix's top-performing submarkets in the last two years, and YTD investment volume has already surpassed 2020 totals after three quarters. With generally smaller transactions, investment activity has continued throughout the pandemic without any notable slowdown. The Park at SanTan traded for a near record high of $65 million during the pandemic, evidencing the continued demand for assets of larger scale for the Chandler submarket.

Pricing in Chandler mirrors the larger Phoenix market. Core assets that are well-leased to credit tenants and new construction have seen little impact from the pandemic or have continued to see price appreciation, but value-add commodity assets have seen a larger impact. The strong fundamentals in Phoenix have driven resilience in the value end of the spectrum, and the largest price impacts in Phoenix are considerably more moderate than West Coast gateways such as Los Angeles or San Francisco.



Source: JLL Research, Real Capital Analytics

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Notable recent sales (Chandler - Phoenix)

	The Arc	Ascend	Kovach
Date sold	2021 Q2	2021 Q2	2021 Q1
Address	1840 S Stapley	1811 E Northrop	3167 W Armstrong
Submarket	Chandler	Chandler	Chandler
RBA (s.f.)	180,067	130,600	62,533
Sales price ($)	$37,000,000	$34,585,000	$10,000,000
Sales price ($ p.s.f.)	$205	$265	$160
Cap rate (%)	N/A	6.67%	7.00%
Buyer	Cypress, Harbert	Silver Creek	Kanasardas
Seller	Buchanan Street	Irgens Development	STORE Capital

Owner	The Park at San Tan	Portico Place I & II	Mach One
Date sold	2020 Q4	2020 Q4	2018 Q4
Address	3075 W Ray	2121 W Chandler	2222 E Yeager
Submarket	Chandler	Chandler	Chandler
RBA (s.f.)	396,104	89,182	210,568
Sales price ($)	$65,000,000	$21,680,000	$22,250,000
Sales price ($ p.s.f.)	$164	$243	$106
Cap rate (%)	N/A	N/A	6.57%
Buyer	DPC Development	Yonezawa-Miller	Sentinel Real Estate
Seller	TA Realty	Irgens Development	Trammell Crow, PGIM

Source: JLL Research, Real Capital Analytics

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Submarket outlook

Chandler will remain one of the primary growth submarkets in Phoenix, aided by a combination of an advantageous tenant mix, newer inventory and proximity to higher-cost and hot submarkets such as Tempe and Scottsdale.

Key to Chandler's future will be its strengths in back-office and satellite presences for major financial, insurance, professional services and engineering firms. These companies are of an ideal size for the standard asset being built in the submarket and have underlying needs to reduce real estate and labor costs, making out-migration from traditional hubs and inbound movement to Phoenix unlikely to slow any time soon.

Within Phoenix, Chandler will serve as a critical relief valve for the market as nearby Tempe has fewer developable parcels left and pricing becomes out of reach for more value-conscious users. Greater amounts of developable land will enable a more robust build-to-suit pipeline while also accommodating users migrating from second-generation product.

Despite these advantages, Chandler does face some challenges. It is located at the southeastern edge of the market, limiting the population within an easy commute of a given site, while also lacking a light rail connection. However, affordability and extensive highway access will mitigate these concerns over the near-term.

Moving forward, the core drivers of Phoenix's growth over the past decade will disproportionately benefit Chandler, priming it for sustained out-performance. Downside risks remain limited relative to the market as a whole.

- Relative affordability and proximity to Tempe and Scottsdale will increase inflows to Chandler.

- Chandler's tenant base exemplifies many of the industries that are seeing sustained growth in Phoenix.

- Lack of light rail access and limited walkability present competitive challenges.

Source: JLL Research

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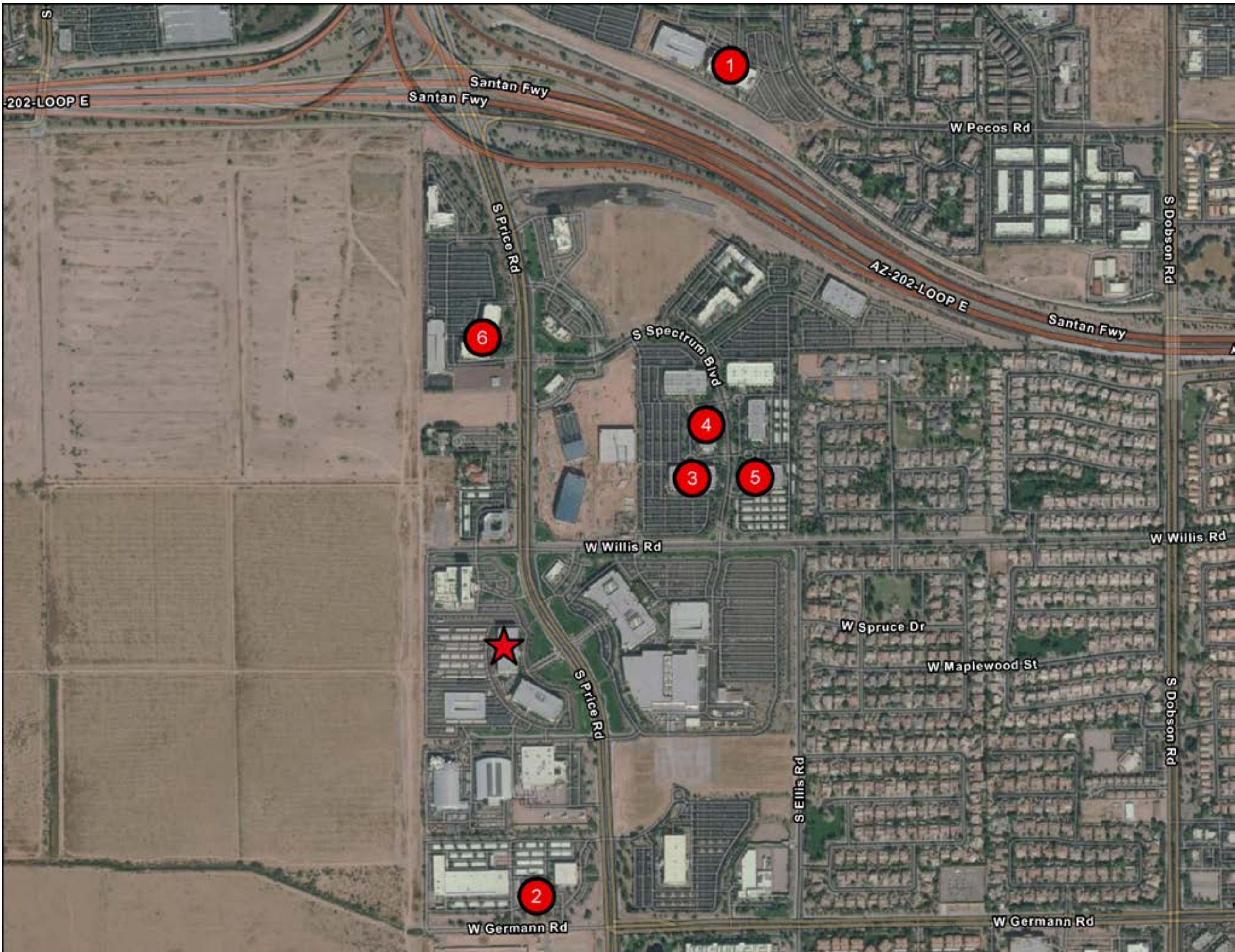
Competitive set (Chandler)

1.	2625 W Geronimo Pl	4.	1340 S Spectrum Blvd
2.	1900 S Price Rd	5.	1445 S Spectrum Blvd
3.	1450 S Spectrum Blvd	6.	3000 W One Payment Way



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Competitive set (Chandler)

	2625 W Geronimo Pl	1900 S Price Rd
Class	A	B
Owner	Mark IV Capital, Inc.	EQT Exeter
Year built	2019	1997/2013
RBA (s.f.)	156,832	76,398
Occupancy (%)	24.2%	0%
Availability (s.f.)	118,807	76,398
Max. contiguous space (s.f.)	118,807	76,398
Typical floor size (s.f.)	53,010	18,745
Direct asking rent	$22.50 NNN	$24.00 FS
Op-ex and taxes	$7.48	$7.26
Walk score	17	20
Transit score	31	29
Parking ratio	6.5/1,000	4.1/1,000

Source: JLL Research

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Competitive set (Chandler)

	1450 S Spectrum Blvd	1340 S Spectrum Blvd
Class	A	A
Owner	Douglas Allred Company	Douglas Allred Company
Year built	2014	2013
RBA (s.f.)	100,622	68,867
Occupancy (%)	100%	38.2%
Availability (s.f.)	100,622	42,544
Max. contiguous space (s.f.)	100,622	31,921
Typical floor size (s.f.)	50,311	31,478
Direct asking rent	$19.00 FS	$32.00 FS
Op-ex and taxes	$6.99	$6.99
Walk score	11	15
Transit score	23	24
Parking ratio	6.0/1,000	5.0/1,000

Source: JLL Research

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Competitive set (Chandler)

	1445 S Spectrum Blvd	3000 W One Payment Way
Class	A	A
Owner	Douglas Allred Company	The Delta Corporation
Year built	2009	2009
RBA (s.f.)	89,762	188,730
Occupancy (%)	49.5%	100%
Availability (s.f.)	89,762	47,183
Max. contiguous space (s.f.)	45,085	47,183
Typical floor size (s.f.)	44,881	45,000
Direct asking rent	$32.00 FS	$16.00 NNN
Op-ex and taxes	$6.99	$7.02
Walk score	15	19
Transit score	24	28
Parking ratio	5.4/1,000	2.0/1,000

Source: JLL Research

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SWOT analysis

Strengths

- Excellent credit tenants
- Proven location
- Access to talent
- Over ½ of Metro Phoenix is within a 30-minute drivetime
- Proximity to one of the largest investment projects in the U.S. - Intel

Weaknesses

- No walkable amenities
- Buildings do not have Freeway visibility

Source: JLL Research

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SWOT analysis

Opportunities

- Future rent growth expected, which will drive increased NOI and value
- Favorable demand pipeline given strong access to talent

Threats

- Current owner will become largest competitor
- High sublease vacancy throughout the submarket
- Structural challenges related to COVID and increased work from home

Source: JLL Research

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Property outlook

1650 & 1700 S. Price Road are two suburban office buildings located at the intersection of the South Loop 202 and Loop 101 corridors. These buildings are part of a multi-building project called Park Place, which was developed by the Southern California-based Douglas Allred Company. The construction consists of tilt concrete construction with modern, interior finishes. The assets are commonly referred to as buildings 15 & 16 of this development.

The neighboring area has become a corporate hub with high quality tenants such as Bank of America, Wells Fargo, Northrup Grumman, Intel, PayPal, Walgreens and others.

Despite similar competing properties in the Chandler submarket, the buildings are 100% occupied by high-quality tenants: Voya, Toyota and Fresenius, which have lease commitments through 2029.

The assets are located in one of the highest-density office corridors in the Metro Phoenix area with easy access to Loop-101 and Loop-202 freeways. As the population of Metro Phoenix continues to grow, Park Place is poised to take advantage of an educated workforce and continue to attract high-quality tenants.

- Campus environment in desirable area for large single-tenant users

- Excellent labor in immediate area for almost all job types

- Growing tenant base of high-tech manufacturing

Source: JLL Research

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Scott Homa
Senior Director
U.S. Office
+1 202 719 5732
Scott.Homa@am.jll.com

Phil Ryan
Director
U.S. Office
+1 212 292 8040
Phil.Ryan@am.jll.com

Curtis Hornaday
Manager
Phoenix
+1 602 282 6350
Curtis.Hornaday@am.jll.com

Jacob Rowden
Senior Analyst
Capital Markets
+312 835 9681
Jacob.Rowden@am.jll.com

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