



# 2019 MULTIFAMILY

*North American  
Investment Forecast*

Marcus & Millichap

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# TO OUR VALUED CLIENTS

The extended growth cycle, now approaching its 10th year, has offered apartment investors a truly unique range of opportunities. Record-breaking apartment construction that so many feared would overwhelm the market has barely kept up with demand. Average rents have climbed nearly 50 percent over the last decade, while average vacancy rates have tightened dramatically. Class C apartments have generated their greatest performance gains in recent history, while secondary and tertiary markets have enjoyed an extended growth cycle. As investors look ahead, it is with some caution. The question on the back of their minds is “How long can this fantastic momentum last?”

Last year, tax reform boosted the economy and confidence levels, sparking favorable apartment demand and supporting stellar apartment absorption, which had the second highest total in 25 years. Looking forward, labor force shortages will slow job creation but will also favor apartment housing as workforce participation edges higher. Millennials will be a driving force, as more of the 67 million young adults between 20 and 34 years old find work and have an opportunity to move out on their own. At the same time, rising home prices and mortgage rates have joined new tax rules that reduce the advantages of homeownership, jointly reducing first-time homebuying. This combination bodes well for apartment housing demand in 2019.

The positive dynamics of the housing market will likely sustain seller pricing expectations, while buyers eye the rising cost of capital. This will extend the expectation gap and potentially weigh on transaction activity. Cap rates have remained relatively stable over the last few years, but the yield spread over the 10-year Treasury has tightened, reducing investors’ ability to generate positive leverage. In their effort to capture higher yields, investors will continue to pursue assets in primary markets’ suburban locations and in secondary and tertiary markets, increasing the flow of capital into these areas.

Many unknowns assuredly await investors in the coming year as slowing international economies join financial market volatility and a tightened or possibly inverted yield curve to weigh on investor optimism. Still, the strength of the employment market and positive demographic drivers that reinforce apartment housing demand will favor multifamily real estate. We hope this report provides useful insights to help you navigate the changing landscape. As you recalibrate your strategies, our investment professionals look forward to assisting you in meeting your goals.



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## National Multifamily Index (NMI)

- Minneapolis-St. Paul climbed two spots to head this year's Index. It is the only Midwest market to break into the top 20. San Diego also inched up two notches on solid rent growth to claim second place.
- Neighboring Florida metros Orlando (#6) and Tampa-St. Petersburg (#12) registered the largest advances in this year's NMI, leaping 11 and nine places, respectively.

## National Economy

- Accelerated job creation in 2018 drove the unemployment rate of young adults between 20 to 34 years old to a 48-year low of 4.5 percent. With two-thirds of this age group living in rentals, they are a dominant force supporting apartment demand, and the strong job market has empowered more of them to move out on their own.
- The monthly payment on a median-priced home increased by \$175 last year to nearly \$1,700 per month, dramatically widening the disparity between a mortgage payment and the average monthly rent. This widening payment gap, together with tighter underwriting, has restrained young adults' migration into homeownership, reducing the under-age 35 homeownership rate to 37 percent, down from the peak of 43 percent in 2007. This confluence of factors will likely carry into 2019, sustaining young adults' preference for rental housing.
- Though consumption and corporate investment will support economic growth in 2019, trade imbalances and a likely weaker housing market will weigh on momentum. Job creation, facing an ultra-tight labor market, will dip to the 2 million range, but wage growth should push above 3 percent.

## National Apartment Overview

- As new households are formed next year, much of the rental demand will center on apartments that serve the traditional workforce: Class B and C properties.
- New inventory largely caters to more affluent renters. As a result, Class A vacancy is expected to rise to 5.8 percent while Class B apartment vacancy remains relatively stable at 4.7 percent. The most affordable segment of the market, Class C apartments, faces strong demand and vacancy for these rentals is expected to tighten to 3.9 percent, its lowest year-end level in 19 years.
- While primary markets such as Boston, Los Angeles, the Bay Area and New York City are expected to see the largest dollar rent increases, smaller metros are generating faster increases on a percentage basis. Metros across the Southeast and Midwest in particular are generating outsize employment growth and housing demand.

## Capital Markets

- Upward pressure on short-term yields has increased concern an inverted yield curve could occur. A potential inverted yield curve will weigh on confidence levels and could possibly erode consumption and stall the growth cycle. The typical onset time of a recession following an inversion is about one year, but there have been two false positives in which a recession did not follow an inversion.
- Most lenders, particularly Fannie Mae and Freddie Mac, have adapted to a more fluid financial climate. When Treasury rates increased in the third quarter, many lenders tightened their spreads to cushion volatility. Lenders remain cautious, adopting tighter underwriting standards but aggressively competing to place capital into apartment assets.

## Investment Outlook

- Strong demand drivers supporting long-term yield models will counterbalance much of today's market volatility, encouraging investors to look beyond any short-term turbulence.
- As multifamily yields have compressed, the increasing portion of mobile capital acquiring assets priced over \$15 million has migrated to secondary and tertiary markets.

## Yield Range Offers Compelling Options for Investors; Most Metros Demonstrate Strong Appreciation

2008-2018 Average Price per Unit Appreciation and Current Average Cap



## Pricing and Valuation Trends Summary

**Ten-year appreciation favors high-growth markets.** Benchmarked from the end of 2008 as the U.S. economy began its rapid tumble into recession, appreciation has generally been strongest in tech, growth and Texas markets. Because Texas experienced a much softer downturn, assets there had to recover less lost value during the growth cycle. Interestingly, markets like Denver, Nashville, Orlando and Baltimore generated stronger-than-average value gains that reflect substantive economic and employment growth. Several Midwestern markets, which were trading at cycle highs in late 2008, faced significant value loss during the recession and only recently surpassed their prices of 10 years ago.

**Capital pursues yield to smaller metros.** Although Midwestern markets have taken longer to generate appreciation relative to the near-peak pricing achieved in late 2008, they have offered investors particularly high yields. Comparatively, the Bay Area and Seattle provide low yields but have higher-than-average appreciation. The most favored primary markets, New York City, Southern California and Washington, D.C., have generated lower-than-average appreciation over the last 10 years. This reflects the flight to safety in late 2008 that kept pricing in these markets stronger than many others.

## Average Price per Unit Range

(Alphabetical order within each segment)

\$50,000 - \$74,999	\$75,000 - \$99,999	\$100,000 - \$149,999	\$150,000 - \$199,999	\$200,000 - \$299,999	\$300,000 - \$450,000
Cincinnati	Kansas City	Atlanta	Chicago	Los Angeles	Boston
Cleveland	Las Vegas	Austin	Denver	New York City	Orange County
Columbus	Louisville	Baltimore	Fort Lauderdale	Oakland	San Francisco
Detroit	Milwaukee	Charlotte	Miami-Dade	San Diego	San Jose
Indianapolis	Pittsburgh	Dallas/Fort Worth	N.H.-Fairfield County	Seattle-Tacoma	
St. Louis		Houston	Northern New Jersey		
		Minneapolis-St. Paul	Orlando		
		Nashville	Philadelphia		
		Phoenix	Portland		
		Raleigh	Washington, D.C.		
		Riverside-San Bernardino	West Palm Beach		
		Sacramento			
		Salt Lake City			
		San Antonio			
		Tampa-St. Petersburg			

\* 2008-2018 Average annualized appreciations in price per unit

Sources: Marcus & Millichap Research Services; CoStar Group, Inc.; Real Capital Analytics

## U.S. Multifamily Index

### Midwest Metro Rises to Claim First Place; Coastal Markets Fill Remainder of Top Rungs

**Reshuffling changes leader.** Minneapolis-St. Paul climbed two spots to head this year's Index as sustained apartment demand kept vacancy persistently tight, allowing steady rent growth. It is the only Midwest market to break into the top 20. San Diego also inched up two notches on solid rent growth to claim second place. High housing prices and the lowest vacancy rate among major U.S. markets advanced New York City (#3) four steps, while an escalation in the vacancy rate slid Los Angeles (#4) down two places. A surge in new inventory this year will increase vacancy in Seattle-Tacoma (#5), pushing last year's Index leader down four rungs to round out the first five markets. Orlando (#6) is the only new entrant into the top 10, with Riverside-San Bernardino (#7), Boston (#8), Oakland (#9), and Portland (#10) changing places to round out the rest of the spots.

**Biggest movers shake up Index.** Neighboring Florida metros Orlando (#6) and Tampa-St. Petersburg (#12) registered the largest advances in this year's NMI, leaping 11 and nine places, respectively. In both markets, robust job growth will expand the population base, generating strong demand for apartments, cutting vacancy and producing substantial rent gains. An escalation in employment and in-migration also propelled Las Vegas (#27) up six notches. The most significant declines in the Index were posted in Northern New Jersey, Denver, Cincinnati and St. Louis. Northern New Jersey (#24) stumbled eight notches as a slowdown in employment and a rise in deliveries widened the gap between supply and demand. Another year of elevated completions will push vacancy above the national average in Denver (#21) this year, lowering the metro seven steps. Cincinnati (#40) and St. Louis (#46) each moved down six rungs due to above-average vacancy and slower rent growth. Midwestern markets dominate the last five spots in the Index with St. Louis sliding into the bottom rung.

## Index Methodology

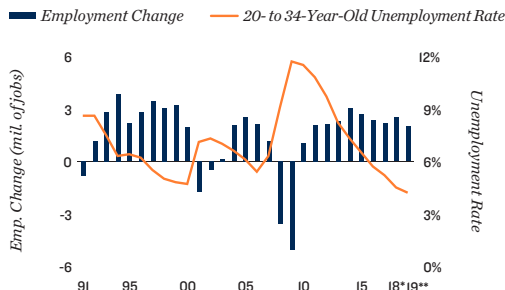
The NMI ranks 46 major markets on a collection of 12-month, forward-looking economic indicators and supply-and-demand variables. Markets are ranked based on their cumulative weighted-average scores for various indicators, including projected job growth, vacancy, construction, housing affordability and rents. Weighing both the forecasts and incremental change over the next year, the Index is designed to show relative supply-and-demand conditions at the market level.

Users of the Index are cautioned to keep several important points in mind. First, the NMI is not designed to predict the performance of individual investments. A carefully chosen property in a bottom-ranked market could easily outperform a poor choice in a higher-ranked market. Second, the NMI is a snapshot of a one-year horizon. A market encountering difficulties in the near term may provide excellent long-term prospects, and vice versa. Third, a market's ranking may fall from one year to the next even if its fundamentals are improving. The NMI is an ordinal Index, and differences in rankings should be carefully interpreted. A top-ranked market is not necessarily twice as good as the second-ranked market, nor is it 10 times better than the 10th-ranked market.

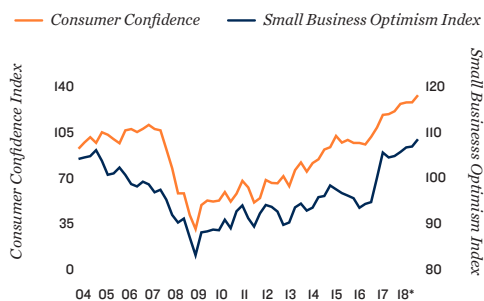
Market Name	Rank 2019	Rank 2018	'18-'19 Change
Minneapolis-St. Paul	1	3	↗ 2
San Diego	2	4	↗ 2
New York City	3	7	↗ 4
Los Angeles	4	2	↘ -2
Seattle-Tacoma	5	1	↘ -4
Orlando	6	17	↗ 11
Riverside-San Bernardino	7	9	↗ 2
Boston	8	6	↘ -2
Oakland	9	10	↗ 1
Portland	10	5	↘ -5
Sacramento	11	8	↘ -3
Tampa-St. Petersburg	12	21	↗ 9
Phoenix	13	13	■ 0
San Jose	14	12	↘ -2
San Francisco	15	11	↘ -4
Orange County	16	19	↗ 3
Fort Lauderdale	17	22	↗ 5
Atlanta	18	15	↘ -3
Salt Lake City	19	24	↗ 5
Raleigh	20	18	↘ -2
Denver	21	14	↘ -7
Miami-Dade	22	20	↘ -2
Columbus	23	26	↗ 3
Northern New Jersey	24	16	↘ -8
Philadelphia	25	23	↘ -2
Charlotte	26	27	↗ 1
Las Vegas	27	33	↗ 6
Chicago	28	25	↘ -3
Washington, D.C.	29	32	↗ 3
Houston	30	29	↘ -1
Dallas/Fort Worth	31	30	↘ -1
Detroit	32	28	↘ -4
Indianapolis	33	36	↗ 3
Austin	34	31	↘ -3
Milwaukee	35	38	↗ 3
West Palm Beach	36	41	↗ 5
Nashville	37	35	↘ -2
San Antonio	38	37	↘ -1
New Haven-Fairfield	39	44	↗ 5
Cincinnati	40	34	↘ -6
Pittsburgh	41	42	↗ 1
Kansas City	42	46	↗ 4
Cleveland	43	39	↘ -4
Baltimore	44	45	↗ 1
Louisville	45	43	↘ -2
St. Louis	46	40	↘ -6

<sup>1</sup> See National Multifamily Index Note on page 64.

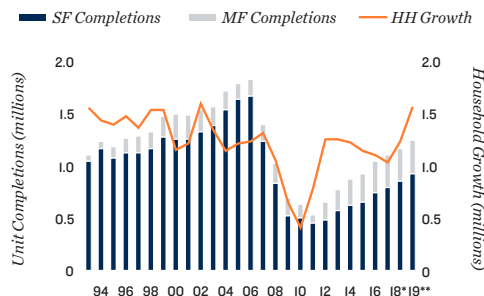
### Employment vs. Unemployment



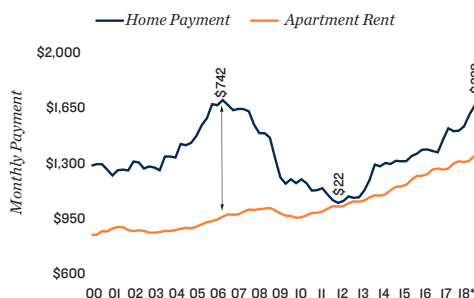
### Optimism Reinforces Growth



### Household Growth Outpaces Construction



### Rent and Home Payment Gap Widening



\* Estimate

\*\* Forecast

## Tight Labor Market, Waning Confidence Challenge Economic Momentum; Climate Remains Favorable

**Exceptionally low unemployment levels invigorate household formation.** Accelerated job creation in 2018 drove the unemployment rate of young adults between 20 to 34 years old to a 48-year low of 4.5 percent. With two-thirds of this age group living in rentals, they are a dominant force supporting apartment demand, and the strong job market has empowered more of them to move out on their own. Record-high consumer confidence in 2018 reinforced these positive dynamics, inspiring young adults to form new households. These trends should carry into 2019, though confidence has begun to ease back from peak levels and total job additions will likely taper. Labor force shortages will weigh on companies' ability to fill positions, creating an increasingly competitive hiring climate that pushes wage growth above 3 percent for the first time in more than 10 years. Increased compensation and rising disposable income will sustain rising retail sales and apartment tenants' ability to absorb escalating rents. However, wage gains will also place upward pressure on inflation, causing the Federal Reserve to tap the brakes on the economy by raising rates.

**Rising interest rates weigh on home sales, favor rental demand.** Inflation remained in the 2 to 3 percent range through much of last year, but increasing wage growth and the potential inflationary impact of tariffs have elevated caution at the Federal Reserve. The Fed exerted upward pressure on interest rates through quantitative tightening and by raising the overnight rate, resulting in a substantive 90-basis-point increase in mortgage rates in 2018. Higher loan rates converged with rising home prices, a shortage of entry-level homes for sale and changing lifestyle preferences to reduce home sales activity by 4 percent. The monthly payment on a median-priced home increased by \$175 last year to nearly \$1,700 per month, dramatically widening the disparity between a mortgage payment and the average monthly rent. This widening payment gap, together with tighter underwriting, has restrained young adults' migration into homeownership, reducing the under-35 homeownership rate to 37 percent, down from the peak of 43 percent in 2007. This confluence of factors will likely carry into 2019, sustaining young adults' preference for rental housing.

## 2019 National Economic Outlook

- **Economic growth to ease as benefits of tax stimulus fade.** Though consumption and corporate investment will support economic growth in 2019, trade imbalances and a likely weaker housing market will weigh on momentum. Job creation, facing an ultra-tight labor market, will slacken to the 2 million range, but wage growth should push above 3 percent.
- **International trade and capital flows complicate outlook.** Trade tensions with China, the strengthening U.S. dollar and floundering European economies could pose economic risks in 2019. Raising tariffs could accelerate inflation and weigh on consumption, resulting in slower economic growth. More significantly, a strengthening U.S. dollar could hamper foreign investment in the U.S. and disrupt international debt markets, increasing financial market stress.
- **Federal Reserve closely monitoring inflation.** Rising wages and tariffs are leading the way toward higher inflation risk, but the Federal Reserve has maintained a cautious stance, increasing short-term interest rates to ward off the trend. Long-term interest rates, however, have remained range-bound near 3 percent as stock market volatility and low international interest rates restrain upward movement. A yield-curve inversion, when short-term rates rise above long-term rates, is a commonly perceived sign of an upcoming recession, and a potential inversion could weigh on confidence levels.



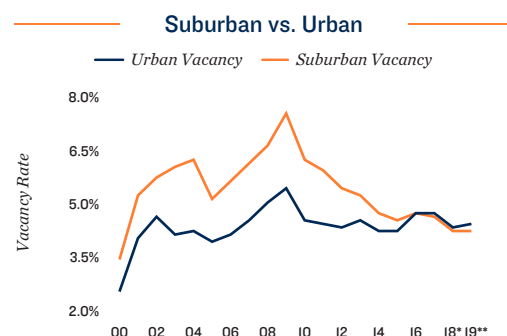
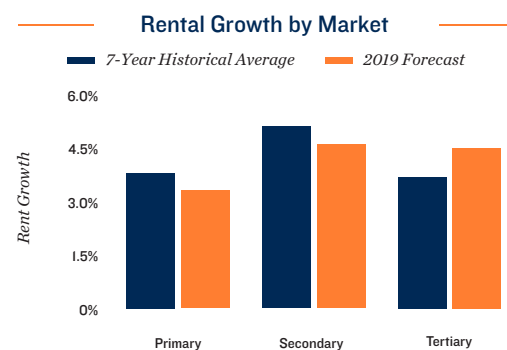
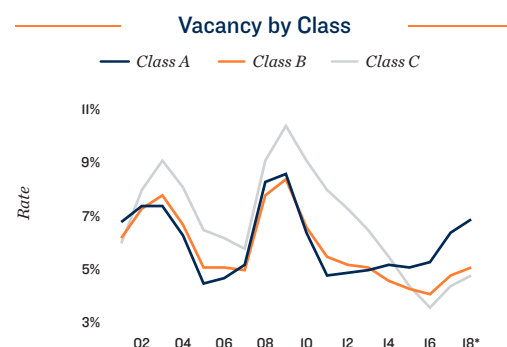
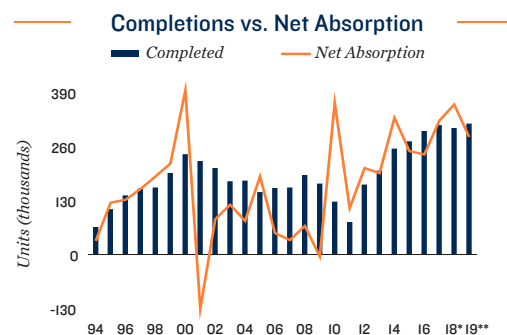
## Economy Delivers Elevated Apartment Demand; Aggressive Building Nudges Top-Tier Vacancy Higher

**Housing market remains tight as household formation accelerates.** Steady job creation and exceptionally low unemployment will boost household formation in 2019, supporting a third consecutive year of national sub-5 percent vacancy levels. Much of the new demand will center on apartments that serve to the traditional workforce: Class B and C properties. Although new apartment completions will reach their highest level in more than 25 years with the delivery of more than 315,000 units, the new inventory largely caters to more affluent renters. As a result, Class A vacancy is expected to rise to 5.8 percent while Class B apartment vacancy remains relatively stable at 4.7 percent. The most affordable segment of the market, Class C apartments, faces strong demand and vacancy for this segment is expected to tighten to 3.9 percent, its lowest year-end level in 19 years. These trends will support consistent rent gains averaging 3.7 percent in 2019, led by momentum in secondary and tertiary markets.

**Smaller metros step to forefront.** While primary markets such as Boston, Los Angeles, the Bay Area and New York City are expected to see the largest dollar rent increases, smaller metros are generating faster increases on a percentage basis. Metros across the Southeast and Midwest in particular are generating outsize employment growth and housing demand. For the seventh consecutive year, secondary markets will lead in percentage rent growth, followed closely by tertiary markets. This reflects the concentration of new supply additions in primary markets, which is raising competition for renters and suppressing rent gains. Another important factor has been the migration of millennials to more affordable smaller cities. Many tech firms and other industries have pursued the millennial labor force to these smaller metros, boosting local job creation. In addition to having higher-than-average job growth, cities such as Orlando, Phoenix, Indianapolis and Salt Lake City are expected to generate outsize rent gains. Many investors, in pursuit of higher yields, have already expanded their search for assets in these metros, increasingly the market liquidity and boosting values.

## 2019 National Apartment Outlook

- **Tax reform boosts rental demand.** The new tax law is having a substantive impact on rental demand as several tax benefits of homeownership have been altered. The doubling of the standard deduction to \$12,000 for singles and \$24,000 for couples means fewer homeowners will benefit from itemizing mortgage interest deductions. In addition, a \$10,000 cap on state and local taxes will reduce homeowners' ability to deduct property taxes. These changes will weigh on first-time homebuyers in high-tax states the most, keeping young adults in the rental pool longer.
- **Suburbs invigorated by changing lifestyles.** A surge in new inventory and much higher rents in the urban core are diverting more renters to the suburbs. As a result, vacancy in suburban submarkets nationwide remain below the rate in downtown submarkets for the third consecutive year. Millennials, now entering their late 30s, are starting to form families. As this trend plays out, the lower rents of suburban areas and the generally higher-quality schools have begun to win out over the urban lifestyle.
- **Potential housing shortage despite record development.** Elevated completions in 2019 will bring the total apartment additions since 2012 above 2.1 million units, a net inventory gain of approximately 13 percent over eight years. Despite this cycle's delivery of the most apartments since the 1980s, vacancy is forecast to remain at just 4.6 percent in 2019. With rising labor and materials costs, tighter lending, and a shortage of skilled construction labor available, the pace of construction should begin to ebb in 2020.



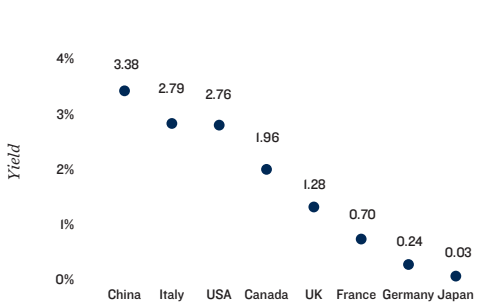
\* Estimate

\*\* Forecast

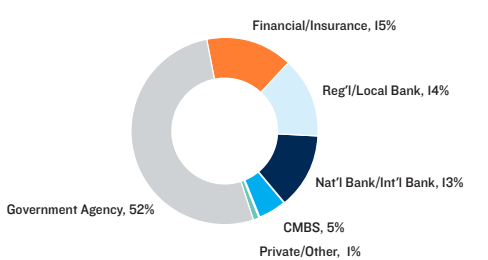
### 10-Year Treasury vs. 2-Year Treasury Yield Spread Tightens



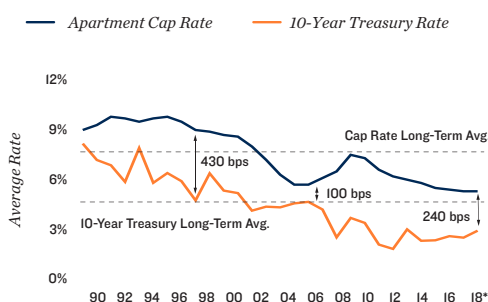
### Foreign 10-Year Treasury Rates\*



### 2018\*\* Apartment Lender Composition By Percent of Total Dollar Volume



### U.S. Apartment Cap Rate Trends



\* Through Dec. 18

\* Through Dec. 19

-- Estimate

\* Year-end estimate for cap rate; 10-year Treasury rate through Dec. 18

## Fed Balances International Headwinds With Domestic Optimism; Elevated Liquidity Supports Active Market

**Fed walking a tightrope.** The Federal Reserve has been battling the inflationary pressure created by wage gains and increased trade protectionism with raises of short-term interest rates and quantitative tightening. The efforts, however, have run into the stubbornly low 10-year Treasury that has not responded to the Fed's prodding. Slowing international economic growth and the exceptionally low bond yields offered by most other high-credit countries have drawn international investors to the higher yields and safety of U.S. Treasuries. International buying activity together with other factors such as stock market volatility have held U.S. long-term rates down. This combination of events has placed the Fed in an awkward position and their decision to raise rates in December has placed additional upward pressure on short-term yields. Should short-term interest rates rise above long-term rates, a yield curve inversion forms, and this is a commonly known sign of an impending recession. The inverted yield curve will weigh on confidence levels and could potentially erode consumption and stall the growth cycle. The typical onset time of a recession following an inversion is about one year, but there have been two false positives in which a recession did not follow an inversion.

**Conservative underwriting balances abundant capital.** Debt financing for apartment assets remains widely available, with sourcing led by Fannie Mae and Freddie Mac in addition to a wide array of local, regional and national banks and insurance companies. Loan-to-value (LTV) ratios have tightened, with maximum leverage typically in the 55 to 75 percent range depending on the borrower, asset and location. Lenders have been reluctant to lend on future revenue growth through value-add efforts, resulting in increased use of short-term mezzanine debt and bridge loans to cover the span until improvements deliver the planned returns. Construction lending has also tightened as developers deliver record numbers of new units into the market. Higher borrowing costs and questions about the durability of the growth cycle have widened bid/ask spreads. Rising capital costs and increased downpayments are eroding buyer yields, while sellers continue to seek premium pricing based on ongoing robust property performance.

## 2019 Capital Markets Outlook

- **Investors wary of interest rate surge.** While the 10-Year Treasury has traded in a relatively tight range near 3 percent recently, on two occasions it has rapidly surged and stalled investor activity. The 90-basis-point jump in late 2016 and the 80-basis-point surge in late 2017 both strained liquidity, widened bid/ask spreads and stalled transactions as investors recalibrated their underwriting. Given the volatility of financial markets, investors must remain prepared for a rapidly changing climate.
- **Lenders remain nimble in dynamic climate.** Most lenders, particularly Fannie Mae and Freddie Mac, have adapted to the more fluid financial climate. When Treasury rates increased in the third quarter, many lenders tightened their spreads to cushion volatility. Lenders remain cautious and they have adopted tighter underwriting standards, but they are also aggressively competing to place capital and apartment assets are a favored investment class.
- **Tightened yield spreads erode positive leverage.** Multifamily cap rates have remained relatively stable on a macro level, with yields in primary markets flattening while secondary and tertiary market cap rates have continued to trickle lower. Rising interest rates, however, have tightened the spread between cap rates and lending rates, reducing investors' ability to generate positive leverage. Though this trend could put some upward pressure on yields, elevated capital flows into apartments will likely mitigate the upward pressure.

## Investors Consider Portfolio Strategies to Mitigate Risk, Boost Returns; Buyers Adapt to Tighter Yield Spreads

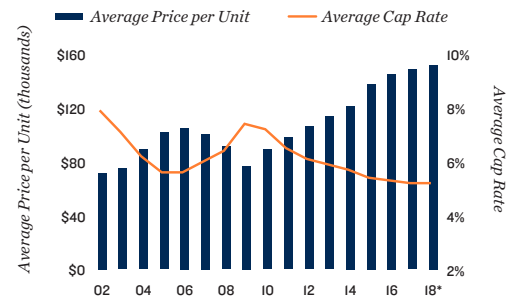
**Market diversification a key portfolio strategy in maturing cycle.** The economic expansion will remain supportive of the apartment investment market in 2019, though buyers' and sellers' expectations will likely need to adjust to a rising interest rate climate and the possibility of downside economic risk. Stock market volatility and prospects of a flattening yield curve will weigh on sentiment and induce elevated caution, but the underlying performance of apartments remain positive. Strong demand drivers supporting long-term yield models will counterbalance much of the market volatility, encouraging investors to look beyond any short-term turbulence. While the bid/ask gap could widen for transactions in primary locations where the spread between interest rates and cap rates is narrowest, capital could pursue yields to suburban locations as well as secondary and tertiary markets. The spread in average cap rates between primary to secondary markets has tightened to approximately 80 basis points, with an additional 80-basis-point yield difference between secondary and tertiary markets. The yield premium offered by smaller metros, together with the market diversification it brings, should offer investors more durable yields on a portfolio basis.

**Influx of non-traditional capital could invigorate transaction activity.** Sales of apartment assets have remained relatively stable at elevated levels for four years, and the trend should carry into 2019 as new capital enters commercial real estate. Tax reform, particularly the ability to defer and reduce capital gains from other investment types by placing the gains into an opportunity fund, has the potential to draw new capital into real estate. In addition to the initial opportunity fund investments into properties located in opportunity zones, a domino effect could ensue as the sellers of that property seek to reinvest into other property types through 1031 exchanges. This influx of new capital could offset a natural slowing of sales generally experienced in a maturing growth cycle. Another tax rule change that could affect investor behavior is tied to the new depreciation rules. Investors may apply accelerated depreciation to the personal property of new acquisitions identified by using a cost-segregation study. In doing this, investors can fully expense property such as HVAC systems, furnishings and security systems in acquired properties, thereby boosting the cash flow in the early years of ownership.

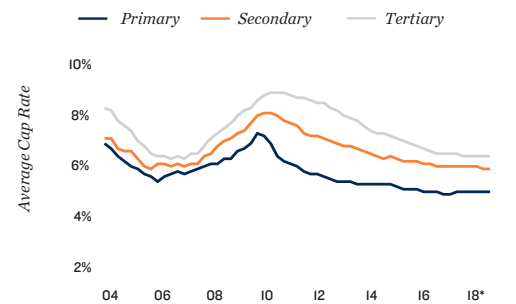
## 2019 Investment Outlook

- **Pursuit of yield drives capital beyond the core.** As multifamily yields have compressed, an increasing portion of "mobile capital" acquiring assets priced over \$15 million has migrated to secondary and tertiary markets. Whereas in 2010 nearly 60 percent of the dollar volume was focused in primary markets, in 2018 the share of capital invested with 60 percent of the capital flowing to secondary and tertiary markets. This trend will likely be sustained in 2019.
- **Portfolio diversity increasingly important to private investors.** A range of localized risks such as natural disasters, metro-level economic downturns, and the rise of state or metro-level policy decisions such as rent control have inspired investors to more carefully consider geographic diversification. Following the spate of recent hurricanes across Texas and the Southeast as well as the recent Proposition 10 vote in California, interstate buyer activity has accelerated.
- **Increased investor caution may elevate expectation gap.** Stock market volatility, rising interest rates, trade tensions and the implications of a flattening yield curve will weigh on buyer sentiment and inspire increasingly cautious underwriting. Sellers, focusing on positive performance metrics, may price assets more aggressively and the resulting expectation gap could weigh on transaction timelines.

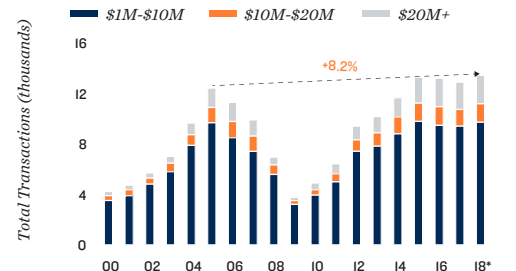
### Price and Cap Rate Trends



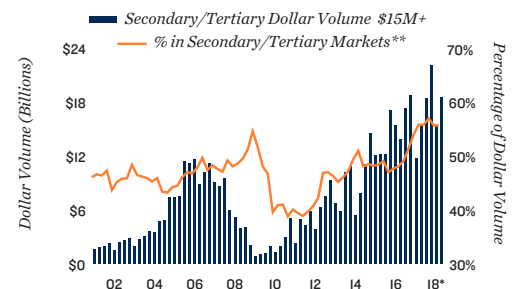
### Cap Rate Trends by Market



### U.S. Apartment Investment Transactions Moderating



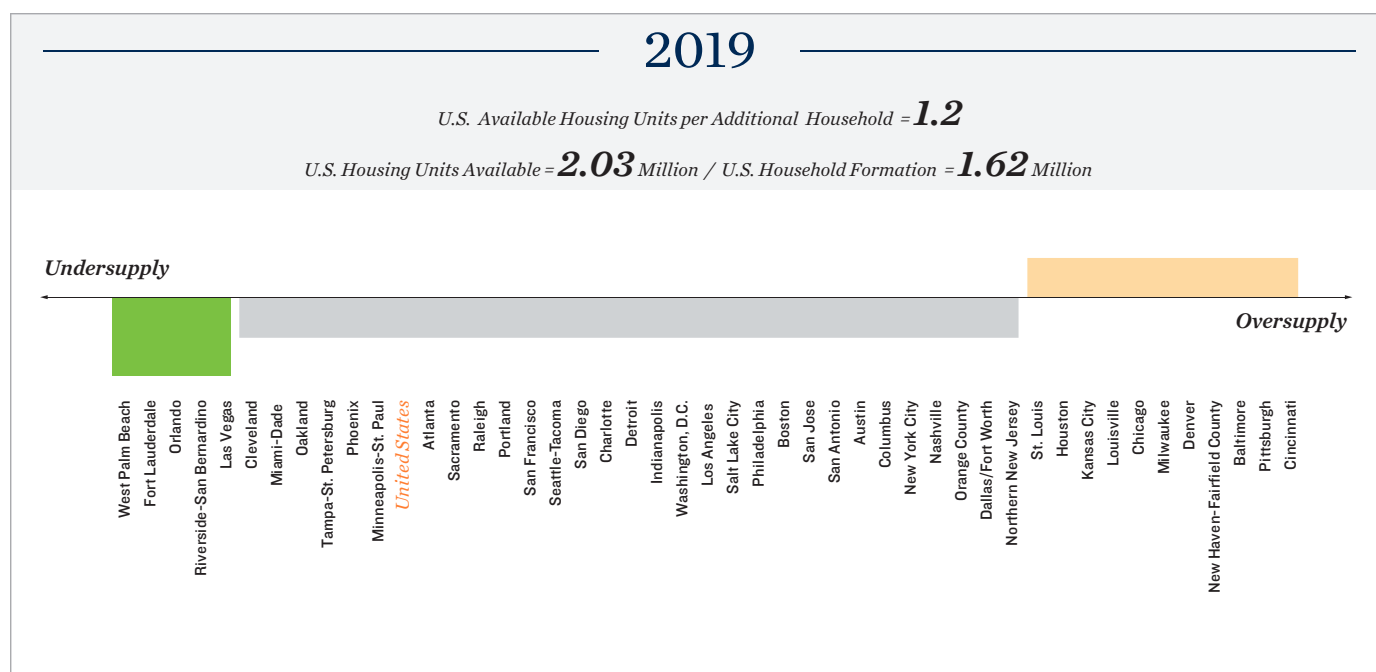
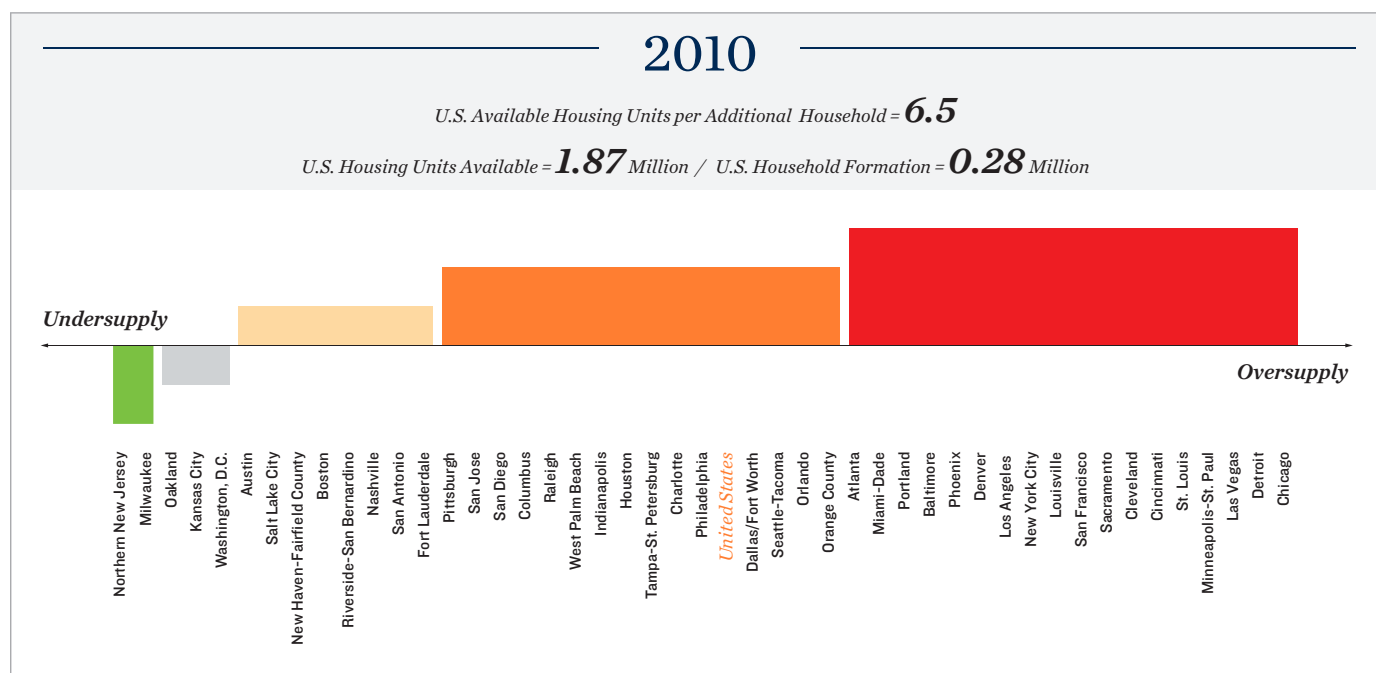
### Capital Allocations Beyond Core



\* Through 3Q

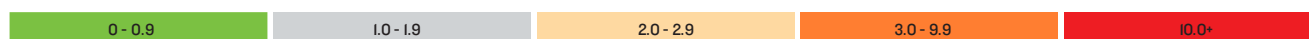
\*\* Trailing 12 months through 3Q

## Housing Demand Growth Outpacing New Supply



## Number of Available Housing Units per New Household

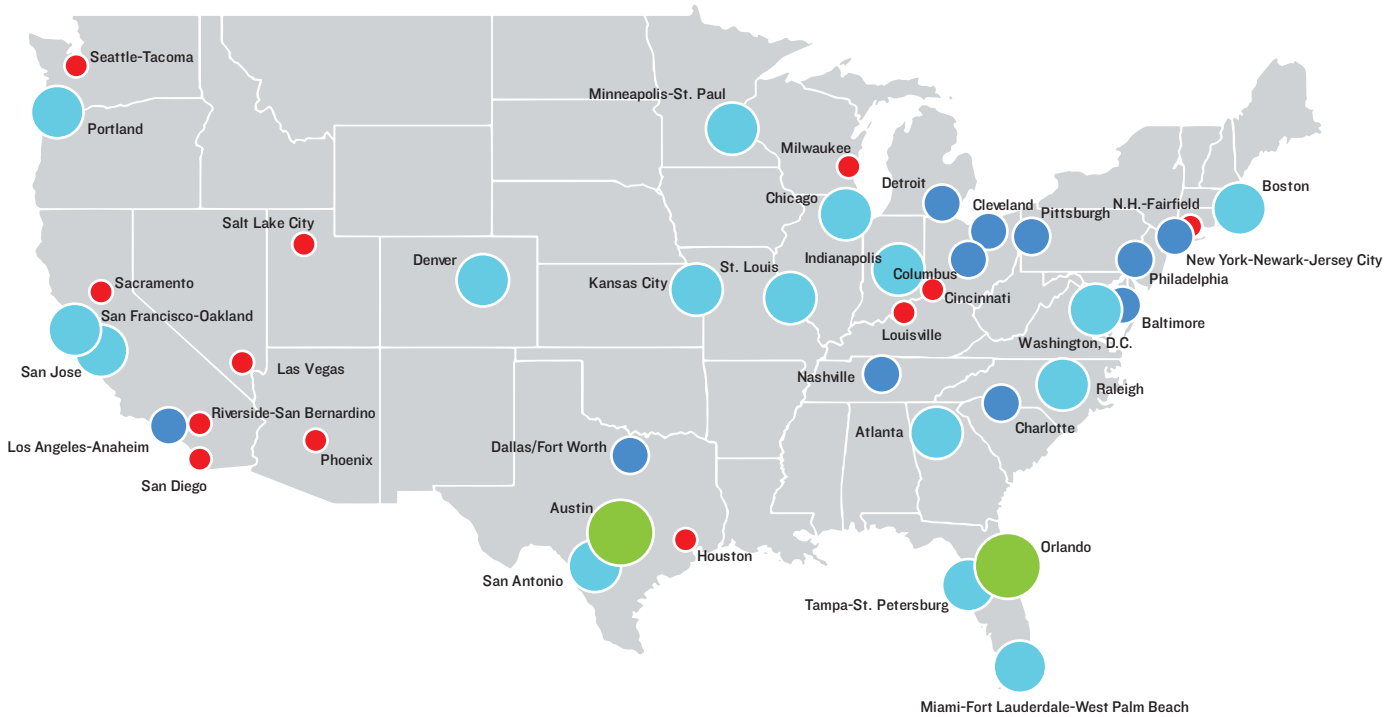
(Single-Family Completion + MF Completion and Existing Available Units)/New Household Formation



Sources: Marcus &amp; Millichap Research Services; Moody's Analytics; RealPage, Inc.; U.S. Census

## Decline in Homeownership Underpins Lowering Apartment Vacancy

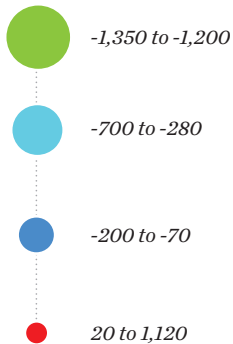
Eight-Year Change 2010-2018



### Homeownership Change by Market 2010 to 2018 (Third Quarter Comparison)

U.S. — 230-Basis-Point Change

#### Homeownership Decline/Growth Basis-Point Change



### Top 10 Markets by Homeownership

Lowest Homeownership	2018 3Q	2010 3Q-2018 3Q Apt. Vacancy Basis-Point Change
Los Angeles-Long Beach-Anaheim	47.3%	-180
New York-Newark-Jersey City	48.8%	-140
Austin	54.0%	-80
San Francisco-Oakland	54.1%	-40
San Jose	54.4%	-20
Orlando	55.4%	-430
Miami-Fort Lauderdale-West Palm Beach	57.0%	-100
Las Vegas	57.2%	-410
San Diego	59.3%	-200
Seattle-Tacoma	61.3%	-120
U.S.	64.4%	-220

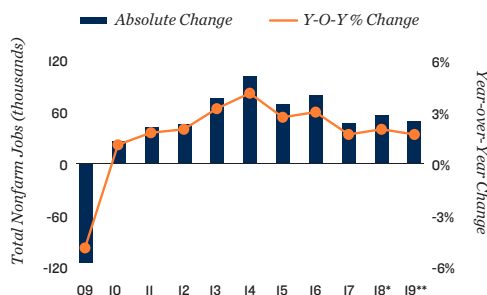
  

Highest Homeownership	2018 3Q	2010 3Q-2018 3Q Apt. Vacancy Basis-Point Change
Detroit	74.2%	-430
New Haven-Milford	70.4%	0
Cleveland	69.5%	-130
Pittsburgh	69.5%	-150
Sacramento	69.5%	-230
Minneapolis-St. Paul	68.9%	-190
Philadelphia	68.5%	-140
St. Louis	68.3%	-120
Nashville	68.1%	-60
Phoenix	67.4%	-510

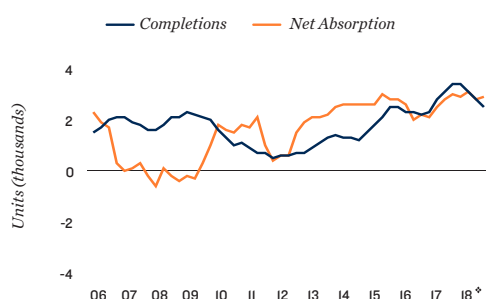
Sources: Marcus & Millichap Research Services; U.S. Census



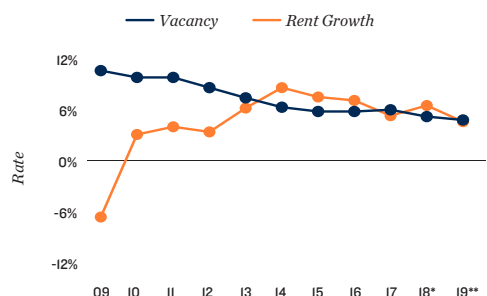
## Employment Trends



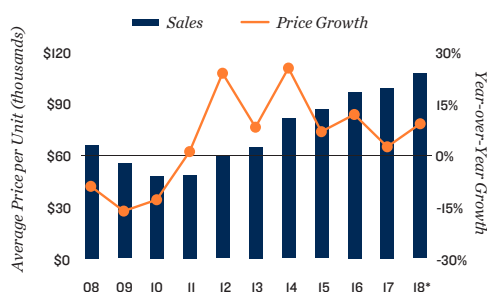
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



## Broad-Based Growth Attracts New Residents; Buyers Search for Yields in Southwestern Suburbs

**Several bustling industries support apartment demand.** Atlanta remains one of the top markets in terms of job creation in 2019 as corporate expansions and the growing film and trade industries drive hiring. This healthy employment growth will continue to lure new residents with an estimated 88,000 individuals expected to move to the metro this year. The influx of new residents will support household formation above the national rate of growth, underpinning housing demand. Households who desire to live in popular areas, like Midtown and Buckhead, will turn to rentals as high home prices in these locales make homeownership difficult. Others will look to apartments in suburban areas near outlying employment hubs where more affordable rents than often found inside the perimeter exist. Vacancy rates in many outlying suburbs rest below 4 percent with effective rents between \$600 and \$800 per month lower than inside I-285. Strengthening demand in these areas will support further vacancy improvement this year.

**Capital targets a variety of Atlanta locations.** Strong demographics and the vigorous local economy continue to lure apartment investors to Atlanta. Institutional buyers will remain active, targeting properties in Midtown, Buckhead and the Cumberland/Galleria area. Cap rates in these locales average in the mid-4 to mid-5 percent band. Lower entry costs and higher-than-metro-average yields in southwestern suburbs are capturing buyer attention. Many lower-income households fuel apartment demand in the area. As a result, vacancy rates remain relatively tight, supporting strong rent growth. The bulk of trades in these suburbs are of Class C buildings with cap rates averaging into the low-7 percent area. Revitalization efforts in Downtown and surrounding neighborhoods are also luring opportunistic investors, particularly near the opening of the new Mercedes stadium within the continued transformation of Atlanta's west side.

## 2019 Market Forecast

- NMI Rank** Atlanta slips into the 18th slot in this year's Index due to another year of elevated deliveries. 18, down 3 places
- Employment** Hiring remains above the national rate of growth as 49,000 positions are created. Last year, 56,000 jobs were added. up 1.7%
- Construction** Deliveries pick up slightly from the 10,600 units completed in 2018. Buckhead, Midtown and Decatur will receive the largest number of new units this year. 10,700 units
- Vacancy** Net absorption of 12,200 apartments will cut vacancy to 4.8 percent in 2019. Last year, the rate fell 80 basis points. down 40 bps
- Rent** Building on a 6.5 percent increase in the prior year, the average effective rent edges up to \$1,262 per month. up 4.6%
- Investment** Rising incomes may encourage some Class C renters to transition to Class B apartments, supporting elevated rent growth. Buyers will continue to target these assets, which typically change hands with returns in the high-5 percent band.







\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Rising Home Prices Positively Impact Demand; Investors Search for Long-Term Acquisitions

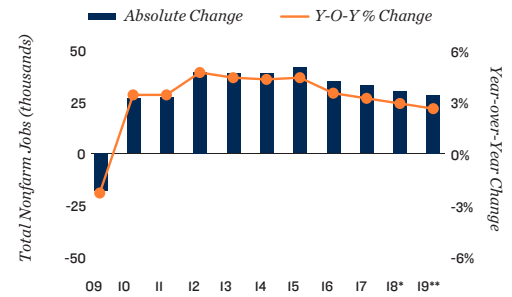
**Apartment vacancy remains tight as residents extend stays.** Steady hiring in Austin since 2009 has resulted in the creation of more than 300,000 jobs, attracting thousands of new residents over the past several years. The positive net in-migration of an average 40,000 individuals during each of the past five years has placed additional strain on the housing market as single-family and multifamily developers have struggled to keep pace with rising demand. Single-family home prices have swelled more than 40 percent since 2013 to a median over \$300,000, widening the gap between the monthly mortgage payment on a median-priced home and the monthly average apartment rent \$700 from five years ago to \$1,200 in 2018. Many would-be homebuyers have been sidelined as the transition into homeownership has become more costly, resulting in low apartment vacancy throughout the metro. New home construction and multifamily deliveries are anticipated to dip during 2019, while strong demand factors remain in place. As a result, vacancy will stay below 6 percent this year, marking a decade below this threshold.

**Stable growth factors attract long-term investors.** Employment gains, steady in-migration, a slower pace of housing construction and a tight supply of affordable single-family homes drive apartment demand in Austin this year, keeping investors interested in apartment deals. Sales could be restrained in 2019 as more expensive financing and a normalized pace of future rent growth widen the gap between buyer and seller expectations. Cap rates remain compressed in the low-5 percent band, and as the apartment market transitions from high-growth to a steadier pace of advancement, investors seeking long-term hold strategies will target local apartment properties. The high-growth northern suburbs of Pflugerville, Hutto, Cedar Park, Round Rock, Georgetown and Leander attract buyer attention with initial returns closer to 5 percent.

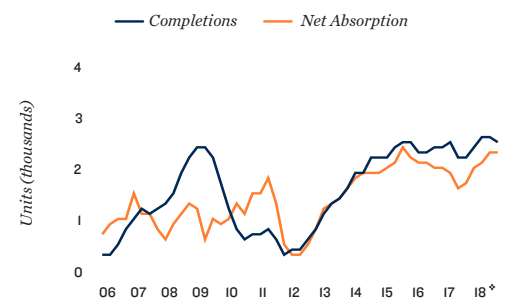
### 2019 Market Forecast

- NMI Rank**  Slower employment growth and steady vacancy move Austin down three spots into 34th place in this year's ranking.  
34, down 3 places
- Employment**  Job growth remains healthy this year as 28,000 workers are added to payrolls. Employment increased 2.9 percent in 2018.  
up 2.6%
- Construction**  More than 9,000 apartments have been delivered in each of the past four years, but completions will dip during 2019 as 7,500 units are added to stock.  
7,500 units
- Vacancy**  Demand meets supply this year, keeping the vacancy rate flat at 5.5 percent. In 2018, the rate declined 30 basis points.  
no change
- Rent**  Building on a 3.3 percent climb last year, the average effective rent advances to \$1,265 per month in 2019.  
up 3.0%
- Investment**  Capital is flowing into East Austin as several new office projects and mixed-use developments are planned or underway. Investor interest in the area will continue to rise as buyers seek to capitalize on the neighborhood's changing demographics.

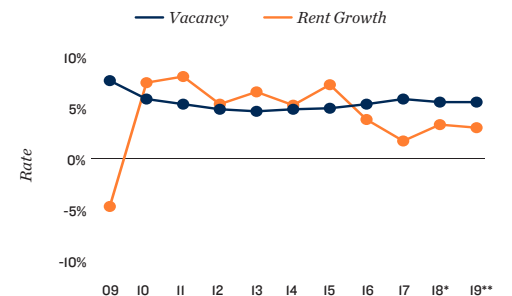
### Employment Trends



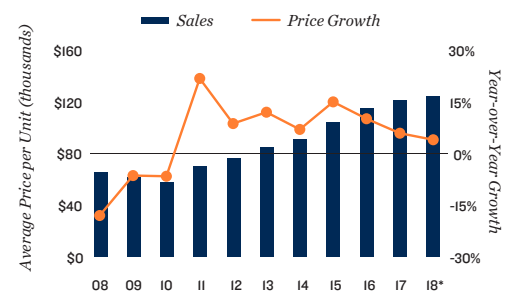
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

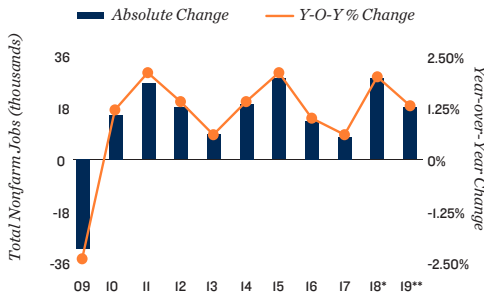


### Sales Trends

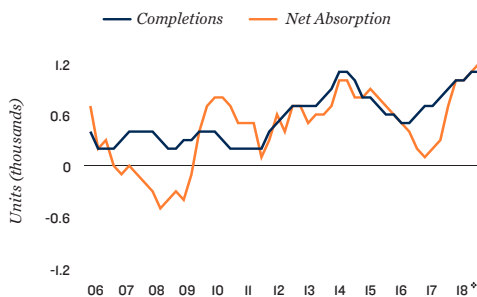


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

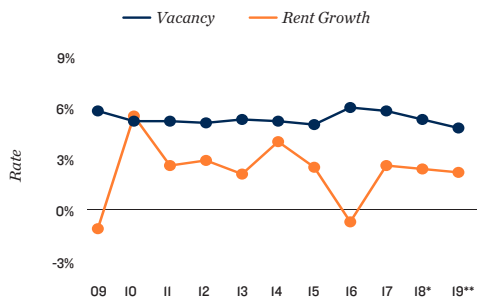
### Employment Trends



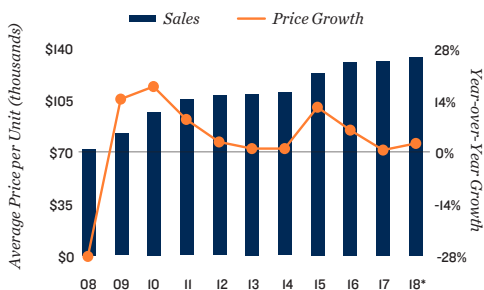
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents



### Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Market's Diminishing Vacancy Lifts Regional Investor Interest in Baltimore Apartments

**Consistent household growth, shrinking construction pipeline sustain vacancy compression.** During each of the past two years, stout demand for Baltimore apartments supported new leases totaling more than 4,000 units, negating the impact of elevated construction activity. In 2019, strong absorption will persist and apartment deliveries will moderate, allowing the metro's vacancy rate to reach its lowest point in more than 10 years. Fueling this continued demand for rentals is steady hiring by federal agencies, defense contractors and higher-education institutions, which encourages healthy rates of income growth and household formation. Additionally, home prices have reached a 10-year high, underpinning more residents' choice to rent. Those seeking units opening in 2019 will search within neighborhoods adjacent to downtown off Interstate 83 or around the Inner Harbor. An overall lack of suburban construction should warrant limited vacancy and above-average rent growth in areas along the Interstate 695 Loop.

**High yields, room for upside heat competition for core and suburban-located complexes.** Sub-6 percent vacancy in nearly every Baltimore submarket has heightened investor demand for some of the lowest entry costs for apartment investments in the Northeast. In the city of Baltimore, buyers pursuing Class B and C complexes frequently target northern neighborhoods on both sides of Interstate 83. These locales feature an abundance of sub-30-unit properties that trade with initial cap rates that can exceed 7 percent. Downtown Baltimore represents an additional spot where high yields and below average pricing is prevalent for complexes with smaller unit counts. Here, overall deal flow is dominated by pre-1970s-built assets that trade at sub-\$2 million price tags. Regional buyers seeking properties comprising more than 50 units have focused on Anne Arundel and Baltimore counties, where returns in the 5 to 7 percent range are common.

### 2019 Market Forecast

- NMI Rank** 44, up 1 place Baltimore climbs one rung in the 2019 NMI as a slowdown in deliveries tightens vacancy.
- Employment** up 1.3% Approximately 18,000 jobs will be created in 2019, nearly matching the previous five-year average. Traditional office positions account for a third of this year's employment growth.
- Construction** 2,100 units After completing more than 3,000 units in each of the past two years, developers will reduce delivery volume in 2019.
- Vacancy** down 50 bps Leasing velocity exceeds supply additions for a third consecutive year, lowering the metro's vacancy rate to 4.8 percent.
- Rent** up 2.2% Sub-5 percent vacancy warrants consistent rent growth, with the average effective rate reaching \$1,324 per month in 2019.
- Investment** Discounted pricing for larger Class A and B assets built within the past 10 years attracts institutional investors from neighboring states looking to deploy at least \$15 million per transaction.

## Soaring Home Prices and Moderating Construction Sustain Apartment Demand, Attracting Buyers

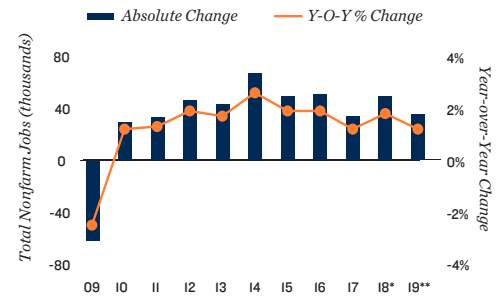
**Elevated homeownership costs underpin apartment demand in Boston.** Healthy tenant demand coupled with a declining construction pipeline will support heightened multifamily performance in the metro this year. Vacancy remains one of the lowest among the major markets, creating a shortage of housing as downpayments and high mortgage costs make homeownership difficult for many. Class C vacancy, in particular, is hovering in the mid-2 percent band. Average effective rent in these units is \$700 less than Class B spaces metrowide, making it difficult for many individuals to transition to newer apartments. Declining construction this year, together with the already low vacancy rate, will make finding quality housing difficult, particularly as job growth attracts new residents and supports household formation metrowide. Some renters may look to outer-ring suburbs, where lower rents persist. Vacancy rates in these neighborhoods can typically rest below 3 percent, supporting strong rental increases.

**Higher returns in northern suburbs entice investors.** Still-tight vacancy and above-national-average rent growth will sustain demand for apartment assets in the Boston metro this year. Investor demand will persist for properties in Back Bay, Seaport, Downtown and other core neighborhoods, with buyers primarily bidding for smaller complexes of less than 100 units. These areas typically trade less frequently, elevating property values and potentially enticing some owners to place their properties on the market. Investors in the \$1 million to \$10 million price tranche looking for lower entry costs and returns at least 100 basis points higher than those found in most Boston neighborhoods will focus on properties north of the core, including in Chelsea and Lynn. Many of these areas posted considerable vacancy improvement and elevated rent growth in the past year. Metrowide, first-year returns averaged in the low-5 percent band.

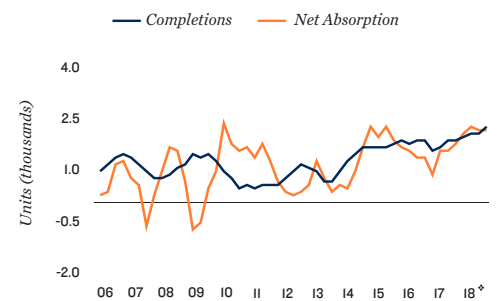
### 2019 Market Forecast

<b>NMI Rank</b> 8, down 2 places	⬇️	Moderating employment gains and slower vacancy improvement move Boston down two notches this year.
<b>Employment</b> up 1.2%	⬆️	Building on last year's 49,000 jobs, employers will add 35,000 workers to payrolls in 2019.
<b>Construction</b> 5,500 units	⬇️	The pace of completions slows this year after five years of elevated deliveries. Construction will be widespread throughout the metro this year.
<b>Vacancy</b> down 30 bps	⬇️	Net absorption of nearly 6,500 units will cut vacancy to 3.6 percent in 2019. Last year, the rate fell 40 basis points.
<b>Rent</b> up 4.2%	⬆️	Healthy tenant demand will support a modest increase in the average effective rent to \$2,380 per month metrowide. In the prior year, the average rent climbed 5.1 percent.
<b>Investment</b>	⬆️	Class C properties will likely continue to lead transaction velocity as low vacancy and the strongest rent growth among asset classes entice investors.

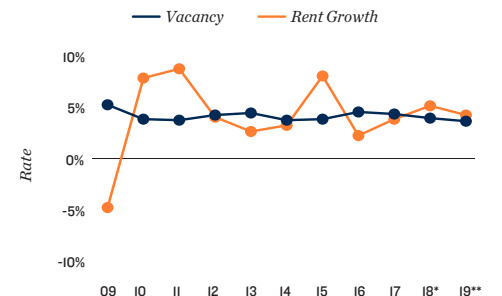
#### Employment Trends



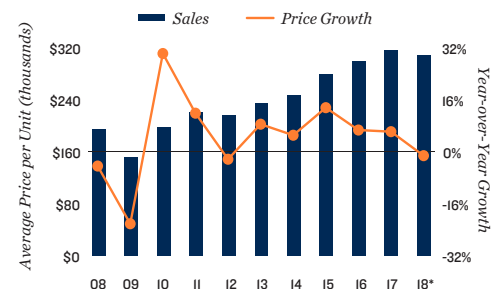
#### Quarterly Completions vs. Absorption\*



#### Vacancy and Rents

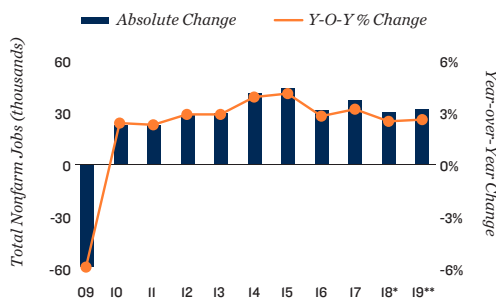


#### Sales Trends

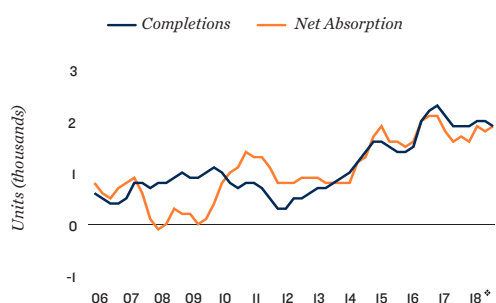


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

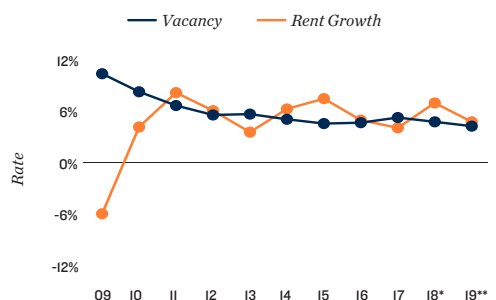
## Employment Trends



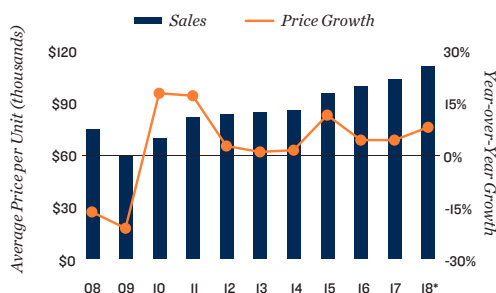
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Robust Population Growth Spurs Leasing Activity; Vacancy Tightens as Deliveries Slow in Charlotte

**Influx of residents bolsters rental housing demand.** The metro's addition of 52,000 new residents this year will result in household growth that doubles the national pace. Many of these households will be headed by millennials, the age group most likely to rent. Robust demand will also come from fewer tenants being able to transition to homeownership due to a lack of entry-level homes for sale amid rising interest rates and values. Even as the need for apartments expands, deliveries will ease from last year's pace, tightening vacancy to its lowest point of this cycle, supporting rent growth. Although nearly every submarket will receive new inventory in 2019, deliveries will be concentrated in the desired neighborhoods around the downtown core, in North Charlotte and near UNC Charlotte. Each of these areas will receive more than 1,300 rentals this year. In the Uptown area near downtown, the first phase of the 19-acre Charlotte Gateway Station District is underway, providing a new multimodal transit hub that will host Amtrak, buses and the streetcar upon completion in 2022. The facility will likely spur additional mixed-use development that is expected to include residential units on surrounding blocks.

**Wide range of buyers target Charlotte apartments.** The vibrant rental market and large supply of recently built inventory are drawing investors from outside the Carolinas. A number of these buyers are focusing on assets with more than 200 units in South Charlotte that were built between 1970 and 2000. Properties offering upside potential through improved management or upgrading of units and amenities can trade at cap rates in the 5 percent range. Robust population gains, increased employment opportunities and strong rental demand are inviting investor attention to York County, which continues to be one of the fastest-growing areas in the metro. First-year returns for new complexes in Rock Hill or Fort Mill can trade in the high-4 to mid-5 percent span, well below the metro average in the low-6 percent area.

### 2019 Market Forecast

- NMI Rank** 26, up 1 place ↗ Charlotte rises one rung into 26th place in this year's Index as vacancy improvement and rent growth moderate.
- Employment** up 2.6% ↗ Job growth rises from a 2.5 percent gain last year as 32,000 workers are added to payrolls.
- Construction** 7,700 units ↘ During 2019, roughly 7,700 apartments will be finalized, down from 8,500 units last year but on par with the five-year average.
- Vacancy** down 50 bps ↘ Strong renter demand will result in the net absorption of more than 8,000 apartments. This will lower vacancy 50 basis points to 4.2 percent at the end of 2019, matching last year's decline.
- Rent** up 4.7% ↗ The tightening vacancy rate will move effective rent to an average of \$1,166 per month in 2019, building on last year's 6.9 percent surge.
- Investment** ● Assets north of I-485 in Huntersville or Concord are desired, though listings are slim. Class A assets here trade at cap rates that start in the low-5 percent area.



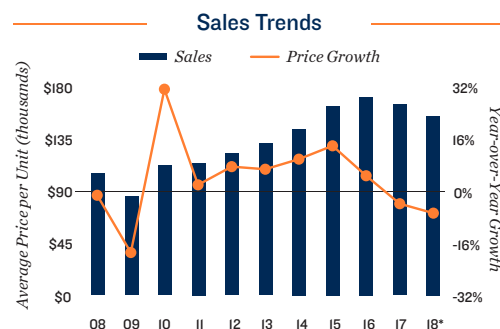
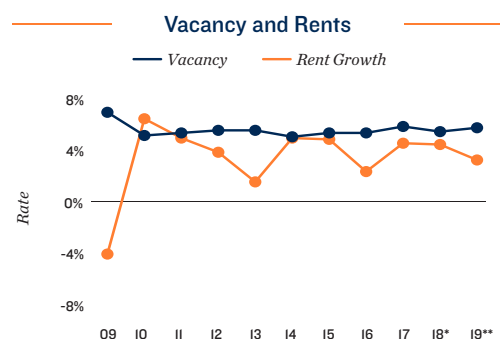
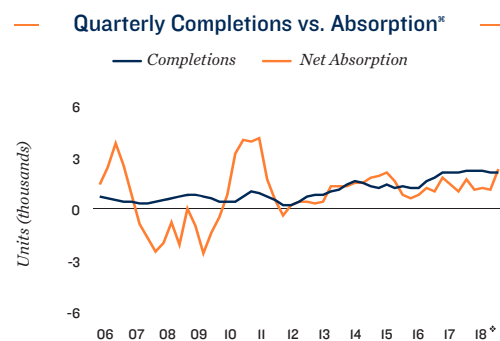
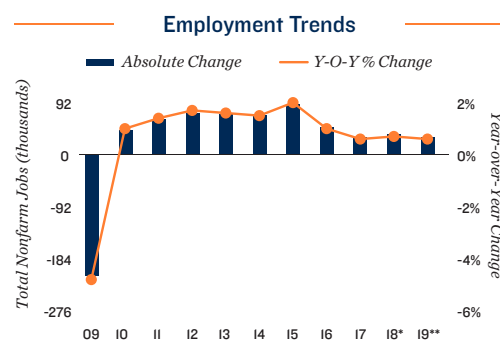
## Tech Firms Expand in Downtown Chicago, Boosting Incomes and Fueling Apartment Demand

**Downtown vacancy tightens despite elevated completions.** Corporate expansions and relocations to Downtown Chicago and surrounding neighborhoods are boosting incomes and supporting household formation. Tech companies, including Google and Facebook, are growing their footprints and increasing hiring. The software firm Salesforce is also considering expanding their presence downtown, potentially bringing 5,000 jobs to the area. Many professionals are renting in the city's dense urban areas as high costs in these neighborhoods make homeownership difficult. As a result, apartment vacancy in the city of Chicago began to improve in late 2018 at a faster rate than in the suburbs despite elevated construction. This year, completions will remain high, potentially reaching a cyclical peak. The considerable number of new apartments underway will place some slight upward pressure on metrowide vacancy as space begins to lease.

**Lakefront properties command investor attention.** Initial yields up to 200 basis points higher than many larger coastal markets attract a diverse pool of buyers to Chicago. Institutional investors are driving sales of larger assets in the core and an influx of new units may provide them additional opportunities in the near future. Buyers targeting the \$1 million to \$10 million price tranche will seek smaller properties of less than 50 apartments in northern lakefront locations. Popular areas for these include the Ukrainian Village, Logan Square and Lakeview, where first-year returns in the mid-5 percent band persist. Buyers looking for higher returns and lower entry costs can find assets in the southern suburbs where returns in the 7 to 8 percent span are more common. These areas are typically home to lower-wage workers who have a greater propensity to rent. Apartment properties metrowide change hands with first-year returns in the low-6 percent area. Marketwide, rising property taxes and increasing water bills may bring some concerns to investors moving forward.

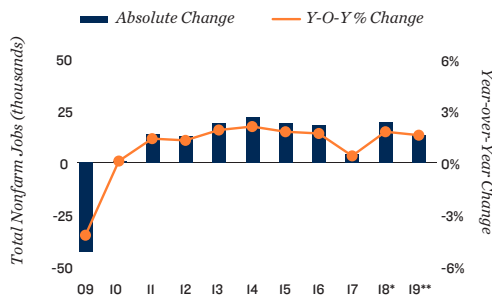
### 2019 Market Forecast

- NMI Rank** ↑ 28, down 3 places  
Increased deliveries push vacancy higher, lowering Chicago three slots to land in 28th place in this year's NMI.
- Employment** ↑ up 0.6%  
The pace of hiring remains on par with last year as 30,000 positions are created. In 2018, 34,500 jobs were added.
- Construction** ↑ 9,500 units  
Deliveries remain elevated, potentially reaching a cyclical peak this year with the city receiving more than half of all new rentals. In the prior year, 9,200 apartments were completed.
- Vacancy** ↑ up 30 bps  
Rising completions will outpace net absorption this year, lifting vacancy to 5.7 percent. In 2018, vacancy fell 40 basis points.
- Rent** ↑ up 3.2%  
The average effective rent rises to \$1,510 per month. In the prior year, a 4.4 percent increase was recorded.
- Investment** ○ Stabilized yields in the low-6 to low-7 percent band in Rogers Park and select suburban submarkets will attract investors. New developments in South Side neighborhoods may attract value-add buyers.

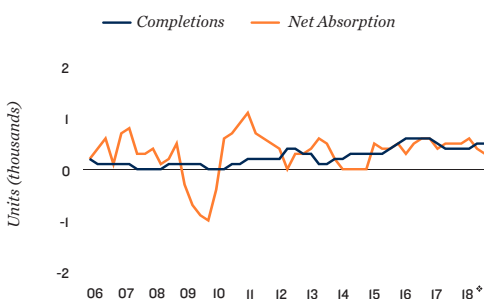


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Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

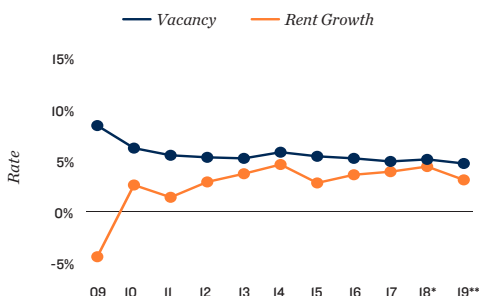
## Employment Trends



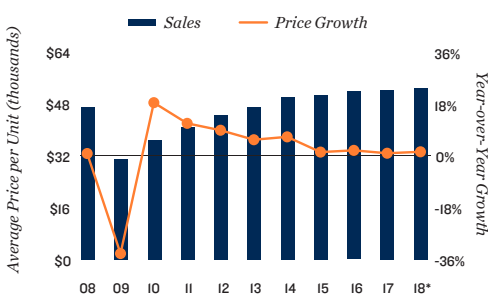
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Amazon to Further Aid Vacancy Compression; Private Capital Highlights Sales Activity

**Demand for Class B/C space spearheads declining vacancy.** Steady hiring activity will continue to power the Cincinnati rental market, particularly Class B/C product as much of the metro's employment growth consists of lower-wage positions including retail jobs and warehouse workers. Furthermore, Amazon recently chose the Cincinnati/Northern Kentucky International Airport for its next air cargo hub, where the company will generate 2,700 new jobs over the next several years. These demand drivers help keep rent gains solid, maintaining a growth rate above 3 percent for the fourth consecutive year. In addition, market vacancy is expected to dip below 5 percent by year end, headlined by vacancy rates in the low-4 and mid-3 percent bands for Class B and C units, respectively. New apartment development will counter the metro's compressing vacancy as more than 1,000 units are completed this year, with areas along the Northern Kentucky riverfront as well as neighborhoods near the University of Cincinnati receiving the bulk of units.

**Investors watch for value-add opportunities.** Class C assets will likely remain involved in the large majority of trades this year. Neighborhoods like Walnut Hills and Westwood provide investors with many high-yield options as cap rates for properties in these areas may extend into the mid-9 percent realm. With units selling for roughly \$30,000 each, private buyers with limited pools of capital can be competitive here. Additionally, parts of Covington experiencing revitalization efforts serve as a hub for opportunistic investors seeking value-add plays. Most buyers drawn to this section of the metro are local; however, some are from the East Coast. Those arriving from coastal cities should find more favorable entry-level pricing and initial returns in Cincinnati than in their local markets. Though value-add investments are popular among these out-of-state buyers, they tend to focus on 1970s-built Class B assets requiring minor upgrades rather than Class C complexes needing considerable space and operational improvements.

## 2019 Market Forecast

- NMI Rank** 40, down 6 places ↘ Cincinnati retreats six rungs in this year's Index due to slowing household and rent growth.
- Employment** up 1.6% ↗ The job creation rate is similar to last year's as Cincinnati businesses add 17,500 employees to payrolls in 2019.
- Construction** 1,200 units ↘ Completions decrease by almost 50 percent following 2018's delivery sum of 2,200 units. Development will be concentrated near the urban core as well as some inner-ring suburbs.
- Vacancy** down 40 bps ↘ A lag in construction allows demand to catch up to supply, pushing market vacancy down to 4.7 percent.
- Rent** up 3.1% ↗ Rents are steadily increasing, moving the market's average effective rent to \$972 per month. Central Cincinnati should continue to witness strong rent gains this year.
- Investment** ● Rejuvenation efforts will continue to percolate from the urban core to inner-ring suburbs, potentially lowering cap rates in these transitioning neighborhoods as investor interest grows.

## Employers Transition From Suburbs to Downtown As Urban Renewal Progresses

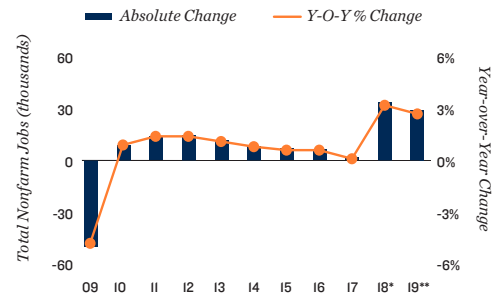
**Downtown Cleveland the epicenter of metro's improving apartment sector.** A rejuvenated urban core continues to power Cleveland's rental market. The construction of new units and the repurposing of underperforming commercial real estate assets into apartments is helping fulfill tenant demand in the city center. Subsequently, some employers like Nationwide Insurance are choosing to transition their suburban locations to downtown spaces, often selecting floor plates in the submarket's new mixed-use developments. With growing intrigue surrounding the urban core, builders will remain focused on the area throughout 2019, likely pushing the locale's vacancy up slightly as supply outweighs demand. Metrowide vacancy, meanwhile, is expected to decrease despite back-to-back years of 1,500-plus completions for the first time since 2000. Declining market vacancy should be driven by bolstered demand for Class A units moving forward as vacancy for this product type is in the low-4 percent range; however, rent gains are likely propelled by Class B/C supply.

**Value-add opportunities prolific, attracting multiple investor classes.** Value-add investments will likely remain a large segment of deal flow throughout this year. Buyers targeting assets above the \$10 million threshold continue to favor value-add opportunities over stable properties. Older apartments with considerable upside generally offer higher cap rates, often sitting in the lower-7 percent band, up to 150 basis points below the metro average. At the same time, the market may witness more multigenerational owners, particularly those in transitioning inner-ring submarkets, disposing of their buildings as competitive bidding environments encourage them to sell. Some of these longtime operators could move their capital to other value-add opportunities still available in transitioning neighborhoods, while others may shift to newer apartment assets.

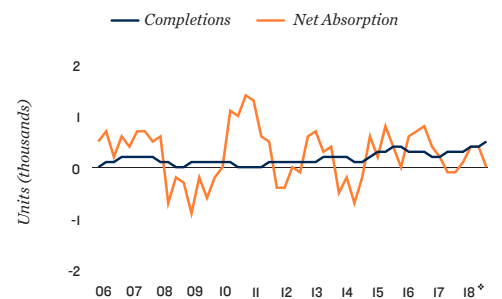
### 2019 Market Forecast

<b>NMI Rank</b> 43, down 4 places	⬇️	A decline of four spots puts Cleveland in 43rd place this year as vacancy remains above the national average.
<b>Employment</b> up 2.7%	⬆️	Job creation towers over the previous 10-year average of 0.5 percent as Cleveland employers hire 29,000 workers this year.
<b>Construction</b> 1,600 units	⬇️	Completions taper off slightly after 2018's delivery of 2,000 units; however, development remains relatively strong, particularly in the urban core.
<b>Vacancy</b> down 20 bps	⬇️	Demand is able to catch up to the elevated level of construction after last year's 10-basis-point rise, moving market vacancy down to 5.8 percent.
<b>Rent</b> up 3.1%	⬆️	Amid increasing demand, Cleveland's average effective rent grows solidly, rising to \$940 per month.
<b>Investment</b>	⬆️	Employment growth downtown will spur the upgrade of some nearby lower-class apartments, potentially enticing more Cleveland residents to shift from suburbia to the urban core.

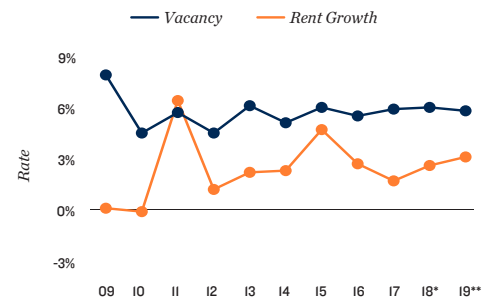
### Employment Trends



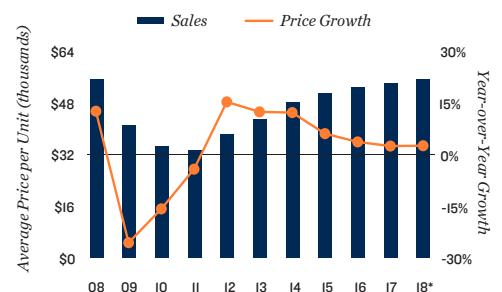
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

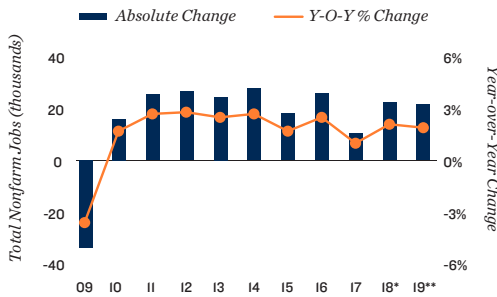


### Sales Trends

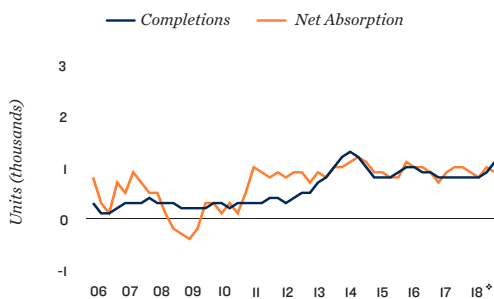


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

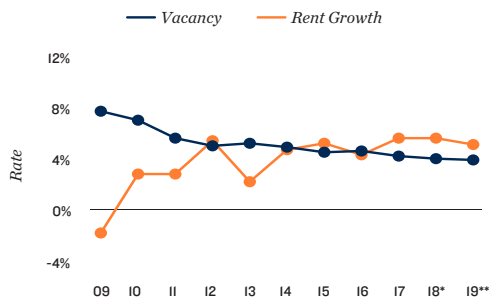
## Employment Trends



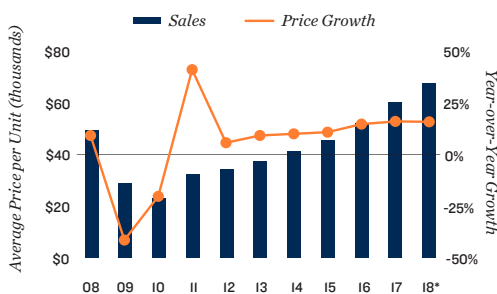
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Investors Capitalize on Strong Apartment Demand Around Ohio State University

**Job creation drives downtown development.** Columbus vacancy will remain one of the lowest rates among major U.S. metros this year. Though demand for all rentals is robust, Class C units are the strongest as this niche's vacancy sits in the mid-2 percent band, more than a full percentage point below the other asset classes. This is highlighted by notably tight conditions in the metro's northern suburbs like Hilliard and Westerville. Consequently, these areas received several hundred units each last year, with more construction expected in 2019, particularly in Westerville. However, the bulk of this year's projects will once again occur in the urban core as developers rely on healthy employment gains in Downtown Columbus to help fill units. Recently, Root Insurance announced plans to add nearly 500 jobs over the next several years at a new downtown location, while healthcare software company CoverMyMeds is seeking a new headquarters in the adjacent Franklin-ton neighborhood, which would include 1,000 additional positions. The inflow and expansion of firms in the market will continue to boost tenant demand in 2019, supporting another year of robust rent growth.

**Private capital eyes the University District.** Tight vacancy around Ohio State University's campus continues to drive apartment investment, particularly by private buyers seeking affordable entry costs. Neighborhoods adjacent to the university include several assets in the 10- to 20-unit range with 2018 trades capturing yields in the low-8 percent band, roughly 30 basis points above the metro average. These investors also target properties just east of Downtown Columbus where market dynamics and initial yields are comparable. In addition, buyers seeking higher-priced assets will focus on the Morse Road corridor where a number of complexes in the \$2 million to \$5 million territory can be found. Interest in this area can be correlated to limited supply growth and proximity to many dining and shopping options.

## 2019 Market Forecast

- NMI Rank** 23, up 3 places Exceptionally tight vacancy and strong rent growth advance Columbus three notches in the 2019 Index.
- Employment** up 1.9% Job creation is just under last year's 2.1 percent growth rate as Columbus employers add 21,400 workers in 2019.
- Construction** 4,100 units Completions taper off after last year's 5,200 new units, with the Uptown and Short North Districts still receiving a considerable amount of developer interest.
- Vacancy** down 10 bps Absorption will edge out supply growth, moving market vacancy down to 3.9 percent. These tight conditions are supported by sub-3 percent rates in several submarkets.
- Rent** up 5.1% Rent growth eclipses 5.0 percent for the third consecutive year, driving the average effective rent to \$997 per month.
- Investment** An increasing institutional presence should become more apparent moving forward as Columbus maintains its low vacancy and strong rental gains.

## Dallas/Fort Worth's Robust Construction Pipeline Met With Steady Housing Demand

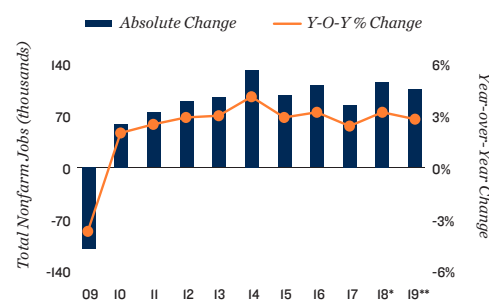
**Strong job growth propels Metroplex apartment demand, construction pipeline.** The Dallas/Fort Worth area remains a national leader in job creation again this year, spurring strong housing demand. The number of households in the Metroplex is set to rise by approximately 60,000 for a second consecutive year, and apartment developers are on track to meet a sizable share of this demand. While rental deliveries remain heaviest just north of downtown Dallas and in the suburbs of Frisco, Prosper, Allen and McKinney, areas around Fort Worth will see a significant increase in additions during 2019. Downtown Fort Worth, in particular, is set to receive nearly 3,200 units this year, compared with 4,000 apartments delivered since 2013. While some softening is anticipated as vacancy ticks up, positive net absorption remains near a historical high, encouraging a steady pace of effective rent growth.

**Cap rate spread narrows between Class B and Class C properties, reflecting shift of investor goals.** Robust supply additions in some pockets of the Metroplex have had little impact on Class B and Class C apartment operations as new supply is almost all Class A luxury rentals. Vacancies for Class B and Class C properties average well under 5 percent and rent growth has been strongest among these asset classes. Class C properties are in high demand, especially among investors seeking value-add properties. As a result, average first-year returns have compressed and are on par with those for Class B complexes near 5 percent. Rising interest rates and an overall slower pace of rent growth have raised caution levels among some investors and encouraged a more conservative approach to opportunities. Buyers are adjusting underwriting and investment criteria as they consider the intricacies of today's market environment. Some investors with long-term hold strategies are using the opportunity to trade into a higher-quality asset offering a similar initial return to an older property in need of capital improvements.

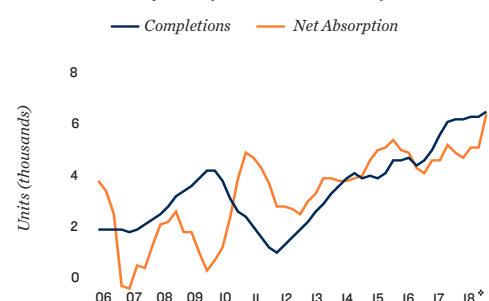
### 2019 Market Forecast

- NMI Rank** ↻ Dallas/Fort Worth retreats one place in the NMI this year as a surge in completions pushes vacancy up.  
31, down 1 place
- Employment** ↗ Employers have created an average of 103,000 positions during each of the past seven years, and job gains remain on par in 2019 as 105,000 workers are added to payrolls.  
up 2.8%
- Construction** ↗ In 2019, deliveries rise from the 25,900 units completed last year, reaching the highest level in more than 20 years.  
28,400 units
- Vacancy** ↗ The absorption of nearly 24,000 apartments falls short of supply additions this year and vacancy increases to 6.0 percent.  
up 40 bps
- Rent** ↗ Building on last year's 3.2 percent swell, the average effective rent advances to \$1,142 per month.  
up 2.8%
- Investment** ○ Housing demand in the areas west of Fort Worth as well as southern and far east Dallas is rising as residents eye lower housing costs. Additional investment activity could follow as buyers seek to capture upside through rent advances.

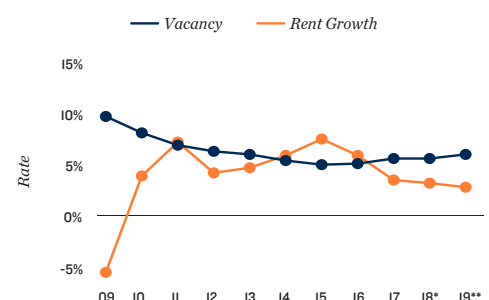
### Employment Trends



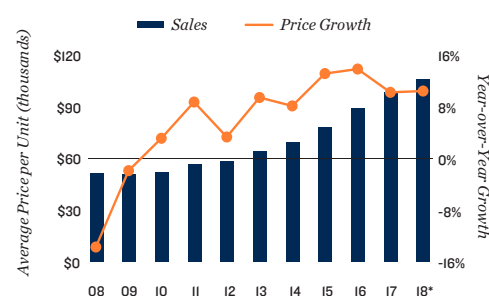
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents



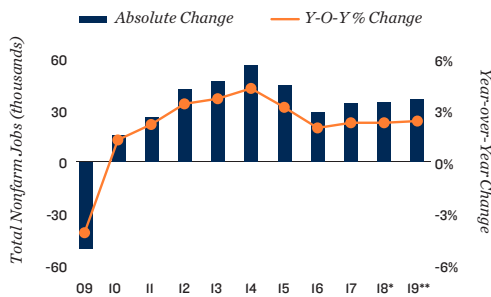
### Sales Trends



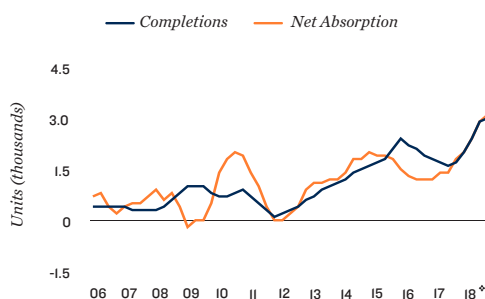
\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics



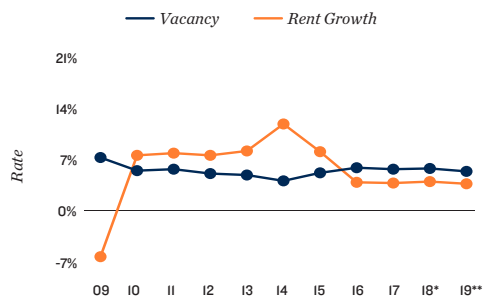
## Employment Trends



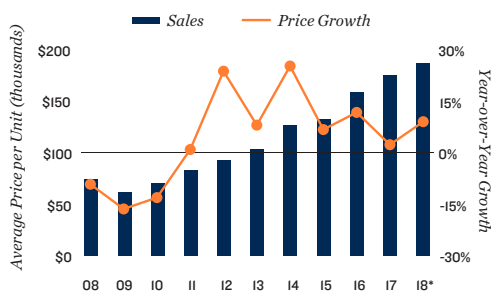
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Urban Core Continues to Draw Investor Attention While Buyer/Seller Disconnect Widens in Suburbs

**High-quality jobs proliferate as corporate expansions boost employment growth.** A talented labor pool is bringing many new companies to the Colorado Front Range and they are creating a number of well-paying positions. Cloud-based software firm Xero recently opened its new headquarters in LoDo, while VF Corp., a worldwide apparel and footwear company, has plans to open its global headquarters in downtown Denver in 2020. The inflow of degreed positions is sparking demand for Class A and B units, pushing vacancy rates for these asset classes into the lower-5 and mid-4 percent bands, respectively. As the number of available apartments declines, developers will be adding more than 14,000 rentals to the market, many of which will be luxury units. The urban core will receive a sizable portion of the new supply, particularly the Five Points neighborhood where more than 1,000 units will be finalized in 2019. In addition, Capitol Hill will witness the completion of nearly 400 apartments as the area's revitalization efforts progress. Demand for apartments will remain strong in 2019, and the average effective rent will rise by more than 3 percent.

**Urban assets garner elevated interest.** As value-add options in Capitol Hill continue to diminish, investors will likely increase their interest in the East Colfax corridor near the UCHHealth University of Colorado Hospital. Here, cap rates in the upper-6 percent band are achievable, attracting many private buyers, particularly those targeting assets under \$2 million. Neighborhoods closer to the urban core just south of City Park will lure investors with similar criteria, though cap rates in this area will be up to 50 basis points lower due to the proximity to the city center. Moreover, buyers are being more selective and focusing on assets near the core, also applying downward pressure on yields in and around Downtown Denver. The bidding for outer-ring suburban properties, meanwhile, remains relatively subdued, widening the bid/ask gap and potentially encouraging owners to lower pricing in correspondence to market conditions.

### 2019 Market Forecast

- NMI Rank**  
21, down 7 places
  - An increase in deliveries and a decline in rent growth drop Denver seven rungs in the Index this year.
- Employment**  
up 2.4%
  - Job growth surpasses 2.0 percent for the ninth consecutive year as Denver employers add 36,000 new workers to payrolls. The healthcare and tech sectors remain key drivers of job creation.
- Construction**  
14,100 units
  - Apartment developers will surpass last year's cyclical high of 13,600 apartments. In 2019, the urban core will remain the center of attention.
- Vacancy**  
down 40 bps
  - The net absorption of more than 14,500 units helps push vacancy down to 5.3 percent after a 10-basis-point rise one year earlier.
- Rent**  
up 3.6%
  - Rent growth falls just shy of the prior three-year average of 3.8 percent as the average effective rent rises to \$1,500 per month.
- Investment**
  - Investors will expand their search parameters to Denver's Northwest Corridor as employment and household gains accelerate, generating more rental demand in this area.

# Detroit's Urban Revival Sparks Construction Surge; Yields Continue to Lure Buyers

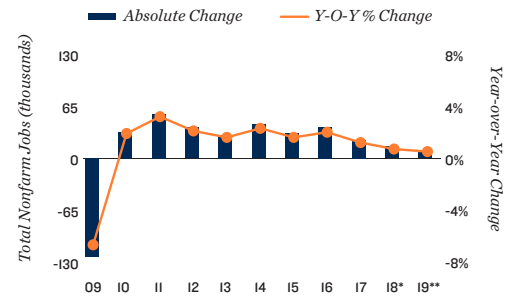
**Redevelopment projects boost rental options.** In 2019, deliveries jump to the highest pace in 15 years, with the majority of the units in the city of Detroit. Revitalization efforts in the downtown and midtown areas are expanding into surrounding neighborhoods as more residents seek a walkable urban lifestyle near jobs. Many older apartment buildings throughout the city are being refurbished while new mixed-use housing projects are sprouting up on larger sites. The repurposing of the former Tiger Stadium is underway in Corktown and 111 apartments above retail space will be completed in The Corner development this year. Across the street, the Elton Park project will add 85 units. The need for rentals in the neighborhood should soar as Ford begins to transform the former Michigan Central Station and surrounding buildings into its Corktown campus. The company expects to have 2,500 of its employees there and lease out space for an equal number of workers to other firms by 2022. Metrowide, deliveries will outpace rental demand, though vacancy will remain below 4 percent, driving the average effective rent to a new high.

**Yield potential and price point lure investors to apartments in Detroit.** The resurgence of the city of Detroit coupled with major growth in autonomous and electric vehicle technology is drawing businesses and residents to the region, increasing apartment demand. Improving renter demographics as well as lower entry costs and cap rates averaging in the low-7 percent range, which can be more than 200 basis points above major coastal markets, are drawing a wide range of buyers. Many investors are seeking well-located Class C buildings that can be quickly upgraded and have their rents increased to market rate. Assets close to major transit corridors and amenities in walkable urban and suburban neighborhoods are desired, especially along the QLINE in Midtown.

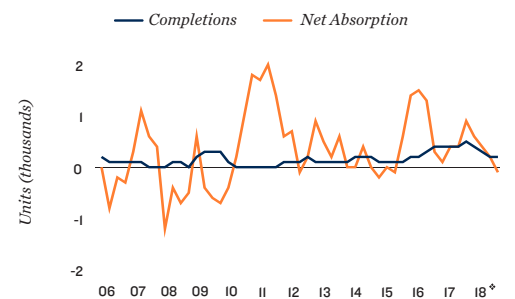
## 2019 Market Forecast

- NMI Rank** 32, down 4 places Detroit slips four slots into 32nd place this year as a rise in new inventory nudges vacancy higher.
- Employment** up 0.5% Job growth tapers from the 15,000 positions created in 2018 as employers add 10,000 workers to payrolls this year.
- Construction** 2,000 units Completions nearly double last year's 1,100 units, reaching the highest level since 2003. The majority of rentals are slated to come online throughout the city of Detroit.
- Vacancy** up 30 bps The rise in construction will contribute to vacancy inching up to 3.6 percent in 2019 after a 50-basis-point decline last year.
- Rent** up 3.8% Building on a 4.6 percent hike during 2018, the average effective rent climbs above \$1,000 for the first time, ending 2019 at \$1,015 per month.
- Investment** The potential for lower entry costs is drawing investors to assets along Interstate 94 in Macomb County. Properties here have easy access to urban and suburban employers.

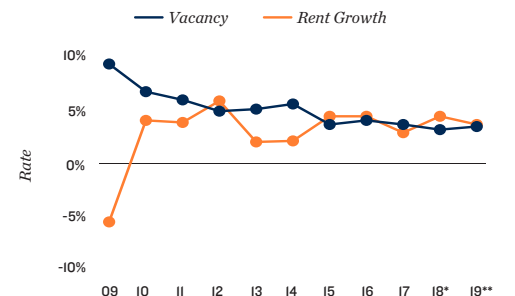
### Employment Trends



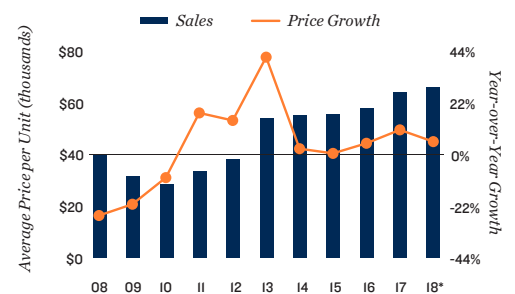
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

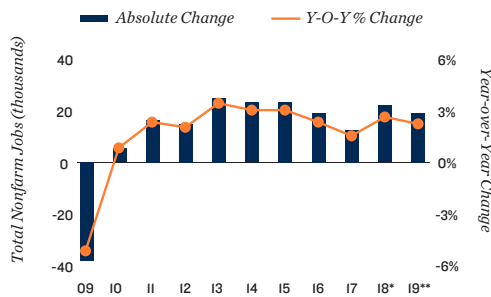


### Sales Trends

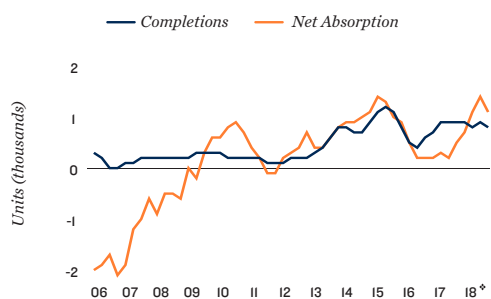


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

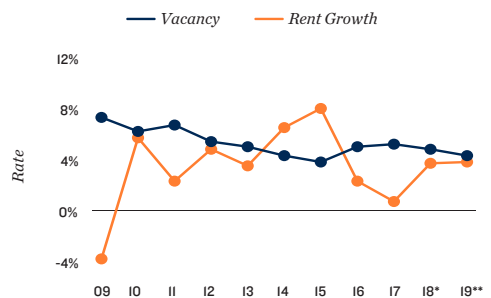
## Employment Trends



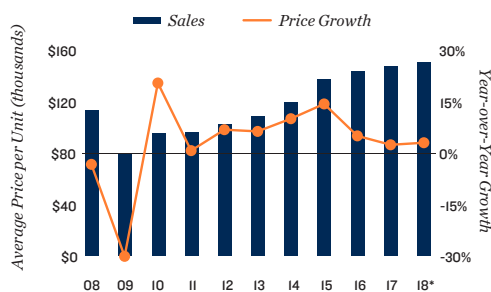
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



## Young Tech Workers' Active Lifestyle Aligns With Flexibility of Rental Lifestyle

**High mobility of young professionals a benefit for new luxury units.** Fort Lauderdale's job market has diversified in recent years, attracting more national and regional headquarters and growing the presence of tech companies substantially. With a robust and healthy job market, aided by a favorable business and tax climate, domestic migration into Broward County remains strong, driving a need for more housing options. The single-family home market remains challenging for many first-time buyers and barriers to ownership will increase this year amid rising interest rates and reduced tax incentives, keeping demand for rental housing elevated. Fort Lauderdale is quickly becoming a place where more young professionals want to live, drawn by lower prices and highly amenitized complexes in close proximity to employment hubs, nightlife and restaurants. The newly opened Virgin Trains rail system and the expansion of Tri-Rail directly into Downtown Miami are making it easier for people to get around in a region notorious for bad traffic, which could boost the number of residents commuting to jobs outside Broward County every day.

**Excitement builds around new prospects in some of Fort Lauderdale's fastest-changing neighborhoods.** The designation of multiple opportunity zones across Broward County will quickly boost liquidity in long overlooked areas, extending the transformation of the region. Healthy demographics and solid property performance have been a major draw for investors, which often achieve a first-year yield in the low-6 percent territory. Years of investment have already shifted the makeup of some of these areas, including Flagler Village, which continues to be a target for capital as the potential for outsize returns remains. Years of revitalization efforts and new construction in other parts of the market will be eyed by investors seeking to locate near the recent growth in areas such as West Broward, where the Metropica project is underway, or near Dania Pointe, a new mixed-use development.

## 2019 Market Forecast

- NMI Rank** 17, up 5 places Fort Lauderdale gains five spots in the 2019 Index as a decrease in vacancy produces strong rent gains.
- Employment** up 2.2% The creation of 19,000 jobs this year trails the 2.6 percent gain recorded last year as the labor market tightens.
- Construction** 3,600 units Deliveries are most concentrated in Fort Lauderdale proper and Pompano Beach, and they match last year's total.
- Vacancy** down 50 bps Net absorption holds above 4,000 units once again this year, supporting a declining vacancy rate, which will reach 4.3 percent at year end, adding to last year's 40-basis-point drop.
- Rent** up 3.8% Building on a 3.7 percent increase in 2018, the average asking rent rises to \$1,600 per month this year.
- Investment** Increased development in and around downtown Fort Lauderdale has more young professionals living in the area. It's also breathing new life into the market, which could motivate owners to list and capitalize on recent gains.

\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Energy-Sector Recovery Fuels Job Growth, Invigorates Apartment Demand in Houston

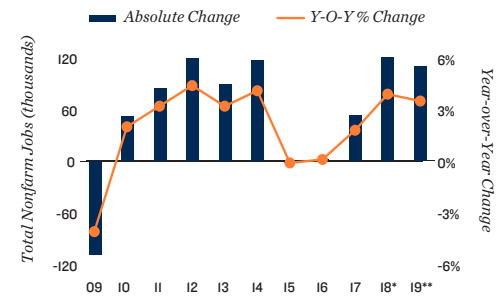
**Apartment development pipeline filling again as demand drivers strengthen.** Houston is expected to lead the nation in job creation for a second consecutive year in 2019 as the economy bounces back from a slowdown in the oil and gas industry. Strengthening employment growth will invigorate housing demand, but residents will face limited housing options. The apartment construction pipeline thinned significantly during the energy industry downturn, and this year's completions fall to one-third of last year's total. Downtown Houston and the Spring and Tomball areas will see the sharpest dips in supply additions from 2018, while deliveries remain steady in Katy and the Heights area. Demand will outweigh completions, resulting in declining vacancy for only the second time in a five-year span. The brightening economic outlook spurred rising multifamily permit issuance last year, and an expanding planning pipeline suggests higher deliveries could be anticipated after 2019 to meet the rising housing needs.

**Positive economic outlook, healthy property operations attract investors.** Heightened buyer demand has resulted in stronger sales activity in Houston as investors are drawn to the city by robust job growth and steady property operations. Average first-year returns are the highest of Texas' four largest metros. Low vacancy and steady rent gains among Class B and Class C properties have strengthened demand for these assets, and healthy buyer competition has compressed yields for these properties to the 5 to 6 percent span. East, southeast and south Houston apartment properties, especially those in areas near the Texas Gulf Coast, are capturing significant interest as a busy port and petrochemical boom drive apartment demand. Cap rates in these submarkets have averaged 50 to 100 basis points higher than comparable properties in central Houston, as well as those located in areas to the north and west.

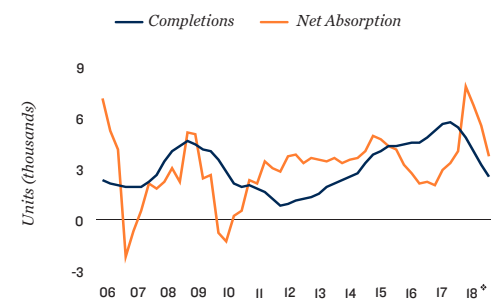
### 2019 Market Forecast

- NMI Rank** ↗ A slip of one rung places Houston 30th in this year's NMI as vacancy remains above the national average.  
30, down 1 place
- Employment** ↗ Employment rises by 110,000 workers this year, adding to the 120,000 positions created during 2018. Job growth during these two years surpasses that of the prior four years combined.  
up 3.5%
- Construction** ↘ Deliveries decline for a third consecutive year to the lowest level since 2011.  
4,100 units
- Vacancy** ↘ The vacancy rate falls from last year to 6.0 percent in 2019 as positive net absorption outpaces completions.  
down 40 bps
- Rent** ↗ The combination of limited inventory growth and healthy demand encourage a faster advance in the average effective rent to \$1,136 per month.  
up 3.0%
- Investment** ○ Listings could rise this year as property owners face increased costs, including higher insurance premiums as floodplain maps are redrawn, as well as rising taxes and interest rates.

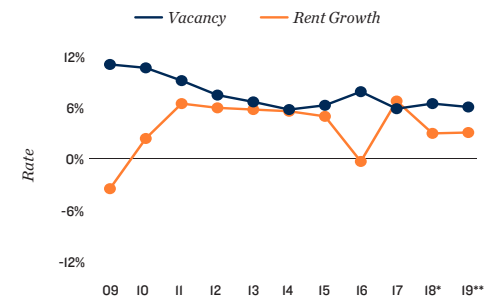
#### Employment Trends



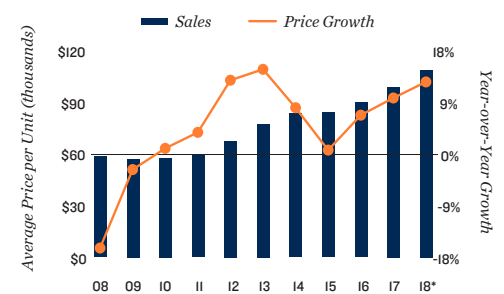
#### Quarterly Completions vs. Absorption\*



#### Vacancy and Rents

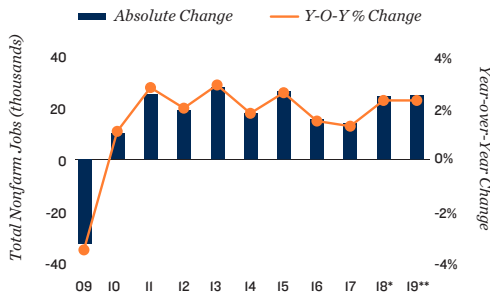


#### Sales Trends

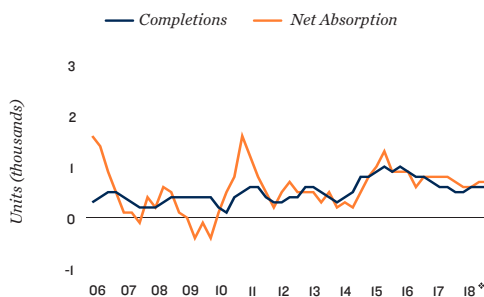


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

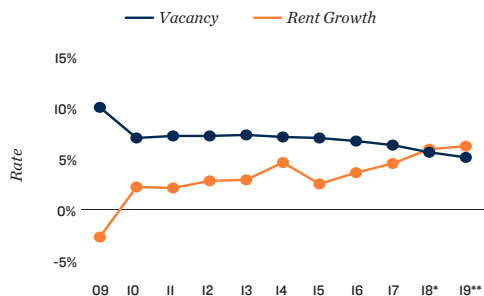
## Employment Trends



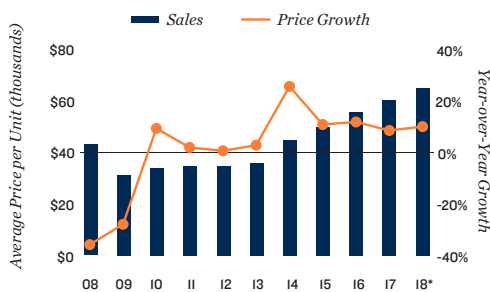
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Mixed-Use Apartment Projects Transforming Underutilized Areas in the Indianapolis Metro

**Redevelopments add mixed-use properties in walkable neighborhoods.** Despite a wave of new units coming online in 2019, the positive reception by tenants will tighten vacancy and drive rent growth. In Carmel, the widening of the Monon Trail is contributing to a surge in mixed-use buildings along the corridor. Nearly 650 rentals are underway near the trail in addition to offices, a hotel, retail space and restaurants. In Speedway, the downtown area is being refurbished to include rentals above retail. Along Massachusetts Avenue in downtown Indianapolis, the former Coca-Cola bottling plant is being transformed into the Bottleworks District. The first phase of the project will open in 2020 with a hotel, food hall, theater, retail shops and office space. A later phase will add apartments and condos by 2023. Strong rental demand throughout the market is underpinned by steady employment growth and rising home prices that place homeownership out of the reach of more tenants and keep the renter pool expanding.

**Wide range of investors confident in Indianapolis apartment market.** Steady rental deliveries over the past five years are keeping out-of-state institutions and REITs actively targeting newer Class A assets with at least 250 units. Buildings near transit in walkable urban neighborhoods are especially desired. Cap rates for these buildings are typically in the mid-5 to low-6 percent range, well above coastal markets, yet 100 to 200 basis points less than the metro average. Buyers in search of steady income streams and higher yields may find opportunities in Johnson County, particularly in Greenwood. Here a lack of new inventory over the past six years has kept vacancy among the lowest metrowide, providing solid rent gains. Investors seeking upside potential may find opportunities along the Red Line. The rapid bus service will open this year running from the University of Indianapolis through downtown and into Broad Ripple neighborhood, benefiting apartments nearby.

## 2019 Market Forecast

- NMI Rank** 33, up 3 places Lower vacancy and strong rent gains lift Indianapolis three notches into 33rd place in this year's Index.
- Employment** up 2.3% During 2019, staffs increase by 25,000 workers, up from a gain of 24,400 jobs last year.
- Construction** 2,700 units Deliveries rise from 2,500 apartments last year but remain below the five-year average. Downtown Indianapolis will receive more than 700 of this year's units.
- Vacancy** down 50 bps Rental demand will outpace deliveries, moving vacancy down to 5.1 percent in 2019, following a 70-basis-point decline last year.
- Rent** up 6.2% After a 5.9 percent surge in 2018, the average effective rent posts the largest annual gain of the cycle, soaring to \$938 per month this year.
- Investment** Buyers looking for properties with some upside potential may find opportunities near the many mixed-use redevelopment projects underway in Indianapolis, Carmel and Speedway.



## Streetcar Accessibility Underpins Urban Development; Pipeline Focuses on Commuter Suburbs

### Apartment vacancy plumbs cycle lows amid lowest unemployment in two decades.

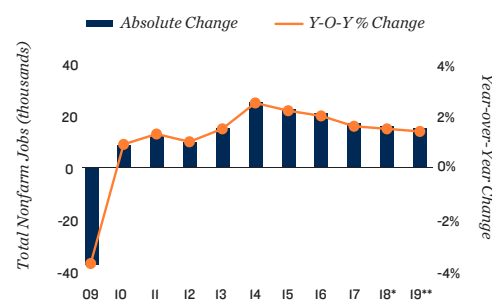
A consistent pace of job creation in Kansas City has lowered the unemployment rate to the low-3 percent range, sponsoring broad growth in household formation. As millennials seek out the live-work-play lifestyle offered by rentals near the urban core, builders have responded with projects along the streetcar path. Providing new residents with easy transportation to major entertainment venues between Crown Center and City Market, locations surrounding the Power and Light District remain the most concentrated source of development in the metro. Meanwhile, construction outside the core is focused on the I-470 and I-435 Loop south of I-70, where rentals remain more affordable than the average mortgage cost in these areas. As a result, vacancy will push toward the lowest levels of the current cycle, supported by robust net absorption in southern Jackson and Johnson counties, where new development has been mostly benign. Under these conditions, rent gains should reach the high-2 percent range, driven by outperformance in the Overland Park and Lee's Summit areas.

**Urban listings draw investment interest.** A combination of robust returns, with cap rates beginning in the low-7 percent range, and a wide variety of assets bring buyers to Kansas City. Properties in Downtown Kansas City provide the bulk of deal flow, particularly assets in locations near the Plaza, Crown Center, or the Power and Light District. A lack of listings in top-tier suburbs limits opportunities, yet prices per unit in Southern Johnson County will exchange ownership well above the metro average, supporting cap rates in the mid-6 percent range. Value-add opportunities in the Union Hill and Westport neighborhoods of Kansas City remain highly attractive, while assets near Zona Rosa in northern Kansas City can be acquired for long-term value creation through high current returns and price appreciation.

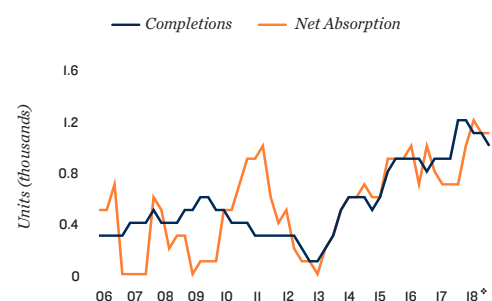
## 2019 Market Forecast

- NMI Rank**  
42, up 4 places
  - Kansas City jumps four places in the Index this year as fewer deliveries help to tighten the vacancy rate.
- Employment**  
up 1.4%
  - Job growth ticks down slightly from last year as 15,000 positions are created, led by expansion in the healthcare industry.
- Construction**  
3,300 units
  - A near-25 percent slowdown in construction remains focused around midrise assets in the core and garden-style suburban properties along I-435 and I-470.
- Vacancy**  
down 30 bps
  - Vacancy contracts 30 basis points to 4.6 percent, led by consistent absorption near the Power and Light District and Union Hill.
- Rent**  
up 2.9%
  - The average effective rent increases to \$968 per month, underpinned by strength in North Overland Park and newly stabilized properties in the urban core.
- Investment**
  - Older assets in the Crossroads and Downtown Kansas City have seen renewed interest from investors as tenant demand rises from millennials seeking accommodations near their workplaces.

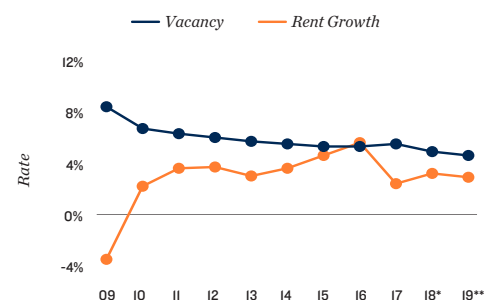
### Employment Trends



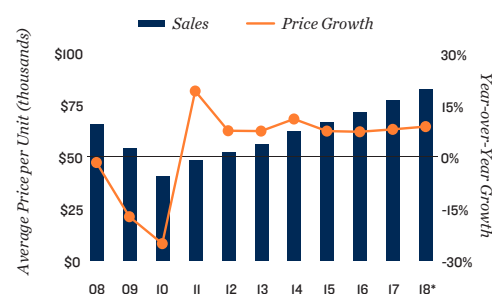
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents



### Sales Trends









\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Influx of Residents Warrants Elevated Construction; Robust California Investor Activity Lifts Sales Velocity

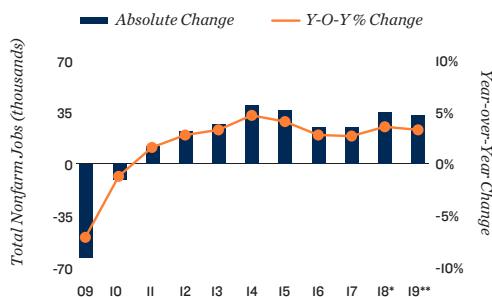
**Stout population growth cornerstone of heightened renter demand.** Following the absorption of more than 17,000 units over the past five years, the Las Vegas metro enters 2019 with limited vacancies across all classes of apartments. Robust leasing velocity has been supported by the metro's affordable cost of living and diverse job creation, which has attracted a wave of transplants from West Coast metros and other Southwest markets. These relocation drivers persist this year as vigorous employment growth across a group of sectors supports positive net migration of 45,000 residents, the largest annual total since 2007. This wave of households will generate demand for all classes of properties, including amenity-rich apartments. Meanwhile, development activity will fall from levels witnessed over the past two years, with upcoming deliveries located near Interstate 215 in Southwest Las Vegas and Henderson. Demand for these units and Class B and C rentals enables the metro's vacancy rate to remain below 5 percent for a second straight year.

**Out-of-town investors bet on long-term performance of Las Vegas.** Diverse employment gains and strong rent growth keep Las Vegas an appealing locale for out-of-state investors eyeing higher returns and lower price points than found in their home markets. Southern California-based buyers with varying investment strategies are especially active. Complexes comprising upward of 100 units are highly desirable as they allow institutional investors opportunities to deploy more than \$20 million per transaction and quickly expand local footprints. Suburban assets in the southern portion of the metro, off Interstates 515 and 215, are top areas for these trades, as these locales boast low-3 percent vacancy and above-average rent gains. Here, high-4 to high-6 percent initial returns are available for properties, dependent on vintage and quality. Value-add buyers largely target assets south of I-515 in downtown and the Arts District, where 7 percent-plus first-year yields are obtainable for smaller Class C buildings.

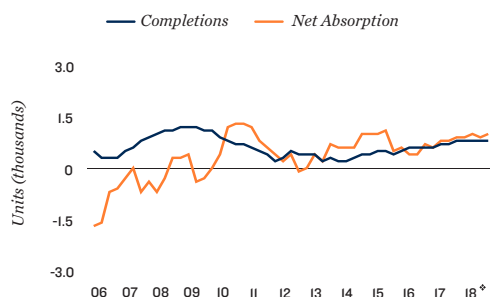
### 2019 Market Forecast

- NMI Rank** 27, up 6 places  A leap of six rungs lands Las Vegas in the 27th spot in the 2019 NMI as rent growth remains robust.
- Employment** up 3.2%  Organizations add 33,000 positions in 2019, slightly exceeding the previous five-year average.
- Construction** 2,910 units  Developers finalize more than 2,900 apartments for a third consecutive year. The 536-unit Empire Apartments in Henderson represents the largest delivery slated for 2019.
- Vacancy** down 20 bps  This year vacancy drops to 4.4 percent. In 2018, vacancy compressed 90 basis points.
- Rent** up 4.5%  Annual effective rent growth exceeds the national rate increase for a sixth consecutive year as the metro's average reaches \$1,080 per month. Last year, rent rose by 9.2 percent.
- Investment**  As bidding in the core heats up, some buyers will seek assets in the northern portion of the metro off Interstate 15. Various vintages in the area provide low-5 to high-6 percent cap rates.

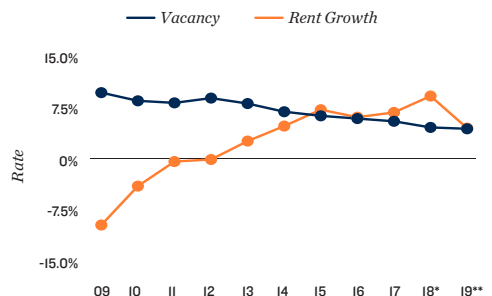
#### Employment Trends



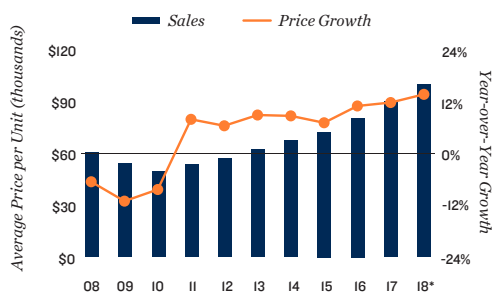
#### Quarterly Completions vs. Absorption\*



#### Vacancy and Rents



#### Sales Trends









\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Increased Leasing Highlights Level of Rental Demand; Investment Opportunities Prevail Throughout County

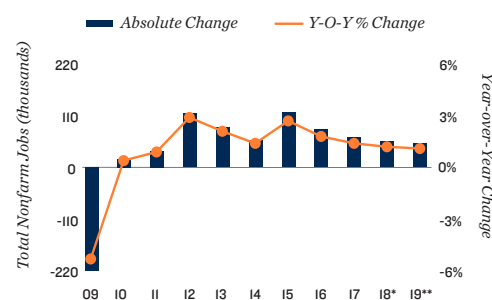
**Absorption paces elevated construction level.** Over the past five years, more than 40,000 apartments were delivered in Los Angeles County, yet robust absorption held the metro's vacancy rate below 4 percent throughout this period, reaching a cycle-low level last year. In 2019, construction activity further elevates as nearly 15,000 additional rentals are completed, the third largest annual total among U.S. metros. Amid this century-high volume of deliveries, the county's vacancy rate remains below 4 percent, aided by consistent hiring within the tech, entertainment and defense sectors, which has encouraged the formation of 35,000 new households. The widening gap between a mortgage payment and average monthly rent also favors demand for apartments, with the median home price nearing \$600,000. Residents looking to lease newly built units this year will find the most opportunities in Greater Downtown Los Angeles, where more than 8,000 apartments are slated for finalization. An uptick in completions also occurs in the San Fernando Valley, where an extended period of tight vacancy has created pent-up demand.

**Tight vacancy throughout Los Angeles County prompts even distribution of sales activity.** Amid cycle-high construction, institutional buyers are actively pursuing newly built properties in the urban core. Downtown Los Angeles and surrounding neighborhoods represent top spots for investors seeking low-3 to low-4 percent returns for Class A assets and relatively newer Class B complexes. Buyers seeking upside-producing opportunities in areas of tight vacancy eye listings in San Fernando Valley and cities north of Route 60. Here, 1960s- to 1980s-built Class C properties provide investors with low-3 to mid-4 percent first-year yields. Expansions by defense and aerospace-related firms enhance the appeal of cities south of LAX Airport, where similar returns are obtainable for upgradeable complexes. To the north of the airport, smaller Class C assets trading at high-2 to low-3 percent initial yields steer deal flow.

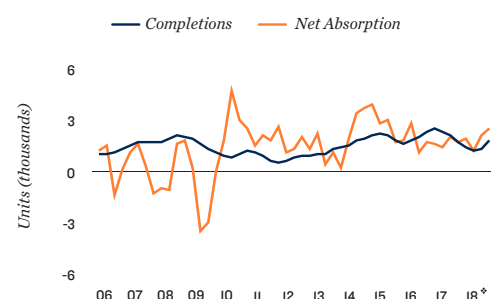
### 2019 Market Forecast

- NMI Rank**  Los Angeles slips two slots but stays in the top five as a surge in deliveries pushes vacancy higher.  
4, down 2 places
- Employment**  Hiring velocity in 2019 is nearly on par with last year, when employers bolstered payrolls by 55,000 workers. Nearly a fourth of the jobs created this year are traditional office positions.  
up 1.1%
- Construction**  After completing 9,700 units last year, developers will increase annual deliveries by more than 5,000 rentals in 2019.  
14,800 units
- Vacancy**  Robust renter demand lessens the impact of century-high delivery volume, as the metro's vacancy rate rises moderately to 3.9 percent in 2019.  
up 50 bps
- Rent**  The average effective rent climbs to \$2,350 per month. Last year the average monthly rent increased by 6.1 percent.  
up 4.0%
- Investment**  Expansions by both major and startup tech companies located off Interstate 405, north of LAX Airport, inflate buyer demand for regionally affordable rentals located in this area.

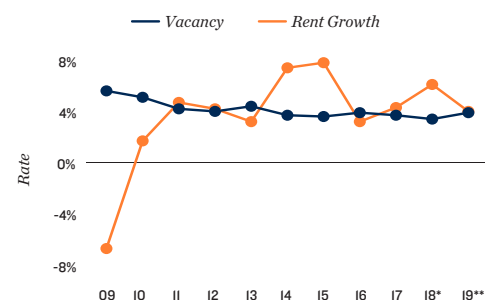
### Employment Trends



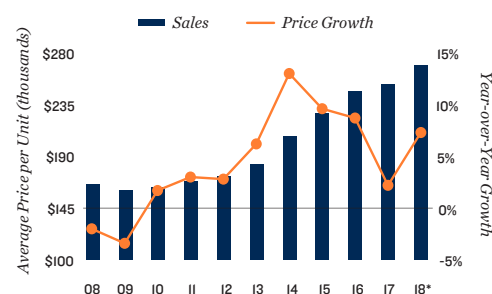
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents



### Sales Trends



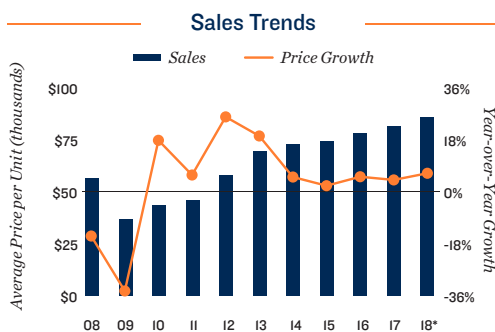
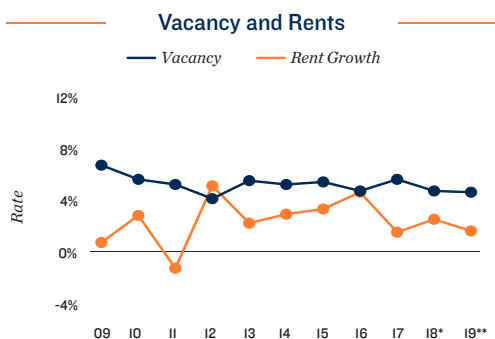
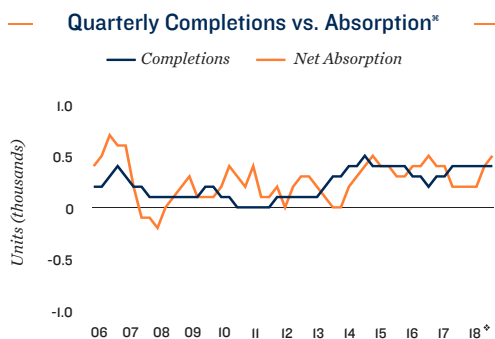
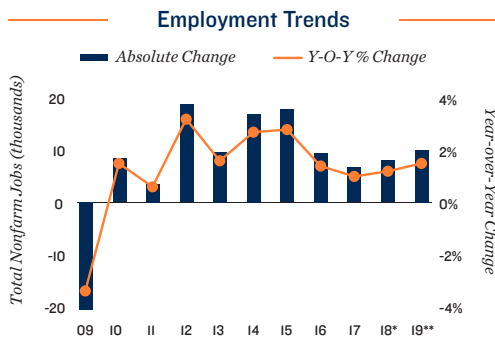
\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Transportation and Logistics Companies Spur Economic Growth, Lure Investors to Louisville

### Stable apartment demand supported by healthy job gains in several industries.

Growth in a number of service industries like transportation, e-commerce fulfillment, and leisure and hospitality is underpinning strong demand for apartments in Louisville. Growth in these sectors has supported a steady stream of new rental households, and vacancy has remained below 6 percent since 2009, compared with above 7 percent for much of the early 2000s. As a result, developers have picked up the pace of construction over the past year, and deliveries remain elevated in 2019. Southern Indiana has recorded a stronger pace of completions in recent years. The opening of two new bridges that provided additional access points from the area to downtown Louisville prompted builders to prepare for strengthening apartment demand from residents seeking lower-priced housing options. Central and Southwest Louisville remain the target for developers this year, but the strong need for housing will outpace supply additions throughout much of the metro to keep vacancy tight as the overall rate declines below 5 percent.

**Reliable performance draws interest from buyers outside of Louisville.** Downtown Louisville, southern Indiana, Crescent Hill and the area outside Loop 264 spanning from Interstate 65 to Interstate 64 remain popular locations for multifamily investors. Vacancy has tightened among Class C properties, and many buyers are searching the market for these complexes in an effort to capitalize on potential upside. Class C rent growth has not taken off yet in the majority of submarkets. Renovated properties in areas such as central Louisville and in neighborhoods to the northeast of downtown have the potential to record sizable rent increases amid healthy apartment demand. Cap rates for Class C properties can range from 6.5 percent to 8.5 percent, with initial returns for value-add deals rising 50 to 100 basis points.



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

### 2019 Market Forecast

- NMI Rank** 45, down 2 places Below-average rent growth moves Louisville down two spaces. It remains near the bottom of this year's Index.
- Employment** up 1.5% Employers add 10,000 jobs in Louisville this year, an increase from the 8,000 positions created during 2018.
- Construction** 1,900 units Deliveries remain above the previous five-year average during 2019. Last year, completions reached 2,100 units.
- Vacancy** down 10 bps Vacancy declines to 4.6 percent this year amid strong demand, building on a 90-basis-point decline recorded during 2018.
- Rent** up 1.6% The average effective rent advances again this year, reaching \$865 per month. The average climbed 2.5 percent last year.
- Investment** Recently completed projects remain in high demand, commanding cap rates in the mid-5 percent area, often 100 basis points higher than returns in coastal markets.

## Investors Revitalize Aging Assets as Miami Emerges as a Regional Tech Hub

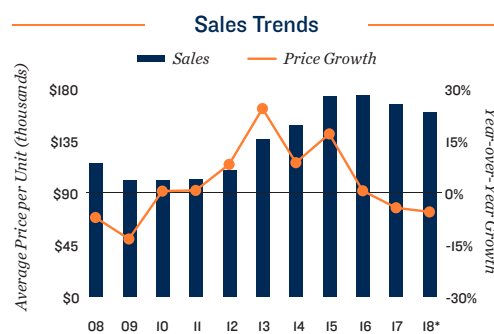
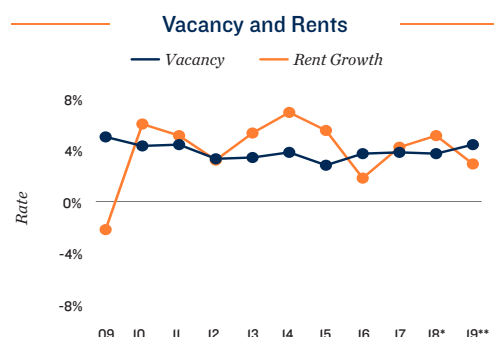
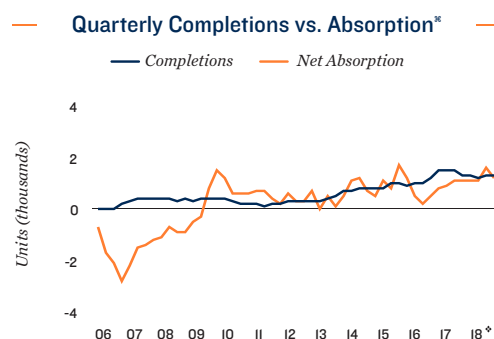
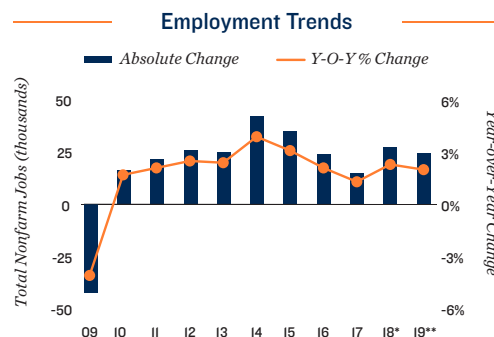
**Strong in-migration and employment outlook sustain demand.** A favorable tax climate, international business ties and one of the nation's largest coworking markets have rapidly evolved Miami's tech ecosystem, attracting more young entrepreneurs and startups and boosting household formation this year. Many of these young professionals prefer to rent as the lifestyle provides greater mobility and the ability to live and work in the same neighborhood, taking in nearby restaurants and entertainment. Heavily congested streets and minimal parking build on this trend as millennials are eager to walk from home to work. Developers have their sights on Downtown Miami and the immediate neighborhoods of Wynwood and Brickell, areas that are highly desired by the younger cohort. Pockets beyond the urban core are transforming quickly as well with renters seeking out the greater affordability that West Miami and Hialeah can provide, yet with demand outpacing supply growth, rents are quickly rising toward the market average. Vacancy will soften marketwide, though, as completions reach a cycle high this year.

### Transformation of older submarkets gaining greater attention among investors.

Favorable demographic trends and changing attitudes about homeownership will keep investor activity across Miami-Dade County elevated this year. Buyers have been increasing searches in neighborhoods outside of the urban core, where years of investment and enhancements are attracting more employers and renters. As a result of increased sales in emerging submarkets, the average cap rate has begun to climb higher, holding in the upper-5 percent area for recently traded assets. Years of strong appreciation may motivate more owners to list this year to capitalize on current pricing, particularly in the existing rising interest rate environment. With such a strong influx of new units entering the market, listings by merchant developers may increase as well, potentially boosting sales activity for updated and modern complexes.

## 2019 Market Forecast

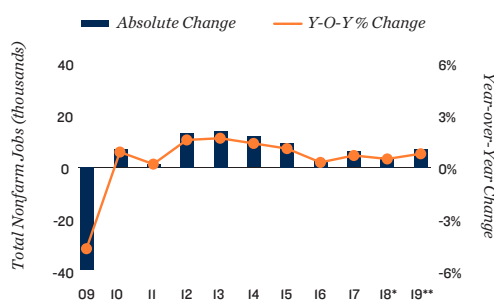
<b>NMI Rank</b> 22, down 2 places	⬇️	Miami-Dade loses two spots but stays in the top half of the Index as elevated construction pushes vacancy higher.
<b>Employment</b> up 2.0%	⬆️	Following the creation of 27,000 jobs in 2018, hiring slows to 24,000 jobs this year as employers struggle to match open positions with qualified talent.
<b>Construction</b> 7,500 units	⬆️	Deliveries climb to a new high for the current cycle this year, surpassing last year's total of 4,800 units.
<b>Vacancy</b> up 70 bps	⬆️	A surge of new apartments lifts the vacancy rate to 4.4 percent this year, erasing the 10-basis-point decline posted in 2018.
<b>Rent</b> up 2.9%	⬆️	Rent growth will slow from the 5.1 percent increase posted last year as the vacancy rate climbs, bringing the average effective rent to \$1,640 per month this year.
<b>Investment</b>	⬆️	Properties in proximity to new and future mass-transit improvements in downtown Miami will be highly coveted by investors seeking to revitalize aging complexes.



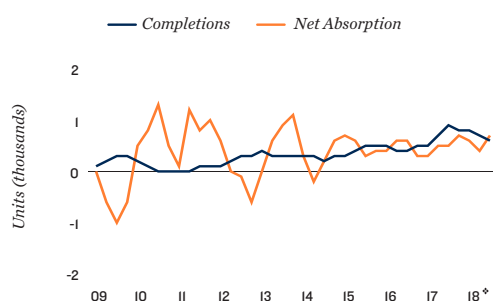
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Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics



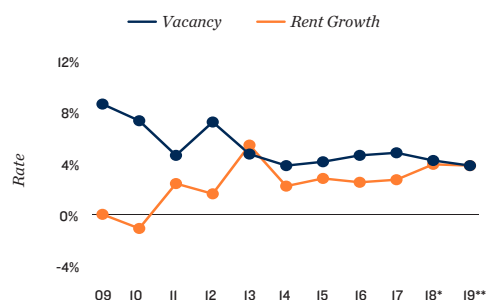
### Employment Trends



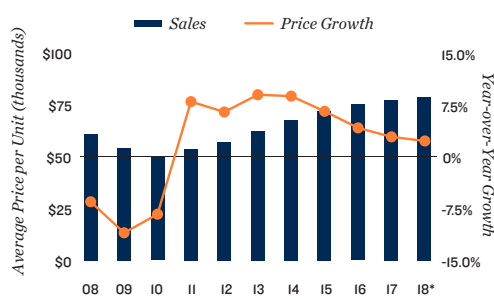
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents



### Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Resurgence of Manufacturing Jobs a Strong Boost To Milwaukee's Economy; Investors Target Suburbs

**Elevated job growth fuels rental demand, negating impact of new supply.** Entering 2019, vacancy in most Milwaukee suburbs sat at or near cycle-low levels, prompting a wave of construction activity in these locales. Spanning the next 12 months, 2,700 apartments are slated for delivery in northern suburban cities and neighborhoods west or south of Interstate 41. Most of these properties are midsize in nature; only two upcoming completions feature more than 200 units. Driving demand for these new rentals will be households formed by the uptick in employment growth, largely driven by Komatsu, A.O. Smith and other large manufacturing firms that are expanding local operations. Many will opt to rent, supporting net absorption of nearly 3,500 rentals this year. This robust leasing velocity allows metro vacancy to fall under 4 percent, contributing to another year of stable rent growth.

**High yields, low cost of entry attract mixed pool of investors.** The metro's minimal stock of vacant Class B and C units combined with its ability to absorb new supply maintains buyer confidence this year. In-state buyers target northern and southern suburbs between Interstates 41 and 43 looking for 1960s- to 1980-built Class C complexes. These largely sub-\$2 million transactions provide investors with high-5 to 8 percent first-year returns, with the lowest cap rates found in neighborhoods adjacent to downtown. Out-of-state buyers seeking discounted pricing to Chicago and Minneapolis-St. Paul are most active in neighborhoods surrounding the University of Wisconsin-Milwaukee and Marquette University, along with northwestern suburbs. These sources of capital possess a willingness to invest more than \$130,000 per unit for older value-add assets and Class B properties, obtaining mid-5 to 7 percent initial cap rates.

### 2019 Market Forecast

- NMI Rank** 35, up 3 places Vacancy resting below the U.S. rate and steady rent growth raise Milwaukee three rungs in the NMI this year.
- Employment** up 0.8% Organizations add 7,000 workers to staffs in 2019, marking a four-year-high level of job creation.
- Construction** 3,000 units Annual delivery volume rises by 1,000 apartments on a year-over-year basis. The cities of Milwaukee and Brookfield welcome a combined 1,475 units in 2019.
- Vacancy** down 40 bps Net absorption reaches a six-year-high, lowering vacancy to 3.8 percent amid an uptick in apartment completions.
- Rent** up 3.8% Limited Class B and C availability warrants strong rent gains at more affordable complexes, elevating the metro's average effective rate to \$1,150 per month.
- Investment** Buyer demand for post-2000-built properties and complexes featuring more than 100 units remains high during a span of limited vacancy, heightening competition among investors.







## Minneapolis-St. Paul Captures Top Spot in Index With One of Lowest Vacancy Rates in U.S.

### Slowdown of new development amid strong demand, boosts apartment market.

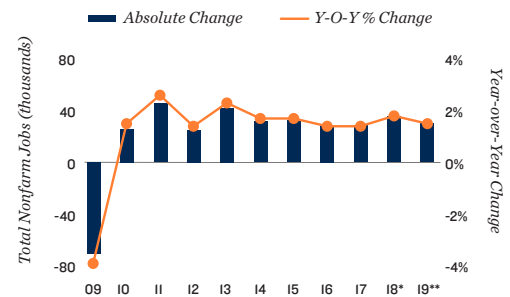
Sustained employment gains continue to draw additional residents to the Twin Cities region, including young professionals in the prime renter cohort. The influx of people coupled with rapidly rising home prices will contribute to the need for rentals this year. A temporary slowdown in deliveries during 2019 will squeeze vacancy to the lowest level of the cycle by year end, although not all submarkets will fare equally. In the downtown Minneapolis and University of Minnesota areas, roughly 5,000 apartments have been added over the last five years and nearly 1,200 units are expected during 2019. These deliveries will keep supply above demand with more rental towers slated to break ground as the year progresses. Luxury apartments in the area will face increased competition from condo deliveries. Marketwide, tight vacancy and strong demand will push the average effective rent up 5.7 percent, reaching a new high.

**Dynamic rental market puts Minneapolis-St. Paul apartments on buyers' radar.** Tight vacancy and rent growth well above the national rate are keeping investors active in the metro. The increased competition for available assets is driving values higher, which is prompting some owners to reevaluate their portfolios. More are opting to list rather than refinance as interest rates rise, providing additional buying opportunities. Many institutional investors are focusing on newer highly amenitized assets along major transit routes including light-rail lines on University or Hiawatha avenues at cap rates that are typically in the 5 percent range. Other buyers are searching for value-add opportunities that can readily be upgraded with a commensurate rent increase. Demand for these opportunities remains well above supply, requiring a number of buyers to expand their search criteria.

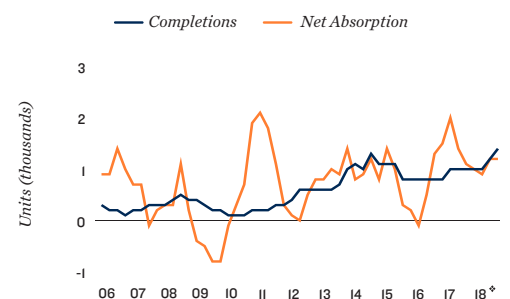
### 2019 Market Forecast

- NMI Rank** 1, up 2 places  Minneapolis-St. Paul claims the top spot in the 2019 Index as steady demand tightens vacancy and boosts rents.
- Employment** up 1.5%  Roughly 30,000 workers will be added to payrolls in 2019, lower than the 35,000 jobs created last year.
- Construction** 4,900 units  Deliveries are down from 5,100 units in 2018, although they remain above the previous five-year average this year. Neighborhoods near the Minneapolis core will receive 1,200 units.
- Vacancy** down 50 bps  Following a 20-basis-point dip last year, vacancy will tighten to 2.5 percent in 2019, one of the lowest rates in the nation.
- Rent** up 5.7%  Competition for available units will move the average effective rent to \$1,379 per month at the end of 2019, building on a 6.1 percent gain last year. Housing affordability is a growing concern.
- Investment**  Yield-seeking investors may find additional prospects in counties outside the seven-county metro core where assets can trade in the mid-6 percent range.

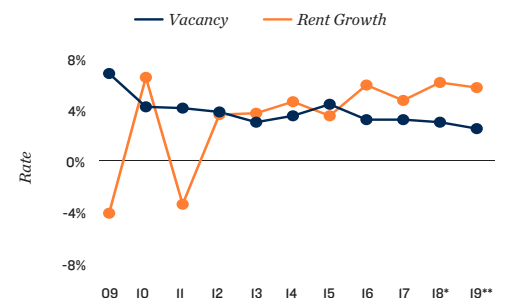
### Employment Trends



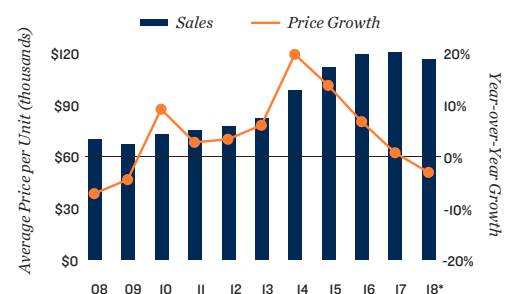
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

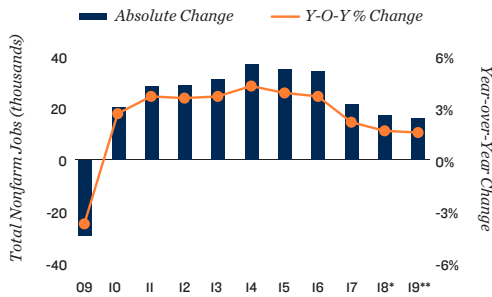


### Sales Trends

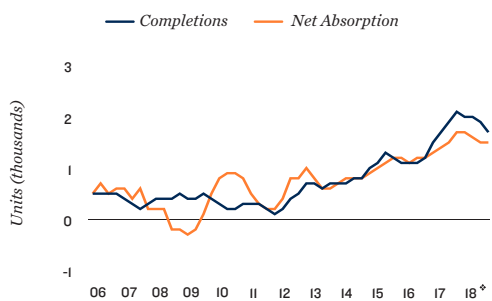


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

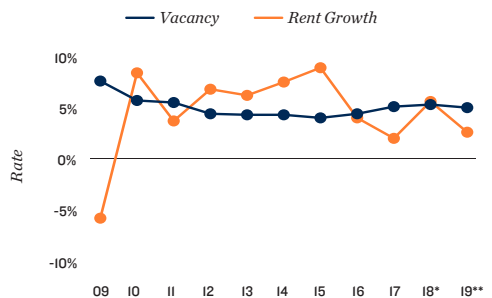
## Employment Trends



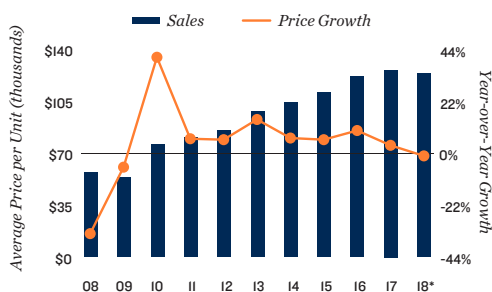
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Vibrant Nashville Downtown Lures Amazon, Likely Boosting Demand for Class A Rentals

**High-paying jobs support household formation and apartment demand.** Corporate expansions and relocations have driven an influx of new residents to Nashville in recent years, supporting household formation. This trend will continue through 2019, as firms including Amazon and Ernst & Young increase their footprints. Amazon has chosen the metro for its retail operations center with plans to add 5,000 jobs over the course of the next seven years while Ernst & Young is bringing 600 jobs to the area in the next five years. Both companies will be expanding their presence downtown. Many professionals may want to live in proximity to the amenities of the urban core, driving demand for units in this area. Downtown Nashville has seen a significant influx of Class A spaces over the past several years as redevelopment efforts fueled construction. As a result, metrowide Class A vacancy edged higher. The addition of these newer higher-paying jobs will likely support apartment demand, lowering vacancy in newer apartments throughout the market. Relatively more affordable rents in Class C spaces will sustain demand, keeping vacancy below 4 percent in these apartments.

**Increased demand could drive prices higher in the core.** Redevelopments and corporate growth downtown will sustain investor interest for apartment properties in the area. Assets near the new Amazon headquarters could command significant attention as new retail, shopping and entertainment options are built in proximity, attracting tenants seeking an urban environment. The limited number of marketed assets may prompt some owners to place their properties on the market particularly as increased demand may command premium pricing. Here, cap rates in the mid-4 percent band on average can be found. Some buyers are looking to opportunities in the suburbs, where initial returns higher than many gateway markets persist. Average first-year yields up to the mid-6 percent band are attracting investors from California, New York and other large coastal markets.

## 2019 Market Forecast







- NMI Rank** 37, down 2 places ↻ Vacancy sitting above the national rate slides Nashville into 37th place in the Index this year.
- Employment** up 1.6% ↗ Building on the 17,000 jobs created in 2018, employers will add 16,000 workers this year. The unemployment rate has rested below 3 percent since 2017 amid strong hiring.
- Construction** 4,700 units ↘ Deliveries fall from the 7,800 units completed last year. Sumner County, Central Nashville and Franklin/Brentwood will each receive more than 900 apartments.
- Vacancy** down 30 bps ↘ Moderating construction and healthy demand cut vacancy to 5.0 percent. In the prior year, vacancy ticked up 20 basis points.
- Rent** up 2.6% ↗ The average effective rent will rise to \$1,205 per month in 2019. Last year, rent jumped 5.6 percent.
- Investment** ● Plummeting vacancy and healthy rent gains in the Franklin and Brentwood neighborhoods may support investor demand. Vacancy in these areas is one of the lowest metrowide.

## Rental Demand Revives in Stamford and New Haven; High Yields Drive Increased Transactions

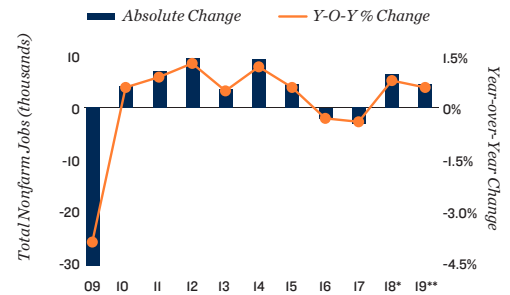
**Stamford to receive large share of arrivals to meet demand.** Residents of New Haven and Fairfield counties seeking a new apartment with modern amenities had few available options until the past several years. In 2019, households will have more choices in Fairfield County, where about 70 percent of new deliveries are heading. Of those completions, many are in the city of Stamford, where the vacancy rate for Class A rentals started the year under 4 percent. Low availability and high demand will support above-market rent growth among luxury units in the area. New Haven's smaller construction pipeline consists of a pair of deliveries, one in the city of New Haven and the other in the nearby town of Milford. The former development is located a few blocks from the Yale University campus; the latter is near major transit ways. The few arrivals in the area are enabling vacancy to fall across all apartment classes and facilitating rent growth above Fairfield County's pace of appreciation.

**Connecticut a high-return option for investors seeking to reposition small-scale, older assets.** The two-county region enters 2019 with positive momentum following the most active investment year so far this decade. Buyers from other major metros, including Boston and New York, look to southern Connecticut for comparatively higher yields. Across the region the average cap rate lies in the mid-6 to high-6 percent zone, 200 basis points above initial returns for similar assets in neighboring New York. Lower entry costs are an added incentive for investors priced out of the larger markets. For buyers in the \$1 million to \$10 million tranche, there is an ample supply of stock with fewer than 50 units that could be repositioned for added return. Properties in the city of New Haven remain heavily targeted by these investors. In Fairfield County, Norwalk has garnered more interest of late, as first-year yields range above 7 percent.

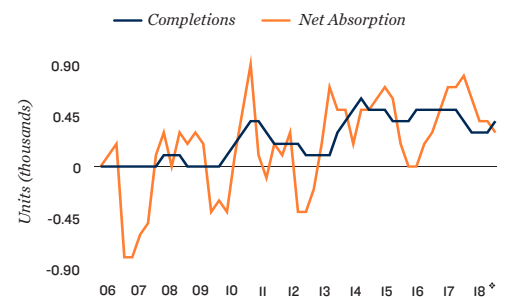
### 2019 Market Forecast

- NMI Rank**  
39, up 5 places  New Haven-Fairfield County climbs five notches as fewer deliveries reduce vacancy and push rents higher.
- Employment**  
up 0.6%  Job growth stays positive for the second year in a row as employers hire 4,500 individuals in 2019.
- Construction**  
1,440 units  Deliveries slow in both Fairfield County and New Haven in 2019, reducing the region's completion total by about 360 units compared with last year.
- Vacancy**  
down 30 bps  The vacancy rate declines to 4.6 percent in 2019, following a 20-basis-point drop last year.
- Rent**  
up 2.5%  The average effective rent will increase to \$1,812 per month this year, with higher growth anticipated in New Haven than in Fairfield County.
- Investment**  Due to limited listings of newer properties in downtown Stamford, institutional-grade investors are showing more interest in large-scale Class B properties in New Haven and Hamden.

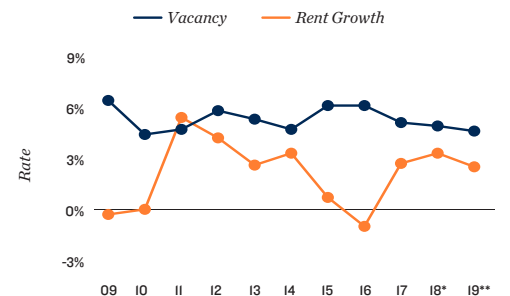
#### Employment Trends



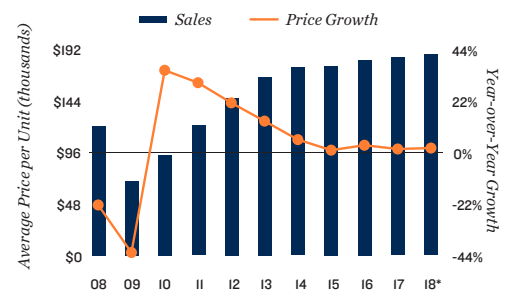
#### Quarterly Completions vs. Absorption\*



#### Vacancy and Rents

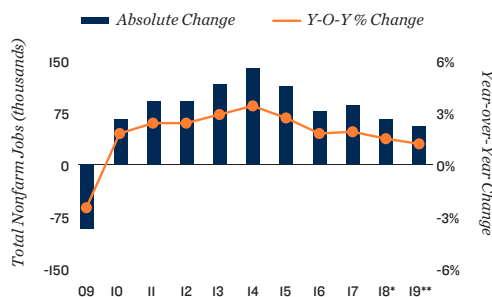


#### Sales Trends

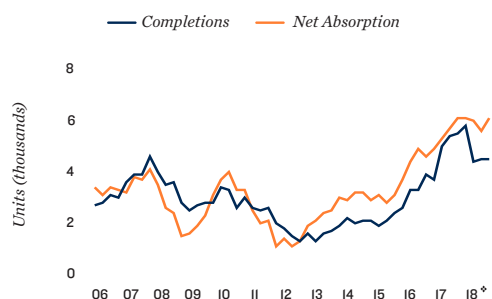


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

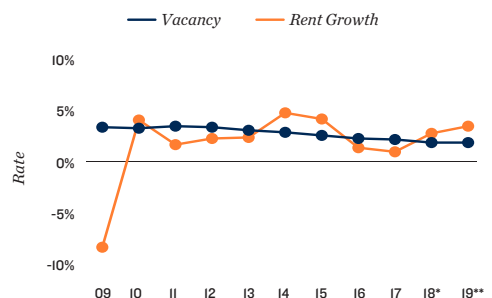
## Employment Trends



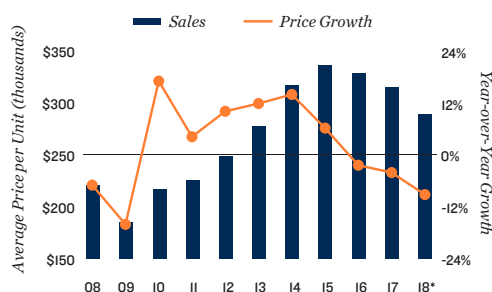
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average

Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Amazon, Google Expansions Highlight Increasing Tech Presence, Driving Apartment Demand in Boroughs

### Announcements by tech giants set stage for next phase of growth in New York City.

Following the recent announcements by Google and Amazon to undertake vast expansions of their office footprint and workforce, the New York City metro has set the stage for robust growth stemming from the tech sector. While Google will be expanding in Lower Manhattan, Amazon has opted for Long Island City in Queens, bolstering demand for housing throughout the city. Developers have taken note, swelling the pipeline for new rentals in core neighborhoods of Manhattan, as well as several prominent locations in Brooklyn and Queens. Additionally, the size and scope of projects remains exceptional, highlighted by the redevelopment of the Domino Sugar factory in Williamsburg into a mixed-use structure and 5Pointz in Long Island City, a two-building, 1,115-unit undertaking. While construction remains elevated, supply growth has rolled over from the cycle high reached in 2016, allowing rent growth to reaccelerate, particularly in Manhattan and western Brooklyn along the East River. Vacancy remains extremely tight as well, and it is set to stay below 2 percent through this year.

**Global appeal encourages broad investor interest, deep pool of liquidity.** As a combination of local, national and global capital sources vie for assets in New York City, dollar volume routinely soars past \$8 billion, providing significant market liquidity. While institutional investors have primarily focused their efforts in Manhattan and the western edges of Brooklyn and Queens, private investors have ventured inland toward Crown Heights, Bushwick and Ridgewood, where cap rates remain above the metro average and competition is much less intense. Broadly, cap rates in the metro will begin in the high-3 percent range, while extending to the mid-4 percent area depending on asset quality and location. As the impact of Amazon's and Google's expansion becomes more fully understood, investors will likely benefit greatly from positioning near office developments.

### 2019 Market Forecast

- NMI Rank** 3, up 4 places The tightest vacancy rate in the nation gives New York City a top five ranking in the Index this year.
- Employment** up 1.2% Tech and hospitality expansion form the basis for job growth of 55,000 positions this year.
- Construction** 20,000 units Deliveries tick up slightly as builders focus on projects primarily along the East River in Brooklyn and Queens. Developments in Manhattan are led by activity on the Upper West Side.
- Vacancy** no change Vacancy remains unchanged at 1.8 percent as supply and demand move closer toward parity.
- Rent** up 3.4% The average effective rent increases 3.4 percent to \$2,650 per month, accelerating from last year's 2.7 percent growth.
- Investment** The expected impact of Amazon's HQ2 announcement on nearby neighborhoods adjacent to Long Island City will boost investment and development interest in Northwest Queens and Northern Brooklyn.



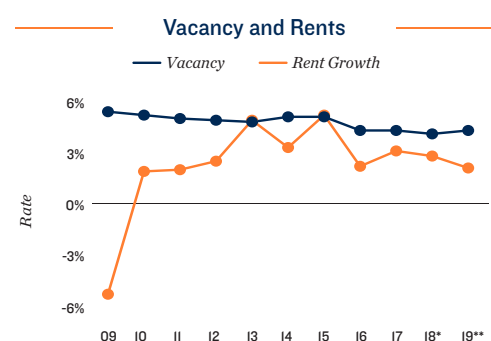
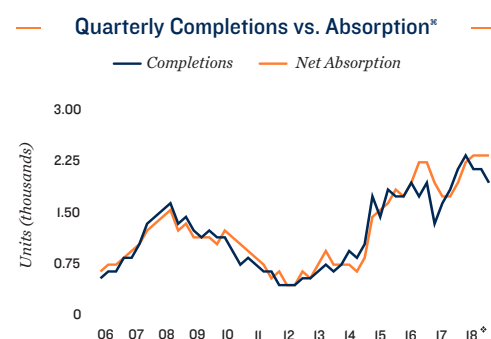
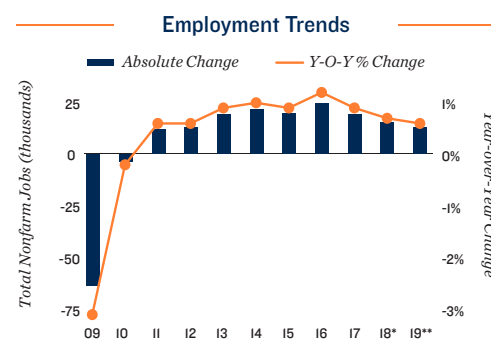
## Rental Construction Slows Outside Hudson County; Higher Yields Draw Investors to Western Cities

**Fewer completions outside Hudson County improve operations.** Rising costs of homeownership maintain demand for apartments in Northern New Jersey. Construction activity continues to expand, led by more openings in Hudson County. In Jersey City and Hoboken, numerous additions are placing upward pressure on Class A vacancy as properties take time to lease. More concessions are being offered, curbing how fast monthly rates appreciate. That is especially true for upgraded Class B buildings, which are competing with both recent local finalizations and more affordable options farther inland. Outside of Hudson County, development is slowing, enabling lower availability in many parts of the market and driving improved revenue. Sub-2 percent vacancy in the city of Newark translates to the minimal use of concessions, aiding rent gains. The net impact of these trends on the region's overall rent growth is a moderate advancement compared with last year. By the same token, the marketwide vacancy rate will rise slightly in 2019 but remain below the national level.

**Northern New Jersey provides yield advantage, particularly in western cities.** Returns in the high-6 to low-7 percent range have investors looking farther west than they have in the past. Smaller cities such as Paterson and Elizabeth are seeing large increases in transaction velocity compared with just a few years ago. The region's average cap rate lies in the low-6 percent zone, but initial yields for assets in these areas can be 100 basis points higher. Buyers are also more active in Jersey City, with many small early-20th century assets changing hands. Rental vacancy for these types of units is low, with the opportunity for additional revenue gains through renovation. Here owners who want to transition into less-management-intensive properties are capitalizing on record-high prices. Across the region, buyer demand for apartments remains heightened, keeping bidding competitive for all asset classes.

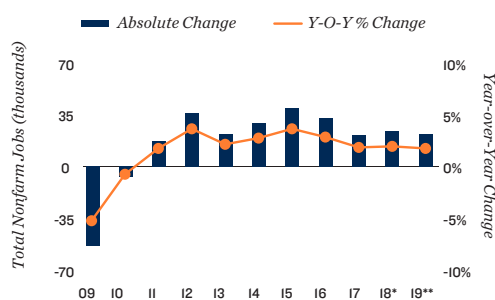
### 2019 Market Forecast

- NMI Rank** ↗  
24, down 8 places  
Elevated deliveries and a tick up in vacancy drop Northern New Jersey eight places in the 2019 NMI.
- Employment** ↗  
up 0.6%  
An unemployment rate under 2.0 percent, among the lowest in the country, constrains hiring to 13,000 positions this year.
- Construction** ↗  
10,000 units  
The market will welcome a record number of completions this year as developers open more than 4,000 rentals in Jersey City, Hoboken and north Hudson County.
- Vacancy** ↗  
up 20 bps  
The vacancy rate rises from last year to 4.3 percent in 2019 as new supply additions exceed demand.
- Rent** ↗  
up 2.1%  
The average effective rent advances to \$1,938 per month this year, following a 2.8 percent rate of appreciation in 2018. Rates advance the most for Class B/C assets in Hudson County.
- Investment** ○  
Proposed new state tax incentives designed to boost startup and small-business activity could generate more job growth in the suburbs, enhancing investors' existing interest in those areas.

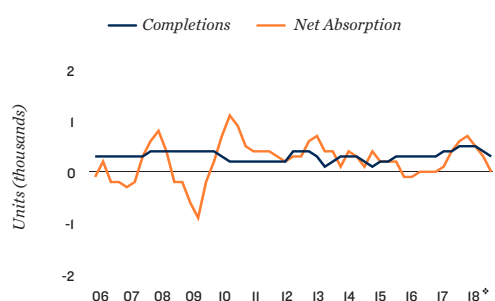


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

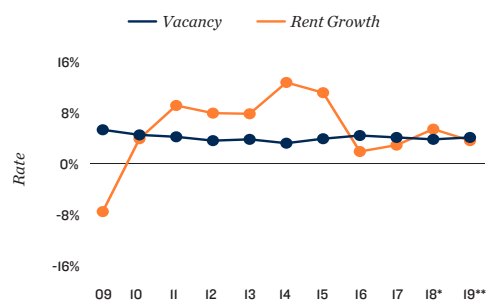
## Employment Trends



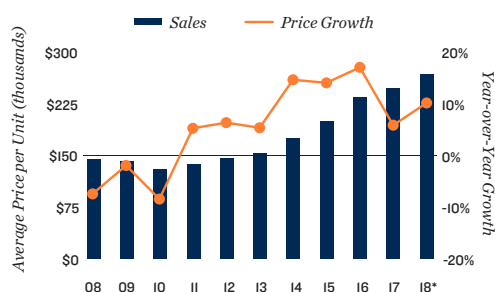
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



## Construction Boom in Downtown Oakland Creates Rental Arbitrage Opportunities

**Supply growth nearly quintuples as builders target urban core.** Capitalizing on the rent spread that can easily exceed \$800 per month between San Francisco and Oakland, developers are targeting numerous deliveries inside the urban core of Oakland this year. Locations along the BART, particularly between I-880 and I-580 along Broadway, have proved extremely popular with tenants, encouraging a construction boom in core urban neighborhoods, where more than 80 percent of this year's supply will open for leasing. While completions will jump to nearly 5,000 units in 2019, tenants will be highly interested in new Class A apartments due to the considerable discounts relative to San Francisco. This will limit vacancy increases to marginal upticks in the most heavily impacted neighborhoods. Meanwhile, a lack of construction outside of Oakland will invigorate operations in commuter suburbs along the I-880 between San Leandro and Fremont. These locations maintain vacancy well below the metro average, which will accelerate already-robust growth in the average effective rent.

**Berkeley, East Oakland lead acquisition targets; market liquidity remains excellent.** In search of higher returns than other Bay Area metros, investors have flooded into Oakland multifamily assets with cap rates that begin in the high-4 to low-5 percent range. Class C assets in East Oakland remain extremely popular with investors due to the relatively lower prices per unit compared with other metro areas, allowing for value-add strategies. Meanwhile, Downtown Oakland and Berkeley offer the highest density, benefiting from tenants' desire to live near mass transit. These characteristics protect valuation, generating the metro's lowest cap rates and highest prices per unit. When venturing from the urban core, the I-680 and I-880 corridors remain a viable option. Excellent demographics and direct routes to employment hubs in Santa Clara County keep bids elevated and interest high, even as listings typically remain limited.

## 2019 Market Forecast

**NMI Rank**  
9, up 1 place

Rent growth above the national rate contributes to Oakland inching up one spot and maintaining its top 10 status.

**Employment**  
up 1.8%

Organizations will create 22,000 new jobs this year, slightly below the 24,000 added in 2018.

**Construction**  
4,970 units

Deliveries nearly quintuple from the last year when 1,050 units were brought online. Development will be highly concentrated on the urban core, which will receive over 80 percent of new supply.

**Vacancy**  
up 30 bps

The vacancy rate ticks up 30 basis points to 3.9 percent as the rate of completions causes momentary dislocations.

**Rent**  
up 3.4%

The average effective rent rises to \$2,400 per month, below the five-year average of 6.6 percent.

**Investment**

Assets between San Leandro and Union City contain some of the lowest rental rates in the metro, a spread which should tighten in future years as tenants shift demand to these areas.

\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average

Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Limited Housing Options, Cycle-Low Vacancy Enable Metro to Absorb Third Crop of New Supply

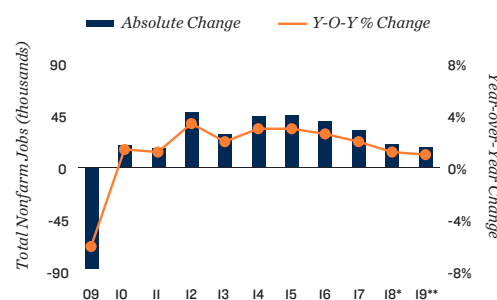
**Market conditions bode well for luxury rental demand.** Entering 2019, Orange County's median home price has reached \$820,000, with the gap between a mortgage payment and average monthly rent sitting at \$2,600 per month. While these values make home-ownership unobtainable for many residents, low unemployment and median income nearing \$90,000 suggest many households can afford higher-priced rentals. Spanning the past two years, nearly 9,000 such units were delivered, with the metro's overall vacancy rate declining by 20 basis points during that time. Sensing an additional need for luxury apartments, developers will finalize more than 4,000 rentals for the third straight year in 2019. Projects adjacent to Angel Stadium or directly off Interstates 5 and 405 in Laguna Niguel and Irvine account for more than half of this delivery volume. Overall, demand for both new units and more affordable Class B and C apartments translates to nearly 3,900 new leases this year, maintaining vacancy at a mid-3 percent level.

**Southern California investors focus on areas of low construction and vacancy.** Local investors and buyers from neighboring metros are eager to acquire both older, upgrade-able properties and recently renovated complexes at \$2 million to \$10 million price tags. Yet, historically tight Class B and C vacancy has equated to significant buyer demand for properties of older vintage near employment hubs and primary transportation routes. A lack of apartment development and average rents that exceed \$2,000 per month steer investors to beach communities, where mid-2 to high-3 percent initial yields are available. Aside from opportunities in Costa Mesa, pricing below \$300,000 per unit is rare in these coastal cities. Buyers seeking pricing below the metro average and returns in the 4 percent range target complexes west of Interstate 5 in the central part of the county. Cities north of Highway 91 represent additional targets for investors seeking sub 30-unit complexes at lower price points.

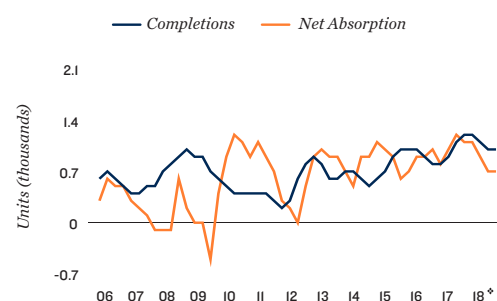
### 2019 Market Forecast

- NMI Rank**  
16, up 3 places
  - A steady pace of deliveries maintains a low vacancy rate, advancing Orange County three notches this year.
- Employment**  
up 1.0%
  - Organizations expand payrolls by 17,000 workers this year, supported by hospitality, education and health-related hiring.
- Construction**  
4,030 units
  - Delivery volume in 2019 falls slightly below last year's total with the cities of Irvine and Anaheim adding 2,900 rentals.
- Vacancy**  
no change
  - Renter demand matches new supply holding vacancy at 3.6 percent. Orange County represents the only Southern California metro where availability does not rise during 2019.
- Rent**  
up 2.9%
  - Tight vacancy throughout the metro allows the average effective rent to reach \$2,130 per month. This rate trails Los Angeles County's year-end average by more than \$200.
- Investment**
  - Due to limited Class A properties with triple-digit unit counts available on the market, competition for these assets heats up when they become available, with buyers in some scenarios willing to exceed asking prices.

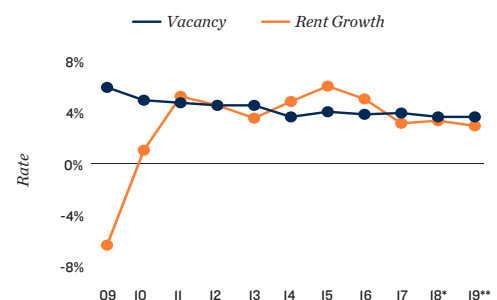
### Employment Trends



### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

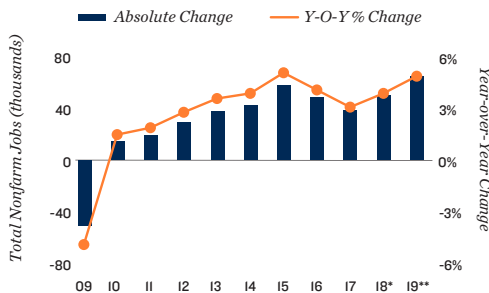


### Sales Trends

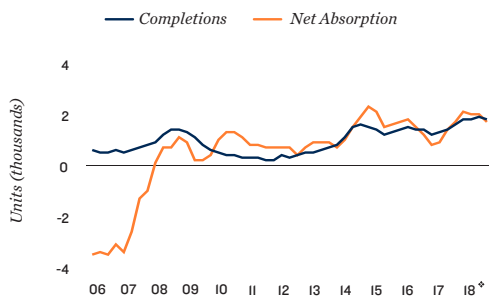


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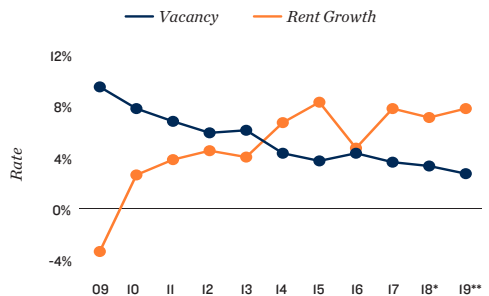
## Employment Trends



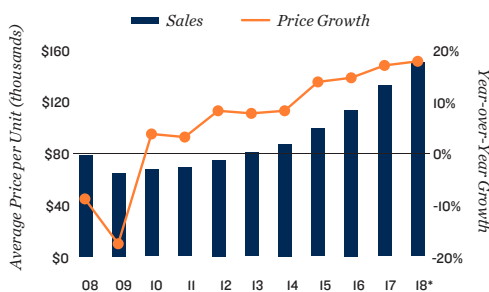
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



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Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Orlando's Tight Vacancy and Robust Rent Growth Produce One of the Strongest Rental Markets in U.S.

**Dynamic employment growth and favorable quality of life are a boon to the rental market.** Job gains more than triple the national level amid tight unemployment are producing significant migration into the metro and generating a surge in housing need. Nearly 65,900 new residents will reside in Orlando during 2019, boosting rental demand. Even though apartment completions will hover near the five-year average, demand will outpace new inventory this year, tightening vacancy to one of the lowest rates in the nation. Deliveries will be widespread with nearly every submarket receiving new units. Many of the projects are mixed-use apartment buildings with ground-floor retail in walkable neighborhoods favored by young renters. As vacancy tightens and additional units are placed into service during 2019, the average effective rent will jump more than 7 percent for a third consecutive year, one of the highest growth rates in the U.S.

**Investors enticed by Orlando's robust economy and vibrant apartment sector.** More national, international and syndicate buyers are entering Orlando, boosting competition for available apartment properties. Many of these investors are seeking to lower risk by targeting newer Class A assets with at least 250 units. Buildings near downtown Orlando or close to major employment centers along International Drive are garnering attention at first-year returns that average in the low-5 percent span. Heightened construction activity in these desired neighborhoods should provide additional buying opportunities as developers list stabilized properties to fund new endeavors. Investors in search of yield will find cap rates above the market average, which is in the low-6 percent area, in older assets northwest of downtown in Pine Hills or Ocoee. Throughout the metro, a rise in values coupled with the increased cost of financing has widened the pricing gap between buyers and sellers. This could delay the transaction time to close deals this year.

### 2019 Market Forecast

- NMI Rank** 6, up 11 places Orlando posts the biggest improvement in the NMI as tight vacancy and sizable rent gains propel the metro into the top 10.
- Employment** up 4.9% Payrolls expand by 65,000 workers in 2019, keeping Orlando among the top job creators nationwide.
- Construction** 6,200 units Deliveries ease from last year's 7,300 rentals as 6,200 apartments are slated for delivery. Central Orlando will receive more than 1,300 units.
- Vacancy** down 60 bps Robust demand for apartments will tighten vacancy to 2.7 percent in 2019, the lowest level since 2000. Last year, the rate declined 30 basis points.
- Rent** up 7.8% During 2019, effective rent vaults to \$1,339 per month on average, building on last year's 7.1 percent gain.
- Investment** Investors looking for steady cash flows may find opportunities in southwest Orlando. Here more affordable rents amid a slow delivery pace has moved vacancy below the metro average.

## Apartment Development Spreads Beyond the Core; Overlooked Value-Add Opportunities in Center City

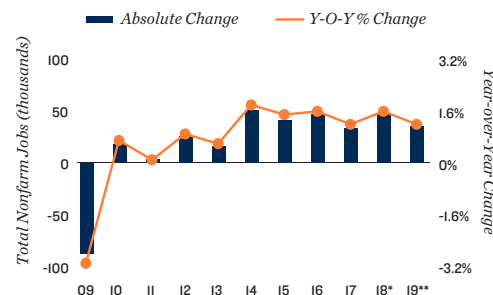
**Construction slows downtown, aiding vacancy decline and rent growth.** Many life and technical science firms are hiring more recent college graduates this year, drawing young professionals to apartments. Strong renter demand has kept developers busy, particularly in the general Norristown area and in Center City, where inventory has grown by nearly 10,000 units in five years. Individuals priced out of the downtown area, where rents are more than \$800 above the metro average, are considering options farther away from the core. Some opt for the nearby neighborhoods of Fishtown, Brewerytown, and Olde Kensington. Lower rents and job opportunities are also driving demand in areas farther out, including Wilmington. The construction pipeline in Wilmington is expanding rapidly this year to meet demand. Minimal completions in many other parts of the market keep vacancy low, contributing to the continued drop in the metrowide rate this year. Less active development in Center City will help apartment rents appreciate faster, while effective rates grow at the market pace in most other areas.

**Competitive yields drive new investment demand as sale prices continue to rise.** Initial yields among the highest of any major market in the Northeast/Mid-Atlantic draws new investors to Philadelphia. Cap rates here average in the 7 percent zone, more than 200 basis points above what is found for comparable properties in nearby cities such as New York. Competition for assets is boosting sale prices, which are already up nearly 50 percent from their pre-recession peak. Institutional buyers largely target assets with stable cash flows in marque rental areas such as Center City and University City. Downtown Philadelphia also offers opportunities for smaller scale investors. Class C apartments in Center City feature lower rents on average than in surrounding neighborhoods. Buyers can acquire these older assets and add value through renovation, appealing to renters who appreciate living in vintage properties.

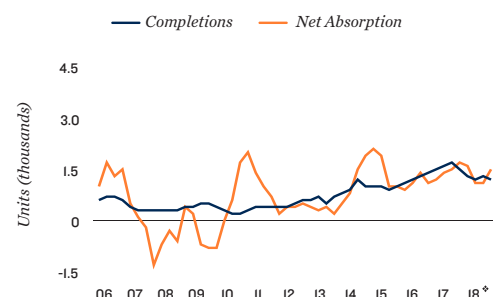
### 2019 Market Forecast

- NMI Rank** ↗ 25, down 2 places  
A rise in deliveries contributes to Philadelphia moving down two slots into 25th place in this year's Index.
- Employment** ↗ up 1.2%  
Employers will create 35,000 jobs this year, led by numerous hires in schools, hospitals, and doctors' offices.
- Construction** ↗ 4,800 units  
Approximately 200 more units will arrive in 2019 than during last year as developers increasingly target parts of Delaware and New Jersey.
- Vacancy** ↘ down 20 bps  
The metrowide vacancy rate drops to 3.8 percent in 2019. Numerous arrivals coming to Center City will add upward pressure to availability in that area as units take time to lease.
- Rent** ↗ up 3.0%  
The average effective rent will rise to \$1,337 per month this year following a 3.4 percent rate of improvement last year.
- Investment** ○ In Germantown, access to public transit and numerous Class C assets that can be upgraded to achieve greater revenue provide opportunities for investors.

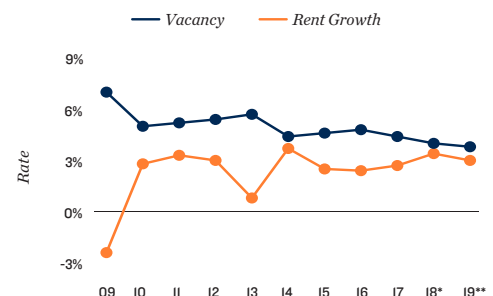
### Employment Trends



### Quarterly Completions vs. Absorption\*



### Vacancy and Rents



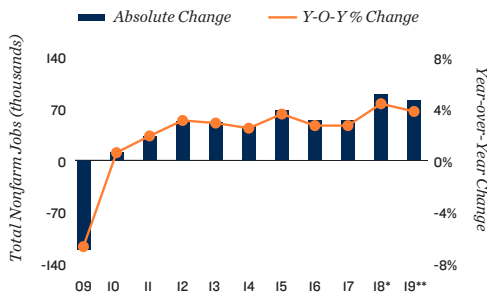
### Sales Trends



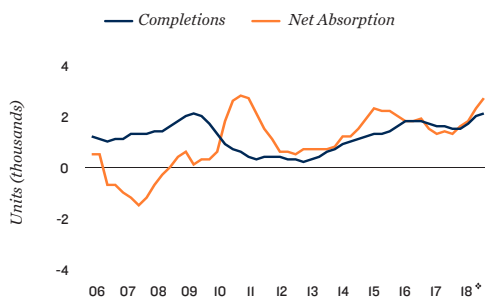
\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics



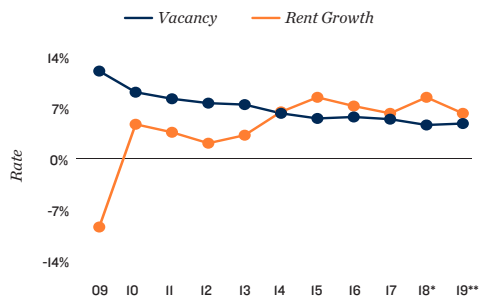
## Employment Trends



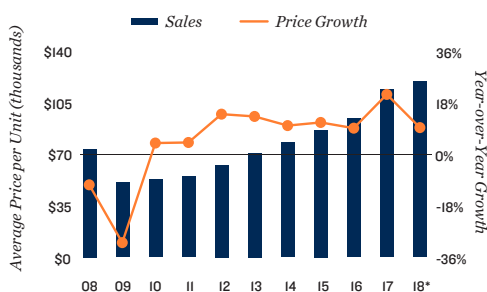
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Robust Hiring Sustains Elevated Apartment Demand; Developers Aggressively Add Units to Keep Pace

**Diverse job creation fueling elevated construction across the metro.** Corporate expansions are becoming more frequent in the Valley as Deloitte and Voya Financial are collectively adding 3,500 jobs over the next few years. In addition, employment growth in the medical sector should be more prevalent moving forward as there are several healthcare projects taking place, headlined by the large expansions of the Mayo Clinic and Chandler Regional Medical Center. Jobs at these facilities will help bolster the market's already-robust rental demand; however, vacancy is expected to rise this year as builders finalize more than 10,000 apartments, the highest delivery total since 2000. This period of supply infusion should subside in the coming years as demand catches up to the metro's accelerated pace of construction. Downtown Phoenix will continue to log an influx of units this year, while employment gains near Tempe Town Lake prompt new development along Loop 202 and Rio Salado Parkway. Despite elevated levels of construction, rent growth remains notably strong, pushing rents over the \$1,100 mark.

**Local buyers target remaining value-add opportunities in Phoenix proper.** Out-of-state investors, particularly those coming from the West Coast, continue to home in on the market's luxury complexes. Newer assets in the Arrowhead Ranch and Deer Valley areas should remain sought after as nearby Desert Ridge gains more consumer interest with its extensive dining and shopping options. Here, cap rates generally sit in the high-4 percent band, about 100 basis points below the metro average. Meanwhile, local buyers likely stay focused on many of the metro's transitioning neighborhoods, where a number of value-add options exist. Intense bidding for apartments in these areas may lead to some longtime owners parting with their assets. Neighborhoods near Steele Indian School Park and the Camelback East Village community are areas of interest for investors of this class as properties under \$1 million can be found.

### 2019 Market Forecast




- NMI Rank** 13, no change ■ Phoenix holds onto last year's position in the NMI as a surge in new inventory nudges vacancy above the national rate.
- Employment** up 3.8% ↗ Accelerated hiring continues this year as 80,800 employees are added to payrolls, with nearly one-third of that total comprising office-using jobs.
- Construction** 10,600 units ↗ Deliveries pick up in 2019 as Phoenix receives 10,600 new units. Urban renewal remains a primary objective of developers.
- Vacancy** up 20 bps ↗ Absorption is outpaced by new supply, pushing market vacancy to 4.8 percent. This follows an 80-basis-point decline last year.
- Rent** up 6.2% ↗ For the sixth consecutive year, Phoenix's average effective rent grows by more than 6 percent, moving the figure to \$1,136 per month, roughly \$260 below the national measure.
- Investment** ● As a late-recovering metro from the recession, Phoenix will remain a buyer-driven market moving forward as investors still see room for significantly more growth.

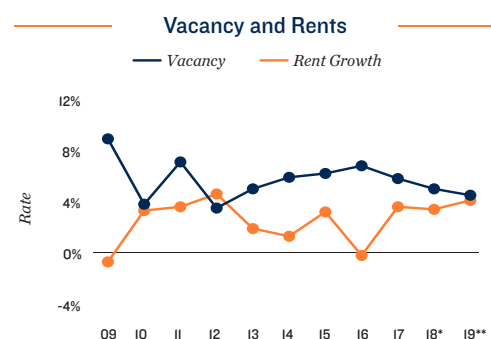
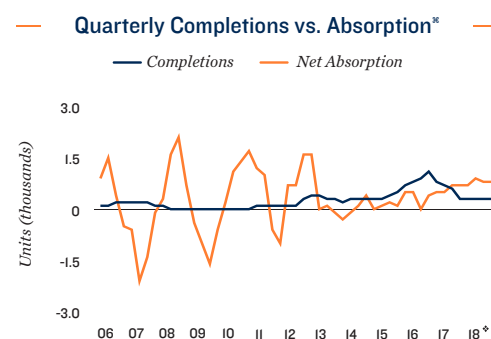
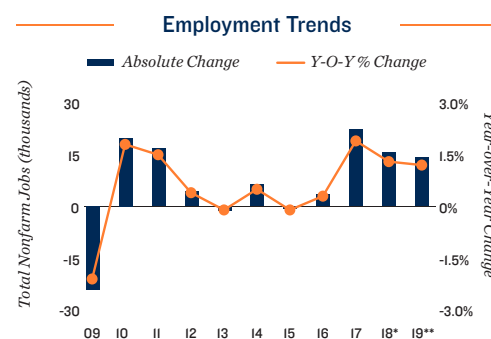
## Easing Construction Makes Room for Tighter Vacancy; Transitioning Areas Capture Sales Activity

**Developer interest focuses on urban core.** Tech jobs remain a primary driver of employment growth in Pittsburgh as positions in application development and computer programming are becoming increasingly popular. These degreed positions will encourage builders to finalize nearly 800 apartments in 2019, with the focus on the city center — a slight shift from last year when apartment construction was localized to several neighborhoods in inner-ring submarkets. However, this year's completion volume is roughly half of 2018's total, supporting a substantial vacancy decrease for the third consecutive year and nudging the year-end market rate below 5.0 percent for the first time since 2012. Consequently, rents should post solid gains as the metrowide average moves into the mid-\$1,100 range. Strong rent growth in Oakland and Shadyside will likely persist as rejuvenation efforts progress in transitioning parts of these neighborhoods. Additionally, rental gains in South Pittsburgh should remain robust as vacancy continues to contract in this area.

**Areas east of downtown provide abundance of value-add options for buyers.** Private capital will be a large component of deal flow in 2019 as investors in this niche stay interested in the market's remaining value-add opportunities. Neighborhoods adjacent to Shadyside like East Liberty and Friendship contain a number of smaller Class C assets with roughly 10 units each, potentially appealing to some entry-level investors. Cap rates for these complexes may reach 9 percent, up to 250 basis points above the metro average. Buyers seeking Class B properties may look in eastern suburban areas such as Monroeville and North Versailles where initial yields in the mid-6 percent band exist. Here, 1980s- and '90s-built assets around the 300-unit range tend to attract investors from large coastal cities who seek more affordable entry costs and higher cap rates than those found in their local markets.

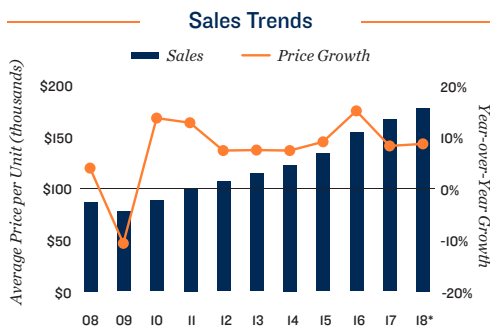
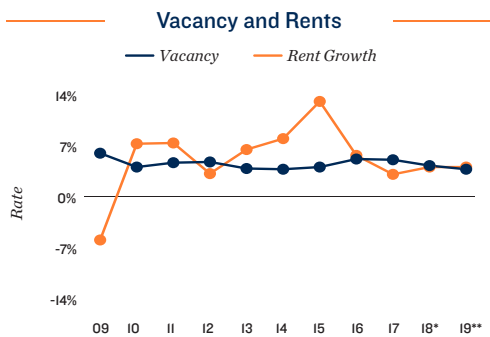
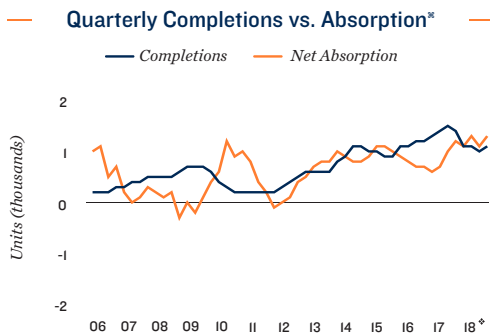
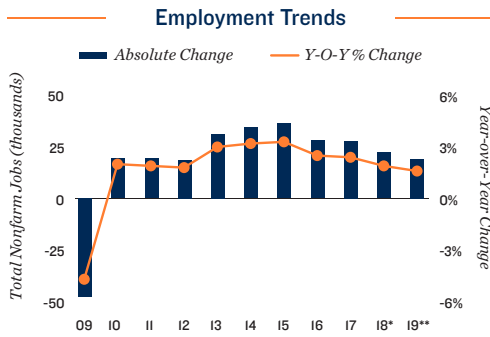
### 2019 Market Forecast

- NMI Rank**  
41, up 1 place  Improvements in vacancy and rent gains elevate Pittsburgh one rung in the Index this year.
- Employment**  
up 1.2%  Employment gains nearly match last year's growth rate of 1.3 percent as companies add 14,000 workers to payrolls in 2019.
- Construction**  
770 units  After two consecutive years of 1,300-plus completions, builders slow the pace of development, bringing 770 units to market.
- Vacancy**  
down 50 bps  Vacancy falls to 4.5 percent in 2019 amid net absorption of almost 1,500 units. This decrease follows 50- and 80-basis-point declines during the prior two years.
- Rent**  
up 4.1%  Rent growth outpaces the previous five-year average of 2.3 percent by a sizable margin, pushing the average effective rent to \$1,150 per month.
- Investment**  Jobs gains in the urban core will continue to encourage the delivery of luxury units where builders seek to capture the rental demand of the area's millennial population.



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Elevated Housing Costs Favor Rental Demand; Investors Focus Attention on Suburbs



**City weighs changes to inclusionary zoning.** A lack of low-cost housing in Portland will continue to sustain demand for Class C apartments in 2019. The monthly mortgage payment in the metro is roughly \$1,000 per month more than the average effective rent, supporting apartment demand. Vacancy in Class C apartments, in particular, has remained at or below 3 percent since the first quarter of 2014. As high demand adjusts market rents upward, some tenants cannot find units at a price point they can afford. The city's inclusionary zoning policy was made in an effort to provide housing for more lower-income households. Few incentives for developers, however, are making it difficult to generate enough revenue to cover rising construction costs, cutting the number of multifamily permits considerably. To encourage development, voters recently passed an affordable housing bond that will allow the city to build 1,300 apartments for lower-income households.

**Fewer restrictions are pushing buyers to the suburbs.** Low vacancy and steady rent growth continue to draw investors to the Portland metro, though increased regulations have some buyers reevaluating their strategies. Changes surrounding the retrofitting of unreinforced masonry buildings in the city could stall sales velocity for these assets. These changes may prompt some owners to list their properties, potentially providing opportunities for buyers willing to make updates. Many of these complexes are in prime locations, luring tenants and supporting rent growth. Other investors will consider assets throughout the suburbs, where fewer restrictions and higher first-year returns than within the city exist. Properties in Beaverton, Gresham and Vancouver will remain popular, trading with cap rates roughly 50 basis points higher on average than the city center. Vancouver, in particular, may attract both investors and tenants moving forward as redevelopments along the waterfront bring new apartments, retail and entertainment.

### 2019 Market Forecast

- NMI Rank** 10, down 5 places: Slower job growth and a rise in deliveries contribute to Portland falling five places in the 2019 NMI.
- Employment** up 1.6%: Roughly 19,000 jobs will be created in 2019 after 22,000 were added in the prior year.
- Construction** 5,200 units: Deliveries increase moderately from the 4,750 apartments completed last year. East and Central Portland will receive the bulk of this year's deliveries.
- Vacancy** down 50 bps: The need for lower cost housing supports a decrease in vacancy this year to 3.7 percent. In 2018, vacancy fell 80 basis points on net absorption of 6,200 units.
- Rent** up 4.0%: Building on a 4 percent increase recorded last year, the average effective rent climbs to \$1,410 per month in 2019.
- Investment**: Assets near Nob Hill will likely remain popular for buyers looking to attract tenants with proximity to shopping, entertainment and many employers.







\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Amenity-Rich Mixed-Use Redevelopments Attract Renters, Provide Investment Opportunities in Triangle

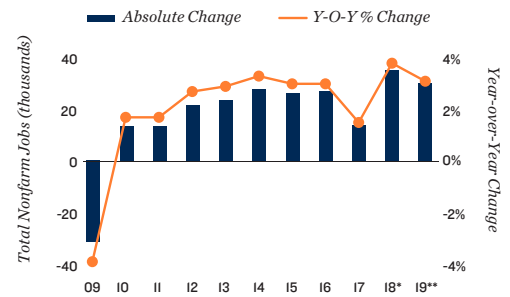
**Highly skilled talent pool draws businesses, creating jobs and rental demand.** Steady employment gains have brought nearly 130,000 positions to the market over the past five years, helping lure residents to the region. This year, the addition of roughly 50,500 people will result in the formation of 22,000 households, generating the need for housing options. Some new residents are students at the region's world-class universities or young professionals who typically rent for several years. Many will find employment at the numerous tech companies that are expanding. In the city of Durham, the first mixed-use building completed in the Durham Innovation District offers office and lab space, bringing tech and life science jobs downtown and generating apartment demand. Other phases of the 15-acre project will bring 300 residential units, retail space, additional office, lab and restaurants. Throughout the market, substantial rental demand amid a slowdown in new inventory during 2019 will drop vacancy to the lowest rate since 2001, supporting a 5.7 percent surge in the average effective rent.

**Encouraging demographic and operation trends lure investors.** A vibrant economy underpinned by an expanding tech sector and state government employment provides a growing population base that draws investors to the metro's apartments. Buyers searching for lower entry costs and higher yields than larger East Coast markets will find cap rates holding steady in the mid-5 percent range, 20 to 70 basis points above those in primary markets. Investors searching for value-add properties may find opportunities near the many mixed-use redevelopments underway throughout the Triangle. In addition to the Durham Innovation District, the Fenton development has received city approval to move forward in Cary. It is one of the biggest projects in the city, providing residential units, office and retail space, and a hotel as well as creating 6,300 jobs. The project should spur additional redevelopment and increase property values nearby.

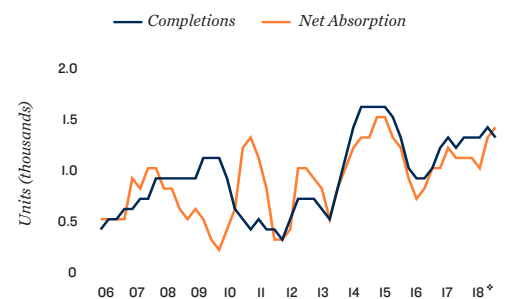
### 2019 Market Forecast

- NMI Rank** 20, down 2 places  Vacancy above the national level lowers Raleigh two notches in the Index this year.
- Employment** up 3.1%  During 2019, employers will add 30,000 workers to staffs, after a 3.8 percent gain was posted last year.
- Construction** 3,900 units  Completions decline from 5,250 rentals in 2018 to 3,900 apartments this year. The cores of Raleigh and Chapel Hill will each receive more than 1,000 units.
- Vacancy** down 60 bps  A reduction in completions amid strong rental demand in 2019 will move the vacancy rate down to 4.7 percent, the lowest rate of the cycle. Last year, vacancy decreased 50 basis points.
- Rent** up 5.7%  The average effective rent jumps to \$1,178 per month this year, building on a 5.5 percent hike in 2018.
- Investment**  Investors seeking steady cash flows may look in Northwest Raleigh. Here a lack of new inventory and more affordable rents have moved vacancy below the metro average.

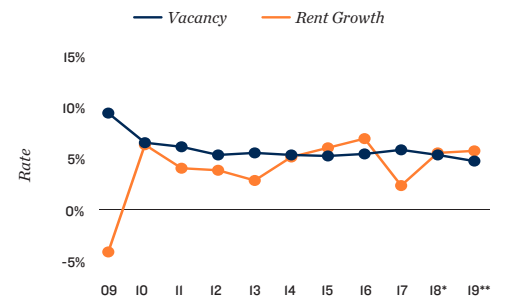
### Employment Trends



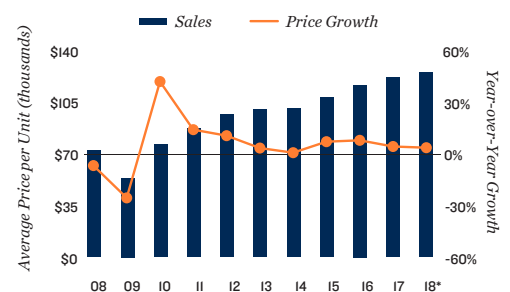
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

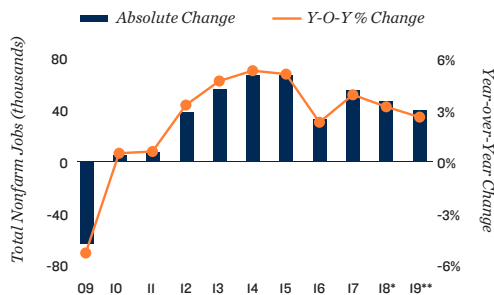


### Sales Trends

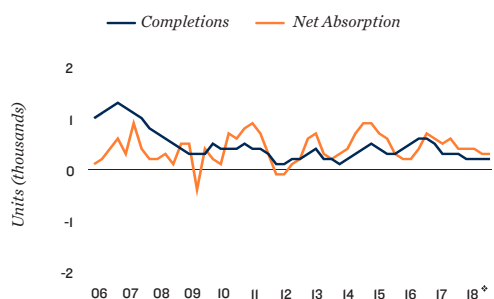


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Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

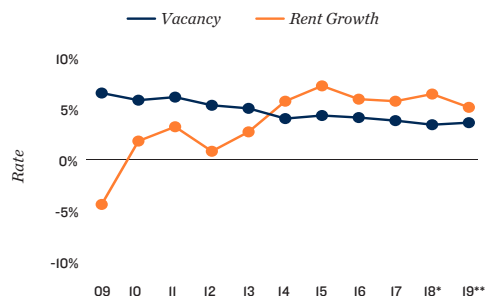
### Employment Trends



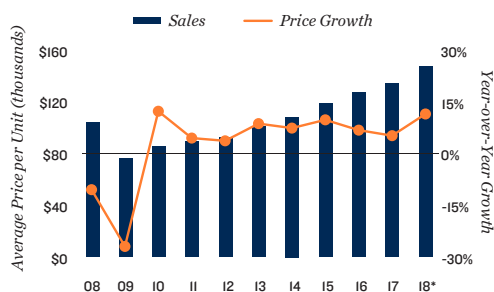
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents



### Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Consistently Tight Vacancy Has Out-of-Market Investors Eager to Expand Inland Portfolios

**Diverse hiring, stable rental demand sustain minimal vacant stock.** The completion of 45 million square feet of industrial space over a 24-month span ending in 2019 suggests robust warehouse and logistics job creation persists this year, supporting overall employment growth that doubles the national rate of increase. The expansion of the e-commerce, combined with an influx of health and construction jobs, maintains the Riverside-San Bernardino region as Southern California's fastest-growing economy in 2019. The wealth of job openings this year will sustain a stout rate of household formation, generating a need for rentals during a period of strong single-family home price appreciation. Consistent demand for apartments in 2019 supports new leasing, which exceeds 2,000 units for a second straight year, nearly negating the impact of increased supply. Developers will respond to limited availability by completing 10 projects this year that feature an average of 270 apartments.

**Buyers adopt large-scale strategy.** Limited vacancy across all asset classes and an extended span of strong rent growth bolster the region's already-mixed buyer pool in 2019. Following a recent lengthy period of heightened deal flow, listings volume should decline this year, increasing competition among investors and placing further upward pressure on property values. Regional and out-of-state buyers largely target pre-1990-built complexes with triple-digit unit counts, as strong NOI growth at relatively newer assets prompts owners to hold these properties. Investors will scour areas for larger Class B and C apartments, typically seeking first-year returns in the high-4 percent to high-5 percent range, dependent on location. Listings east of Interstate 15 and along Highway 91 often garner low-4 to low-5 percent initial yields, while Coachella Valley, Mojave Desert and Interstate 215-located complexes offer buyers mid-4 to high-5 percent cap rates. Additionally, 6 percent-plus returns can be found in the city of San Bernardino.

### 2019 Market Forecast

- NMI Rank** 7, up 2 places Above-average rent growth results in a two-slot climb for Riverside-San Bernardino in the Index.
- Employment** up 2.6% Buoyed by a host of new retail trade-related positions, employers bolster payrolls by 40,000 jobs in 2019 after adding 47,000 positions last year.
- Construction** 2,730 units Delivery volume advances on a year-over-year basis, with San Bernardino County welcoming roughly 2,000 units. These projects are larger in nature, with each comprising an average of 290 units.
- Vacancy** up 20 bps Rental demand slightly trails new construction, raising vacancy to 3.6 percent. Still, availability remains below 4 percent for a third straight year.
- Rent** up 5.1% Annual rent growth surpasses 5 percent for a seventh consecutive year, lifting the metro's average effective rate to \$1,580 per month.
- Investment** Developers' preference to construct sub 1,000-square-foot units prompts more investors to target older properties with larger floor plans.



## Construction Picks Up Pace as Tight Housing Market Sustains Accelerated Rent Growth

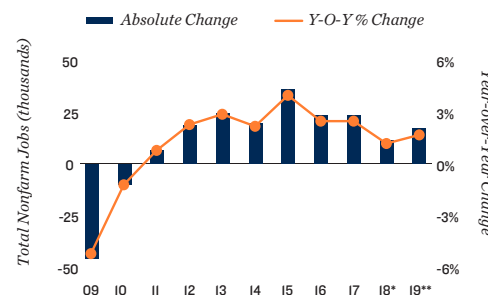
**Improving job market and isolated development maintain healthy absorption.** A collection of the metro's top medical providers and insurers are concurrently expanding during 2019, elevating overall job creation and incomes. As a result, individuals continue to relocate to the metro in search of well-paying positions, keeping the pace of household formation robust for a second consecutive year. Consistent demand in 2019 supports new leases surpassing 1,000 units for a third straight year, though heightened completions will outpace overall apartment demand and place slight upward pressure on metro vacancy. Central Sacramento and Folsom will be most impacted by new supply as the two locales account for most of this year's delivery volume, with both areas welcoming a group of projects that each comprise more than 100 units. Elsewhere, sparse construction and extremely tight C vacancy should benefit Class B leasing velocity in suburbs off Interstate 80 and Highway 50, where overall effective rents trail the metro's average rate.

**Regional investors expand criteria amid rising Class C asset values.** Low price points compared with the Bay Area and significant rent gains have supported robust buyer demand for Class C properties over the past several years, boosting the value of these complexes. Entering 2019, the pricing spread between Class C and B assets has tightened in most submarkets, increasing the number of Bay Area and locally based investors that pursue acquisition opportunities in both asset classes. Buyers that target Natomas, Rancho Cordova and other close-in suburbs are likely to find initial returns in the 5 percent range for midsize Class B assets that carry \$5 million to \$10 million price tags. Class C listings in Arden, Arcade and Midtown Sacramento will continue to receive significant interest from investors that target mid-4 to mid-5 percent first-year returns for sub 30-unit complexes.

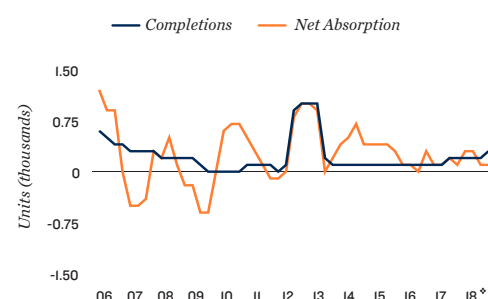
### 2019 Market Forecast

- NMI Rank** ↗ 11, down 3 places  
Higher vacancy and lower rent gains move Sacramento down three positions in the 2019 NMI.
- Employment** ↗ up 1.7%  
This year 17,000 workers will be added to payrolls. An uptick in health-related hiring drives the increase.
- Construction** ↗ 1,820 units  
Delivery volume advances with nearly half of units slated for finalization concentrated in the city of Sacramento. Here, 870 rentals will be added to inventory.
- Vacancy** ↗ up 20 bps  
The vacancy rate rises from last year to 3.5 percent in 2019 as a seven-year-high volume of apartments are completed.
- Rent** ↗ up 5.7%  
The average effective rent increases by more than 5 percent for a sixth consecutive year, reaching \$1,490 per month in 2019.
- Investment** ○ Healthcare-related expansions in Roseville and Natomas generate future demand for nearby apartments, influencing more investors to eye post-2000-built properties and value-add opportunities in both locations.

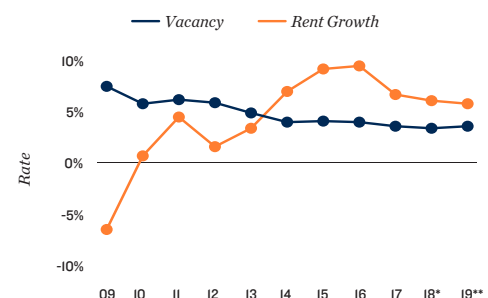
### Employment Trends



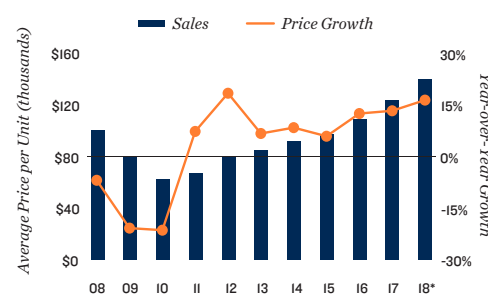
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

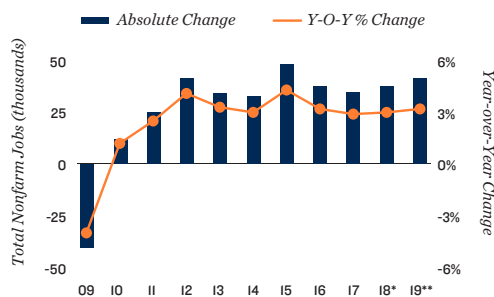


### Sales Trends

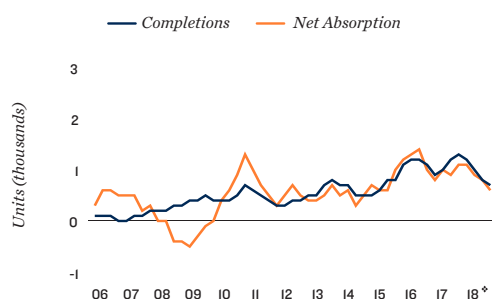


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Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

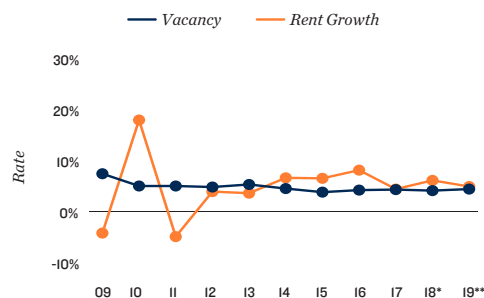
## Employment Trends



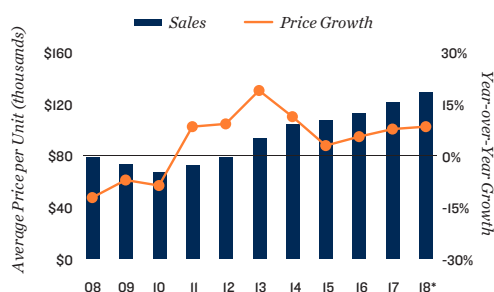
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Tech Firms Draw Talent to Silicon Slopes; Positive Fundamentals Draw Wide Range of Buyers

**Young adults flock to Salt Lake City metro in search of employment.** A growing tech scene and university presence create steady demand for apartments in the Wasatch Front. Adobe, Dell and Qualtrics, among many other major technology firms, have offices in the area, and numerous startups are choosing to locate nearby. Job growth has been widespread as several other industries add positions at a rapid pace. As new residents move to the area in search of work opportunities, the need for housing rises. Developers are adding apartments at a heightened level, and robust demand is keeping vacancy well below 5 percent. This year, anticipated completions stay above 3,000 units for a fifth consecutive year, but a low vacancy rate will drive healthy rent gains. The average effective rent has risen above 4 percent during each of the past five years and will post a nearly 5 percent advance this year.

**Diverse pool of buyers scours the Wasatch Front for investment opportunities.** Sales activity remains brisk as buyers are drawn to the market for steady demand drivers and healthy property operations. Both in-state and out-of-state investors are targeting apartment properties across the Wasatch Front. The majority of new entrants are searching for assets built from 1970 to the early 2000s with upside potential. These assets typically sell at cap rates in the high-4 percent to low-5 percent range, depending on asset age, quality and location, and investors are targeting 10-year internal rates of return in excess of 13 percent. A small group of buyers are also seeking recently completed complexes, which are often still in a period of lease-up. These properties also trade at cap rates starting in the high-4 percent area. The rising interest rate climate has elevated buyer caution, which could further widen the gap between buyer and seller expectations.

### 2019 Market Forecast







- NMI Rank** 19, up 5 places Salt Lake City leaps five places in this year's ranking due to elevated rent growth.
- Employment** up 3.2% Employers add 41,300 positions this year, an increase from the 37,400 jobs created during 2018.
- Construction** 3,500 units During 2019, deliveries remain on par with the previous five-year average.
- Vacancy** up 30 bps The absorption of nearly 3,000 apartments falls short of supply additions this year, and vacancy rises to 4.4 percent. The rate declined 20 basis points last year.
- Rent** up 4.9% Low vacancy is encouraging strong rent growth again this year and the average advances to \$1,185 per month. Last year, the average effective rent swelled 6.1 percent.
- Investment** With quick access to major thoroughfares and proximity to up-scale shopping, Midvale and Murray attract investors in search of value-add opportunities.

## Downtown Revitalization Breathes New Life Into San Antonio Apartment Market

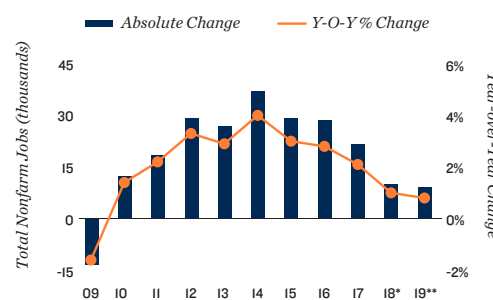
**Supply growth migrates to downtown amid revitalization.** City leaders are focusing on bringing jobs back to downtown San Antonio. Several companies have announced growth plans in the city's core, and the University of Texas at San Antonio is planning a \$90 million expansion that will form a new tech corridor in the city. Several mixed-use projects are planned or already underway nearby, and apartment deliveries are on track to rise in the area during 2019. Nearly 1,400 units are slated for completion downtown this year, compared with approximately 2,600 apartments that have been added to stock in this area over the past five years. The planning pipeline is likely to expand, with thousands of students and workers anticipated to move nearby as these projects come to fruition. New apartment development has been concentrated outside the core along Loop 1604 from SeaWorld San Antonio to Interstate 10 over the past five years, but tapering completions will lead to an overall decline in stock additions this year and a second consecutive year of tightening vacancy.

**Investors targeting properties closer to the core for upside potential.** Compared with other markets across the country, the growth and revitalization of San Antonio's downtown area is occurring much later in this economic cycle. As a result, capital is flowing into the city as several pivotal developments are on track to reshape the core and a growing buyer pool is strengthening competition for apartment assets. Investors in search of value-add properties are scouring the areas just north of downtown for opportunities as demographics begin to shift. Class B and Class C properties are in high demand as vacancy has declined substantially over the past few years, with cap rates averaging in the low-6 percent area. Complexes in need of capital improvements will yield stronger ROIs as these renovated properties allow for sizable rent increases.

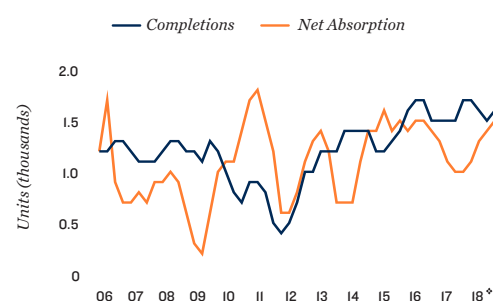
### 2019 Market Forecast

- NMI Rank** 38, down 1 place  Vacancy sitting above the national level moves San Antonio down one space, keeping it in the lower half of the Index.
- Employment** up 0.8%  Job growth slowed considerably during 2018 and employment gains remain sluggish in 2019 as 9,000 positions are created.
- Construction** 4,300 units  In 2019, apartment completions fall below 6,000 units for the first time since 2014.
- Vacancy** down 40 bps  Demand outstrips supply additions again this year, pushing down the vacancy rate to 6.4 percent. Vacancy also declined 40 basis points in 2018.
- Rent** up 3.2%  A second year of tightening vacancy prompts a stronger pace of rent growth as the average effective rent climbs to \$974 per month. Last year, rent advanced 2.2 percent.
- Investment**  Yield-driven investors will target San Antonio for opportunities as first-year returns are 50 to 100 basis points higher than two of Texas' other major metros, Austin and Dallas/Fort Worth.

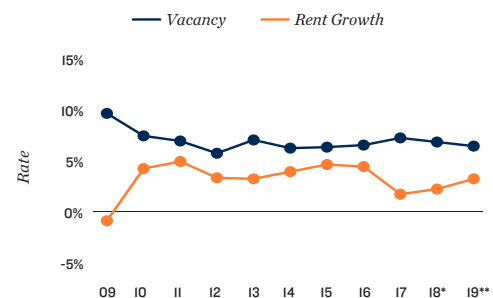
### Employment Trends



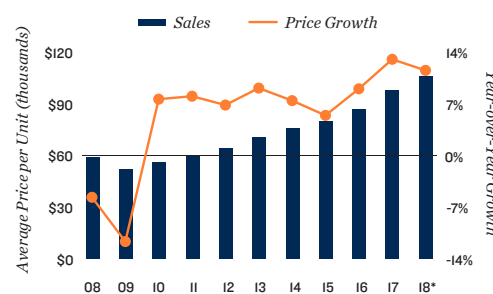
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

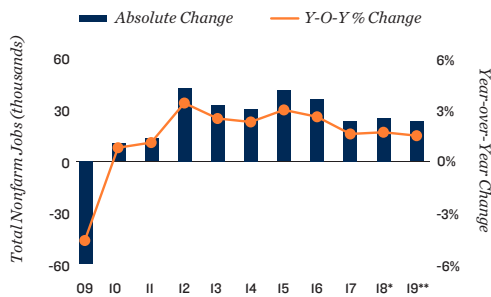


### Sales Trends

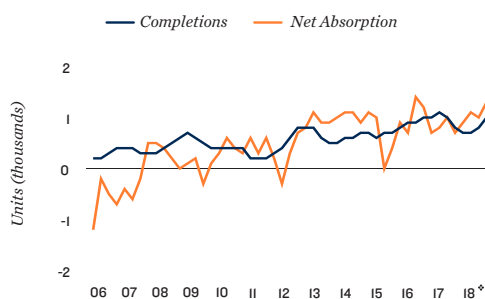


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

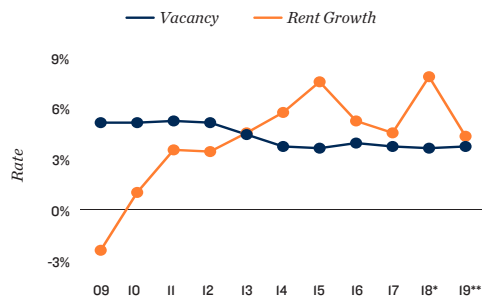
## Employment Trends



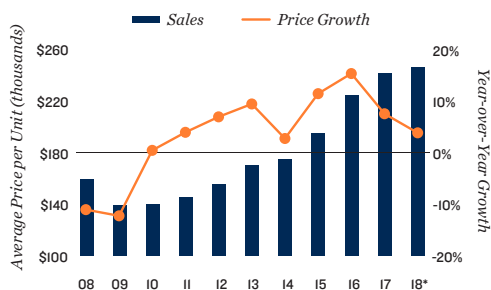
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Unwavering Tenant Demand Pacing Aggressive Development Pipeline

**Steady job growth and elevated home prices drive tight rental market.** In the last five years, 17,900 new apartments were delivered in San Diego County, yet vacancy has remained below 4 percent. This trend of elevated construction and limited unit availability persists in 2019, as more than 3,200 rentals are completed and vacancy remains near a cycle-low level. Steady job creation represents one of the driving factors that maintains strong apartment demand, with life science, tech and defense firms in need of additional IT, human resources and accounting professionals. Employment growth within the professional services sector has driven steady income growth, but home prices have outpaced income gains. Over the past year, the gap between a mortgage payment and average monthly rent widened by \$500, limiting housing options for many households. Moving forward, a high concentration of completions in the city of San Diego should appeal to urban professionals. At the same time, demand for rentals in more affordable areas of the county will likely outpace construction, causing vacancies in these areas to tighten.

**Moderately priced assets with upside potential still highly sought.** Vacancy in the metro's Class B and C sectors sits at cycle-low levels, warranting robust investor interest for these complexes this year. Buyers remain focused on value options that offer upside potential. This includes post-1970-built, Class B assets along Interstate 8 west of Qualcomm Stadium. These complexes provide investors first-year yields in the high-3 to low-4 percent range. Neighborhoods just north of Downtown San Diego attract a mixed pool of Class B and C buyers who accept low-3 to low-4 percent initial cap rates for properties near primary thoroughfares that boast dining and shopping options with the opportunity to raise rents through renovations. Private high-net-worth investors targeting secondary markets east of Interstate 15 off Interstate 8 expect to achieve at least a 50 basis point higher yield than the core markets mentioned above.

## 2019 Market Forecast

- NMI Rank** 2, up 2 places San Diego climbs into second position in the NMI as the vacancy rate is well below that of the U.S.
- Employment** up 1.5% Hiring activity by health and defense-related firms drive the steady rate of employment growth this year to 23,000 jobs.
- Construction** 3,220 units Annual delivery volume remains heightened for a fifth straight year. Of those rentals, more than 2,000 are completed in the city of San Diego, with half of those finalized in downtown.
- Vacancy** up 10 bps Availability rises nominally this year to 3.7 percent as vacancy across all asset classes remains at or near cycle-low levels.
- Rent** up 4.3% Tight vacancy and strong home price appreciation enable the metro's average effective rent to rise by more than 4 percent for a seventh consecutive year, reaching \$2,095 per month.
- Investment** San Diego's beach communities near Interstate 8 remains a prime target for investors, even with sub-3 percent initial returns for smaller Class C complexes.

## Extremely Low Vacancy in San Francisco Limiting Household Formation, Encouraging Bundling

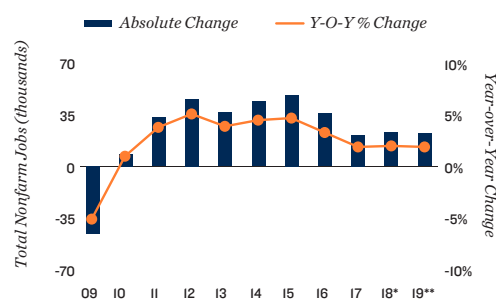
**Construction reaccelerates South of Market; housing shortage persists.** A combination of rapidly expanding tech and biotech firms are generating significant economic growth throughout the San Francisco metro area. Unemployment has fallen under 2.5 percent, below levels last seen at the peak of the Dot Com era. This has accelerated household income growth, which is on pace to surpass \$120,000 annually by 2020. Despite the booming economy, household formation has been slowed by the lack of available housing throughout the metro, motivating more residents to move in together in an effort to reduce expenses. Developers are responding, with completions expected to reach 3,600 units, the highest level since 2016. Construction will be primarily in the urban core, with nearly two-thirds of this year's supply growth coming to market in SoMa. While the volume and concentration of the new units could cause moderate upticks in vacancy in SoMa, development outside the core remains extremely limited relative to demand, reinforcing the continued housing shortage.

**Core San Francisco assets top investor priority lists; lack of listings permeates San Mateo County.** Consistently positive rental dynamics and a high proportion of renters to homeowners underpins healthy demand for apartments throughout the San Francisco metro. A wide range of options at multiple price points has generated dollar volume in excess of \$2 billion, providing ample liquidity for multiple strategies. In the metro core, cap rates approach the mid-3 percent range, where a renewed focus in SoMa is likely this year as buyers seek out new builds. Meanwhile, farther out into San Mateo County, buyers can receive slightly higher yields. Pricing for assets closest to the tech hubs in Palo Alto and Menlo Park has appreciated meaningfully as investors bid up a limited number of opportunities.

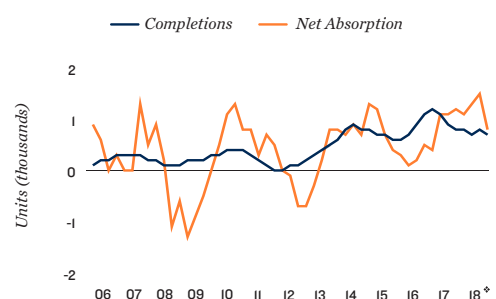
### 2019 Market Forecast

- NMI Rank** ↻ 15, down 4 places  
A rise in deliveries result in San Francisco slipping four notches to hold 15th place in the Index.
- Employment** ↗ up 1.9%  
San Francisco organizations add 22,000 jobs this year, with more than two-thirds of the new positions coming from office-using firms.
- Construction** ↗ 3,660 units  
A focus on deliveries in SoMa pushes the yearly construction total to 3,660 units, more than 1,000 rentals above 2018.
- Vacancy** ↗ up 10 bps  
An extremely concentrated pipeline nudges vacancy up to 3.8 percent as new supply is absorbed.
- Rent** ↗ up 2.7%  
The average effective rent rises to \$3,450 per month. Growth is held back by competition for tenants in SoMa, the most expensive submarket in the metro area.
- Investment** ○ The combined 700-acre developments of Hunter's Point Shipyard and Candlestick Point will dramatically alter nearby neighborhoods as density increases, boosting property values.

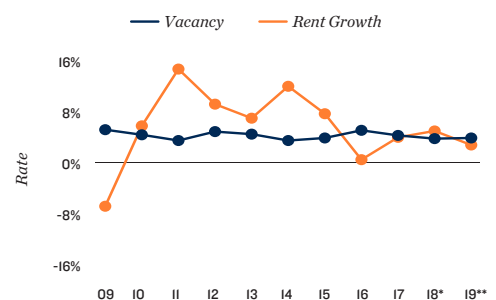
#### Employment Trends



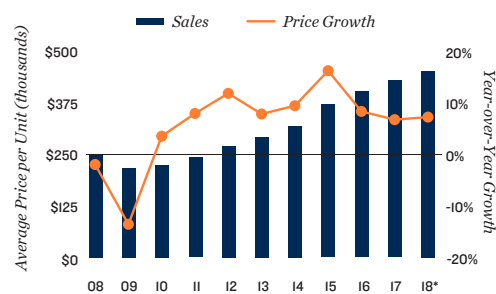
#### Quarterly Completions vs. Absorption\*



#### Vacancy and Rents



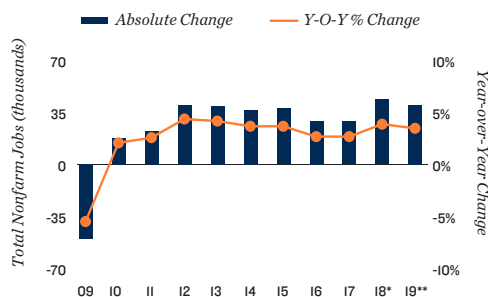
#### Sales Trends



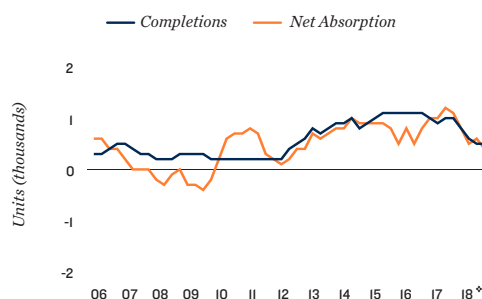
\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics



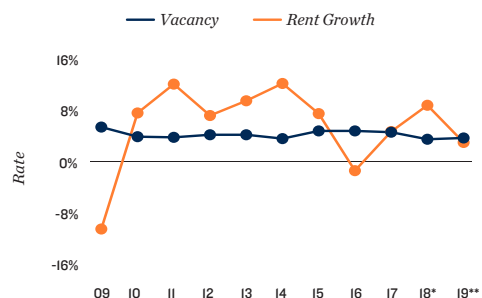
## Employment Trends



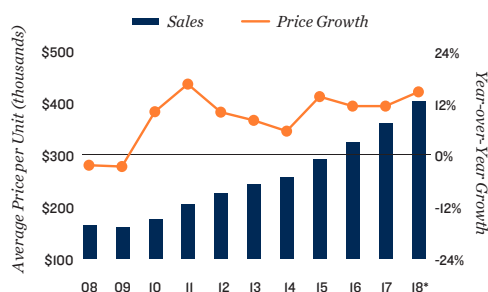
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Mixed-Use Developments Near Mass Transit Highlight Transforming Silicon Valley

**Booming tech industry powers extraordinary housing demand.** The tremendous growth of numerous tech industries, including semiconductors, social media and cybersecurity, has underpinned an exceptional economic expansion for over a decade. Fueled by median home prices well out of reach of the average metro resident, these conditions have generated a severe housing shortage throughout the Bay Area. Developers have mostly focused on locations in North and Central San Jose along the VTA lines and urban Santa Clara. This year, the largest completion will be the second phase of Santa Clara Square, where more than 850 units will come online, joining retail and office space just off Highway 101. Despite considerable and rising supply growth, with overall deliveries reaching a new cycle high this year, vacancy has remained extremely tight below 4 percent metrowide. Average rents have soared, particularly in more affordable areas such as North San Jose and Milpitas, where monthly rates have risen nearly 50 percent in five years. Increasing supply will likely cause minor upticks in vacancy in the short term, yet the overall lack of housing in the metro will support rental gains throughout the year.

**Class C assets dominate investment activity amid stellar appreciation.** A diverse pool of capital including foreign sources, institutions and private investors remain active buyers of San Jose multifamily assets. Class C properties top buyer wish lists due to the high cost of new development and the ability to create value through management and facility upgrades. Meanwhile, farther west in Mountain View and Cupertino, stabilized assets near corporate campuses highlight the high end of the market, supporting cap rates in the mid- to high-3 percent range. Elsewhere, locations in East San Jose and Milpitas offer investors opportunities for higher returns and greater appreciation as development expands to these areas.

## 2019 Market Forecast







- NMI Rank** 14, down 2 places ⬇️ Although sliding two positions due to an increase in deliveries, San Jose stays in the top 15 of this year's Index.
- Employment** up 3.5% ⬆️ Job growth remains exceptional as organizations create 40,000 new positions, led by gains in the IT and professional and business services sectors.
- Construction** 5,100 units ⬆️ Builders completed nearly 2,000 more units this year, expanding development to a new cycle high. Locations along mass transit remain most prevalent.
- Vacancy** up 20 bps ⬆️ Vacancy ticks up to 3.6 percent as the volume and concentration of new supply weigh on the overall market.
- Rent** up 2.9% ⬆️ The average effective rent reaches \$2,950 per month as high-end units in Mountain View and Sunnyvale lift pricing.
- Investment** ⬆️ Assets north of the airport and south of Highway 237 are drawing the attention of builders and investors, creating an opportunity for current holders wishing to diversify their holdings.

## Seattle's Vibrant Employment Market Continues To Drive In-Migration

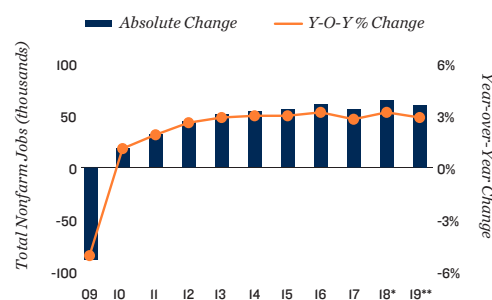
**Fortune 500 companies expand their presence across the Puget Sound region.** Following the strongest year of job gains since 1996, Seattle remains poised to be one of the nation's top job creators in 2019. T-Mobile, Facebook, Google and many other companies have inked new leases across the Seattle region to take advantage of the local top-tier talent, driving more people in search of jobs to relocate to the metro. Seattle has been one of the strongest single-family housing markets in the nation, but rising interest rates, high home prices and comparably low rental rates have tamped down homebuyer enthusiasm, ensuring a strong renter pool this year. More than 12,000 apartments are slated for completion this year, a new high for the current cycle. Vacancy will soften with such a large influx of new units, leading to localized concession activity in areas where the most new units were added. Headlining deliveries this year is Hyde Square, a 617-unit complex in East Bellevue, in proximity to the Overlake Village light-rail station opening in 2023. Development will be greatest in Seattle's urban core though, where more than 5,000 units will be completed this year, followed by the Eastside with at least 4,600 apartments opening in 2019.

**Robust residential expansion provides investors with range of opportunities.** Healthy employment growth, improving mass-transit options and challenges in the widening affordability gap for homeownership provide apartment investors with many opportunities across the region. Cap rate compression has slowed, holding in the upper-4 percent territory over the past two years. Yield-driven buyers focus on Snohomish and Pierce counties, where deliveries have remained balanced and chances for greater upside remain. Demand will also be strong along the Sound Transit light-rail extension that will be completed over the next several years, as a currently strained infrastructure and long commute times affect where renters choose to live.

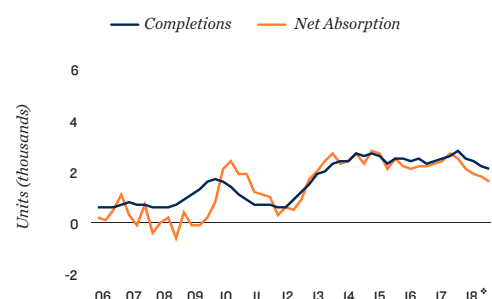
### 2019 Market Forecast

- NMI Rank** 5, down 4 places  Seattle-Tacoma falls out of the first spot as inventory surges but it remains in the top five of this year's NMI.
- Employment** up 2.9%  A tight labor market slows job growth from the 3.2 percent increase of last year, with the creation of 60,000 jobs in 2019.
- Construction** 12,200 units  Deliveries climb past the 8,100 units delivered in 2018, posting a new high for the current cycle.
- Vacancy** up 60 bps  Following a 70-basis-point decline last year, the vacancy rate climbs to 4.8 percent at year-end on net absorption of more than 9,000 units.
- Rent** up 2.9%  Rent growth slows this year on a large increase to inventory, rising to \$1,750 per month in the fourth quarter. A 4.8 percent increase was registered in 2018.
- Investment**  The U District was recently upzoned and will have a light-rail station in 2021, attracting the attention of a variety of investors and developers.

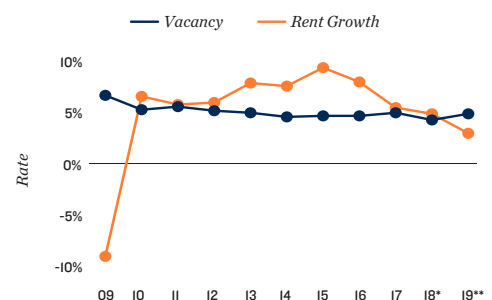
### Employment Trends



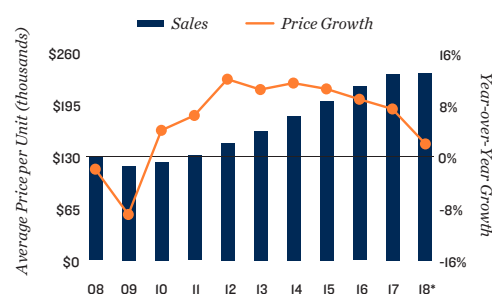
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

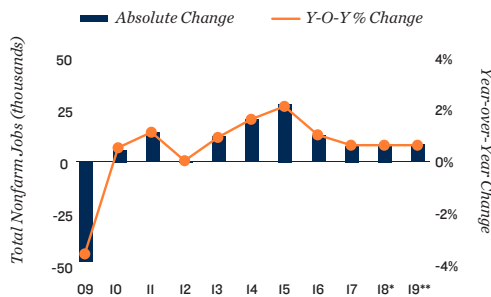


### Sales Trends

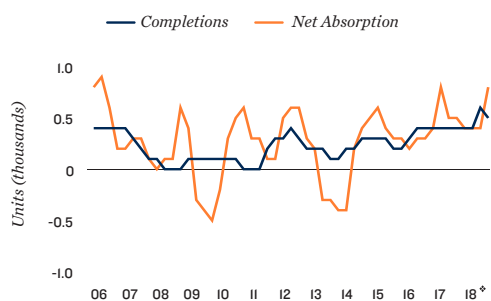


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

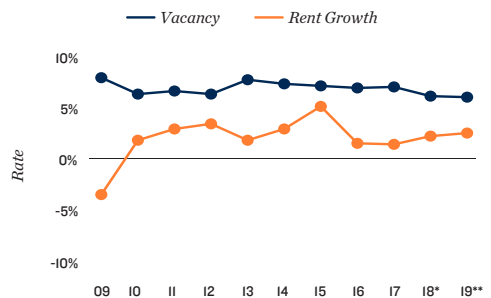
## Employment Trends



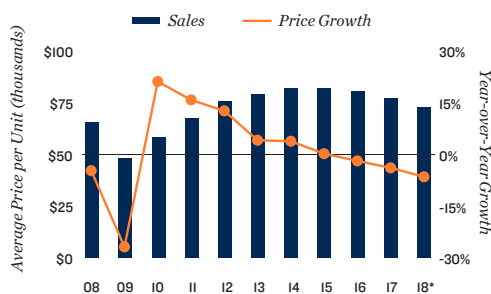
## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Cycle-Low Vacancy in the Cards for St. Louis; Competitive Yields Sustain Investor Interest

### Steady renter demand, reduction in apartment deliveries support tight vacancy.

Consistent job creation amid low unemployment becomes a multiyear trend for the St. Louis metro in 2019, driven by a mix of industries. The market's collection of hospitals, universities and tech firms supports a healthy rate of employment growth among traditional office professions, while expansions by durable and packaged goods firms bolster manufacturing-related hiring. This third consecutive year of stable job creation will support income growth on par with the national rate of increase. Rising earnings will continue to encourage a healthy pace of household creation, generating a need for new rentals, yet apartment deliveries slow in 2019, highlighted by less than 400 new units in the city of St. Louis. Instead, completions remain spread among cities west of Interstate 270. Smaller pockets of suburban deliveries coupled with unchanging demand drivers will allow the metro's vacancy rate to fall to its lowest year-end rate since 2001, warranting a rate of rent growth that matches the previous five-year average.

**Mix of buyers adopt various upside-focused strategies.** The metro's ability to maintain sub-7 percent vacancy over the past two years has boosted investors' confidence in St. Louis, diversifying the local buyer pool. Out-of-state buyers attracted by regionally low price points and higher yields are aggressively pursuing larger, higher-quality complexes while strong Class A rent growth and historically low Class B vacancy persist. Pre-1980s-built properties inside Interstate 270 and post-2000-built complexes near MetroLink stops are top targets for these investors, who possess a willingness to accept first-year returns in the 6 percent range. Missouri- and Illinois-based buyers are most active in neighborhoods south of Interstate 44. Here, vacancy hovers around 4 percent in most locales, with 8 percent-plus initial cap rates frequently available for Class C complexes with less than 25 units.

### 2019 Market Forecast







- NMI Rank**  
46, down 6 places
 ➡ Still-high vacancy and below-average rent gains place St. Louis in the Index's last position.
- Employment**  
up 0.6%
 ➡ Hiring velocity nearly matches last year as employment grows by 8,500 workers in 2019. Last year 8,700 jobs were created.
- Construction**  
1,400 units
 ➡ Annual delivery volume falls to a four-year low amid a lack of completions in the city of St. Louis. Suburban projects finalized this year account for more than 1,000 units.
- Vacancy**  
down 10 bps
 ➡ This year, the metro's vacancy rate lowers to 6.0 percent. In 2018, unit availability compressed by 90 basis points.
- Rent**  
up 2.5%
 ➡ Rent growth in 2019 reaches a four-year high, lifting the average rate to \$910 per month. The previous three-year average gain was 1.7 percent.
- Investment**
➡ Buyers focused on expanding their Midwest portfolios amid a span of tight vacancy and stable rent growth look to accumulate local Class A and B assets via multiproperty transactions.

## Vacancy Drops to New Low, Sparking Rent Acceleration; Investors Drawn by Expanding In-Migration

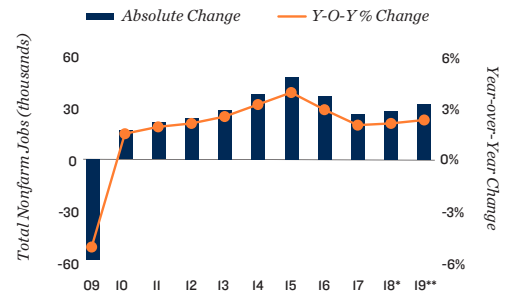
**Rental demand outpacing inventory additions.** Apartment deliveries will remain above the 10-year average this year with more than half of the metro's submarkets receiving new rentals. The greatest number of new units will be in Central Tampa. Here, a surge of mixed-use redevelopment projects are transforming underutilized sections of the core into walkable urban neighborhoods with amenities. Completions in the area will remain heightened over the next several years as rentals in the 50-acre Water Street development are finalized. Marketwide, new apartment inventory will not keep pace with apartment demand this year, as population growth more than doubles the national average. Absorption will be sustained as rising interest rates and home prices as well as a lack of for-sale starter homes keep more tenants from transitioning to homeownership. As a result, vacancy will dip below 4 percent for the first time, pushing the average effective rent to a new high.

**Vibrant economic and demographic trends lure investors to Tampa-St. Petersburg.** The strong rental market, driven by robust employment and population growth, continues to attract a wide range of investors to the metro. Many are seeking the lower entry costs and comparatively higher cap rates that average in the low-6 percent area. Newer apartments with some upside potential are keeping institutional and high-net-worth investors active in the urban core, near the beaches and in high-growth communities, especially in outlying Hillsborough County. Many other buyers are targeting well-located Class C properties with some upside potential, but demand for these assets far exceeds supply. Buildings around the many redevelopment efforts near downtown St. Petersburg and Tampa, or in Largo, may provide buying opportunities. As valuations and interest rates trend higher, investors are becoming more cautious and taking longer to scrutinize deals. This is widening the gap in expectations and slowing transaction momentum.

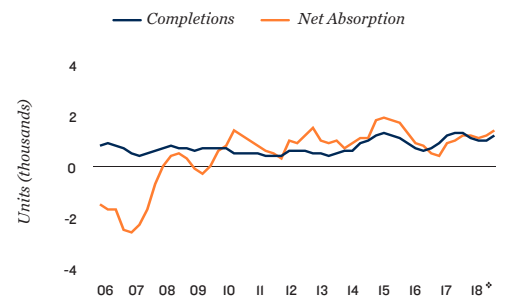
### 2019 Market Forecast

- NMI Rank** 12, up 9 places  Improving vacancy and robust rent gains vault Tampa-St. Petersburg nine spots and into the top 15 in the 2019 NMI.
- Employment** up 2.3%  Employment growth increases from last year's 2.1 percent gain as 32,000 workers are added to payrolls.
- Construction** 3,500 units  Completions ease from the 5,000 apartments in 2018 as 3,500 rentals are delivered this year. Central Tampa will receive the largest portion of more than 1,000 units.
- Vacancy** down 60 bps  Matching last year's decline, vacancy tightens to 3.5 percent in 2019, the lowest level since 2000 amid strong renter demand.
- Rent** up 7.3%  Building on a 9.2 percent leap in 2018, the average effective rent will jump to \$1,289 per month this year. Rents have soared nearly 40 percent since the end of 2014.
- Investment**  Increased funding for transportation projects in Hillsborough County will help reduce congestion and improve transit access, benefiting many apartment owners.

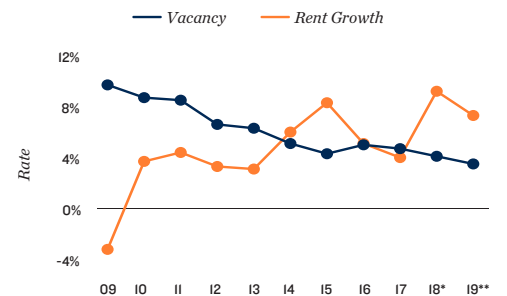
### Employment Trends



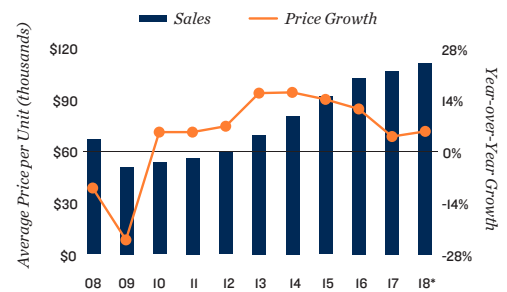
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

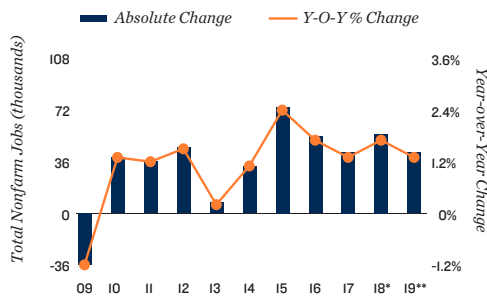


### Sales Trends

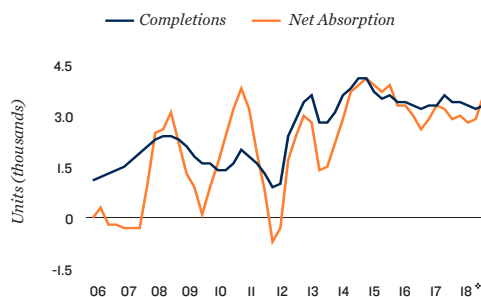


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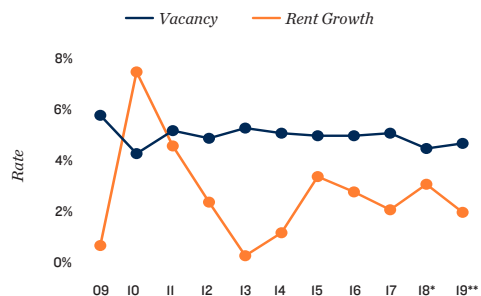
## Employment Trends



## Quarterly Completions vs. Absorption\*



## Vacancy and Rents



## Sales Trends



\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

## Developers Add More Units to Capital Riverfront; Trade Velocity Ascends in Maryland and D.C.

**Class C apartments drive rent growth as elevated completions raise vacancy.** Construction cranes remain a mainstay of the District skyline as the development pipeline for the greater D.C. metro area expands to a five-year high in 2019. The focal points of construction are shifting from submarkets such as Central D.C. and Tysons Corner to others including East Alexandria and North Arlington. The number of upcoming arrivals is also accelerating along the Capital Riverfront and in downtown Silver Spring. The greater number of openings will weigh mildly on vacancy in the short term. Amazon's expansion into Crystal City will improve demand for top-tier apartments in the submarket as the company begins to hire for its new headquarters. High-end rentals are rapidly leasing in Navy Yard as well, but in other areas with numerous completions, Class A concession use is rising. These leasing incentives will slow growth in overall effective rents this year. Above-market appreciation will occur primarily among Class C apartments, as vacancy for these rentals falls below 1 percent in some parts of D.C. and Maryland.

**Investment activity continues to grow as more older properties change hands.** Transaction velocity in Washington, D.C., set a new record in 2018 as sale prices began to recede from the cycle-high achieved two years earlier. Part of this dip is driven by more deals for Class B properties, particularly in Maryland neighborhoods around Joint Base Andrews. A concentrated number of Class C assets changed hands just to the northwest in Anacostia. Composed of largely older supply, new revitalization efforts and retail openings pave the way for investors to reposition assets and add value. Higher yields are an added incentive, as cap rates here range 100 basis points or more above the market's average initial return in the low-5 percent zone. Investors interested in acquiring assets in areas where long-term rental demand is likely to rise may look around Amazon's planned developments in Crystal and Pentagon cities as well as nearby Arlington and Alexandria.

### 2019 Market Forecast

- NMI Rank** ↗ Washington, D.C., inches up three slots, remaining in the bottom half of this year's Index.  
29, up 3 places
- Employment** ↗ Metro employers will create 42,000 jobs this year, led by hiring in the professional and business services sector.  
up 1.3%
- Construction** ↗ Deliveries will reach a five-year high in 2019 as construction expands in key submarkets across the market. Arrivals are picking up the most in Silver Spring, an affordable alternative to the District.  
14,400 units
- Vacancy** ↗ Elevated construction activity will nudge the metrowide vacancy rate up to 4.6 percent. Last year vacancy fell 60 basis points.  
up 20 bps
- Rent** ↗ The average effective rent will advance to \$1,760 per month following a 3.0 percent growth rate in 2018.  
up 1.9%
- Investment** ○ Investors in the \$20 million and above tranche are predominantly acquiring assets in northern Virginia and Maryland, where entry costs are lower and yields are higher than in D.C.









## West Palm Beach Emerging as Hub for Tech Innovation, Bringing More Young Workers to the County

**West Palm Beach beginning to shed its retirement community image.** Home to some of the nation's fastest-growing businesses, West Palm Beach is transforming into a hub for technology companies, attracting more young professionals to the area. Palm Beach County leads South Florida in domestic migration, not only due to the growing retiree population but from the expanding younger cohort as well, changing the perception of the area and breathing new life into local communities. Drawn to amenity-rich complexes in proximity to local employers, restaurants and nightlife, millennial renters have been flocking to Boca Raton, Delray Beach and Boynton Beach, supporting a declining vacancy rate for two straight years in 2019. Older adults are also fueling apartment demand, choosing to downsize and move to an urban setting that offers more experiences and walkability. With interest rates rising and tax incentives no longer in place, homebuyer enthusiasm has been tamped down, ensuring a broad renter pool this year, particularly as many are drawn to the mobility and lifestyle that renting provides.

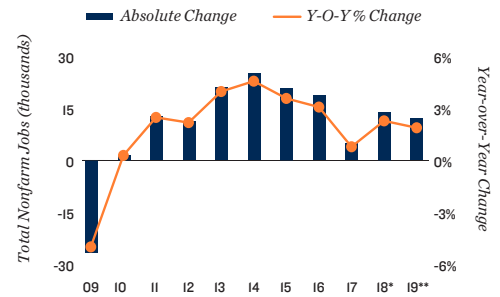
### Investor appetite for apartments remains elevated, keeping market competitive.

Robust growth in professional jobs outside of the service industry and elevated single-family home prices have led to healthy investor perceptions in Palm Beach County. Yield-driven buyers will remain active in the search for remaining upside, finding cap rates that average in the upper-5 percent to mid-7 percent band. Class A properties in some of the best areas of the county can often achieve an initial yield in the low-4 percent to low-5 percent range. Minimal deliveries this year will give a boost to property metrics across the county, pushing the vacancy rate back below 5 percent and supporting stronger rent growth. After several years of robust pricing growth, more owners may be motivated to test the market this year as buyer demand holds strong, particularly in Boynton Beach and West Palm Beach, which are rapidly changing areas of the county.

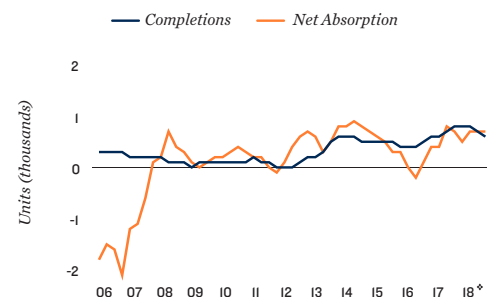
### 2019 Market Forecast

- NMI Rank**  A five-rung leap places West Palm Beach in the 36th spot in the Index as vacancy is above the U.S. level.
- Employment**  A tighter labor market slows employment growth to 12,000 jobs this year from the 2.3 percent increase posted in 2018.
- Construction**  Completions slow considerably in 2019, down from the 2,400 units delivered last year to the lowest level recorded since 2011.
- Vacancy**  Rental demand remains in place, bringing the market vacancy rate down to 4.9 percent at year end, adding to the 30-basis-point decline registered last year.
- Rent**  Building on the 4.1 percent increase posted in 2018, the average effective rent climbs to \$1,610 per month this year.
- Investment**  Properties in proximity to the Virgin Trains station in West Palm Beach will be highly coveted as ridership grows. With service to Fort Lauderdale and Miami, more workers in these cities may choose to commute from West Palm Beach by train.

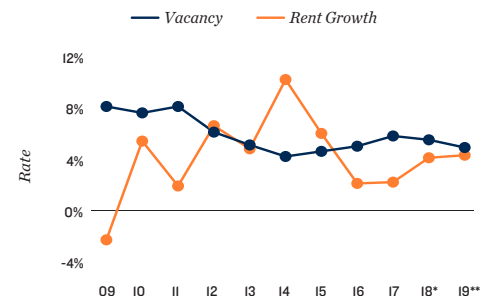
### Employment Trends



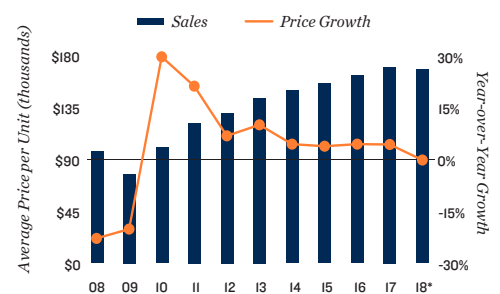
### Quarterly Completions vs. Absorption\*



### Vacancy and Rents

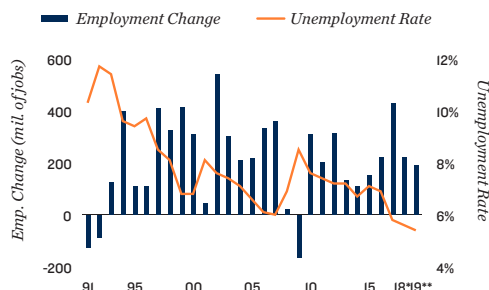


### Sales Trends

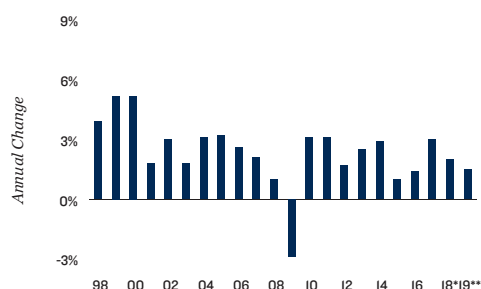


\* Estimate; \*\* Forecast; \* Through 3Q; \* Trailing 12-month average  
Sources: CoStar Group, Inc.; RealPage, Inc.; Real Capital Analytics

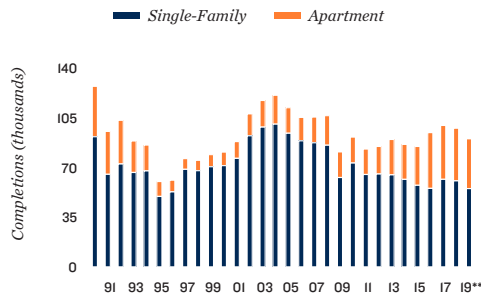
## Employment vs. Unemployment



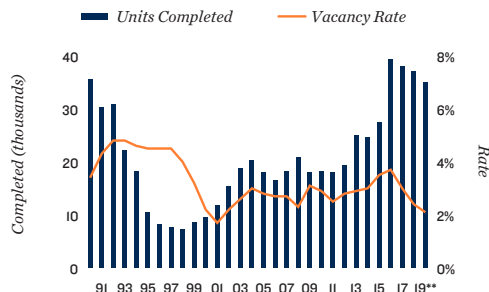
## GDP Change



## Home Construction



## Completions vs. Vacancy



\* Estimate

\*\* Forecast

Sources: Canada Mortgage and Housing Corporation, Statistics Canada

Marcus &amp; Millichap Real Estate Investment Services Canada Inc., Brokerage

## Tight Labour Market Weighs on Canada's Growth; Interest-Rate Sensitive Segments Feel Pressure

**Canada economy sustains balanced growth.** An exceptionally tight labour market placed added strain on hiring efforts in 2018, creating challenges for companies looking to match open positions with qualified talent. A smaller labour pool going into 2019 will place pressure on wage growth as more than half a million vacancies are waiting to be filled, leading companies to enhance incentive packages in the more competitive environment. On top of a healthy job market, businesses welcomed new trade policy at the end of 2018 in the form of USMCA, an update to the 24-year-old trade rules in NAFTA that will be phased in over several years starting in 2020. Lackluster business investment last year has raised concerns, though, particularly amid softening oil prices and moderating global growth.

**Dovish tone struck with pared-back outlook.** The Bank of Canada has taken heed of economic developments that may weaken the nation's expansion, holding the overnight benchmark rate at 1.75 percent at the end of 2018. After raising the policy interest rate by a quarter percent three times last year, the bank is still expressing the need to bring the neutral rate up to a range of 2.5 to 3.5 percent. The bank worries that higher interest rates will negatively impact debt-laden Canadians and will maintain a cautious approach this year. The central bank suggested there may be more capacity for the economy to expand than previously indicated after output numbers for the last three years were revised down at the end of 2018. This could lead to less tightening through monetary policy this year even as core inflation has remained in the 2 percent range, implying the economy is operating near capacity.

## 2019 Canadian Economic Outlook

**Canada's automakers face rising costs under new trade policy.** The auto industry must meet a new threshold on the amount of parts and raw materials sourced from North America, weighing on global competitiveness. Additional requirements call for 40 percent of components coming from workers that average U.S. \$16 or more per hour, increasing costs for Canada's automakers. Challenges for exporting from North America could rise as a result, especially with tariffs on aluminum and steel remaining in place under USMCA.

**Cuts to oil production trim GDP growth expectations.** At the end of last year, Alberta ordered a major reduction to oil production as bloated inventories weighed on the price of Western Canadian heavy oil. Alberta's oil production will be cut by 325,000 barrels a day beginning January 1, down nearly 9 percent. Just under 3 percent of Canada's GDP is directly tied to oil extraction, temporarily lowering the nation's economic outlook. As these cuts are not anticipated to last through the year, the potential for acceleration in the latter part of the year remains likely.

**Canada boosts immigration to fuel labour market.** Canada's immigration targets are climbing from 300,000 to 340,000 over the next several years to support elevated labour demands as the economy faces half a million openings. Companies such as Microsoft, SAP, Google and Amazon are adding more tech jobs across the nation, and they are in stiff competition for talent. The tight job market will invigorate wage growth, supporting broader economic gains.

## Canada Adds to Apartment Pipeline As Housing Shortfall Continues

**Residents choosing to rent for longer periods.** Canada rental demand will expand on last year's gains as rising interest rates, robust household formation and a healthy job market converge to favor apartments. New mortgage rules also boosted renter demand, delaying homeownership for many potential borrowers as they now need more time to save up. Little was done to encourage an increase in rental stock, though, exacerbating the demand/supply mismatch as developers must already contend with policies and high costs that have been prohibitive. With detached housing prices nearly doubling over the past 10 years and a wave of young professionals and international migrants seeking housing, rental rates have been climbing steadily. Increased rents in markets such as Toronto and Vancouver are making apartment projects more viable financially, increasing the development pipeline to 60,000 units.

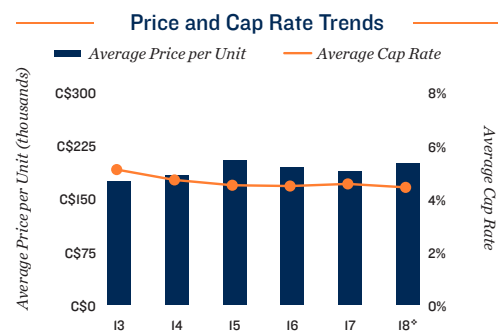
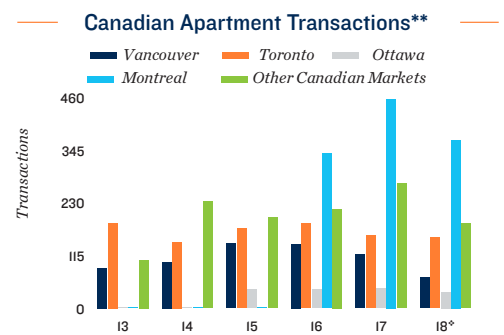
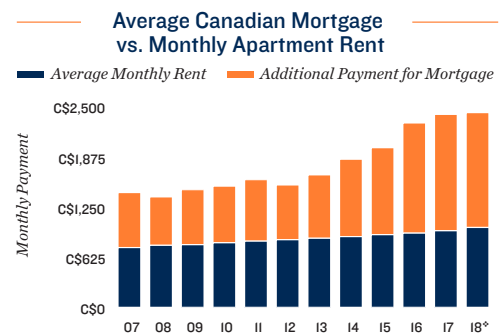
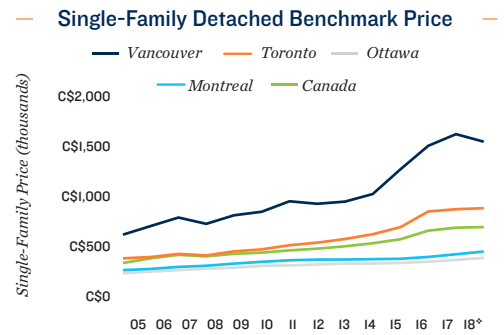
**Supply shortage intensifies, limited availability in secondary rental markets.** The number of occupied units grew by 50,000 last year, outpacing supply growth nationally as just 37,000 new apartments came online. The national vacancy rate declined to 2.4 percent, the lowest reading since 2002. A shortage of construction workers, a long approval process and higher development and financing costs are slowing the delivery schedule this year, curbing completions by roughly 2,000 units from last year's total. Historically, Canada has been heavily reliant on condominium owners to supply the rental market, filling the void that purpose-built rentals have not been able to close. Prices have climbed substantially for condo investors, though, slowing this practice to keep the stock used as rentals constant last year and pushing more residents in search of housing to the apartment market.

## 2019 Canadian Housing Outlook

**Ontario's provincial government eases rent-control guidelines.** Rent controls were removed on newly built apartments across Ontario at the end of last year, while rent control for current tenants was kept in place. The new reform encourages builders to move forward with purpose-built rental projects in the province and in the GTA specifically as new builds will now be more economically viable.

**Historically low vacancy supports record pace of rent growth.** Nationally, the average rent growth is expected to set a 30-year record, climbing 4.8 percent to \$1,045 per month. Demand will again outpace supply growth, bringing the vacancy rate down 30 basis points this year to 2.1 percent, the lowest rate since 2001. A 60-basis-point decline was posted in 2018.

**High cost of housing shifts demand away from ownership and toward the renter lifestyle.** Softening home sales in Canada's largest markets of Toronto and Vancouver have begun to lower the price of a detached home. In both metros, the benchmark price remains well above the means of many buyers, resting above \$860,000 in the GTA and above \$1.5 million in the GVA at the end of last year. The substantially lower cost of renting, along with the increased mobility and proximity to the most bustling areas of a city has residents choosing to rent over purchase, ensuring elevated rental demand as new units are finalized.



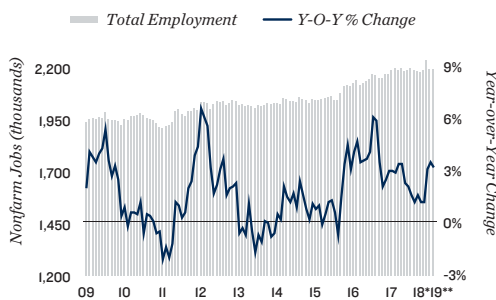
\* Through October

\*\* Data available back to 2015 for Ottawa and 2016 for Montreal

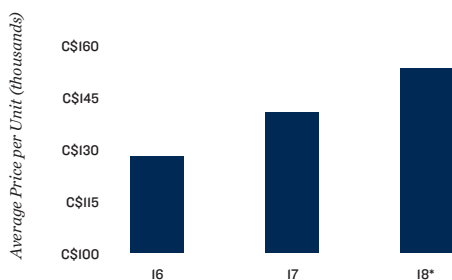
Sources: Altus Data Solutions, Canadian Real Estate Association, Canada Mortgage and Housing Corporation

Marcus & Millichap Real Estate Investment Services Canada Inc., Brokerage

### Employment Trends



### Sales Trends



## Diversifying Economy, Cultural Vibrancy Boost Montreal Housing Demand

**Renters, investors taking a keen interest in affordability of Montreal.** A robust job market that is home to some of Canada's largest employers as well as major international firms such as Facebook and Amazon has residents moving to Montreal in greater numbers. With an average rental rate just under \$800 per month, renting offers lifestyle and mobility advantages that is attracting increased demand, tightening the vacancy rate for a third consecutive year. The market is home to two of the nation's top universities and expanding artificial intelligence programs, encouraging developers to increase purpose-built rentals to meet the growing demand. Rent growth will remain robust this year despite a new delivery high for the current cycle, drawing more investment capital to the apartment sector.

### 2019 Market Forecast

**Rent Growth**  
up 4.1%



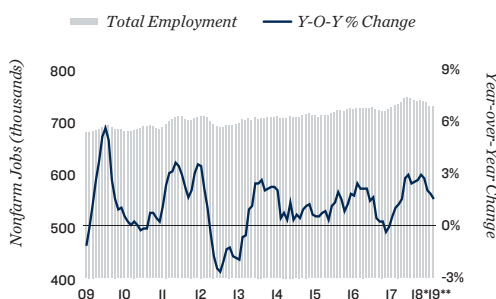
Following a 90-basis-point decline in 2018, the vacancy rate compresses to 1.5 percent this year, supporting a 4.1 percent increase to the average rent, reaching \$830 per month.

**Investment**

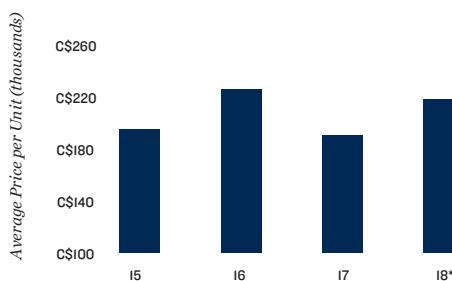


Strong investor sentiment, entry-level pricing and an average cap rate in the upper-4 percent territory will keep sales activity and buyer competition elevated this year.

### Employment Trends



### Sales Trends



## Tech Job Growth Pushes Rental Vacancy to Cycle Low Amid Heightened Period of Apartment Deliveries

**Ottawa transitioning to the ranks of an 18-hour city.** New life is being breathed into Ottawa, shedding its reputation as a government employment hub and attracting more young professionals to the nation's capital. A stable and expanding job market encouraged developers to add nearly 1,000 rentals last year and roughly 1,500 units this year, though the vacancy rate will remain in the mid-1 percent area as tenant demand holds strong. With more millennials living in the urban core, the restaurant and nightlife scene has transformed, boosting the attractiveness of the area and pushing vacancy to its lowest reading in 10 years. Rent growth has been robust as a result of pent-up demand, lifting the average rent at the greatest pace in 18 years, which should boost investor sentiment for Ottawa's apartment sector.

### 2019 Market Forecast

**Rent Growth**  
up 3.8%



The average rent rises 3.8 percent to \$1,240 per month this year as vacancy declines 10 basis points to 1.5 percent, adding to the 10-basis-point drop recorded in 2018.

**Investment**



An average cap rate in the 5 percent area in the heart of Ottawa and recent strong pricing growth will be eyed by more investors this year, potentially leading more owners to list.

\* Estimate; \*\* Forecast;



Sources: Altus Data Solutions; Statistics Canada

Marcus & Millichap Real Estate Investment Services Canada Inc., Brokerage

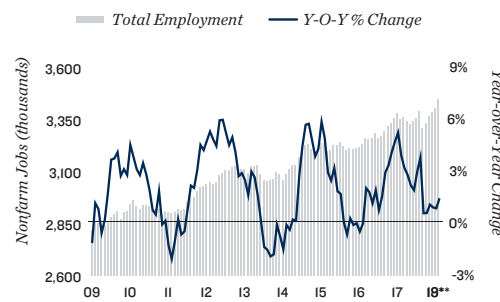
## New Wave of Rental Housing Bringing Much Needed Relief to Perpetually Tight Toronto Apartment Sector

Growing tech firms and high home prices keep renter demand elevated. Toronto's dominance as a major North American tech hub continues to grow as Microsoft, Intel, Uber and other companies have plans to increase operations in the city and bring on new workers. Amid its solid reputation as a top innovator in tech and a mature ecosystem that supports the industry, the GTA will attract young professionals in greater numbers this year. Many new residents choose to rent, not only due to barriers to ownership, but for greater mobility and to be near local employers, restaurants and nightlife. Demand for apartments across the GTA has been at historical highs, shrinking availability to exceptionally tight levels, which has motivated developers to add a cycle high of new units to the market.

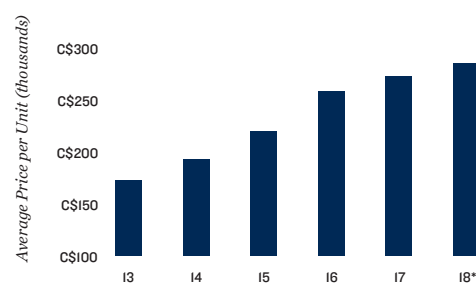
### 2019 Market Forecast

- Rent Growth** up 5.5%  The average rent will increase to \$1,446 per month at the end of 2019, building on a 4.7 percent gain posted last year as the vacancy rates compresses 10 basis points to 1 percent.
- Investment**  While pricing in the urban core has become prohibitive for many investors, suburban areas such as Markham and Etobicoke can provide buyers with more moderate pricing.

#### Employment Trends



#### Sales Trends





## Greater Vancouver Area

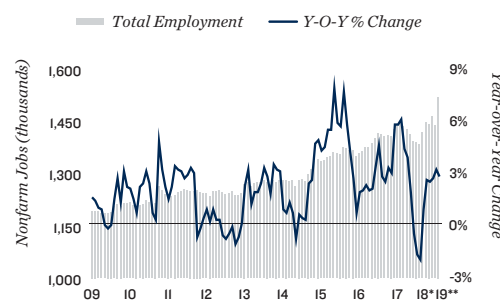
## Challenges in Vancouver's Housing Market Boost Demand for Purpose-Built Apartments

Rising interest rates, new homebuying regulations restrain buyer motivation. Microsoft, Amazon and other tech companies are expanding operations in British Columbia's largest city, bringing additional high-paying jobs to the region and increasing housing demand. Expanding regulations and taxes put in place to rein in an overheated single-family housing market have contributed to a sharp slowdown in sales activity, though the cost of a detached home in metro Vancouver remains the highest in Canada. The benchmark price exceeded \$1.5 million at the end of 2018, despite a downturn in pricing last summer, well beyond the means of many residents. Renting remains the preferred choice as single-family affordability continues to be a major concern, holding the market vacancy rate near historical lows.

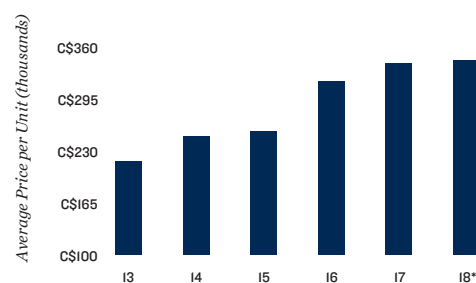
### 2019 Market Forecast

- Rent Growth** up 6.2%  The average rent is forecast to increase to \$1,480 per month at the end of 2019, down slightly from the 6.6 percent gain registered one year earlier.
- Investment**  Burnaby has been a major target of developers, attracting more millennial workers to the city and supporting stable rent gains, which could motivate more listings in the area this year.

#### Employment Trends



#### Sales Trends



\* Estimate; \*\* Forecast;

Sources: Altus Data Solutions; Statistics Canada



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<sup>1</sup> National Multifamily Index Note: Employment and apartment data forecasts for 2019 are based on the most up-to-date information available as of December 2018 and are subject to change.

<sup>2</sup> Statistical Summary Note: Metro-level employment, vacancy and effective rents are year-end figures and are based on the most up-to-date information available as of December 2018. Effective rent is equal to asking rent less concessions. Average prices and cap rates are a function of the age, class and geographic area of the properties trading and therefore may not be representative of the market as a whole. Forecasts for employment and apartment data are made during the fourth quarter and represent estimates of future performance. No representation, warranty or guarantee, express or implied may be made as to the accuracy or reliability of the information contained herein. This is not intended to be a forecast of future events and this is not a guaranty regarding a future event. This is not intended to provide specific investment advice and should not be considered as investment advice.

Sources: Marcus & Millichap Research Services; Altus Data Solutions; American Council of Life Insurers; Blue Chip Economic Indicators; Bureau of Economic Analysis; Business Roundtable; Canadian Real Estate Association; Capital Economics; Canada Mortgage and Housing Corporation; Commercial Mortgage Alert; CoStar Group, Inc.; Experian; Fannie Mae; Federal Reserve; Freddie Mac; Moody's Analytics; Mortgage Bankers Association; National Association of Realtors; National Federation of Independent Business; Real Capital Analytics; RealPage, Inc.; Standard & Poor's; Statistics Canada; The Conference Board; Trepp; TWR/Dodge Pipeline; U.S. Bureau of Labor Statistics; U.S. Census Bureau; U.S. Securities and Exchange Commission; U.S. Treasury Department.

Market Name	Employment Growth <sup>2</sup>				Completions (Units) <sup>2</sup>				Vacancy		Rate <sup>2</sup>		Effective Monthly Rate <sup>2</sup>				Average Price/Unit <sup>2</sup>			Market Name
	2016	2017	2018*	2019**	2016	2017	2018*	2019**	2016	2017	2018*	2019**	2016	2017	2018*	2019**	2016	2017	2018*	
Atlanta	3.0%	1.7%	2.0%	1.7%	9,210	13,610	10,600	10,700	5.8%	6.0%	5.2%	4.8%	\$1,076	\$1,133	\$1,207	\$1,262	\$96,510	\$98,810	\$107,220	Atlanta
Austin	3.5%	3.2%	2.9%	2.6%	9,660	9,730	9,700	7,500	5.3%	5.8%	5.5%	5.5%	\$1,169	\$1,189	\$1,228	\$1,265	\$114,470	\$121,160	\$124,160	Austin
Baltimore	1.0%	0.6%	2.0%	1.3%	2,670	3,920	3,200	2,100	6.0%	5.8%	5.3%	4.8%	\$1,234	\$1,266	\$1,296	\$1,324	\$130,470	\$131,090	\$133,930	Baltimore
Boston	1.9%	1.2%	1.8%	1.2%	6,090	7,790	8,200	5,500	4.5%	4.3%	3.9%	3.6%	\$2,092	\$2,172	\$2,283	\$2,380	\$298,260	\$316,620	\$308,310	Boston
Charlotte	2.8%	3.2%	2.5%	2.6%	9,000	7,710	8,500	7,700	4.6%	5.2%	4.7%	4.2%	\$1,002	\$1,042	\$1,114	\$1,166	\$99,200	\$103,430	\$110,570	Charlotte
Chicago	1.0%	0.6%	0.7%	0.6%	8,390	8,850	9,200	9,500	5.3%	5.8%	5.4%	5.7%	\$1,341	\$1,401	\$1,463	\$1,510	\$170,710	\$164,100	\$154,470	Chicago
Cincinnati	1.7%	0.4%	1.8%	1.6%	2,400	1,540	2,200	1,200	5.2%	4.9%	5.1%	4.7%	\$869	\$903	\$943	\$972	\$51,710	\$52,160	\$52,780	Cincinnati
Cleveland	0.6%	0.1%	3.2%	2.7%	990	1,170	2,000	1,600	5.5%	5.9%	6.0%	5.8%	\$874	\$889	\$912	\$940	\$52,610	\$53,880	\$54,880	Cleveland
Columbus	2.5%	1.0%	2.1%	1.9%	3,180	3,370	5,200	4,100	4.6%	4.2%	4.0%	3.9%	\$851	\$899	\$949	\$997	\$51,780	\$60,010	\$67,080	Columbus
Dallas/Fort Worth	3.2%	2.4%	3.2%	2.8%	19,760	24,570	25,900	28,400	5.1%	5.6%	5.6%	6.0%	\$1,041	\$1,077	\$1,111	\$1,142	\$88,740	\$97,770	\$105,490	Dallas/Fort Worth
Denver	2.0%	2.3%	2.3%	2.4%	7,100	7,850	13,600	14,100	5.8%	5.6%	5.7%	5.3%	\$1,344	\$1,394	\$1,448	\$1,500	\$158,340	\$174,780	\$186,160	Denver
Detroit	2.0%	1.2%	0.7%	0.5%	1,610	1,590	1,100	2,000	4.2%	3.8%	3.3%	3.6%	\$908	\$935	\$978	\$1,015	\$57,760	\$63,750	\$65,630	Detroit
Fort Lauderdale	2.3%	1.5%	2.6%	2.2%	2,910	3,460	3,600	3,600	5.0%	5.2%	4.8%	4.3%	\$1,476	\$1,486	\$1,541	\$1,600	\$143,230	\$146,700	\$150,170	Fort Lauderdale
Houston	0.1%	1.8%	3.9%	3.5%	20,680	19,360	12,600	4,100	7.8%	5.8%	6.4%	6.0%	\$1,005	\$1,072	\$1,103	\$1,136	\$89,820	\$98,650	\$108,640	Houston
Indianapolis	1.5%	1.3%	2.3%	2.3%	2,850	2,050	2,500	2,700	6.7%	6.3%	5.6%	5.1%	\$798	\$834	\$883	\$938	\$55,510	\$60,220	\$64,950	Indianapolis
Kansas City	2.0%	1.6%	1.5%	1.4%	3,410	4,790	4,000	3,300	5.3%	5.5%	4.9%	4.6%	\$891	\$912	\$941	\$968	\$71,660	\$77,390	\$82,650	Kansas City
Las Vegas	2.7%	2.6%	3.5%	3.2%	2,360	3,190	3,130	2,910	5.9%	5.5%	4.6%	4.4%	\$886	\$946	\$1,033	\$1,080	\$80,470	\$90,080	\$99,810	Las Vegas
Los Angeles	1.8%	1.4%	1.2%	1.1%	10,150	5,570	9,700	14,800	3.9%	3.7%	3.4%	3.9%	\$2,042	\$2,129	\$2,259	\$2,350	\$246,380	\$251,810	\$268,630	Los Angeles
Louisville	1.4%	1.0%	1.2%	1.5%	1,010	1,660	2,100	1,900	4.7%	5.6%	4.7%	4.6%	\$818	\$830	\$851	\$865	\$77,890	\$81,060	\$85,370	Louisville
Miami-Dade	2.1%	1.3%	2.3%	2.0%	5,820	5,000	4,800	7,500	3.7%	3.8%	3.7%	4.4%	\$1,456	\$1,517	\$1,594	\$1,640	\$174,030	\$166,460	\$159,170	Miami-Dade
Milwaukee	0.3%	0.7%	0.5%	0.8%	1,900	3,340	2,000	3,000	4.6%	4.8%	4.2%	3.8%	\$1,038	\$1,066	\$1,108	\$1,150	\$75,060	\$77,230	\$78,460	Milwaukee
Minneapolis-St. Paul	1.4%	1.4%	1.8%	1.5%	3,130	4,180	5,140	4,900	3.2%	3.2%	3.0%	2.5%	\$1,175	\$1,230	\$1,305	\$1,379	\$118,810	\$119,660	\$115,690	Minneapolis-St. Paul
Nashville	3.7%	2.2%	1.7%	1.6%	5,870	8,130	7,800	4,700	4.4%	5.1%	5.3%	5.0%	\$1,090	\$1,112	\$1,174	\$1,205	\$121,980	\$126,340	\$124,160	Nashville
New Haven-Fairfield County	-0.3%	-0.4%	0.8%	0.6%	1,980	1,250	1,800	1,440	6.1%	5.1%	4.9%	4.6%	\$1,666	\$1,711	\$1,767	\$1,812	\$181,320	\$183,830	\$186,430	New Haven-Fairfield County
New York City	1.8%	1.9%	1.5%	1.2%	14,540	22,730	17,500	20,000	2.2%	2.1%	1.8%	1.8%	\$2,472	\$2,495	\$2,562	\$2,650	\$328,420	\$315,070	\$289,000	New York City
Northern New Jersey	1.2%	0.9%	0.7%	0.6%	5,280	9,130	9,500	10,000	4.3%	4.3%	4.1%	4.3%	\$1,791	\$1,847	\$1,899	\$1,938	\$155,670	\$157,980	\$157,040	Northern New Jersey
Oakland	2.9%	1.9%	2.0%	1.8%	1,400	2,200	1,050	4,970	4.2%	3.9%	3.6%	3.9%	\$2,147	\$2,206	\$2,321	\$2,400	\$233,120	\$246,530	\$267,620	Oakland
Orange County	2.6%	2.0%	1.2%	1.0%	3,070	4,800	4,050	4,030	3.8%	3.9%	3.6%	3.6%	\$1,943	\$2,003	\$2,069	\$2,130	\$257,200	\$265,660	\$301,740	Orange County
Orlando	4.1%	3.1%	3.9%	4.9%	4,870	7,220	7,300	6,200	4.3%	3.6%	3.3%	2.7%	\$1,076	\$1,160	\$1,242	\$1,339	\$113,030	\$132,210	\$150,130	Orlando
Philadelphia	1.6%	1.2%	1.6%	1.2%	6,070	5,250	4,600	4,800	4.8%	4.4%	4.0%	3.8%	\$1,222	\$1,255	\$1,298	\$1,337	\$141,550	\$151,640	\$162,200	Philadelphia
Phoenix	2.7%	2.7%	4.4%	3.8%	6,930	6,000	7,700	10,600	5.7%	5.4%	4.6%	4.8%	\$929	\$987	\$1,070	\$1,136	\$94,110	\$113,760	\$119,020	Phoenix
Pittsburgh	0.3%	1.9%	1.3%	1.2%	3,240	1,350	1,470	770	6.8%	5.8%	5.0%	4.5%	\$1,032	\$1,069	\$1,105	\$1,150	\$73,660	\$77,880	\$82,300	Pittsburgh
Portland	2.5%	2.4%	1.9%	1.6%	5,030	4,550	4,750	5,200	5.1%	5.0%	4.2%	3.7%	\$1,266	\$1,304	\$1,356	\$1,410	\$153,490	\$166,100	\$177,030	Portland
Raleigh	3.0%	1.5%	3.8%	3.1%	4,700	5,380	5,250	3,900	5.4%	5.8%	5.3%	4.7%	\$1,033	\$1,057	\$1,115	\$1,178	\$116,620	\$121,810	\$125,000	Raleigh
Riverside-San Bernardino	2.3%	3.9%	3.2%	2.6%	1,940	950	1,320	2,730	4.1%	3.8%	3.4%	3.6%	\$1,338	\$1,414	\$1,504	\$1,580	\$127,140	\$133,910	\$147,610	Riverside-San Bernardino
Sacramento	2.5%	2.5%	1.2%	1.7%	300	620	1,530	1,820	3.9%	3.5%	3.3%	3.5%	\$1,247	\$1,329	\$1,409	\$1,490	\$108,820	\$123,290	\$139,300	Sacramento
Salt Lake City	3.2%	2.9%	3.0%	3.2%	3,690	4,640	3,200	3,500	4.2%	4.3%	4.1%	4.4%	\$1,020	\$1,065	\$1,130	\$1,185	\$112,320	\$120,850	\$128,510	Salt Lake City
San Antonio	2.8%	2.1%	1.0%	0.8%	6,030	6,620	6,200	4,300	6.5%	7.2%	6.8%	6.4%	\$909	\$924	\$944	\$974	\$86,520	\$97,750	\$105,840	San Antonio
San Diego	2.6%	1.6%	1.7%	1.5%	3,980	2,990	4,960	3,220	3.9%	3.7%	3.6%	3.7%	\$1,784	\$1,864	\$2,009	\$2,095	\$224,220	\$241,110	\$245,790	San Diego
San Francisco	3.3%	1.9%	2.0%	1.9%	4,690	3,090	2,500	3,660	5.0%	4.2%	3.7%	3.8%	\$3,082	\$3,203	\$3,360	\$3,450	\$400,430	\$427,370	\$451,060	San Francisco
San Jose	2.7%	2.7%	3.9%	3.5%	4,010	3,100	3,200	5,090	4.7%	4.5%	3.4%	3.6%	\$2,521	\$2,638	\$2,868	\$2,950	\$324,390	\$360,990	\$403,370	San Jose
Seattle-Tacoma	3.2%	2.8%	3.2%	2.9%	9,600	10,050	8,100	12,200	4.6%	4.9%	4.2%	4.8%	\$1,539	\$1,622	\$1,700	\$1,750	\$217,720	\$233,860	\$234,400	Seattle-Tacoma
St. Louis	1.0%	0.6%	0.6%	0.6%	1,660	1,730	1,890	1,400	6.9%	7.0%	6.1%	6.0%	\$857	\$869	\$888	\$910	\$80,110	\$77,010	\$72,710	St. Louis
Tampa-St. Petersburg	2.9%	2.0%	2.1%	2.3%	3,660	4,440	5,000	3,500	5.0%	4.7%	4.1%	3.5%	\$1,058	\$1,100	\$1,201	\$1,289	\$102,250	\$106,330	\$111,020	Tampa-St. Petersburg
Washington, D.C.	1.7%	1.3%	1.7%	1.3%	13,160	13,620	10,200	14,400	4.9%	5.0%	4.4%	4.6%	\$1,644	\$1,677	\$1,727	\$1,760	\$202,860	\$201,770	\$195,100	Washington, D.C.
West Palm Beach	3.1%	0.8%	2.3%	1.9%	2,310	3,300	2,400	510	5.0%	5.8%	5.5%	4.9%	\$1,451	\$1,483	\$1,544	\$1,610	\$162,630	\$169,830	\$167,890	West Palm Beach
United States	1.6%	1.5%	1.7%	1.3%	298,370	311,660	305,000	315,000	5.1%	4.9%	4.5%	4.6%	\$1,242	\$1,290	\$1,352	\$1,400	\$145,050	\$148,100	\$151,480	United States

\* Estimate \*\* Forecast <sup>2</sup> See Statistical Summary Note on Page 64.

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