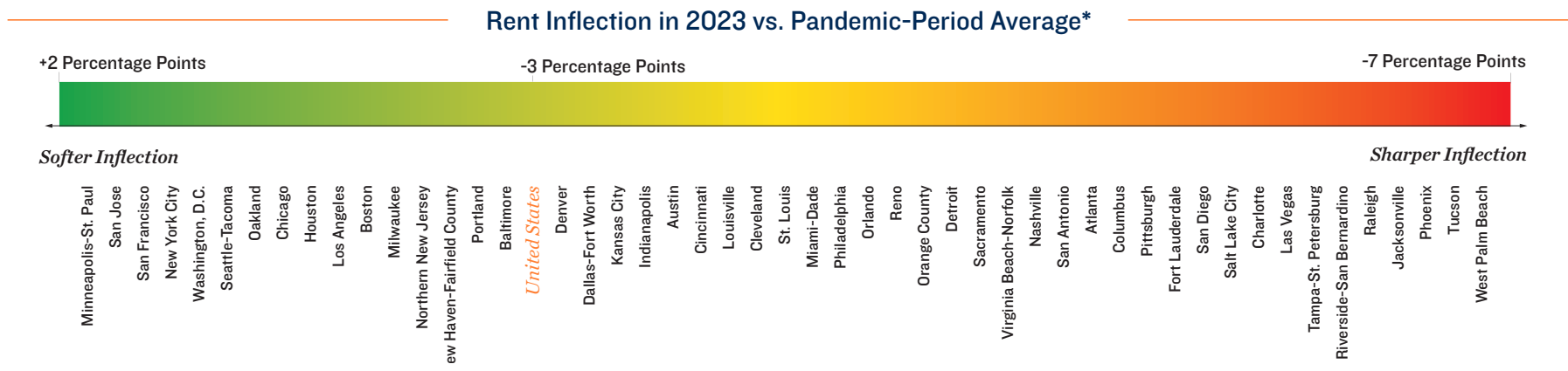
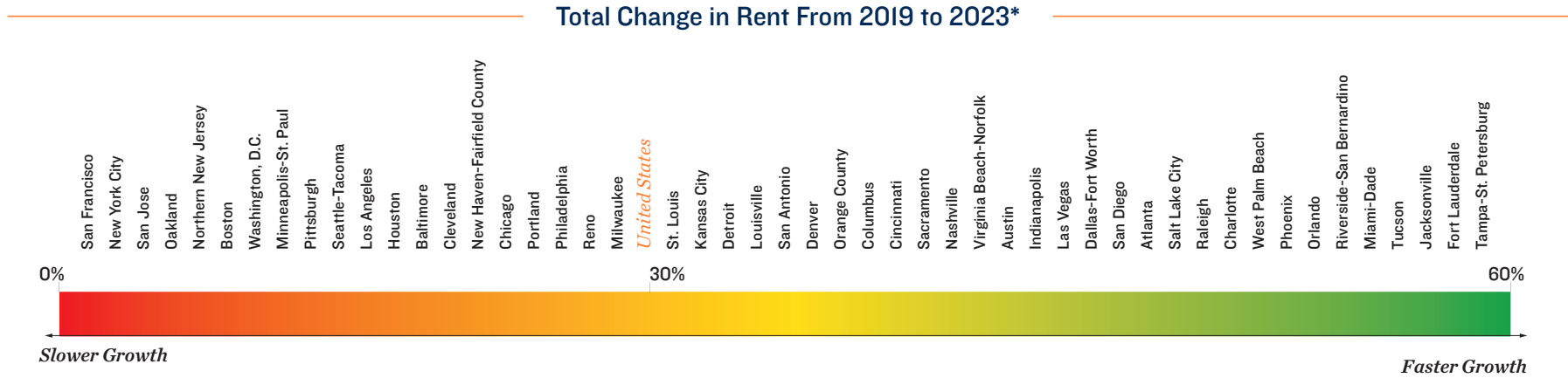


# 2023 Spectrum of Market Recovery

## Metros That Led in Rent Growth During Pandemic Now Having Sharpest Comedown



Note: Rent Inflection is equal to the 2023 rent change forecast minus the average annual rent change for the period 2019-2023. All rents are effective rents.

## 2023 PERFORMANCE CHARACTERISTICS

- Fast Growth/Sharp Inflection:** Markets that recorded the most robust rent growth since the end of 2019 are now poised for sharper inflections this year. An inflection is where rates will grow by a much smaller margin this year than has been typical since the pandemic began. These metros are predominantly in the Sun Belt and were popular relocation destinations, even before the health crisis. The resulting surge in housing demand, however, has eroded some of the living cost advantages that have historically driven these moves, contributing to a more substantial recalibration.
- Middle of the Pack:** A wide variety of metros have posted solid rent growth about in line with the U.S. average, and are now cooling in conjunction with that national trend. These markets include larger cities in the popular relocation areas, such as Miami, as well as top performers in more challenged regions of the country — including Norfolk-Virginia Beach in the mid-Atlantic and New Haven-Fairfield County in the Northeast. Both have regional living cost advantages.
- Slow Growth/Soft Inflection:** A handful of markets — including those in the Bay Area, as well as New York City, Seattle-Tacoma and Washington, D.C. — were more impacted by the pandemic and have taken longer to recover economically. This has translated into softer rent growth as these metros move along their recovery paths. Because the monthly rates in some other markets have climbed more quickly of late, the prospect of continuing to live in these prominent cities has improved as their rents advance at a more measured pace.

## Top 10 Markets by Rent Change

Fastest Growth	Rent Change Since 2019	Rent Change Inflection (percentage points)
Tampa-St. Petersburg	57.3%	-5.6
Fort Lauderdale	54.5%	-5.1
Jacksonville	52.9%	-6.2
Tucson	49.8%	-6.7
Miami-Dade	49.6%	-3.8
Riverside-San Bernardino	48.9%	-5.8
Orlando	48.1%	-3.9
Phoenix	47.4%	-6.6
West Palm Beach	45.0%	-6.7
Charlotte	42.8%	-5.3

Slowest Growth	Rent Change Since 2019	Rent Change Inflection (percentage points)
San Francisco	2.0%	1.2
New York City	8.5%	0.7
San Jose	12.0%	1.3
Oakland	15.5%	-0.1
Northern New Jersey	16.3%	-2.2
Boston	17.0%	-1.8
Washington, D.C.	17.7%	0.1
Minneapolis-St. Paul	17.7%	1.9
Pittsburgh	18.9%	-4.6
Seattle-Tacoma	21.2%	0
U.S.	29.6%	-2.8

\* Forecast

Sources: Marcus & Millichap Research Services; CoStar Group, Inc.; RealPage, Inc.

## 2023 National Multifamily Index

### As Property Performance Normalizes, Demographic and Supply Factors Play Pivotal Roles in Rankings

**Favorable demographic trends act as a backstop for leading metros.** Major markets in the Sun Belt dominate the top ranks of the National Multifamily Index for 2023. While not immune to the various economic challenges facing the country, these metros have key demographic drivers that bolster their outlooks this year. Net in-migration to most major Florida metros is on an upward bend, as a warm climate and lower costs appeal to residents and employers alike. Fort Lauderdale and Orlando boast nationally high rates of hiring, household creation and rent growth, earning these metros the number one and three spots, respectively. Similar migration trends and a high preponderance to rent place Dallas-Fort Worth in the second spot, with Austin (#6) and Houston (#8) also ranking highly. One or more of these factors are at play in the high positioning of Atlanta (#7), Charlotte (#9) and West Palm Beach (#10) this year as well. Resilient performance post-pandemic comes with a caveat, however. Phoenix (#11), Jacksonville (#12), Salt Lake City (#13) and Raleigh (#15) all lie short of the top 10, due to substantial new construction that outweighs their favorable demographics in the short term.

**Elevated development, tepid job growth characterize lower-ranked metros.** Leading the middle third of the Index, Denver and San Diego sit in the 19th and 20th spots, aided by less new supply pressure. The fastest pace of inventory growth nationally, meanwhile, constrains Nashville (#28) nearer the bottom of this cohort, despite strong rent growth over the past three years. At the midpoint of the Index, Oakland (#26) is joined by Washington, D.C. (#27) and New York City (#29) as primary markets that have improved their positions since last year as delayed pandemic recoveries became more apparent. San Jose (#30) and San Francisco (#32) fall slightly lower, due to challenges in the technology sector. A quiet employment outlook also positions several markets in the last third of the Index. In many ways this cohort is the inverse of the leaders, with lagging household formation but tempered construction. Job attrition places New Haven-Fairfield County (#47), Boston (#48), Cleveland (#49) and Pittsburgh (#50) at the bottom of the Index.

## Index Methodology

The NMI ranks 50 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, rents, historical price appreciation and cap rate trends. Weighing the history, 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 interpreted carefully. 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.

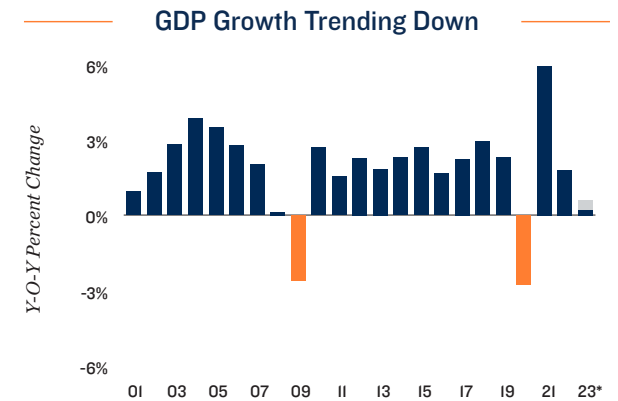
Market	Rank
Fort Lauderdale	1
Dallas-Fort Worth	2
Orlando	3
Miami-Dade	4
Tampa-St. Petersburg	5
Austin	6
Atlanta	7
Houston	8
Charlotte	9
West Palm Beach	10
Phoenix	11
Jacksonville	12
Salt Lake City	13
Riverside-San Bernardino	14
Raleigh	15
Seattle-Tacoma	16
Las Vegas	17
Portland	18
Denver	19
San Diego	20
Los Angeles	21
San Antonio	22
Orange County	23
Indianapolis	24
Tucson	25
Oakland	26
Washington, D.C.	27
Nashville	28
New York City	29
San Jose	30
Norfolk-Virginia Beach	31
San Francisco	32
Sacramento	33
Reno	34
Minneapolis-St. Paul	35
Columbus	36
Milwaukee	37
Kansas City	38
Chicago	39
Cincinnati	40
Louisville	41
Baltimore	42
Northern New Jersey	43
Philadelphia	44
St. Louis	45
Detroit	46
New Haven-Fairfield County	47
Boston	48
Cleveland	49
Pittsburgh	50

## U.S. Economy

### After a Rapid Recovery, Future Economic Growth Clouded as Several Potential Challenges Lie Ahead

**Businesses and consumers assume defensive postures.** The economy has made a resounding recovery over the past two years following the impacts of COVID-19, although those gains have not come without costs. Robust fiscal and monetary policy support during the pandemic allowed business and consumer demand to return well ahead of supply, leading to a prolonged period of elevated inflation that is still lingering. As prices have climbed, spending by organizations and households in real terms has faltered. While some inflationary pressures are abating, such as shortages of certain materials, other more structural factors persist. The costs for key necessities, such as food, housing and medical care, are all going up. While some households are pulling from additional savings accumulated during the pandemic, not all individuals were able to set aside funds and are now borrowing more. Those debt service costs have hiked up as well, with the Federal Reserve raising interest rates in the hopes of tempering price jumps. As such, consumers will be highly circumspect this year, and businesses have already responded to the anticipated drop in spending by re-evaluating staff levels.

**Employee-employer dynamics are inverting.** Since May 2021, the number of open positions has exceeded the number of people looking for work, but this dynamic is changing course. Employers across a range of fields have pulled back on hiring or reduced staff amid the subdued outlook, while more Americans are looking for second jobs to help shore up household budgets. This year will likely feature a period of net job loss and a period of new hiring, resulting in overall muted employment creation that fails to keep pace with the growth of the labor pool, translating into higher unemployment. This will have a corresponding cooling effect on wage growth, which climbed by an above-average rate of nearly 5 percent last year. Less upward movement on pay should help balance out real income over time by reducing inflation pressure. The labor market could also contract more meaningfully if high inflation is protracted, the war in Ukraine escalates, financial markets become more volatile, or another black swan event occurs.

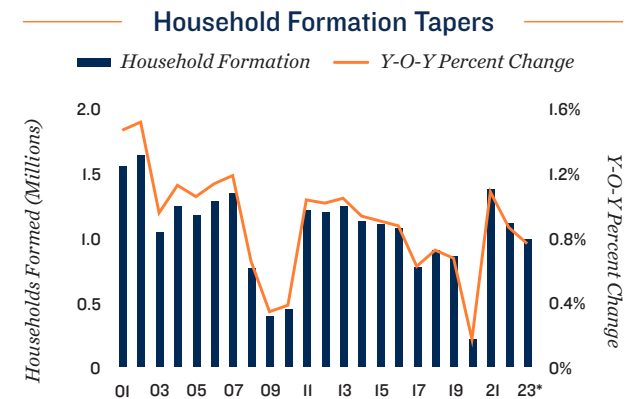
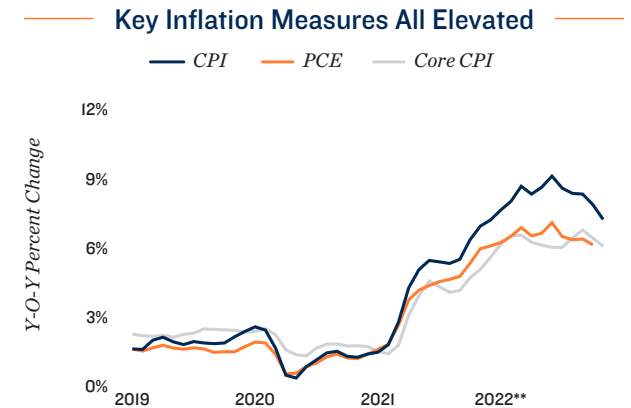


\* Forecast

\*\* CPI and Core CPI through November; PCE through October

## 2023 National Economic Outlook

- Household formation slows.** Economic uncertainty, paired with higher expenses, is tempering household formation after a surge in 2021 that carried into 2022. Given the rapid rise in mortgage rates, this downshift will trim the single-family buyer pool and curtail upward movement in home prices beyond what are already historical levels.
- Infrastructure improvements a partial jobs counterbalance.** Amid a general hiring slowdown, new construction and engineering roles may propagate. The Infrastructure Investment and Jobs Act has boosted U.S. construction spending that will put an emphasis on both talent retention and new training, although the process will take time.
- Fuel cost increases could resurface.** While the cost of oil and gas in the U.S. trended downward late last year, that trajectory could change. Strategic reserves are finite, and global supplies remain threatened by the war in Ukraine and OPEC production cutbacks. An escalation in either area could have substantial, widespread implications.
- Climbing mortgage rates put housing market in new lane.** Rising interest rates, while instigated by the Federal Reserve to cool inflation, pose other risks. The prolonged period of low borrowing costs, both before and during the pandemic, aided asset value appreciation that may need to be reconciled this year. This is especially evident in the single-family home market, where mortgage rates reached multi-decade highs in 2022.



\* Forecast

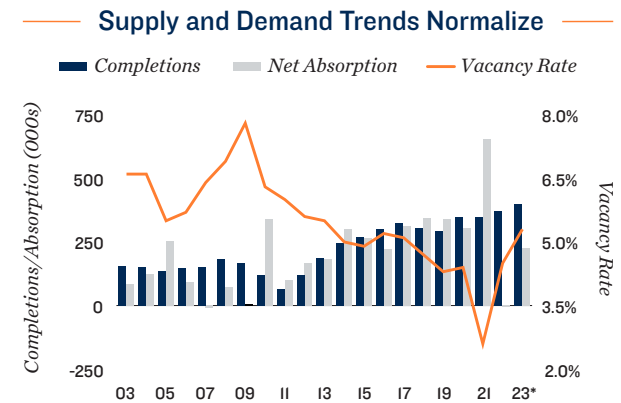
\*\* CPI and Core CPI through November; PCE through October

## U.S. Apartment Overview

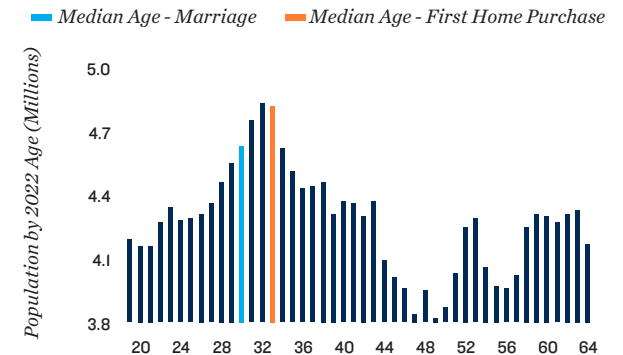
### Multifamily Cools From White-Hot Stretch; Long-Term Tailwinds Materializing, Despite Choppy Waters Ahead

**Meteoric momentum transitions to a recalibration.** The U.S. apartment sector has been among the most resilient CRE segments throughout the past several business cycles, due in part to the essential nature of housing. Doubts at the onset of the pandemic quickly gave way to one of the strongest stretches of rental demand on record, with net absorption matching the 2017-2019 total in a span of just 21 months. The magnitude and speed of this momentum was never sustainable long term, but inflation and higher interest rates ushered in by the Federal Reserve in response have led to a demand normalization faster than many anticipated. Broad-based uncertainty will moderate hiring activity this year, further weighing on household formation, particularly young adults looking to start their careers. Meanwhile, the sector's historic performance and production delays in 2022 led to an all-time high delivery slate for this year, creating a confluence amid waning apartment demand. This combination will push vacancy up and slow rent growth, but the longer-term outlook is bolstered by demographics and barriers to homeownership.

**Benefits of renting, challenges to buying a home will structurally reorient demand.** Homebuying activity slowed abruptly last year as decade-high mortgage rates compounded elevated prices. This resulted in a slight softening in single-family sale prices, but relief for buyers has been offset by rising borrowing costs. The national affordability gap, the difference between the monthly payment on a median-priced house versus average apartment rent, doubled year-over-year to \$904 in the third quarter of 2022. This much wider difference in costs serves as a renter attractant at a time when inflation has eroded household budgets. Another factor underscoring the long-term outlook for apartment demand is demographics. The largest segment of the millennial generation has just surpassed the median age of marriage, and is now approaching the median age for a first home purchase. Given elevated barriers to homeownership, demand that would have gone toward single-family dwellings will now be directed toward multifamily options. Even when economic headwinds abate, these considerations will direct more residents to apartments and encourage tenants to rent longer into their lives.



### Millennials Entering Homebuying Age Deterred

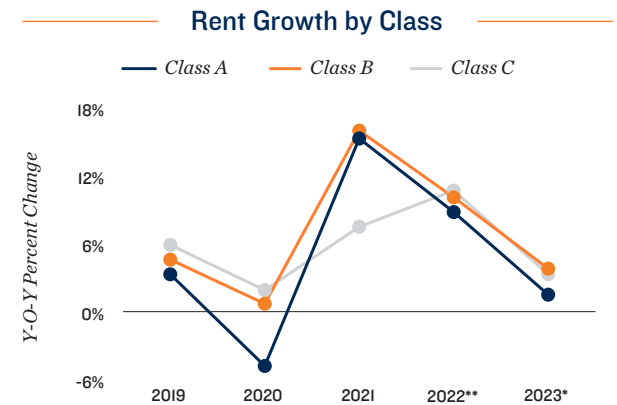
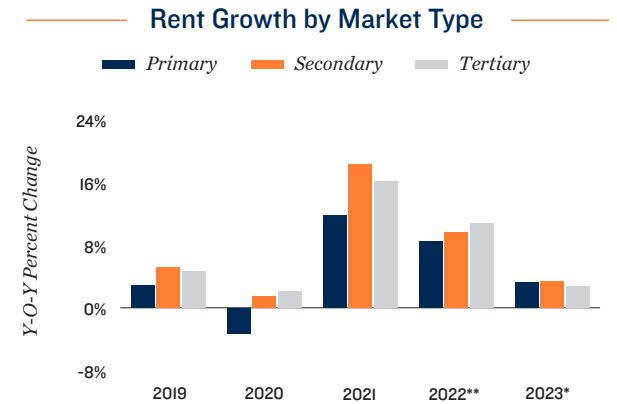


\* Forecast

\*\* Estimate

## 2023 National Apartment Outlook

- Hottest pandemic markets see notable inflections.** In response to historic demand during the health crisis, locations like Austin, Charlotte, Nashville, Raleigh and Salt Lake City will register local inventory expansions exceeding 6 percent this year. The new rentals are warranted over the medium- to long-term, as these markets remain favored migration destinations with foundations for robust economic growth. In the near term, however, it may create supply and demand imbalances in certain areas.
- Cost-of-living factors could impact migration trends.** As households adapt to higher prices amid persistent inflation, including rental costs, it may influence living preferences. Relatively affordable tertiary metros in the Sun Belt and Midwest could be beneficiaries of this trend in 2023, though job availability in these markets remains a major factor.
- Affordable housing moves to center stage as rent control proves ineffective.** President Biden’s Housing Supply Action Plan aims to reduce the nation’s affordability concerns created by an ongoing housing shortage. If developers utilize the program’s incentives, it may help fill some gaps in lower-income segments, especially in less-populated areas. The plan could be more practical than local rent control measures, which have largely discouraged development and created challenges, as seen in St. Paul last year.



\* Forecast

\*\* Estimate

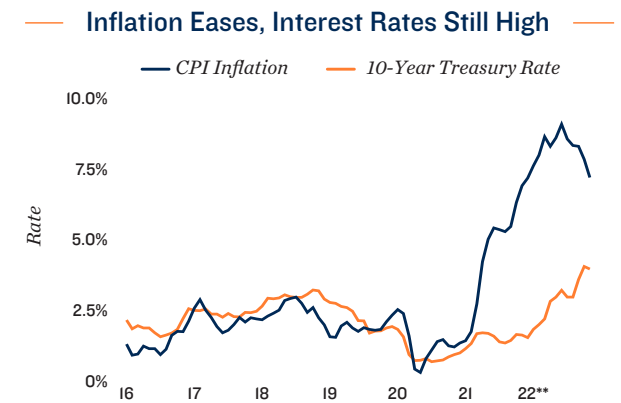
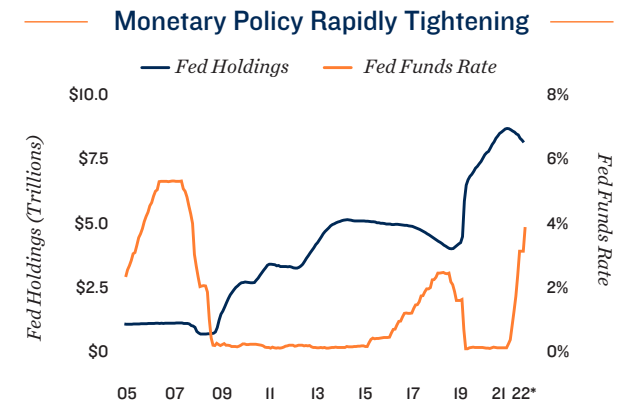


## U.S. Capital Markets

### Throwback to Higher Interest Rate Eras Puts Capital Markets on Back Foot Until Conditions Stabilize

**Fed seeking soft landing to its disinflation trek.** After being exceedingly accommodative during the pandemic, the Federal Reserve rapidly tightened monetary policy last year in order to combat elevated inflation. The Federal Open Market Committee began reducing the Fed's balance sheet in a quantitative tightening process and raised the target range on the federal funds rate from a lower bound of 0 at the start of 2022 to above 4 percent by year-end — the fastest pace of rate hikes since the early 1980s. The sheer speed and magnitude of these changes have placed financial markets in a place of discontent as financial organizations, regulators and investors are working to adapt to the new environment. The central bank has stated its intention to hike rates further this year in order to drive down inflation. Downward movement is not expected in the near future unless the economy rapidly deteriorates. Instead, the goal is to bring interest rates to a level that sufficiently softens the labor market and steers general consumer demand closer in line with supply, then hold there without engendering a broader recession.

**Despite available capital, several hurdles must be cleared to close deals.** The Fed's aggressive monetary policy has created a challenging near-term capital markets environment for the multifamily sector. The main hindrance is not a lack of capital available to lend, but rather the greater cost now required to borrow. Closing out last year, lending rates for apartments were in the high-5 percent zone or above, which aligns closely with where cap rates have been in recent years. Given these narrower margins, lenders are taking a more cautious approach overall, with a heavy emphasis on debt service coverage, ensuring that operating incomes can cover debt costs. This has brought loan-to-value ratios down by roughly 10 percentage points from what they would have been in early 2022. Amid these tighter lending conditions, investors are having to take on less leverage. Buyers and sellers are also having trouble seeing eye-to-eye on transactions under the new financing requirements. Conditions are expected to improve over the course of the year, however, and once the Fed settles on rates, the bid-ask spread among investors should start to narrow, allowing lenders to more accurately determine valuations.



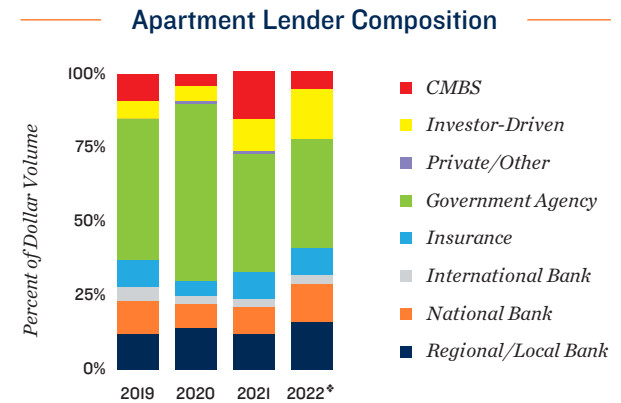
\* Through Dec. 14

\*\* Through November

\* Estimate

## 2023 Capital Markets Outlook

- **Agencies less active at present.** Agency lenders Freddie Mac and Fannie Mae have historically been major capital sources for multifamily properties. Neither agency lent out its full allotment last year, however, as both focused on their mission of providing financing to housing with an affordability component. As the share of agency lending among trades has dipped, banks and investor-driven funds have taken on larger portions of an overall tempered volume of recent sales.
- **Construction lending constrained.** Capital available for multifamily construction has retracted more than for investment sales of existing assets. Combined with rising material and labor costs as well as an uncertain near-term economic outlook, and the result will be fewer multifamily construction starts this year. While the current active pipeline is sizable, the pace of delivers will likely begin to drop off in the latter half of 2024.
- **Dual factors spotlight multifamily appeal.** While starting to trend down, high inflation continues to underscore the advantages of the typical one-year apartment lease term. Beyond the short-term ability to adjust rents more frequently, a structural housing shortage continues to highlight the long-term value proposition of apartments.



\* Estimate

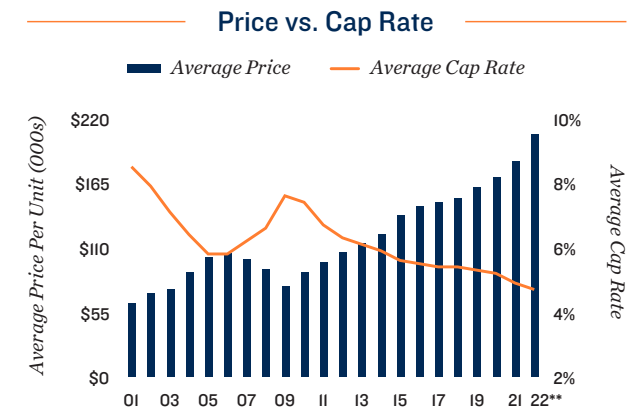
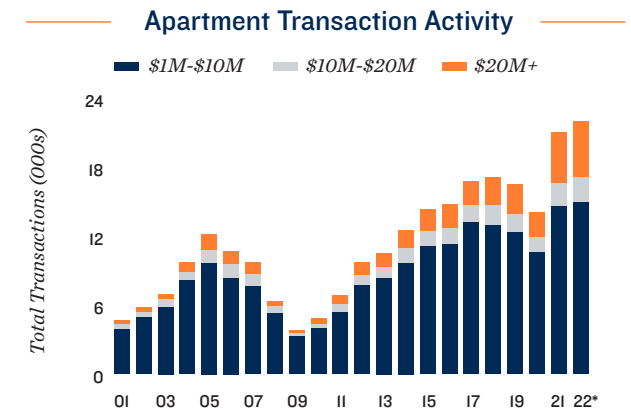
\*\* Through Dec. 15; CPI through November

## U.S. Investment Outlook

### Widened Expectations Gap Restraining Activity, but Clarity to Emerge as Fed Stabilizes Policy

**Tight cap rates act as constraint on a resilient sector.** The vital role that apartments play in the nation's housing continuum has translated into substantial price appreciation over the past two decades. The resulting compression to cap rates placed yields in an unfavorable position as the Fed began to radically lift lending rates last year. Despite this complication, sales activity was still above historical norms in 2022, even while marking a notable step down from the record set in 2021. The complexities that began to appear last year are unlikely to go away in 2023, however. Unless a buyer is pursuing a cash-only deal, the margin between implied returns and debt service costs has become unfavorable. While elevated rent growth helped deals close last year, those projections are slowing now, and the expectations gap between buyers and sellers has widened to a point that many transactions have not been able to move forward. Once rate hikes from the Fed subside, however, investors and financiers will be better positioned to calibrate the market and stabilize pricing expectations. This would narrow the buyer-seller pricing gap, allowing transaction flow to revive.

**Investors shift to case-by-case approach, structural factors to keep market moving.** Many multifamily investors have entered 2023 in a defensive posture, with a selective mindset toward potential transactions. Despite the uncertainty surrounding global events and a subdued economic outlook, there continues to be compelling motivations to buy or sell. Recently formed investor-driven funds, in particular, are seeking opportunities for acquisitions, which may come from owners interested in exiting the market. Apartment holders could look to the price appreciation that has occurred in just the past five years, at roughly 37 percent nationally, and opt to realize that value. For investors with financial obligations coming due, higher interest rates may also prompt them to transition out of the asset instead of incurring additional debt costs. Those that feel interest rates could climb further may wish to execute on deals in the short term, while others may be willing to incur the expenses now, with an eye toward refinancing down the line.

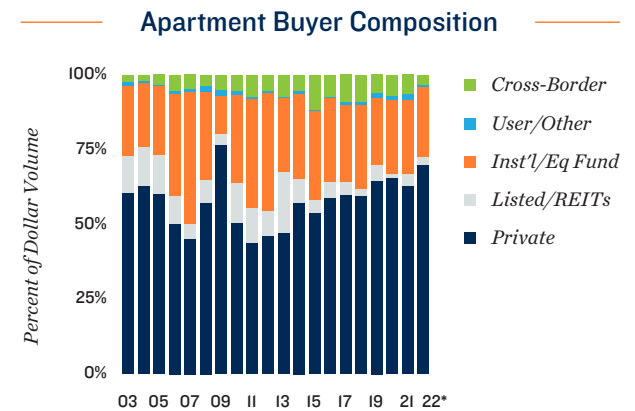
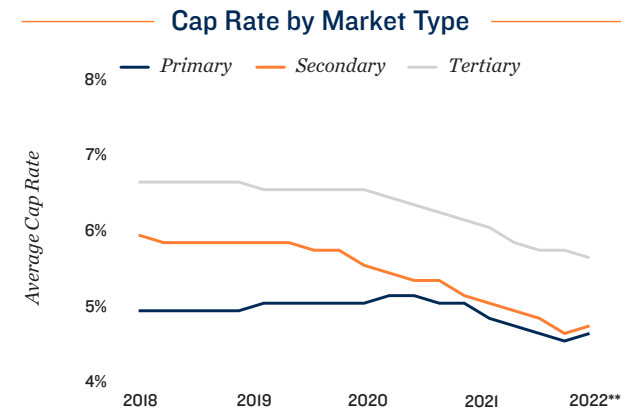


\* Trailing 12-months through 3Q

\*\* Estimate

## 2023 Investment Outlook

- Focus on U.S. dollar may benefit apartment investment.** Less aggressive actions by the European Central Bank have contributed to a slide in the value of the euro against the dollar. This relationship may spark more investment by Europeans in dollar-denominated assets, including commercial real estate. In general, European investment in U.S. CRE is about 15 percent higher when the euro is falling against the dollar.
- Tertiary markets continue to capture more attention.** Over the past 20 years a larger share of investment activity has taken place in tertiary metros, climbing from 12 percent of transaction volume in 2000 to 33 percent in 2019. That trend accelerated during the pandemic. In 2022, about 39 percent of trades were in these smaller cities. The higher living costs and compressed cap rates of primary markets have spurred both renters and investors to target these smaller cities.
- While overall rent growth trajectory is slowing, investors hunt for outlier scenarios.** Sales activity has improved across central business districts, returning to pre-pandemic levels last year. Amid tight financing margins and a softer overall outlook, investors are looking for dynamic options, such as those near stadium developments, neighborhood revitalizations, or new transit hubs that could spark strong localized rent growth.



\* Trailing 12-months through 3Q

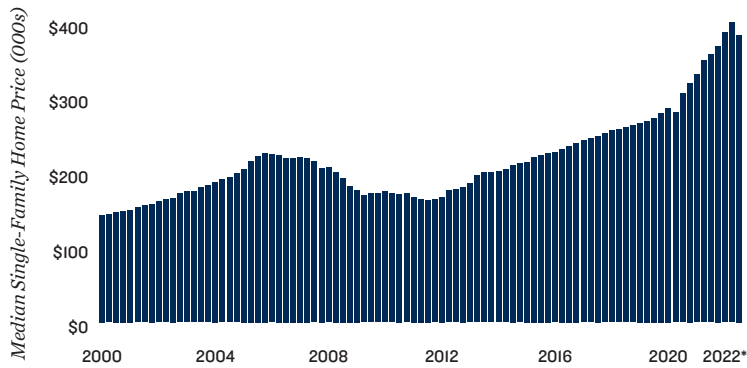
\*\* Estimate

# 2023 Housing Landscape

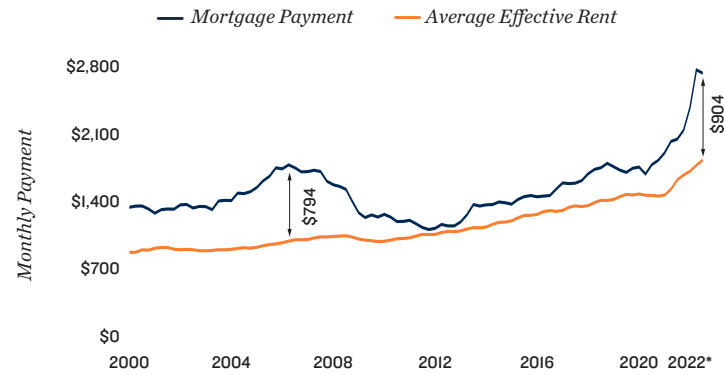
## Cost-Saving Benefits of Apartments Become Very Apparent

## Challenges of Entering Homeownership to Systemically Alter Housing Demand

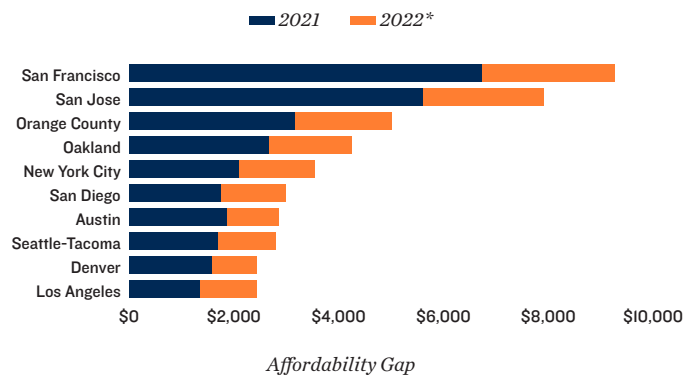
Home Prices Capping Off Record Run



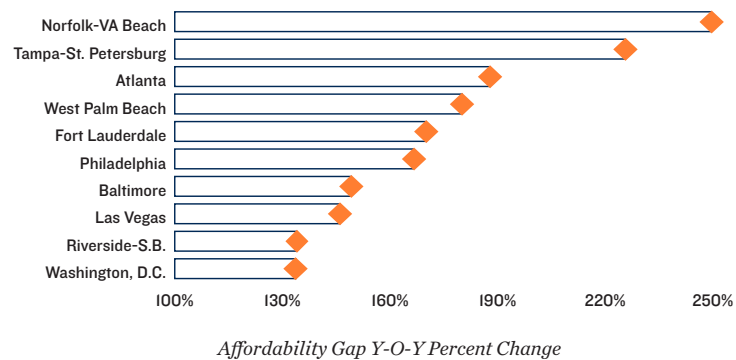
National Affordability Gap is Historically Extreme



Top 10 Markets — Widest Gap



Top 10 Markets — Largest Change\*



\* As of 3Q 2022

Mortgage payments based on quarterly median home price for a 30-year fixed rate mortgage, 90% LTV, taxes, insurance, and PMI

Sources: Marcus & Millichap Research Services; National Association of Realtors; RealPage, Inc.; Moody's Analytics; U.S. Census Bureau

## 2023 Housing Outlook

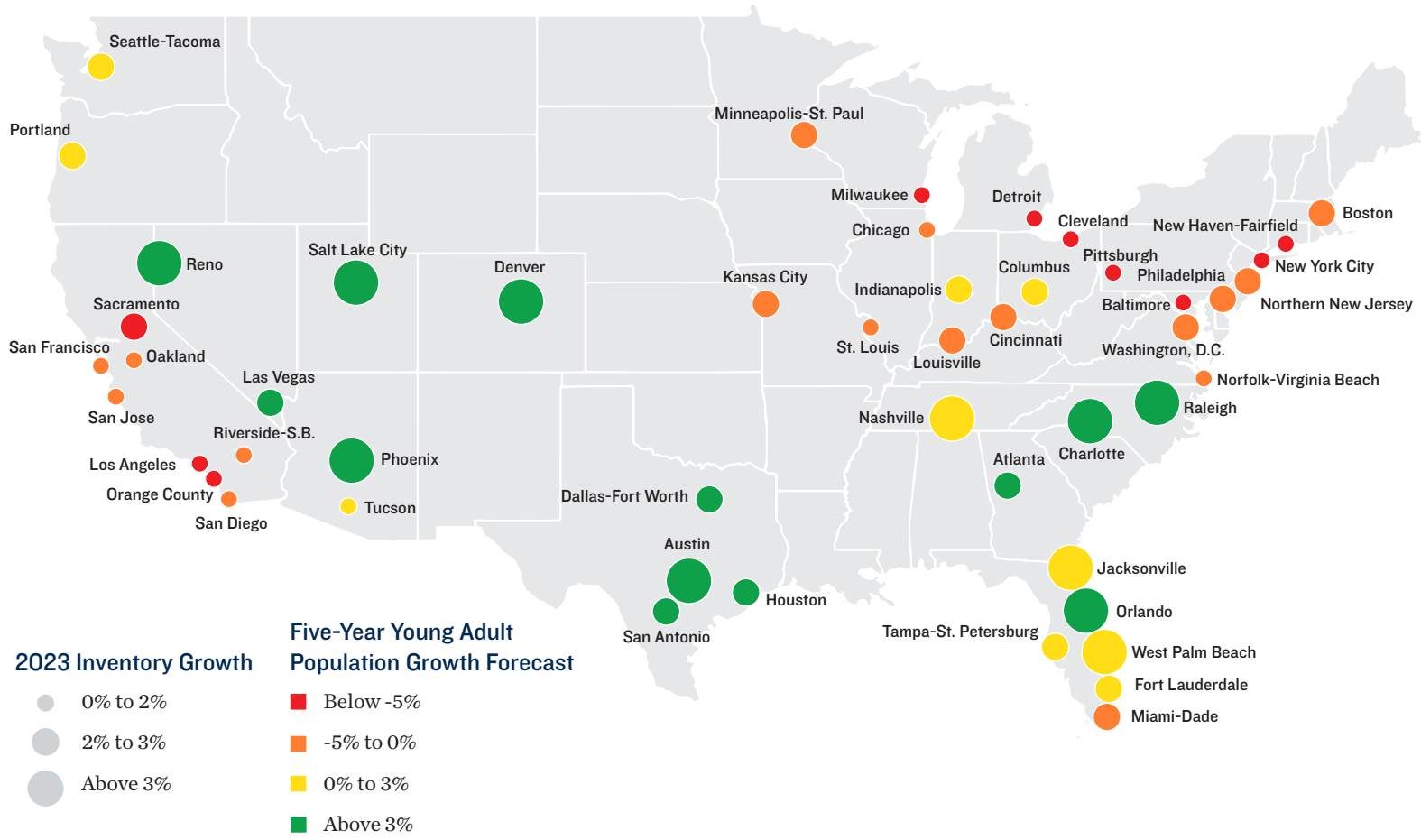
**Prospective homebuyers face steep hurdles.** Rapid upward movement in borrowing costs have compounded the home price run-ups catalyzed by pandemic trends. When the average 30-year fixed-rate mortgage climbed to the highest level since the Global Financial Crisis last year, buyers moved to the sidelines and home values retreated. However, the median home price was still 35 percent above 2019 levels, and a major correction is not expected, given the underlying dynamics. The number of home listings remains well below historic averages, and will likely remain limited as people stay put in 2023, with economic uncertainty and mild hiring activity depleting the motivations to relocate. Additionally, many owners are locked into lower rates and have little incentive to replace that mortgage in the new environment. The market is shifting in favor of buyers after a period of seller advantage, but meeting the financial criteria to purchase a house is a lofty hurdle for many young adults.

**Millennials and Gen Z will be more inclined to rent.** Broad-based inflation and career advancement uncertainty are leading many U.S. residents to tighten up their household budgets. Meeting the lender requirements and saving for a down payment are substantial obstacles for young adults in the pursuit of first-time homeownership. From a cost-saving aspect, apartments have become more attractive. In the Bay Area, Southern California and long-time migration favorites — such as Austin, Seattle-Tacoma and Denver — the difference between renting and owning now exceeds \$2,500 per month on average. Meanwhile, robust in-migration to Florida and the greater Sun Belt has diminished single-family housing stock in most markets, driving up prices and making apartments comparatively more affordable, despite robust rent growth. These trends will change living preferences and create a more renter-disposed society, favoring the cost-saving benefits, flexibility and lifestyle advantages.

# 2023 Demographic Outlook

## Record Construction Mostly Aligned with Long-Term Demand Tailwinds

### 2023 Inventory Growth vs. 2023-2027 Young Adult Population Growth\*

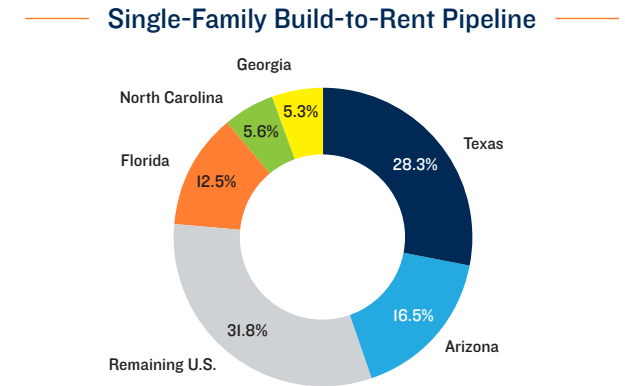


\* Forecast

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

## 2023 Demand/Supply Outlook

- Historic rental demand across the Sun Belt during the pandemic encouraged developers to pick up the pace prior to last year's normalization. This response, paired with projects delayed in 2022, created gigantic delivery slates. Several locations with sizable inventory gains in 2023 could endure near-term oversupply. Strong young adult population growth trends, however, will help absorb the new units once the economy is on solid ground.
- Single-family rentals have rapidly grown in popularity over the past few years, serving as a middle ground for those looking to move out of apartments but unable to become homeowners. This could present mild competition for tenants in places where build-to-rent pipelines are substantial, like Texas, Arizona and Florida. Still, single-family rentals are only expected to siphon a minuscule share of demand, largely from Class A.
- Incentivizing affordable housing construction is a priority for the Biden administration. Development of these dwellings is the strongest in places with extreme affordability gaps and very tight Class C vacancy rates, offering relief rather than a significant source of competition.



\* Forecast

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