US Viewpoint

Rent inflation to moderate but regional differences persist

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CPI: Consumer Price index

CPI rent inflation is still too high

Inflation has made significant progress over the past year towards the Fed's 2%-target. But one portion of the basket that has proven more stubborn than expected has been rent and owners' equivalent rent inflation. This has been somewhat surprising given the sharp decline in measures of asking rent inflation.

Location, location, location

In our view, one factor behind the gradual disinflation seen in rent CPI is different regional dynamics. Housing is always a regional story. While rent inflation is cooling quickly in parts of the country, it has fallen more gradually in the Northeast and Midwest than the South and West.

Demand is doing just fine

Demand has generally held up across regions. According to RealPage, "After a tumultuous 2021 to 2022 stretch – two years that recorded both the strongest and weakest absorption figures in two decades – the 2023 pace of absorption seems to have stabilized." The strength of demand in 4Q23 was particularly impressive. The final 90 days of the year had the third strongest multifamily net absorption (number of units leased minus number of units vacated) for that quarter on record. Strong labor markets, positive demographics, a rebound in headship rates have all supported demand.

Supply is putting downward pressure on rents

While demand has held up, supply growth helps explain downward pressure on rent inflation and regional divergences. We are currently amid a supply boom in the rental market as multifamily units under construction remain at record highs. But the boom in multifamily construction is not evenly distributed. The West, South and Midwest have all seen a significant pickup in multifamily units under construction compared to 2019. The Northeast has also seen a pick-up, but it is more modest than other Census regions. In the Sunbelt region, new supply is expected to peak in 2024 at 4.7% of existing stock before heading lower.

Rent inflation will continue to cool

Our REIT analysts expect 2024 national market rent growth to return to pre-pandemic growth trends. Hence, we look for CPI rent inflation to continue to moderate towards its pre-pandemic run-rate of closer to 3.4% annualized. Specifically, we forecast shelter inflation, of which rents are the main driver, will slow from 6.2% y/y in December 2023 to 4.2% y/y in December 2024 contributing 60bp less to headline CPI inflation. Our REIT analysts, meanwhile, see important distinctions between Gateway vs. Sunbelt and Suburban vs. Urban. Downward pricing pressure will continue in the Sunbelt where significant supply continues to be added, and suburban rent growth should be relatively stronger than urban given positive demographics and more limited supply.

Timestamp: 01 February 2024 04:30AM EST

The roof over our heads

The cost of the roof over our heads is one of the largest expenses that households face. Rent and owners' equivalent rent (OER) account for more than a third of the core CPI inflation basket and 18% of the core PCE inflation basket. To measure OER inflation, the Bureau of Labor Statistics (BLS) relies on rent prices. Henceforth, we refer to CPI rent and OER collectively as CPI rent inflation. Because of its magnitude, rent inflation often drives overall inflation. Therefore, understanding rent inflation and what drives it is critical to forecasting the outlook for overall inflation. In this report we delve deeper into the current trends and outlook for the rental market.

A methodology refresher

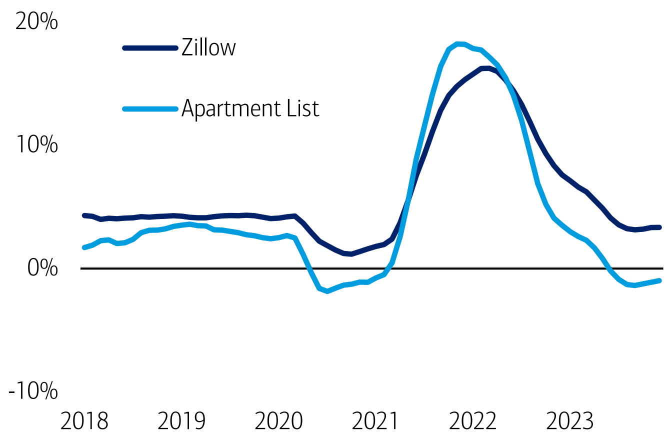
To understand the outlook for CPI rent inflation, it helps to understand the methodology and the scope of the series. First, CPI rent inflation is a measure of average rent inflation faced by all renters. Measures of asking rent inflation, on the other hand, capture the rent facing new renters or marginal rents. Second, BLS splits its sample of 48k households into six sub-samples that are surveyed once every six months. This allows for the BLS to survey a larger number. However, it also leads CPI rents to gradually reflect changes in rent prices and lag changes in asking rent inflation.

The leading relationship

Given that it is well understood that asking rent inflation leads CPI rent inflation, forecasters, including ourselves, tend to rely on measures of asking rent inflation to predict rent inflation. We also rely on views from our US REITs fundamental analysts, Joshua Dennerlein and team, who cover the space.

Measures of asking rent inflation have shown significant disinflation and in some cases deflation over the course of the past year (Exhibit 1). In previous work, we did identify a leading relationship between these measures and CPI rent inflation (see: Predictive Analytics: Leading with Alt-Data: asking about rent inflation 25 October 2022). Academic research has also spotted this relationship. Indeed, a paper from economists at the Cleveland Federal Reserve Bank working in conjunction with the BLS constructed a New-Tenant Repeat Rent index from the CPI microdata that they found led CPI rents by four quarters (Exhibit 2).

Exhibit 1: Rent inflation (% y/y)
Alternative measures of rent inflation show a sharp slowing over the course of last year



Source: Zillow, Apartment List

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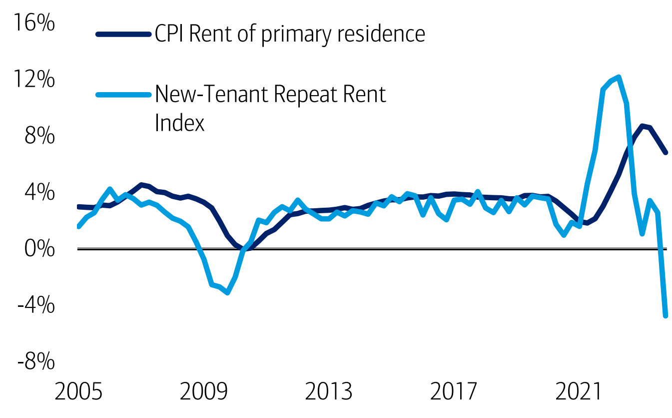
Exhibit 2: CPI rent inflation vs. the New-Tenant Repeat Rent Index (%y/y)
Researchers at the Cleveland Fed found the New Tenant Repeat Rent Index led CPI rent by four quarters



Source: Bureau of Labor Statistics (BLS)

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This relationship led many to confidently predict that rent inflation was likely to slow last year. While this prediction has proven to be true, the pace at which rent price inflation has cooled has been more gradual than we and others first thought.

***New-Tenant Repeat Rent Index**:* a repeat rent index derived from leases of tenants who recently moved in within the BLS housing survey data. Therefore, it is more closely related to measures from Zillow and Apartment List. Sample size fluctuates from as little as 1.4k per quarter to as many as 4.3k per quarter

***All-Tenant Repeat Rent** Index:* a repeat rent index derived from leases of all tenants – new and existing. Therefore, it is closer to the official CPI rent measure. Sample size fluctuates between 11k and 17k per quarter.

Factors that help explain relatively firmer CPI rents

There have been a few arguments to explain the difference in the pace of disinflation in CPI rent inflation and asking rent inflation. Each has some merit in our view. First, prices for occupied units had to catch up to the new level of market rents. Second, the lead time on the way down is longer than on the way up. Third, rent inflation is showing different dynamics in different parts of the country.

Existing rents closed the gap but likely never caught up to market rents

There is evidence that landlords did try to bring existing rents closer to market rents in 2022. However, an influx of supply in 2023 resulted in landlords prioritizing retention of existing tenants through steeper discounts relative to market rents. Indeed, the loss-to-lease, the discount an in-place renter pays compared to market rent for new renters, spiked in 2022 but has come down significantly since (Exhibit 3 and Exhibit 4). We also do not think existing rents ever have to fully close the gap to market rents since market rents are skewed towards new inventory (Exhibit 5). That said, the closing of the gap between existing and market rents in 2022 could help explain some of the stickiness of CPI rent inflation last year.

Exhibit 3: REIT loss-to-lease
Loss to lease has come down

Ticker	Loss to lease
AVB	2.0%
CPT	just under 1%
EQR	0.8%
ESS	1.5%
MAA	-1.0%
UDR	Around 1%
AMH	4.0%
INVH	high single digits

Source: Company filings, earnings call transcripts and presentations; BofA Global Research

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Exhibit 4: REIT loss-to-lease
Higher than usual loss-to-lease across sectors

Ticker	Loss to lease
AVB	6.0%
CPT	5.5%
EQR	5.0%
ESS	2.5%
MAA	3.5%
UDR	low- to mid-single digits
AMH	High-single digits
INVH	10.0%

Source: Company filings, earnings call transcripts and presentations

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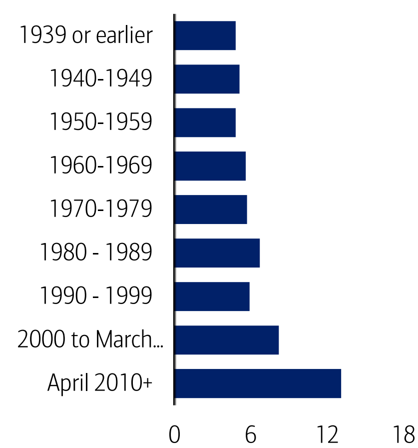
Exhibit 5: Rental vacancy rate by period when structure was first built (%, 3Q 2023)
Vacancy rates are higher in newer buildings



Source: Census Bureau

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The lag time may be slightly longer on the way down

Another argument for why CPI rent inflation has moderated more gradually than asking rent measures have suggested, is that the lag time between the two is longer on the way down than the way up. This argument is not mutually exclusive with the prior argument. The spike in loss-to-lease ratios in 2022 likely contributed to firmer rents in

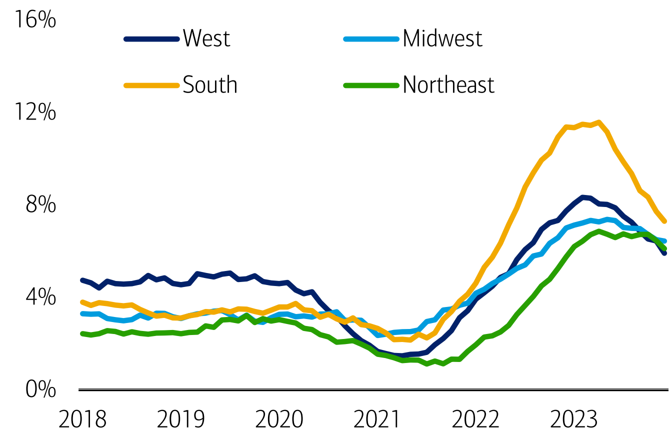
2023 given the methodology used in CPI rents. Unfortunately, we do not have enough instances of a meaningful divergence between market rents and asking rents to empirically test whether the lag time differs on the way up than on the way down.

Housing is a regional story

The last argument that we think explains the relative stickier CPI rent inflation is that rents are a regional story. Rent inflation in the Northeast has shown little sign of cooling compared to rents in the South and West (Exhibit 6). This is also generally true for measures of asking rent inflation (Exhibit 7). According to Yardi's data, New York City and Boston have the highest market rent growth of 5.6% and 3.0%, respectively, in December 2023 (National: 0.7%). Austin and Phoenix come in as the bottom two with growth of -4.3% and -3.0%, respectively.

We think there are fundamental reasons for these divergences, mainly supply growth is stronger in regions where rents are cooling more quickly, and demand is also relatively stronger in the Northeast due in part to improving demographic flows. We discuss the demand and supply backdrop at the regional level in the following sections.

Exhibit 6: CPI rent of primary residence (y/y)
Rent inflation in the Northeast has only edged down modestly



Source: Bureau of Labor Statistics (BLS)

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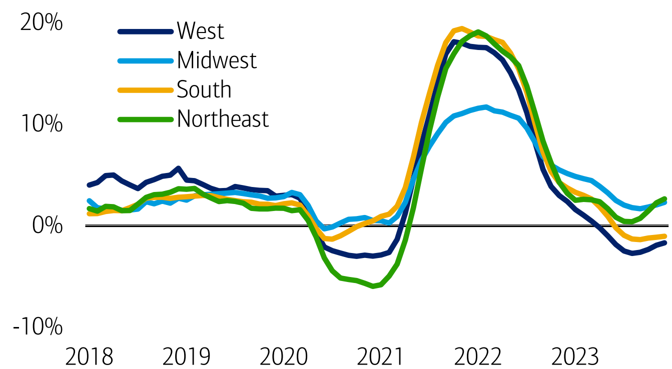
Exhibit 7: Apartment List overall asking rent inflation by region (%y/y)
Asking rent inflation has fallen in all regions but is positive in the Northeast and Midwest



Source: Apartment List
Note: We form estimates of census regions using state level data weighted by population

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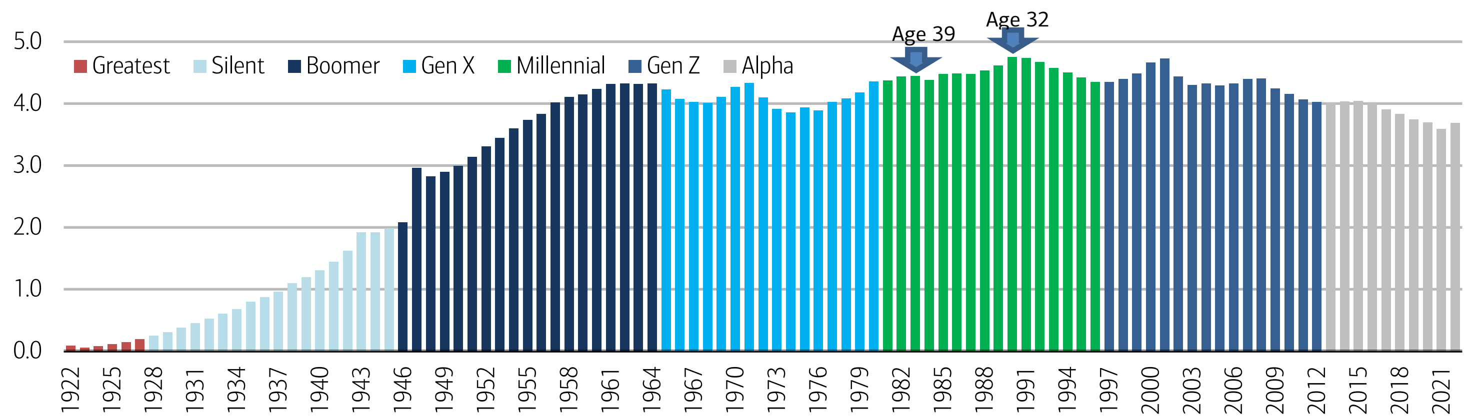
Demand has held up

Demand has generally held up across regions. According to RealPage, "After a tumultuous 2021 to 2022 stretch – two years that recorded both the strongest and weakest absorption figures in two decades – the 2023 pace of absorption seems to have stabilized." The strength of demand in 4Q23 was particularly impressive. The final 90 days of the year had the third strongest multifamily net absorption (number of units leased minus number of units vacated) for that quarter on record. We see several reasons for strong demand and different regional dynamics.

1. A strong labor market

The key driver of rental and housing demand is the strength of the labor market. Our REIT team tracks key labor market indicators to look for inflection points in demand. The latest JOLTS (Job Openings and Labor Turnover Survey) data points to a slowing but still robust job market. Overall, the data is consistent with softening but still elevated rent growth. The overall job openings rate stands at 5.4% down from a peak of 7.4% in March 2022, but above the 2019 average of 4.5%. For more see our BofA Residential REIT job openings and labor turnover tracker and our BofA's jobless claims tracker.

Exhibit 8: Population (millions) by Birth Year
Millennials are reaching an age where suburbs become more attractive. The typical rental age for a SFR is 39 vs 32 for an apartment.



Source: Census Bureau

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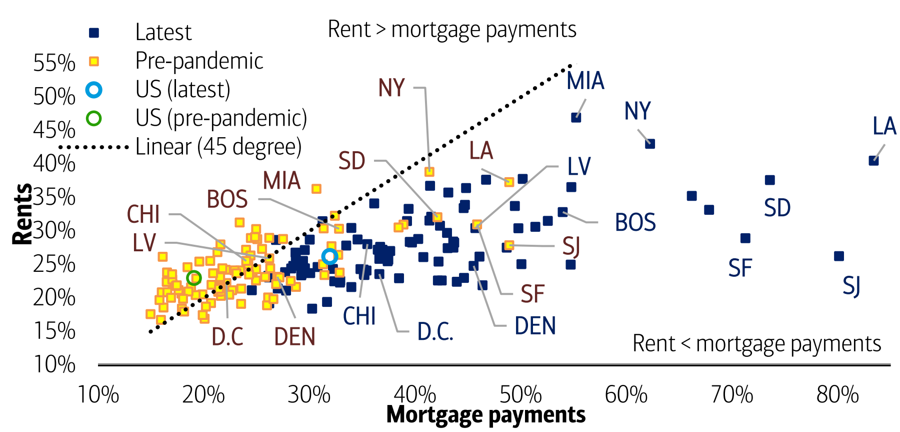
2. Favorable demographics especially for demand in the burbs

In addition to a strong labor market, demographics is destiny for the housing market. Millennials are reaching an age where single family homes become more attractive. As shown in Exhibit 8, the average rental age for a single-family renter is 39 vs 32 for an apartment renter. Exhibit 8 highlights that over the next seven years we will see rising demand for single family rentals and falling demand for apartments. Given the limited supply of existing homes for sale on the market today and the relative affordability gap between renting and owning a single-family home, Joshua Dennerlein & Team believe we will see elevated single family rent growth.

3. Renting has become relatively more affordable

Higher mortgage rates coupled with strong home price appreciation have also made renting increasingly more affordable than owning (Exhibit 9). That means that people are likely remaining renters for longer.

Exhibit 9: Rents vs. mortgage payments: now vs pre-pandemic (% of median HH income, annu.)
Post-pandemic, renting is noticeably cheaper than purchasing a home in most of the 97 MSAs



Source: BofA Global Research, Zillow, Tax foundation

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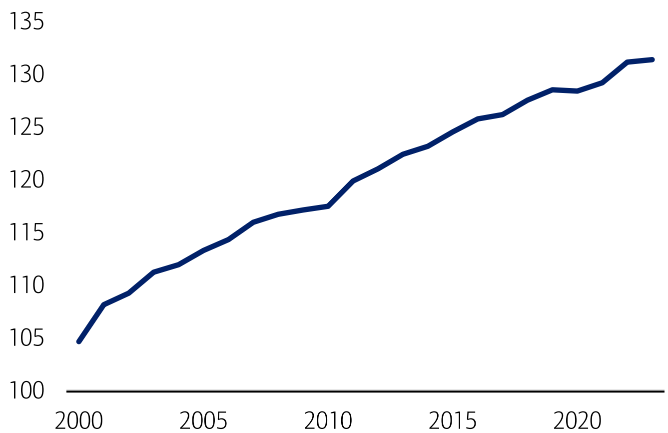
4. Positive growth in household formation for younger age groups

Household formation has rebounded in recent years after falling by 0.1% y/y in 2020, the start of the pandemic (Exhibit 10). Although it seems like a small number, the average yearly household growth rate had been 1.1% since 2000 and this marked the first time in history that the total number of households fell on a yearly basis. However, since

2021 the number of households have rebounded quickly, signaling an increase in demand for homes.

Furthermore, the data on household formation by age of the householder support strong rental demand. Data shows that those under the age of 25 contributed to a noticeable rebound in household formation in 2022 and remained in positive territory throughout 2023, which should have ultimately led to an increase in rental demand (Exhibit 11). Householders between the age of 25 to 34 saw a slight decrease compared to 2022, but the total number remained higher than pre-pandemic levels.

Exhibit 10: Total number of households (Thous)
Since 2021 the number of households have rebounded quickly



Source: Census Bureau

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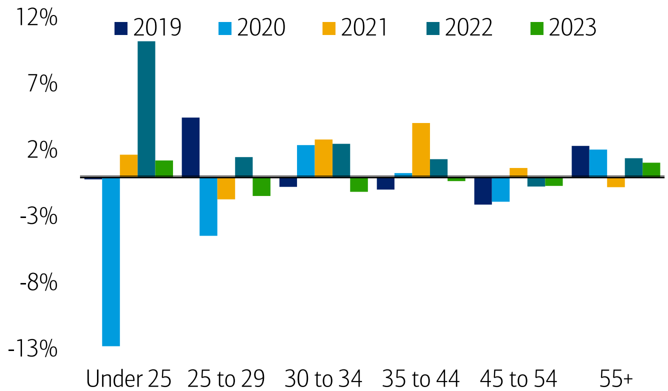
Exhibit 11: Households by Age of the Householder (%y/y)
Household formation for those below the prime homebuying age has kept up above pre-pandemic levels, supporting the demand side of the rental market



Source: Census Bureau

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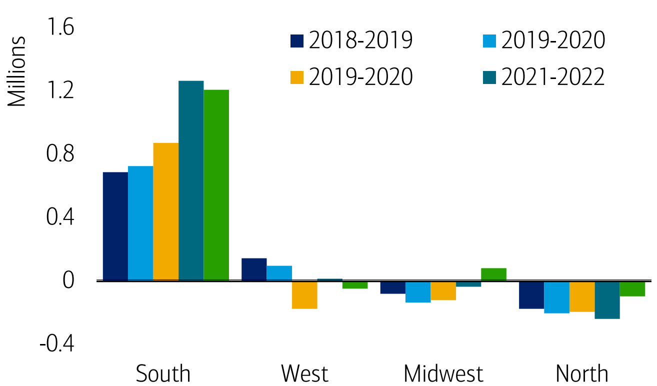
5. Population flows

At the regional level, population flows also may help explain rental demand and the relative strength of rent inflation in certain areas of the countries. From 2020-2022, the Northeast saw abnormally large net out-migration—the sum of net international migration and net domestic migration (Exhibit 12). However, 2023 saw a relatively small outflow compared to pre-pandemic levels and recent years. The South on the other hand, saw a massive population inflow that slowed in 2023. These population shifts likely contributed to the much larger spike in rent inflation seen in the South vs. the Northeast and are also contributing to the current divergence.

Exhibit 12: Net migration by census region
Population inflows have slowed in the South and outflows in the Northeast have also slowed



Source: William H. Frey analysis of US Census Population Estimate vintage 2020 and 2023, released Dec 19, 2023

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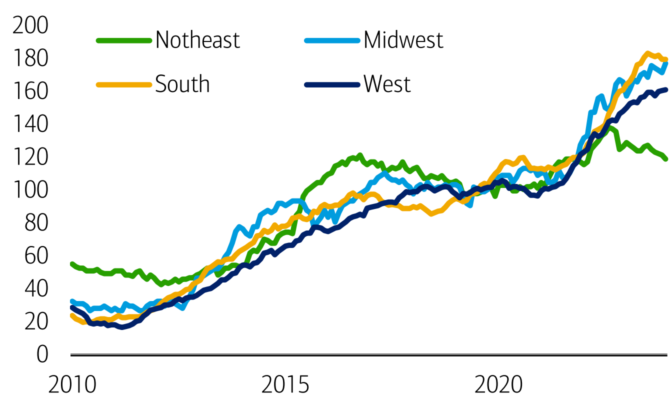
Exhibit 13: Multifamily units under construction (2019 = 100)
Multifamily units under construction have spiked since the pandemic but growth has been largest in the South and Midwest relative to 2019 levels



Source: Census Bureau

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Supply is offsetting solid demand in most of the country

On the supply-side we are currently experiencing a boom in multifamily construction. Indeed, multifamily housing units under construction, at roughly 1mn units, remain above the highs seen during the 1970s. However, this is not evenly distributed across regions (Exhibit 13). Multifamily units under construction have seen the largest increases in the South, Midwest and West while the Northeast has seen a more modest increase. It is our view that the influx of supply is the major driver behind the slowdown in rent inflation seen in most of the country.

Though we are currently in a supply boom, it is unlikely to last. Multifamily housing permits and starts have been trending down since mid-2022 (BofA residential starts and permits tracker). Our BofA REITS Team expects this trend to continue as developers face rising construction costs and elevated financing costs. The combination is making it hard for new deals to pencil. Projects delivering in 2024 locked in construction loans and hard costs (construction materials / labor) under a different economic environment. As a result, deliveries will fall materially in late 2025 and 2026. This is in-line with Yardi's forecast as well (Exhibit 14).

Supply – a tale of two regions

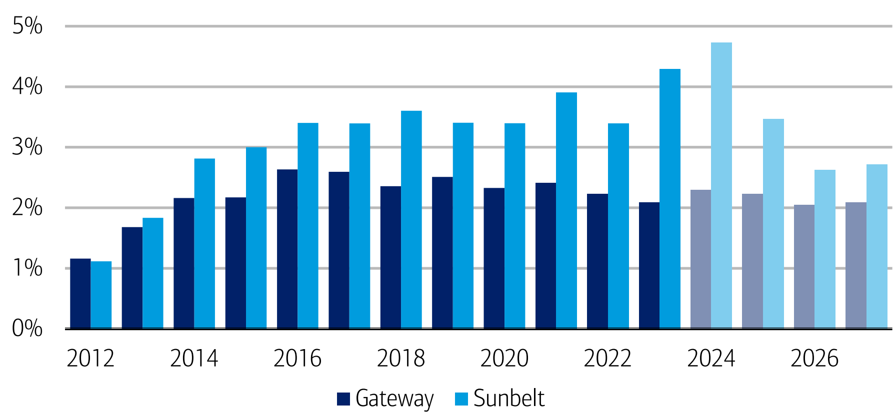
Nationally new multifamily supply as a percent of existing inventory is expected to increase to 3.3% in 2024, up from 3.1% in 2023, according to data from Yardi (Exhibit 14).

In the Sunbelt, new supply is expected to peak in 2024 at 4.7% of existing stock (2023: 4.3% growth). In general, it is easier to build in the Sunbelt than in Coastal markets. Another factor contributing to the rise in development deliveries was driven by a surge of in-migration during the pandemic. Outside of COVID driven “work-from-home” policies that helped drive migration, the Sunbelt benefits from robust job growth, warmer weather, and a historically lower cost of living relative to Coastal markets. Meanwhile, Gateway markets are seeing a more muted supply growth of 2.3% growth in 2024.

Looking forward, Yardi’s forecast points to a deceleration in growth for both Gateway and Sunbelt for reasons described earlier. Noticeably, the supply growth in 2026 is projected to run below its average from 2014-2020 in both regions.

Exhibit 14: Multifamily new supply as a % of existing

According to Yardi Sunbelt markets continue to see higher supply growth than Gateway markets.



Source: Yardi Matrix

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Rents are likely return to pre-pandemic trends over time

Our REIT analysts expect 2024 national market rent growth to return to pre-pandemic growth trends. As such, we look for CPI rent inflation to continue to moderate towards its pre-pandemic run-rate of closer to 3.4% annualized. We think the risks are skewed toward a faster rate of disinflation or a period where CPI rent inflation runs below its pre-pandemic rates. Our REIT analysts also see important distinctions between Gateway vs. Sunbelt and Suburban vs. Urban.

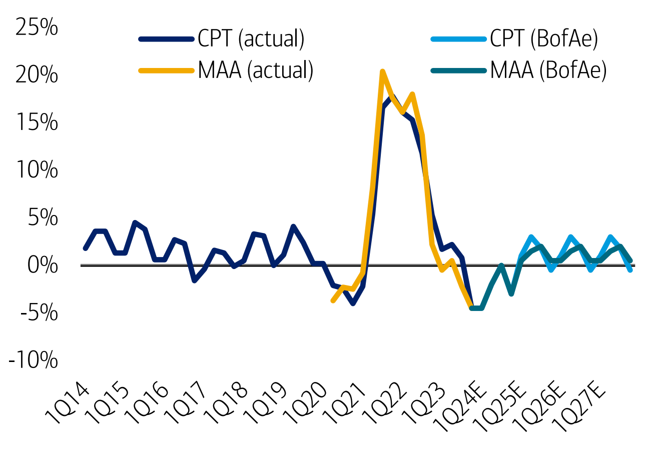
Sunbelt multifamily is facing pricing pressure due to supply

According to our REIT analysts, the biggest surprise they saw coming out of 3Q23 earnings was the pressure REITs faced on the pricing front, particularly in the Sunbelt. The dynamic currently playing out is that higher interest costs on construction loans (typically floating rate debt) is causing merchant builders to be more aggressive on offering renter concessions (free rent). Their goal is to put “heads-in-beds” to reach a stabilize occupancy and put in place cheaper long-term debt or sell the property to a long-term owner. As a result of higher concessions to lease up faster, net effective rents have fallen.

This pressure should last through 2024 and even into 2025 given that peak supply does not hit until summer 2024 with the risk of it being pushed further out given potential construction delays. On the other hand, Gateway markets are facing less supply pressure and rent growth should remain stickier.

According to our REITs analysts’ estimates, REITs with significant Sunbelt exposures (CPT, MAA) will see a 2.4% decline in 2024 new lease rate (market rent) growth, on average (Exhibit 15). REITs with primarily Gateway exposures (AVB, EQR, ESS) will see a 0.8% increase (Exhibit 15).

Exhibit 15: New lease rate growth: CPT & MAA
On average, CPT and MAA will see -2.4% new lease rate growth in 2024



Source: Company filings, BofA Global Research

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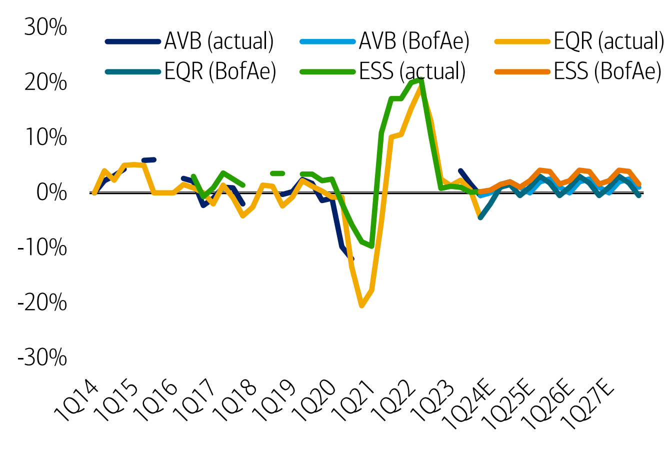
Exhibit 16: New lease rate growth: AVB, EQR, ESS
On average, AVB, EQR and ESS will see +0.8% new lease rate growth in 2024



Source: Company filings, BofA Global Research

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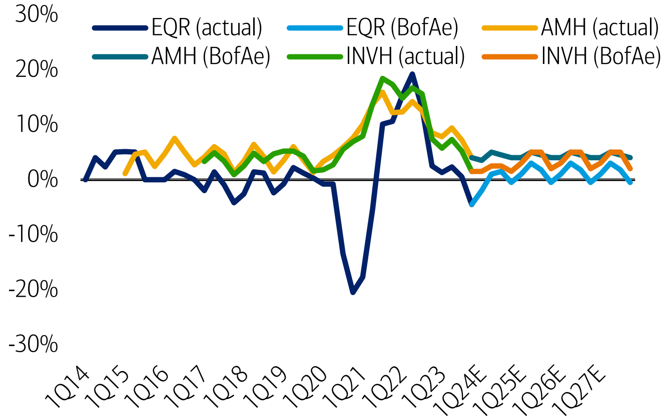
Suburban to have stickier rent CPI inflation than urban

Most multifamily supply delivered in 2023 and coming online in 2024 are in urban core markets. By comparison, suburban markets are facing far less supply pressure. Additionally, as shown in Exhibit 8 and discussed above, demographics are pointing to a shift in demand towards Suburban living. Thus, rent CPI inflation is likely to be stickier in suburban multifamily and single-family rentals in the short to medium term. Per our REITs analysts’ estimates, SFR REITs (AMH, INVH) will see 3.1% new lease rate growth on average vs. 0% for EQR (the highly urban concentrated multifamily REIT) in 2024 (Exhibit 17).

Exhibit 17: New lease rate growth: AMH & INVH vs. EQR

AMH and INVH are expected to see higher new lease rate growth than EQR



Source: Company filings, BofA Global Research

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The relationship of home prices and shelter inflation

One question that often comes up around rent inflation is whether changes in home prices affect rent inflation. Here it is important to understand that CPI rent inflation and CPI OER inflation are both based on measures of rental prices. Therefore, the rental market and the evolution of asking rents are more important determinants of rent inflation over the medium term in our view. That is not to say changes in home prices do not matter. Higher (lower) home prices affect demand for rent leading to higher (lower) rent prices, all else equal.

We test this relationship further, by first plotting the cross correlation between annual growth in CPI shelter and annual growth in the Case-Shiller repeat home price index. We find a positive correlation that peaks at a lag of 16 months. Next, we regress annual growth in lagged Case-Shiller on CPI shelter beginning in 1983 when the BLS changed its method of calculating Owners' equivalent rent inflation to the current methodology and ending in 2019. The r-squared of our regression is an underwhelming 0.31, but the coefficient is significant and positive at 0.13. In other words, a 1% increase in the Case-Shiller index 16 months ago increases CPI shelter inflation by 0.13%.

Therefore, home price appreciation can lead to shelter inflation, but its impact is relatively modest.

Definitions & notes

We define Gateway and Sunbelt as follows:

- **Gateway**: Anaheim-Santa Ana-Irvine, CA; Baltimore-Columbia-Towson, MD; Boston-Cambridge-Newton, MA-NH; Chicago-Naperville-Arlington Heights, IL; Los Angeles-Long Beach-Glendale, CA; New York City; Philadelphia, PA; Riverside-San Bernardino-Ontario, CA; San Diego-Carlsbad, CA; San Francisco-Oakland-Berkeley, CA; San Jose-Sunnyvale-Santa Clara, CA; Seattle-Bellevue-Everett, WA; Washington-Arlington-Alexandria, DC-VA-MD-WV

- **Sunbelt**: Atlanta-Sandy Springs-Roswell, GA; Austin-Round Rock, TX; Charlotte-Concord-Gastonia, NC-SC; Dallas-Plano-Irving, TX; Denver-Aurora-Lakewood, CO; Houston-The Woodlands-Sugar Land, TX; Las Vegas-Henderson-Paradise, NV; Miami-Miami Beach-Kendall, FL; Orlando-Kissimmee-Sanford, FL; Phoenix-Mesa-Scottsdale, AZ; Raleigh, NC; Tampa-St. Petersburg-Clearwater, FL

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