



Economic Bulletin

Housing Services Inflation May Decline Only Gradually

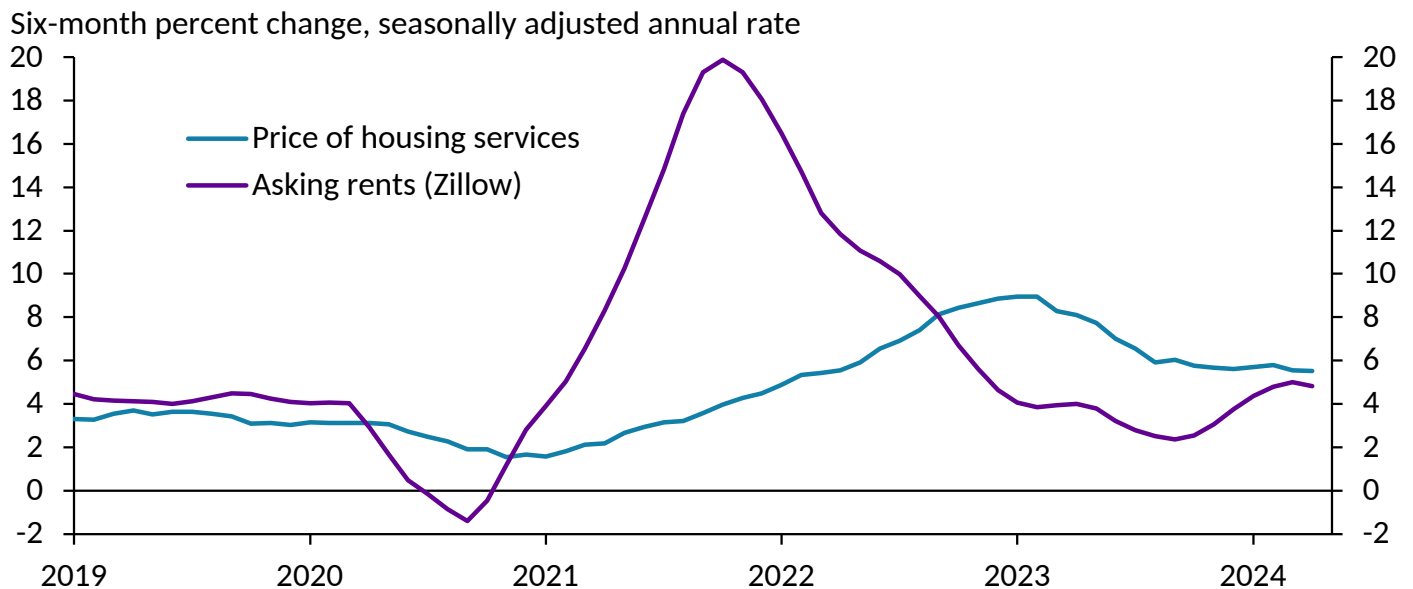
by: Jordan Rappaport

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The inflation rate for housing services remains about 2 percentage points above its 2019 level. Several factors are likely to slow its decline, including more than a decade of underbuilding prior to the pandemic, limited capacity to increase the nation’s housing stock, and the limited number of homes available for sale due to the steeper mortgage rates owners would face if they sold and purchased a different home.

Although the inflation rate for housing services has declined from its peak in early 2023, the price of housing services continues to rise briskly. The blue line in Chart 1 shows the official measure of housing services inflation—which is based on both rents for tenant-occupied units and imputed rents for owner-occupied units—reported by the Bureau of Economic Analysis (BEA). According to the official measure, annualized inflation for housing services declined from 9.0 percent in early 2023 to 5.5 percent by April 2024. Even so, the housing inflation rate remains about 2 percentage points above its 2019 level.

Chart 1: Inflation for housing services remains about 2 percentage points above its 2019 average



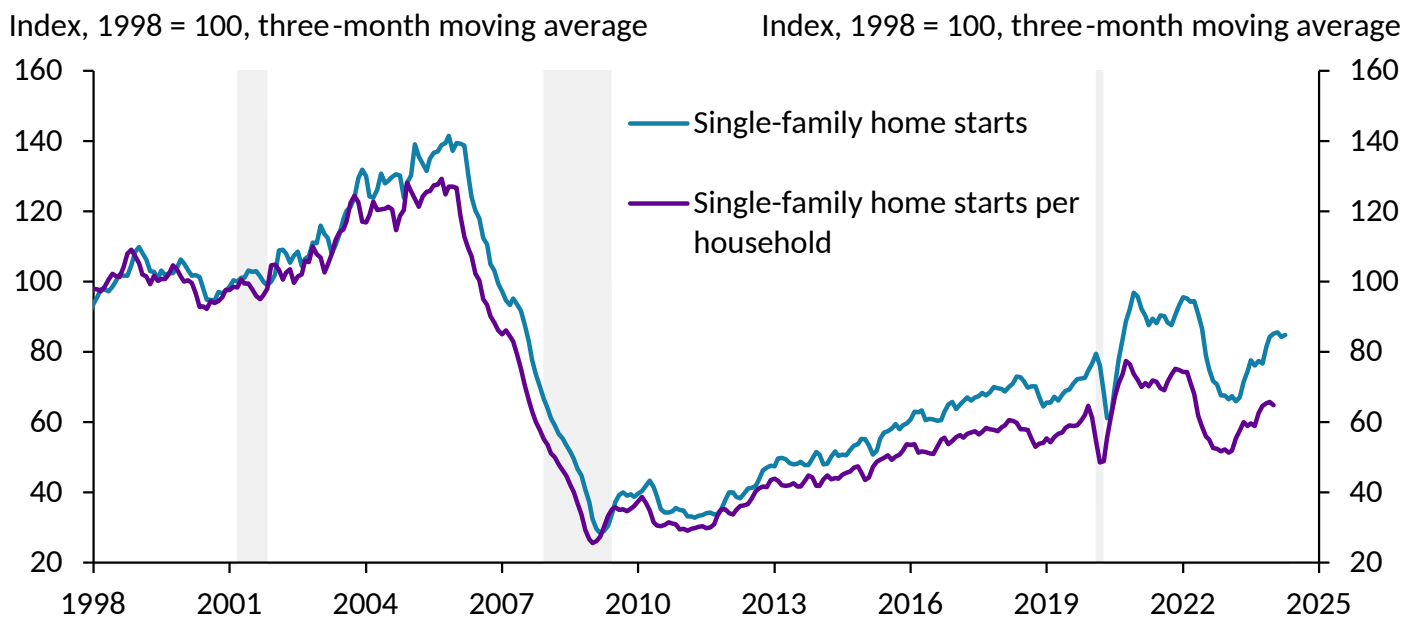
Notes: Underlying data extend through April 2024. The inflation rate for housing services is constructed using rents for tenant-occupied units and imputed rents for owner-occupied units.

Sources: U.S. Bureau of Economic Analysis and Zillow (both accessed via Haver Analytics).

The persistence of elevated housing services inflation may seem surprising, as a more forward-looking measure of rent inflation from Zillow had suggested that the official measure would soon decline. One key reason the Zillow measure is thought to lead the official measure is because it is based on asking rents for prospective rather than current tenants. By contrast, the official measure reflects rents set by existing tenants' leases, which may have been signed many months previously or renewed at a lower rate than a new tenant would face. As a result, leases may not fully reflect cumulative inflation until a new tenant moves in. Consistent with this hypothesis, the purple line in Chart 1 shows that the Zillow measure of rent inflation responded more quickly to changing conditions following the pandemic, initially declining as many young adults moved back in with parents, then soaring as individuals sought more living space, both for leisure and work purposes. By early 2023, the Zillow measure had returned to its pre-pandemic level, and it soon moved even lower, leading many to forecast that the official measure would decline in turn. More recently, however, the Zillow measure has climbed by more than 2 percentage points. Moreover, cumulative inflation by the Zillow measure has pushed up asking rents by 9 percentage points more than cumulative inflation by the official measure has pushed up the price of housing services, suggesting the official measure of housing services inflation may remain well above the Zillow measure for several years.

Multiple sectoral factors are likely slowing the decline in housing services inflation. One is that home construction never fully recovered from the Great Recession, meaning the supply of housing was already low going into the pandemic. The blue line in Chart 2 shows an index of the annualized rate of single-family home construction, normalized by its average level during 1998. Even after steadily climbing for more than a decade, the rate of single-family construction in late 2019 remained 25 percent below its 1998 level, equivalent to adding 300,000 fewer units per year. Relative to the number of U.S. households (purple line), single-family construction in late 2019 was even further below its 1998 level. As a result, the number of occupied single-family homes in 2019 was more than 3 million below what its demographic trend in the early 2000s would imply (Rappaport 2022).

Chart 2: Home construction never fully recovered from the Great Recession

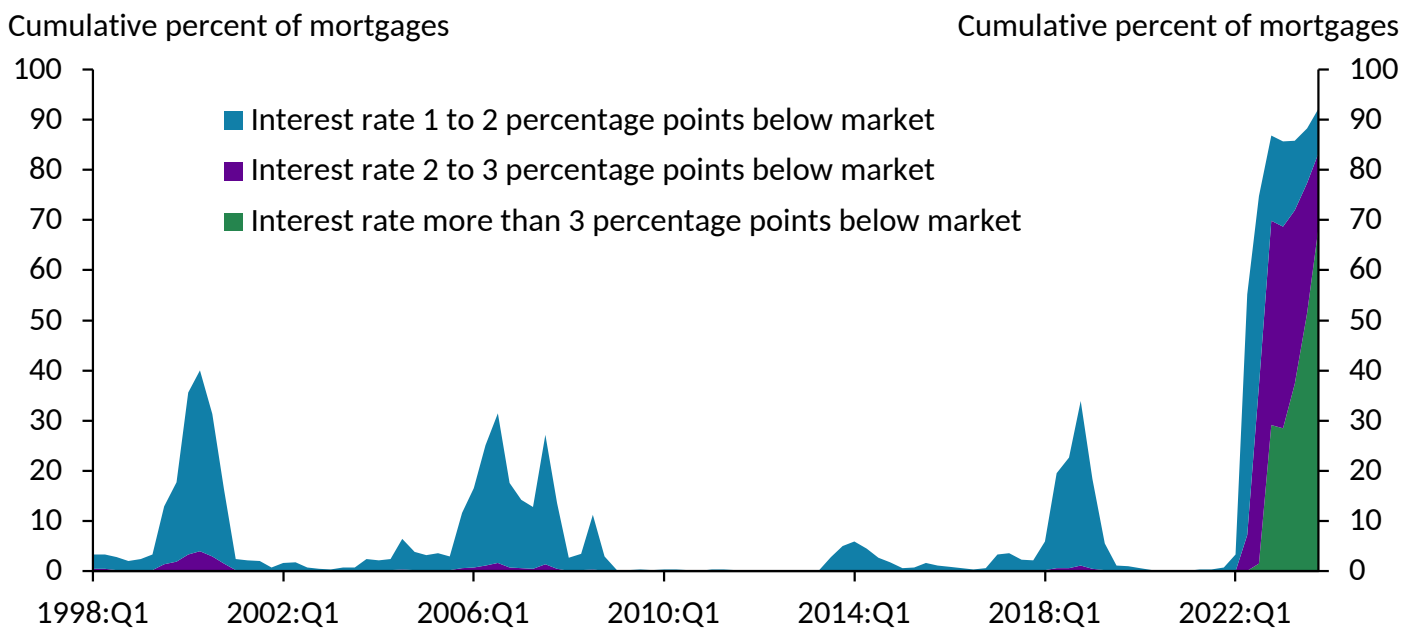


Sources: U.S. Census Bureau and NBER (both accessed via Haver Analytics); author's calculations.

Another reason housing services inflation will likely decline only gradually is that even vigorous construction can only slowly increase the nation's housing stock. Since the onset of the pandemic, single-family and multifamily home construction have surged. However, the surge has allowed housing services consumption to increase by only 7 percent from its level in late 2019. For comparison, the consumption of goods increased by more than 18 percent over the same period.

In addition, the sharp increase in mortgage rates during 2022 means that most owners with a mortgage would face a considerable increase in their monthly payment if they were to sell their current home and purchase another at a similar price. The resulting interest rate "lock-in" is significantly depressing the number of homes for sale. Mortgage interest rates hovered near historical lows during 2020 and 2021, inducing a large share of homeowners to refinance their mortgages. Since the start of 2022, however, the benchmark mortgage rate on a conventional mortgage has moved up by more than 4 percentage points. Chart 3 reports the resulting degree of interest rate lock-in. Among borrowers with a government-guaranteed mortgage, 69 percent (green region) would face a more than 3 percentage point increase in their mortgage rate if they were to purchase a different home today, while 83 percent (purple and green regions together) would face an increase of more than 2 percentage points. For comparison, hardly any borrowers faced an increase of more than 2 percentage points over the two decades prior to 2022.

Chart 3: Owners would face a much higher interest rate if they purchased a different home

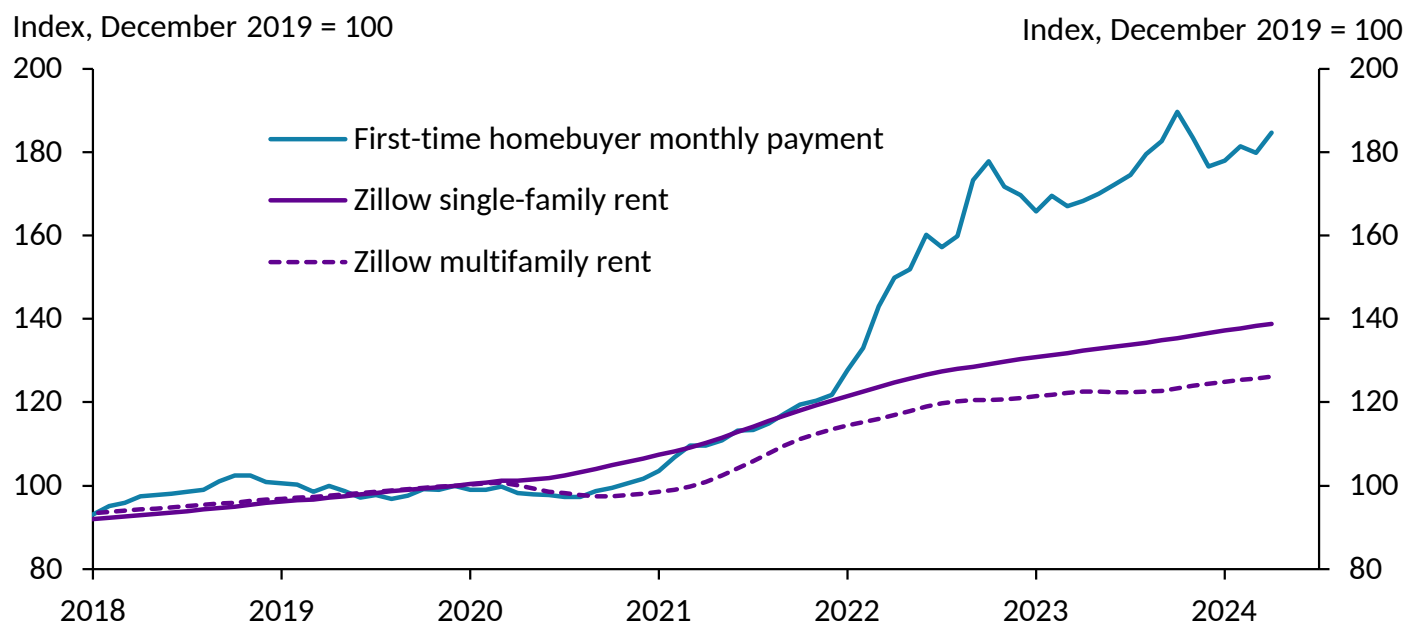


Notes: Underlying data extend through 2023:Q4. The reported shares are for outstanding fixed-rate mortgages that are guaranteed by the U.S. government via Fannie Mae, Freddie Mac, the Federal Housing Administration, the Veterans Administration, and the U.S. Department of Agriculture.
Source: Batzer and others (2024).

Unsurprisingly, the extreme degree of mortgage lock-in is dissuading many homeowners from selling. During 2024:Q1, roughly 20 percent fewer homes were listed for sale each month relative to late 2021, just before mortgage rates began climbing. Disproportionately large shares of recent listings are by builders of newly constructed homes and by households that own their homes outright, such as downsizing baby boomers. Research by the Federal Housing Finance Agency suggests that the number of new listings by homeowners with a fixed rate mortgage may be down by more than half (Batzer and others 2024). The resulting low supply of homes for sale has kept home sales prices at an all-time high, more than offsetting diminished demand for purchases due to the increase in mortgage rates.

The combination of soaring home prices following the onset of the pandemic and the more recent increase in mortgage rates has made it more difficult for many potential first-time homebuyers to purchase a home. The boom in demand for space following the onset of the pandemic and the decline in mortgage interest rates to near their historical low together contributed to a 40 percent increase in home prices from late 2019 through mid-2022. The increase in interest rates since early 2022 has increased the monthly payment on a newly originated mortgage by 35 percent. The combination of changing home prices and interest rates, as illustrated by the blue line in Chart 4, has increased the monthly mortgage payment for a prospective homebuyer by 85 percent since the onset of the pandemic.

Chart 4: Rents have risen by considerably less than monthly mortgage payments



Notes: Underlying data extend through April 2024. Monthly payments assume a purchaser makes a down payment equal to 20 percent of the purchase price; they include annual expenses to cover property taxes, homeowners' insurance, and maintenance equal to 2.5 percent of the purchase price.
Sources: Zillow, Federal Home Loan Mortgage Corporation (both accessed via Haver Analytics); author's calculations.

The high monthly payments have displaced many potential first-time home buyers into the rental market, representing another reason home services inflation is likely to decline only gradually. Although the inflation rate for rents has also been high over the past few years, it has cumulatively increased by far less than monthly mortgage payments. The purple lines in Chart 4 show that rents on single-family homes (solid line) have increased by about 40 percent since late 2019; those on multifamily units (dashed line) have increased by about 25 percent. This large gap between the increase in mortgage payments and the increase in rents will likely take many years to unwind, keeping strong upward pressure on rents. Indeed, continuing elevated rent inflation will play a significant role in closing the gap.

The pace of the decline in home services inflation has implications for headline inflation, as housing services is one of the largest components of the price index for personal consumption expenditures (PCE). Specifically, the gradual decline in home services inflation is likely to slow the return of topline PCE inflation to the Federal Open Market Committee's target rate of 2 percent. As topline inflation was running below target prior to the pandemic, housing services inflation need not decline all the way to its pre-pandemic level for topline inflation to hit 2 percent. But housing services inflation does need to significantly dissipate, which will take time.

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Jordan Rappaport is a senior economist at the Federal Reserve Bank of Kansas City. He joined the Bank in 1999 following completing his Ph.D. in economics at Harvard University. Jordan also holds a bachelors' degree from Brown University, from which he graduated in 1990. Jordan's research focuses on issues related to local growth. His articles for the Bank's *Economic Review* primarily focus on U.S. metropolitan area growth and on housing. His empirical research published in peer-reviewed journals has documented the persistence and causes of long run local population growth. His published theoretical research shows that even small costs associated with moving are sufficient to cause high persistence in net population flows and that small productivity and amenity differences can cause very large differences in local population density. Jordan is an associate editor of *Regional Science and Urban Economics* and the *Journal of Regional Science*.
