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Special Commentary

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Gimme Shelter or Inflation Gonna Fade Away

The Outlook for Inflation Amid Slower Home Price Growth

Executive Summary

In an expansion characterized by weak inflation, housing costs have bucked the trend. With housing being most consumers' largest expense and prices rising faster than all other major categories of outlays, shelter has underpinned inflation in recent years. Yet shelter costs have eased up in recent months and home price appreciation has slowed sharply over the past year. Is the housing portion of inflation on the cusp of rolling over, and about to take overall inflation down with it just as core inflation looks to finally be aligning with the Fed's target?

Is the housing portion of inflation on the cusp of rolling over?

In this note, we provide background on how the CPI and PCE deflator measure housing inflation, as well as what recent price developments in the purchase and rental markets mean for what has been a major support of inflation in recent years. While home price appreciation has slowed, the effect on overall inflation in the coming months should be small—only about 0.1 percentage point lower by our estimates. Inflation for owner-occupied housing is expected to edge lower, but inflation for rented housing should be little changed amid steady wage growth and a low vacancy rate. As a result, core inflation should remain close to levels consistent with the Fed's target, as the moderation in shelter costs is not enough to derail inflation in a meaningful way.

Shelter from the Tariff Storm

Tariffs have sucked up much of the oxygen in the inflation sphere of late, and understandably so. More widespread use of tariffs underscores that the tide of globalization has reversed, and with it an important driver of the disinflationary environment of the past three decades. As we have highlighted in earlier work, there are signs of tariffs filtering into consumer prices.[1] Thus far the impact has been fairly modest, but we expect tariffs to have a greater bearing on inflation in the coming months as a much wider array of consumer goods now faces import taxes.

Core CPI is already running at the fastest pace of the expansion, up 2.4% over the past year (Figure 1). Before getting too carried away that inflation is about to finally take off, however, it is worth taking a look at housing costs. The categories of goods we consider most directly exposed to tariffs account for about 8% of the Consumer Price Index, but shelter accounts for a whopping 33%.

Shelter accounts for 33% of the Consumer Price Index.

Housing has been the largest source of inflation in recent years at a time the Fed has struggled to reach its target. Not only is shelter the largest component of the CPI, but costs have been growing faster than any other major category of prices over the past four years. As shown in Figure 2, shelter costs have been rising more than 3% a year since 2015, which is similar to the pace of prior expansions. In contrast, goods prices have been falling up until very recently, and inflation for services ex-shelter has been running more than a percentage point below its pre-recession average. Given the size of the shelter component along with its relatively strong price growth, housing has accounted for about 60% of inflation over the past year, and added more than a full percentage point to headline CPI inflation (Figure 3).

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[1] **Please see, "Tariffs Becoming Evident in Consumer Price Inflation" (August 14, 2019) for more detail.**

Figure 1

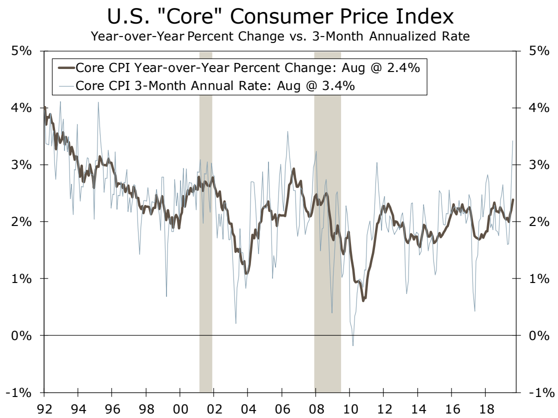
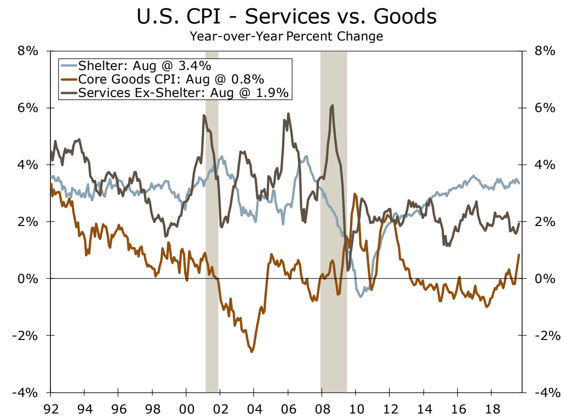


Figure 2



Source: U.S. Department of Labor and Wells Fargo Securities

Housing accounts for a smaller, but still sizeable portion (17%) of the PCE deflator.

Housing accounts for a smaller, although still sizeable portion (17%) of the Fed's preferred inflation benchmark, the PCE deflator.[2] Even with housing accounting for a smaller share in this measure, nearly 40% of PCE inflation over the past year can be traced back to rising housing costs (Figure 4). Since the housing component of the PCE deflator is derived from corresponding estimates from the CPI, we focus on the outlook for housing inflation in the context of CPI shelter in the remainder of this note.

Figure 3

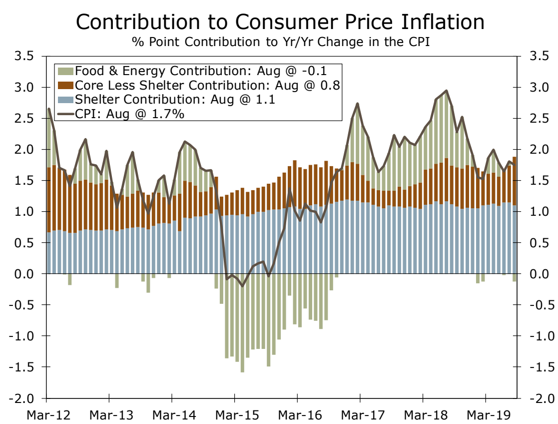
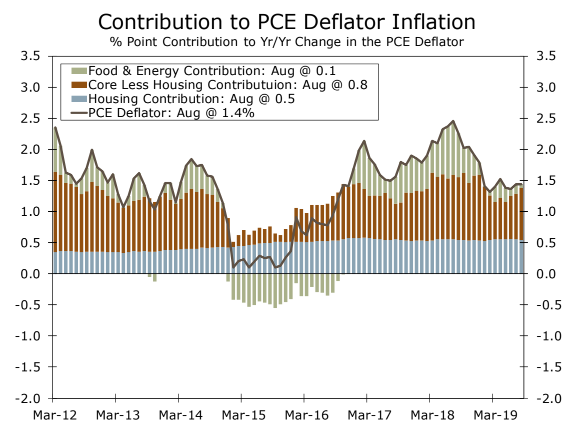


Figure 4



Source: U.S. Department of Labor, U.S. Department of Commerce and Wells Fargo Securities

While housing has accounted for an outsized share of inflation in recent years, shelter prices have eased up a bit in recent months (Figure 5). In August, rents for primary residences rose at the slowest pace this year. Meanwhile, home price appreciation has been slowing for more than a year as the housing market has softened. The S&P Case-Shiller National Home Price Index is up about 3% over the past 12 months, half the pace at this time last year. Other indices of home prices have similarly slowed. Could shelter inflation be on the cusp of rolling over, and about to take overall inflation down with it just as core price growth looked to finally be aligning with the Fed's target?

[2] One notable difference between the CPI and PCE deflator is that the CPI only measures prices paid by consumers, and weights categories based on their share of households' direct/out-of-pocket expenditures. In contrast, the PCE deflator includes the prices of items purchased by a third party (such as the government or an employer) on behalf of households. The PCE deflator also includes items indirectly purchased (such as financial services like a checking account furnished without payment) whose prices are therefore measured implicitly, rather than directly observable from the market. As a result, many items directly purchased by consumers, like housing, have a smaller weight in the PCE deflator.

Figure 5

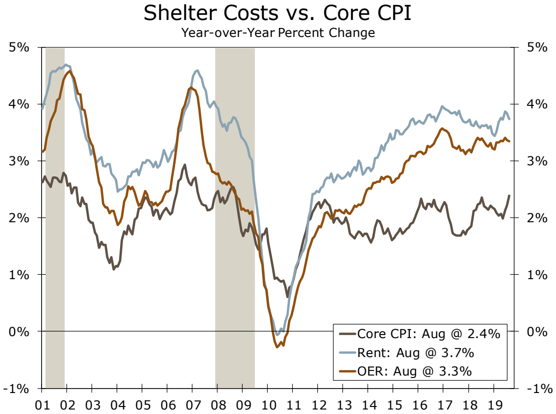
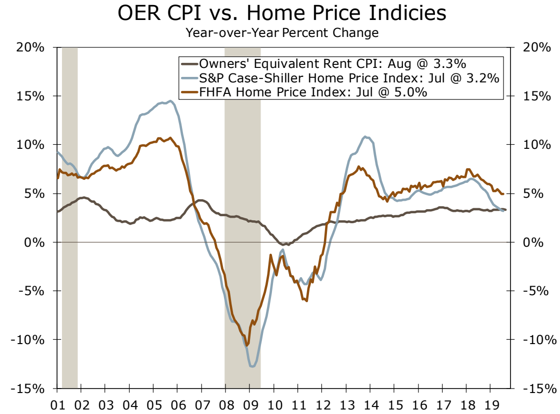


Figure 6



Source: U.S. Department of Labor, S&P Case-Shiller, FHFA and Wells Fargo Securities

For Inflation, a House Is a Place You Live and Not an Investment

The two major categories of shelter are owners' equivalent rent (OER) and rent of primary residence.[3] To get a better sense of where shelter costs—and therefore overall inflation—are going, it is useful to separate our discussion into the outlooks for owned and rented housing.

For inflation, housing reflects the cost of the service a residence provides—shelter.

Owners' equivalent rent captures inflation for owner-occupied housing and is the largest component of the CPI at just under a quarter of the index (24.0%). Unlike every other component of the CPI, owned housing does not reflect the initial purchase price of an item. Buying a house is considered an *investment*, whereas the CPI and PCE deflator aim to track how the cost of *consumption* is changing. Therefore when it comes to inflation, housing reflects the cost of the service a residence provides—shelter—rather than the physical item.

As a result, housing inflation for homeowners is measured similarly to that of renters. The Bureau of Labor Statistics (BLS) surveys properties for lease, and the rental costs of those deemed representative of the owner-occupied stock of housing are used to determine OER under a "rental equivalence method". In short, OER captures how an owner's cost of renting a comparable residence on the open market is changing. Since home price measures like the S&P Case-Shiller and FHFA House Price Index track the purchase cost, i.e., the investment in a home, they are not directly comparable to the OER measure. Trends in rental costs and purchase prices may diverge for a number or reasons, such as shifting views toward homeownership, the ability to come up with a down payment and changes in credit availability and cost. Generally speaking, however, changes in purchase prices reflect the overall state of the housing market. Therefore, purchase price indices are still useful guides for OER.

As illustrated in Figure 6, there is a high degree of correlation between the rate of change for home prices and OER. That said, there is a significant lag between changes in home prices and housing inflation. The CPI's measure of OER lags both the S&P Case-Shiller and FHFA indices by just over a year and a half. The delay stems from rental contracts changed rather infrequently and the BLS collecting rent data for a particular unit only every six months as a result. In other words, only 1/6 of the housing units in the sample are surveyed each month. As a result, it takes time for the most current market conditions to be reflected in the rent data. At the same time, the BLS mainly surveys price changes for existing tenants, underrepresenting new leases that more fully incorporate the latest market conditions.[4] In this way, not only does OER lag transaction prices, but changes in OER inflation are smaller in magnitude.

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[3] The CPI lumps in lodging-away-from-home in its measure of rent of shelter. Lodging-away-from-home is 1.0% of the CPI, leaving the cost of primary residences (rented or owned) with a still-hefty weight of 32%.
[4] Ambrose, Brent W., N. Edward Coulson and Jiro Yoshida. "Housing Rents and Inflation Rates." (December 17, 2018).

The slowdown in home price appreciation suggests OER is poised to moderate.

The slowdown in home price appreciation since early 2018 suggests that OER is poised to moderate in the coming months, and the easing witnessed in August was not a blip. The disinflationary impulse, however, should be modest. By our estimates, the 2.5 point slippage in the rate of FHFA home price appreciation should shave down the year-over-year rate of OER by 0.2-0.3 percentage points. That would translate into less than a 0.1 percentage point drag on headline or core CPI inflation and a negligible drag on PCE inflation. In addition, we expect home prices to slow more gradually from here as sales have firmed more recently and income growth has remained decent. In other words, the slowdown in home prices should not derail inflation.

Behind on the Rent

The other major component of shelter inflation is rent of primary residence. This component is more straightforward than its OER counterpart, as it simply tracks what rental occupants pay in the form of rent each month. Still, like the OER, there is a lag between true market conditions and CPI rent growth due to the survey method employed. While there are various adjustments that may be made for factors that should not affect the CPI, the BLS simply surveys households for their rental charge including extra charges for garage and parking facilities, but excludes government housing subsidies.[5]

Housing payments are traditionally the single-largest item in a households' budget. But with nearly two-thirds of households owning their residences, the primary rent component accounts for "only" 7.9% of the CPI. We say "only" since it is the second largest component in the CPI, behind owner-occupied housing.

Considering the recent slowdown in home price appreciation, it is reasonable to wonder if households will capitalize on lower mortgage rates by transitioning from renting to owning their primary residence, thus pulling CPI rent inflation lower in the months ahead as demand for rented units eases. With home price-to-income ratios—particularly in large metros—rising towards levels last seen in the mid-2000s, we view this as unlikely. Even with the more-recent downswing in mortgage rates, absolute housing affordability remains a key impediment to homeownership. While survey data tell us more young adults today have been living with their parents than in previous generations, with wage growth outpacing effective rent growth young adults increasingly have the means to leave the nest, and may view renting as an attractive option.

Demand for rental units has certainly been on the rise. The national vacancy rate for apartments has trended lower over the past year, and reached a cycle low of 5.7% in the second quarter. As seen in Figure 7, the vacancy rate tends to lead rent growth by about a year, though the two have an inverse relationship. As more units become occupied, rental prices tend to rise in response to the decrease in available supply. The recent decline in the vacancy rate suggests rent could be due for some lift in the year ahead.

But, inflation for rented housing should remain firm.

Measures of national rent growth, which are limited, suggest only modest upward gains. CoStar Inc. and Reis Inc. both have measures of multifamily effective rent growth, though they only go back to 2001 and 2005, respectively. Still, as seen in Figure 8, there is a high degree of correlation between the national rent measures and the rent CPI component over those periods. The effective rent indices tend to provide a two-to-three quarter lead-time for changes in rent CPI, though effective rent varies more than CPI rent. After rising for the past year or so, the CoStar and Reis rent measures have moved more-or-less sideways since the start of this year. By our estimates, squaring the moderation in the national measures of rent growth amid steady wage gains and a decline in the vacancy rate could result in a 0.1-0.2 percentage point lift to the year-over-year rate of the rent CPI component. That, however, would result in an immaterial boost to overall core CPI inflation. In the months ahead, we expect the CPI rent component to rise in-line with its roughly 3.7% average pace over the past year or so.

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[5] Factors that should not affect the CPI, include changes to the existing structure or the effect of aging of the rental unit over time. These factors influence the housing units themselves, which is a form of investment, and are not included in the CPI, which seeks to measure consumption, or the cost of the services a housing unit provides. See, "How the CPI measures price change of Owners' equivalent rent of primary residence (OER) and Rent of primary residence (Rent)" for more detail (April 2009).

Figure 7

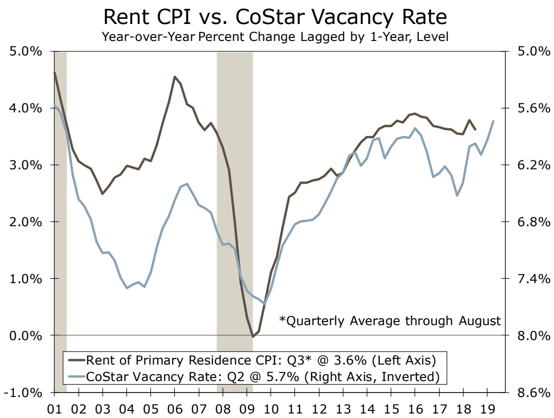
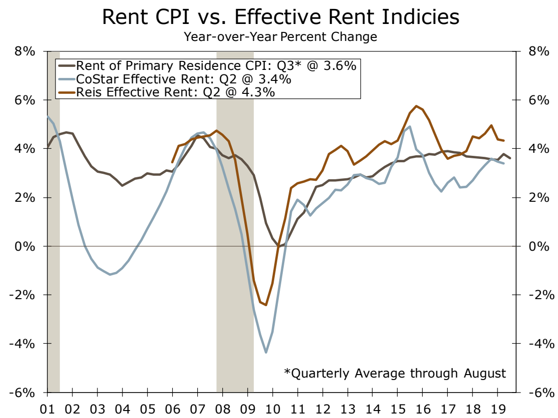


Figure 8



Source: U.S. Department of Labor, CoStar Inc., Reis Inc. and Wells Fargo Securities

Bringing It Home

Housing has underpinned inflation in recent years, as costs have grown faster than all other major categories of outlays and accounted for the largest portion of household spending. In many ways, housing costs as measured by official inflation indices are not particularly representative of consumers' experiences with costs. Homeowners with a fixed mortgage or who no longer have a mortgage do not see their housing costs rise to the extent stated by official indices, but buyers trying to get into the market often see more pronounced fluctuations in costs depending on purchase price changes. Skewed collections toward existing rather than new tenants tend to mute the impact of changing market conditions on official inflation indices, while at the same time infrequent sampling leads to housing inflation lagging purchase price indices and industry measures of rent growth.

The moderation in shelter costs is not enough to derail inflation in a meaningful way.

Despite these issues, housing holds significant sway over inflation and therefore plays a meaningful role in central bank policy. Home price appreciation has slowed noticeably over the past year but not to an extent where it bears heavily on OER. Meanwhile, we anticipate inflation for rented housing will remain firm amid steady wage growth, strong demand and low vacancies. As a result, we expect inflation to remain close to a rate consistent with the Fed's target.

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