

Using data on rising rents to predict future inflation

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Both the shelter and housing categories used in the CPI and PCEPI, respectively, include “rent” as a component. Rent measures the price of the current stock of rental units across the United States. Owner’s equivalent rent (OER) is computed by the U.S. Bureau of Labor Statistics and measures the implicit rent that owner occupants would have to pay if they were renting their homes. The change in rent and OER are highly correlated. Furthermore, rent and OER comprise 32 percent of the CPI market basket but only 15 percent of the PCEPI.

Rent inflation is highly procyclical. As unemployment falls and economic conditions improve, property owners typically ask for higher rents. After persistent increases in asking rent prices, the average rent of the entire stock of rental units eventually increases. These increases are then captured by the CPI and PCEPI. The authors use this information to forecast future rent inflation and future overall inflation. By comparing CPI rent inflation data with Zillow asking rent data from 15 metropolitan statistical areas (MSAs), the authors find that areas with higher observed asking rents are more likely to have higher rent inflation the following year. They also performed a similar calculation using Zillow house price data. They find that house price inflation is positively correlated with CPI rent inflation in the MSAs, although the correlation is weaker than with Zillow asking rent inflation data. From February 2020 to October 2021, Zillow’s rent data showed an increase of 15.9 percent and Zillow’s house price data increased 28.4 percent. The CPI rent index increased 5.0 percent, which indicates that the CPI rent index could rise faster, thus increasing future overall inflation.

The authors then use Zillow asking rent and house price data paired with CPI rent inflation data for 15 MSAs from January 2014 to December 2021 to predict future inflation. Their model confirms that for up to 2 years, asking rents and current house prices can raise the CPI rent index for a typical MSA. When averaged across all MSAs, the model predicts that for both 2022 and 2023, CPI rent inflation will increase approximately 3.4 percentage points relative to its historical average rate of 3.7 percent. OER had a similar prediction but was less precise. Using these data to estimate future overall inflation, Lansing and coauthors find that the results imply CPI inflation would have an additional increase of 1.1 percentage points for both 2022 and 2023. And for PCE inflation, they predict an additional increase of 0.5 percentage point for 2022 and 2023.

In closing, Lansing, Oliveira, and Shapiro state that increases in rent are expected, especially as the U.S. economy recovers from the COVID-19 pandemic. The potential impact of rising rents and house prices on overall CPI inflation is significant, especially because shelter costs are weighted heavily in that measure. The Federal Reserve uses PCE inflation to gauge overall inflation. The authors add that potential additions of 0.5 percentage point in 2022 and 2023 to PCE inflation could be important when the Federal Reserve's 2 percent inflation target is considered.