

# Sticky Continuing-Tenant Rents\*

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## 1 EXTENDED ABSTRACT

The CPI is one of the most important economic indicators. It is the basis of Social Security cost-of-living adjustments, it is used in financial contracts, and is the basic foundation of the Personal Consumption Expenditures Price Index (“PCE”) that forms the inflation objective of the Federal Open Market Committee (FOMC). The biggest component in the CPI is shelter. While rental housing has 8 percent of the relative importance in the CPI, its owner-occupied housing component, Owners’ Equivalent Rent (OER)—an index whose movement is driven by rents—has an additional weight of 24 percent. Thus, rents ultimately drive about 32 percent of the CPI.<sup>1</sup> Hence, the dynamics of rent are central to the dynamics of inflation. And at the time of this writing, CPI rent inflation seems stubbornly high, with a year-over-year change exceeding five percent—even though some measures of new-tenant rent inflation, such as the Apartment List Rent Index, have been negative since mid-2023.

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\*The views expressed in this paper are solely those of the authors and do not necessarily reflect the opinions of the Federal Reserve Bank of Cleveland, the Federal Reserve System, or the BLS. Disclaimer: This paper provides a summary of research results. The information is being released for statistical purposes, to inform interested parties, and to encourage discussion of work in progress. The paper does not represent an existing, or a forthcoming new, official BLS statistical data product or production series. Thanks are due for an earlier version of this paper to Alycia Chin and Abby Lackner, who provided outstanding research assistance. Thanks are also due to Dean Croushore, John Greenlees, Wenli Li, Derek Neal, Frank Ptacek, and Rachel Soloveichik, and participants at the 2010 Midwest Economics Association Conference and the 2011 Southern Economics Association Conference.

<sup>1</sup>By comparison, food accounts for approximately 14 percent of the CPI. In the PCE, shelter represents over 15 percent, and food about 13 percent.

Adams et al. (2024) demonstrated that the main reason that alternative rent indexes frequently diverge from CPI shelter indexes is that these alternative indexes measure rent inflation experienced by new tenants, whereas the CPI measures rent inflation experienced by all tenants. Differences in the dynamic behavior of new tenant rent indexes versus all tenant rent indexes are driven by the dynamics of continuing-tenant rent changes. Moreover, as aggregate renter mobility rates have been declining since 2010, continuing tenant rents have become an increasingly important component of CPI shelter inflation.

In this paper, we use the BLS Housing Survey (the micro data that underlies to the CPI) from 1999–present to study the dynamics of continuing-tenant rents. These data are unique in that they include rent observations for a panel of about 40,000 rental units, which are surveyed every six months. As most leases are annual, this feature allows us to observe almost all changes in rents for continuing tenants over the course of the lease.<sup>2</sup> These data also include information that allows us to identify rents for new tenants. Therefore, these data allow us to directly assess the relationship between continuing- and new-tenant rents. They also allow to calculate the first continuing-tenant repeat rent index.

We have three sets of findings. The first set is descriptive. Using survival analysis, we analyze the likelihood of any rent changes for continuing tenants by tenancy length and find that the likelihood of an initial rent change peaks at 1 year after move in when between 10 to 30 percent of units change rents. This proportion varies by structure types, with tenants of units in large apartment buildings being much more likely to experience a rent change than tenants of single family detached units. These dynamics also vary over time. In other words, continuing tenant rents are very sticky as 65-70 percent of units without a new tenant have no rent change after 12 months.

The proportion of continuing-tenant units experiencing a rent change and the size of those rent do vary over the business cycle providing evidence that continuing-tenant rents respond to new-tenant rents, albeit modestly. For example, during the Great Recession when new-tenant rents were declining, the proportion of continuing renters experiencing a rent increase declined modestly from about 25 percent to 18 percent. At the same time, the share of continuing renters experiencing a decline in rent increased, albeit even more slightly. The size of those rents changes during the Great Recession were effectively unchanged. The experience during and after the COVID19 pandemic was different. As new-tenant rents surged, the proportion of continuing renters receiving rent raises increased from 22 to 33 percent and the size of these rent changes also increased. Interestingly, while the proportion of continuing renters receiving rent cuts was effectively unchanged, the size of those rent cuts increased in absolute value.

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<sup>2</sup>The only other similar representative dataset that we are aware of is the American Housing Survey, but that only surveys housing units every two years and will therefore miss many changes in rents for continuing tenants.

Our second set of findings are about the rent gap: the difference between the rent experienced by continuing tenants relative to the market rent as defined as the rent those tenants would have received if their rents grew at the same rate as new-tenant rents. As expected given our results about stickiness and persistence, we find that this rent gap has changed substantially over time, especially during the COVID19 inflationary period when it rose substantially before declining again. As of March 2024 it was just above zero, implying that most of the new-tenant rent inflation has passed through to continuing-tenant rents. However, this rent gap also varies by structure type and length of tenure. For example, detached units and longer-tenure renters have larger gaps.

In addition to calculating the rent gap, we run a series of regressions to understand whether this rent gap is correlated with rent changes or the sizes of those rent changes. We find that a larger rent gap is correlated with an increased likelihood of a rent change for a continuing tenant and with larger rent changes.

Our final set of results more directly concern the pass through of new-tenant rents to continuing tenant rents. Using a series of regressions, we analyze how much new-tenant rent inflation passes through to continuing tenants. Despite the stickiness of continuing tenant rents, we find that almost 90 percent of new-tenant rent inflation eventually passes through to continuing tenants over the course of their tenancy. In addition, we study how new-tenant rent inflation affects the size of rent changes experienced by continuing tenants.

These regressions necessarily have identification issues. It is certainly possible that continuing tenant rent inflation also affects new-tenant rent inflation resulting in reverse causality. To address this concern, we use city-level continuing- and new-tenant rent indices to run local projections with an instrumental variable to analyze the impulse responses of continuing tenant rents to plausibly exogenous changes in new-tenant rents.

As post-COVID19 inflation remains above the Federal Reserve’s two percent target, there is intense policy interest in the future path of rent inflation. As we illustrate in this paper, this depends ever more on the path of continuing rent inflation. Our results provide some optimism for policymakers as the rent gap has declined substantially, indicating that most of the pass through is complete. However, some measures of new-tenant rent inflation (for example, the CoreLogic Single Family Rent Index) have recently increased again, indicating that there is still a high amount of uncertainty about the future of shelter inflation.

Our paper relates to the large and growing literature on price-setting behavior for non-housing goods and services. This includes, but is not limited to Calvo (1983); Dotsey et al. (1999); Bils and Klenow (2004); Klenow and Kryvtsov (2008); Nakamura and Steinsson (2008); Vavra (2010); Midrigan (2011); Bils et al. (2012); Eichenbaum et al. (2014). Genesove (2003) is probably the most closely related work to ours as it is the only other paper on nominal rent rigidity in the US that we are aware of. Other work on rent rigidity (but not in

the US) are Hoffmann and Kurz-Kim (2006) for Europe and Suzuki et al. (2021) for Japan. Our paper also relates to the literature on rent inflation measurement that includes Adams et al. (2024); Gallin and Verbrugge (2019).

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