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Consumer Finance Institute

Are Rising Rents Raising Consumer Debt and Delinquency?

By Neil Bhutta¹

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In this *CFI Research Brief*,² I examine whether the sharp rise in rents since the start of the COVID-19 pandemic has been associated with a deterioration in the household finances of renters relative to homeowners. Using anonymized consumer credit record data merged with county measures of rent growth derived from detailed apartment building data, the key findings are as follows:

- In 2021 and 2022, apartment asking rents grew by about 30 percent in the median sample county. In 10 percent of counties, asking rents grew by more than 45 percent during that time span.
- Consumer credit record data indicate that credit card balances have grown more sharply for renters in the past two years relative to homeowners, and this difference widens in counties with relatively high rent growth.
- Credit card delinquency has also risen in the past two years for renters relative to homeowners, especially in counties where rents have grown the most.
- Rising rents could prompt migration to less expensive neighborhoods; however, I do not find evidence of increased migration by renters in response to rising rents.
- Overall, this research brief provides evidence consistent with the notion that rising rents may be contributing to recent increases in consumer debt and delinquency.

The Rise in Rents During the Pandemic

This brief draws on apartment building data from RealPage, a company that provides property management software to apartment building owners and managers. I focus on 464 of the largest counties across the U.S., where RealPage is estimated to cover at least 10 percent of the rental housing stock for that county. In these counties, the RealPage data include more than 45,000 professionally managed apartment building, containing nearly 10 million rental units — about one-third of all rental units in these counties.³ For each building, there are several static variables describing the structure of the building (e.g., number of stories, number of units, building quality, location) as well as dynamic variables updated on a monthly basis, such as asking rents (i.e., the price for a new lease) and occupancy rates.⁴

Figure 1 shows how asking rents grew before and after the start of the COVID-19 pandemic. For each county, I create a monthly rent index calculated as the median asking rent across all buildings in that county, weighted by total units in each building, and indexed to March 2020. Notably, because RealPage largely follows the same set of buildings over time, rent growth derived from these data should not be confounded by compositional shifts over time in apartment type or quality. The orange line plots the median value of these county rent indexes over time and indicates that asking rents rose by at least 30 percent in half of the counties in the sample since the start of the pandemic (March 2020), with most of the increase occurring in 2021 and 2022.⁵

¹ Thanks to Valeria Zeballos Doubinko for excellent research assistance.

² The views expressed here are those of the author and do not necessarily reflect those of the Federal Reserve Bank of Philadelphia, the Federal Reserve System, or the Board of Governors.

³ According to U.S. Census data, the 464 counties in the analysis sample have about 93 million housing units, including 33 million rental units. The RealPage data include professionally managed apartment buildings. They do not include, for example, single-family house rentals or smaller two- to four-family housing units that are often owned and rented by individuals and small businesses.

⁴ Asking rents for a given building in a given month are measured as a weighted average of actual asking rents for available units, where the weights account for differences in the mix of available units relative to the overall mix of units in the building.

⁵ Because the RealPage data focus on professionally managed buildings, rent growth derived from these data may not be representative of the rental market as a whole. CoreLogic publishes <u>rent indexes</u> for the single-family segment of the rental market. At least at an aggregate level, single-family rent growth posted similarly large increases as observed in the RealPage data in 2021 and 2022.

FIGURE 1 Asking Rents Since 2018

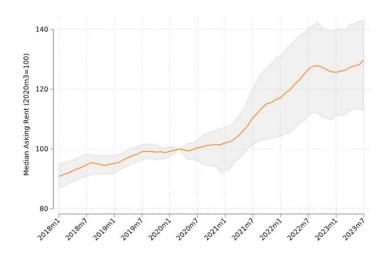


Figure 1 shows the distribution of county-level median asking rents across the sample of 464 counties between 2018 and 2023, indexed to March 2020. The orange line plots the median asking rent of the median county in each month, and the shaded area displays the 10th through 90th percentile counties each month. Monthly median asking rent in a given county is computed using building-level data from RealPage.

Source: Author's calculations using data from RealPage

The sharp rise in rents during the pandemic may reflect a surge in housing demand as household formation jumped in 2021 (e.g., <u>Warnock, 2022</u>), combined with a relatively fixed supply of housing — at least in the short run, since it takes considerable time to build new apartments. Indeed, vacancy rates in the RealPage data plummeted in 2021. However, vacancy rates have since eased, while asking rent inflation moderated in 2023 as Figure 1 shows.

Not all counties have experienced the same rent dynamics in recent years. To help describe the variation across counties, the shaded area in Figure 1 plots the 10th and 90th percentiles of the county rent indexes. The bottom end of this shaded region implies that 10 percent of counties experienced modest rent increases of about 12 percent or less since the start of the pandemic, while the 90th percentile line implies that 10 percent of counties experienced rent growth of 45 percent or more since the start of the pandemic. In the next section, I examine whether these differences across counties in rent growth are correlated with changes in household debt and delinquency.

How Are Rising Rents Impacting Household Finances?

Households that rent their home face considerable risk from rising rents. For example, when the current lease expires, landlords may demand higher rent to retain the unit if market rents have risen significantly. Additionally, apartments can be sold, renovated, or converted to other uses, forcing families to find new housing at market rental rates. In contrast, those who own their home are insulated from shocks to the price for housing services.⁶ In a 2023Q3 nationwide survey conducted by the Federal Reserve Bank of Philadelphia Consumer Finance Institute, nearly one-quarter of renters responding to the survey said that their housing costs increased unexpectedly in the last two months, compared with less than 12 percent of homeowner respondents.

One way that households may respond to the liquidity pressures of rental price shocks might be to borrow more on credit cards.⁷ In the last two years, the <u>Federal Reserve</u> <u>Bank of New York</u> reports that aggregate credit card balances grew more than 30 percent, after declining during the first year of the pandemic.⁸ **Figure 2** uses consumer

⁶ Homeowners are exposed to house price risk instead of rent risk, but <u>Sinai and Souleles (2005)</u> show that avoiding exposure to rent fluctuations is, on net, a valuable benefit of homeownership.

⁷ While credit cards generally cannot be used to directly pay rent, households might borrow more on credit cards to help maintain their nonhousing consumption, allowing them to allocate more of their cash toward rent payments.

⁸ See Adams, Bord, and Katcher (2021) for more about the decline in credit card balances during the COVID-19 pandemic.

Credit Card Balances Since 2019, Renters versus Homeowners

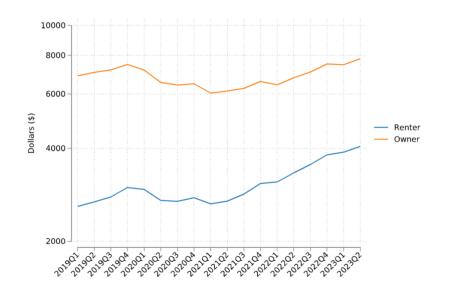


Figure 2 shows the average credit card balances between 2019Q1 and 2023Q2, separately for renters and homeowners, based on a balanced panel of consumers who were 25–55 years old as of 2019Q1 (the y-axis shows dollar amounts on a logarithmic scale). Renter and owner status is inferred from each consumer's history of having a mortgage as of 2019Q1; Owners are those with a mortgage as of 2019Q1, while renters are those without a mortgage as of 2019Q1 and whom have no history of ever having a mortgage. Credit card balances from the CCP include both revolving balances that accrue interest as well as transaction balances. Consumers without any credit card accounts in a given quarter are included with a zero balance.

Source: Author's calculations using Federal Reserve Bank of New York Consumer Credit Panel/Equifax data (CCP)

credit record data to disaggregate credit card balances among renters and homeowners, plotting average credit card balances (including zeros for those without any credit cards) over time.⁹ This figure indicates that average credit card balances for renters were about 33 percent higher by 2023Q2 than prepandemic levels. In contrast, the average balance for homeowners as of 2023Q2 was little changed from its prepandemic peak.

FIGURE 2

Alongside rising balances, credit card delinquency has also risen more for renters relative to homeowners. **Figure 3** shows the fraction of consumers with at least one delinquent credit card account over time.¹⁰ In the past two years, the fraction of renters with a delinquent credit card increased from about 1.5 percent to 3.5 percent, a larger increase than for homeowners.

The fact that credit card debt and delinquency are rising more for renters than for homeowners does not necessarily

reflect an impact of rising rents. There may be other factors underlying the differential trends of renters and homeowners. For example, renters tend to be younger than homeowners, and debt trends could differ by age group for reasons unrelated to housing.¹¹ Alternatively, renting is more likely in certain parts of the country (e.g., large urban areas), and different economic conditions in these areas could be causing different debt trends among renters and owners.

To more directly determine whether the differential household debt trends are related to rent growth, I run ordinary least squares regressions of individual debt outcomes on an indicator variable for whether the consumer is a renter or homeowner, interacted with rent growth from 2020Q4 through 2022Q4 in the county where the consumer resides. In these

¹⁰ For consumers who did not have a credit card during this period, we record this delinquency measure as zero.

⁹ The Federal Reserve Bank of New York Consumer Credit Panel/Equifax data (CCP) is composed of nationally representative anonymized individual credit records at a quarterly frequency. For this research brief, I construct a balanced panel from the CCP, which follows the same set of individuals from 2019Q1 through 2023Q2. For more information about the CCP, see Lee and van der Klaauw (2010).

¹¹ See, for example, <u>Haughwout, Lee, Mangrum, Scally, and van der Klaauw (2022).</u>

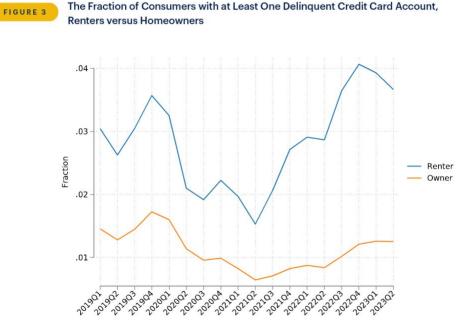


Figure 3 shows the fraction of consumers with at least one delinquent credit card account between 2019Q1 and 2023Q2, separately for renters and homeowners, based on a balanced panel of consumers who were 25–55 years old as of 2019Q1. Renter and owner status is inferred from each consumer's history of having a mortgage as of 2019Q1: Owners are those with a mortgage as of 2019Q1, while renters are those without a mortgage as of 2019Q1 and whom have no history of ever having a mortgage. Consumers without any credit card accounts in a given quarter are included as not having a delinquent account.

Source: Author's calculations using Federal Reserve Bank of New York Consumer Credit Panel/Equifax data (CCP)

regressions, I control for the consumer's age and credit score as of 2019Q4 as well as county-level factors that might have influenced credit and housing demand during this period.¹²

In the first column of **Table 1**, the outcome variable can be interpreted as the percent change in credit card balance between 2021Q2 and 2023Q2.¹³ The estimated coefficient on the renter dummy variable in the first row implies that credit card balances grew roughly 19 percentage points faster for renters relative to homeowners, on average, after accounting for differences in age, credit score, and geographic location between renters and homeowners. Next, the interaction coefficient implies that for each 1 standard deviation increase in rent growth (equivalent to about 10 percentage points higher rent growth), credit card balances for renters grew by an additional 3.6 percentage points relative to homeowners. In other words, in counties

where rents have grown the most, credit card balances of renters relative to homeowners expanded significantly more than average. This result is consistent with the notion that rent shocks may be an important driver of rising credit card balances for renters.

In column 2 of Table 1, the outcome variable is the change from 2021Q2 to 2023Q2 in having at least one delinquent credit card account. The coefficient estimate in the first row implies that credit card delinquency increased by 0.9 percentage points more for renters than for homeowners, on average, conditional on credit score, age, and living in the same county. Moreover, the interaction coefficient is once again positive and statistically significant. The magnitude of the coefficient implies that a 1 standard deviation increase in rent growth is associated with an additional increase in credit card delinquency of 0.2 percentage points among renters relative to homeowners.

¹² Consumers' age is estimated from their reported year of birth. The credit score in the CCP is the Equifax Risk Score. To control for a variety of potentially important county-level factors, the regression includes county *fixed effects*, which are separate dummy variables for each county.

¹³ More precisely, the outcome is the change in the natural log of one plus an individual's credit card balance.

TABLE 1

	(1) Change in (log) Card Balances	(2) Change in Card Delinquency	(3) Change in Auto Delinquency	(4) Moved
Renter	0.190***	0.009***	0.001***	0.074***
	(0.009)	(0.000)	(0.000)	(0.000)
Renter x Asking Rent	0.036***	0.002***	-0.0002	0.001
Growth (standardized)	(0.010)	(0.000)	(0.0002)	(0.002)
Consumer Age (/10)	-0.013***	-0.001*	-0.0002	-0.057***
	(0.004)	(0.00)	(0.0002)	(0.001)
Consumer Risk	-0.059***	-0.008***	-0.0009***	-0.013***
Score (/100)	(0.004)	(0.000)	(0.0002)	(0.001)
Observations	718577	718577	718577	718577

Are Rising Rents Associated with Rising Consumer Debt and Delinquency?

Table 1 displays results from four ordinary least squares regressions at the consumer level using the same CCP sample used in Figures 2 and 3. Each model regresses a different outcome on a dummy variable for individual renter status and renter status interacted with county-level growth in median asking rent from the beginning of 2021 through 2022, where rent growth has been standardized to have a mean of zero and standard deviation of 1. Renter and owner status is inferred from each consumer's history of having a mortgage as of 2019Q1: Owners are those with a mortgage as of 2019Q1, while renters are those without a mortgage as of 2019Q1 and whom have no history of ever having a mortgage. Each regression includes controls for consumer age (divided by 10) and Equifax Risk Score (divided by 100), measured as of 2019Q4, and county fixed effects. The outcome in column 1 is the change between 2021Q2 and 2023Q2 in the natural log of one plus credit card balance. The outcomes in columns 2 and 3 are the change in having at least one delinquent card account and auto loan account, respectively. The outcome in column 4 is an indicator for whether the consumer changed zip codes between 2021Q2 and 2023Q2. Standard errors, clustered at the county level, are shown in parentheses. *** p < 0.05; * p < 0.10.

Source: Author's calculations using Federal Reserve Bank of New York Consumer Credit Panel/Equifax data (CCP) and RealPage data

The results thus far indicate that in the past two years renters have built up more credit card debt and are more likely to have become delinquent on a credit card account than homeowners, and these differences are magnified in counties where rents have grown the most. Before moving on, it is important to note that house prices grew sharply during the pandemic. Moreover, strong house price growth tends to occur in the same places as strong rent growth. Thus, price growth could be contributing to the results in Table 1 by easing liquidity pressures for homeowners in the same counties where rising rents were adding to the pressures on renters.¹⁴

The third column of Table 1 is similar to column 2, but the outcome variable is the change in having at least one auto delinquency rather than having at least one credit card delinquency. Renters are slightly more likely to have become delinquent on at least one auto loan in the past two years, but this renter–homeowner difference does not appear to be correlated with housing rent growth.

Finally, in column 4 of Table 1, I test whether rising rents are correlated with increased migration. As rents rise, renters may respond by moving to less expensive neighborhoods. The outcome variable in column 4 is an indicator for whether an individual moved to a different zip code between 2021Q2 and 2023Q2.¹⁵ Although renters are more likely than homeowners to move, as shown by the coefficient in the top row, the interaction term implies that this difference in moving propensity did not vary with rent growth.

Conclusion

Asking rents for residential apartments went up sharply in many parts of the U.S. during the pandemic. At the same time, aggregate credit card balances and delinquencies have grown significantly since 2021, especially among those who rent their homes. This research brief provides evidence of a direct connection between these two trends. showing that credit card balances and delinquencies have grown most significantly among renters, relative to homeowners, living in counties where rents went up the

¹⁴ Rising house prices increase the housing collateral against which households can borrow relatively cheaply. <u>Haughwout, Lee,</u> <u>Mangrum, Scally, and van der Klaauw (2023)</u> show that many homeowners extracted home equity via cash-out refinances during the pandemic. These funds may have been used to avoid or pay down credit card debt. It should also be noted that many homeowners improved their cash flow during the pandemic by refinancing into historically low mortgage rates. However, low mortgage rates were available nationwide, and therefore it is unlikely that rate/term (non-cash-out) refinancing would be more prevalent in counties with high rent growth.

¹⁵ Moving is inferred from the CCP as a change in the zip code of consumers' mailing address.

most in 2021 and 2022. This finding highlights the heterogeneous impact that rising housing costs can have across different segments of the population.

So far in 2023, asking rent inflation has been muted, according to data from RealPage. Still, in many parts of the country, the cost to rent a home is well above prepandemic levels, which may continue to put financial pressure on renter households.