

## Heterogenous Rates of Return on Homes and Other Real Estate: Do the Rich Do Better? Do Blacks Do Worse?

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Is the rate of return on homes and other real estate greater for the rich than the middle class? Do Black families receive a lower rate of return on their homes than whites?

There are two motivations for this issue. First, recent work on wealth inequality based on the so-called capitalization technique wherein aggregate wealth totals are distributed in proportion to various forms of income like dividends has motivated a concern about whether rates of return on assets vary across the wealth distribution. Second, the work of Benhabib et al. (2017) points out the importance of heterogenous rates of return on household assets as a factor accounting for the overall dispersion of wealth across households. While there are numerous studies on heterogeneous rates of return on financial assets (see, e.g., Fagereng et al., 2016), this is the first that I know of on homes and other real estate using accrued capital gains.

In this study, I use accrued capital gains on homes and other real estate, as reported in the 2019 Survey of Consumer Finances (SCF). The SCF provides this information for four assets: (1) homes; (2) other real estate; (3) businesses; and (4) stocks and mutual funds. However, in order to compute annualized rates of return, it is also necessary to have information on the date of purchase and consequently, the holding period for the asset. This data is provided for only the first two assets. This information allows me to compute the annual nominal rate of return on the asset. However, since I know the purchase date, I can also compute the average annual change in the CPI-U-RS between the purchase date and the current year. The real rate of return is then defined as the nominal rate of return minus the average annual change in the CPI-U-RS.

Perhaps the most notable finding from the multivariate regression analysis is that there is a positive and statistically significant effect of household wealth on the rate of return on principal homes. The effect is strong. The spread in ROR between the top percentile and the bottom quintile, with controls for holding period and overall house price movements, 3.92 percentage points and that between the top percentile and the middle quintile is 2.16 percentage points. These disparities will exacerbate wealth inequality over time. On the other hand, there is no statistically significant relation between household income and rates of return on real estate.

Another important finding is that while the coefficient on a dummy variable for Black households is negative and significant without controls for holding period and overall house price movements, it becomes insignificant once these controls are put into place. These results suggest that the lower returns on homes for Black compared to white homeowners reported in several previous studies cited above is due their larger number of years of occupancy and to bad timing with regard to overall house price movements. The dummy variables for Hispanics and Asians, on the other hand, are statistically insignificant.

Results on age are also of interest. Without controls for holding period and overall house price movements it appears that younger households experience higher returns on their property than do older ones. However, when years of occupancy is included as an independent variable, the coefficient signs all flip, indicating that the apparent higher return for younger households is a result of their shorter tenure in their dwellings. With overall house price movements added, the results indicate an almost monotonic increase in returns with the age of the householder. The spread in annual returns between the oldest and youngest age group is 0.927 percentage points. Another notable finding is that years of occupancy has a negative and highly significant effect on the rate of return. What are the rationales for this result? A first possibility is that those who hold their property for a shorter period of time can perhaps time the market better and make more capital gains. If a household holds the property for too long a time, it may miss out on an opportune time to sell it. A second possibility is that communities themselves go through a life-cycle, from more desirable to less desirable. If a family buys when a community is high class, property values may go down as the community shifts over time to lower class. A third possibility is that real properties themselves tend to deteriorate physically over time unless there is continued maintenance and renovation. As properties deteriorate physically, their resale value likewise declines. A further result of interest is that overall house price movements have a positive and highly significant effect on property rates of return. That is to say, timing is very important in terms of buying when overall property values are low and holding onto them as overall property values go up. Families that buy over these periods tend to do better in terms of accrued capital gains than families that buy when house prices subsequently remain stagnant or go down. In contrast the rate of return on non-home real estate and commercial real estate appears insensitive to the income or wealth level of the household. However, the holding period exerts a highly significant negative effect on the rate of return. On the other hand, overall house price movements do not seem to affect returns on non-primary residences, suggesting that the market for second homes is separate from that for primary residences.

## References

- Benhabib, J., A. Bisin and M. Luo. 2017. "Earnings Inequality and Other Determinants of Wealth Inequality," *American Economic Review* 107(5), 593–597.
- Fagereng, A., L. Guiso, D. Malacrino, and L. Pistaferri. 2016. "Heterogeneity in Returns to Wealth and the Measurement of Wealth Inequality," *American Economic Review*, 106(5), 651-655.