

Commentary

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I. INTRODUCTION

Policymakers and researchers have become concerned by the increase in income inequality since the 1970s. However, some critics have suggested that these concerns are exaggerated because the consumer price index, which is used to calculate real income growth, is biased and does not fully consider the quality of goods consumed by the typical household. An alternative approach is to look at the bundle of goods that low-income households consume. Housing is the largest and most important of these consumption goods. To the extent that the cost of housing consumed by low-income households has not increased with the general rate of inflation, one might argue that the welfare of low-income households has not decreased to the same extent as their incomes. The papers by James Orr and Richard Peach and by Joseph Gyourko and Joseph Tracy each argue against this hypothesis. While I mostly agree with their interpretations of the data, I will try to put these papers in a broader context.

Before beginning, I would like to praise the authors and the Federal Reserve Bank of New York for

addressing an important policy issue. Declines in the U.S. home ownership rate have heightened concerns among analysts, and raising the home ownership rate is an important goal of the Clinton administration. Moreover, the impact of interest rates on the housing market is an important consideration in the conduct of monetary policy. Finally, as I mentioned above, these papers shed additional light on the debate over income inequality and measurement issues in the consumer price index.

My comments can be organized around a number of themes. First, I summarize the findings and make a few technical comments. Next, I discuss some of the other factors that may have contributed to these findings, including changes in demand, cyclical contributions, the supply side, and changes in other amenities. I continue with a discussion of the larger policy issues that these papers raise with regard to home ownership. Finally, I present a brief agenda for future research.

II. DISCUSSION OF THE FINDINGS

These two papers take different approaches to addressing a common problem. Orr and Peach look at a number of long-term trends in the housing market, documenting changes for both owners and renters. To a considerable extent, the news is good. They document a vast improvement in the physical adequacy of housing and in the average number of

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persons per room, with most of the gains occurring for households in the lowest income quintile. Neighborhood quality has improved as well, but to a lesser degree. On the downside, however, the authors document an increase in the financial commitment to housing—that is, the percentage of a household's income that is spent on housing. In addition, households in the lowest income quintiles have seen the largest increase in financial commitment, although most of the increase occurred in the late 1970s. Since that time, financial commitment has remained roughly flat for this group, although year-to-year estimates show significant variability, probably due to sampling error.

Inevitably, any study of long-term gains is subject to certain difficulties. For example, variables such as neighborhood quality and physical adequacy depend, at least to some extent, on subjective interpretations that may change over time depending on contemporaneous standards. If expectations for these variables have increased over time, reported numbers in the American Housing Survey (AHS) might even underestimate actual gains. In addition, Orr and Peach's conclusions on financial commitment may overstate the problem for low-income households because they do not measure changes in the quality of housing. The increased use of air conditioning, the elimination of sub-standard units, and the inclusion of cable television may be examples of unmeasured quality improvements, although a variable for air conditioning is included in the AHS.

Gyourko and Tracy attempt to resolve this issue by conducting a detailed study of affordability that controls for changes in observed quality over time. They introduce a significant technical tool to address this question: the quantile regression. Previous studies have relied on differences in mean characteristics across income groups to control for quality. However, all houses with similar observed attributes are not created equal. In college, I lived in a four-bedroom house not far from campus. More recently, my wife and I are in the process of buying a four-bedroom house in a suburb of Philadelphia. While both houses have four bedrooms, I can guarantee that these houses are of vastly different quality. While my income has increased since college, so has the quality of my living arrangements. Without getting technical, the quantile regres-

sion allows the price of the attributes of a particular house to depend on the price of attributes of other, similarly priced houses. For most policy discussions, the quantile regression generates more informative estimates of house price changes in different price ranges.

Gyourko and Tracy's methodology produces interesting findings. For example, the quality-adjusted price of the 10th-percentile house has increased faster than the quality-adjusted price of all but the most expensive houses in the sample. Incomes for this group of homeowners have not increased nearly as quickly, and home ownership rates have declined substantially. In addition, real prices for the same 10th-percentile house have actually fallen, leading the authors to speculate that average quality has fallen over time for these houses, possibly due to decreased maintenance by homeowners. At the upper end of the spectrum, both real and quality-adjusted prices have increased substantially over the entire period, although both measures have fallen in the 1990s. Home ownership rates have been flat, but real incomes have risen somewhat. Both real and constant-quality prices for the median house have been relatively steady over this period.

One limitation of the Gyourko and Tracy study is its reliance on homeowners. From a policy perspective, the most disadvantaged households are likely renters and thus are excluded from the sample. Also, the home ownership rate has declined over the sample period, suggesting that the type of home in a given percentile may have changed over time. New construction would also lead to the same problem. If low-quality houses are increasingly dropped from the sample, the regression estimates will underestimate true gains in quality. The possibility that demand for low-end houses has fallen might explain why real prices have fallen, but quality-adjusted prices have risen.¹

Another issue to keep in mind in interpreting the results of both papers is their reliance on current, as opposed to lifetime, income. Increases in the returns to education mean that young, highly educated households face a wage profile that is growing over time. As a result, such households may consume housing that represents a higher percentage of current income, but not as large a percentage of lifetime income. In addition, changes in the

labor market may make job transitions more frequent and thus make current income more volatile. Finally, as Orr and Peach show, imputed income for homeowners, not measured in most government surveys of cash income, can significantly affect conclusions about affordability, especially for low-cash-income households.

III. UNDERSTANDING THE RESULTS

Within a larger context, it is interesting to speculate on possible explanations for these findings. The most puzzling result from the Orr and Peach paper is the possibility that households in the lowest income quintile face a larger financial commitment. Without large increases in population, and given that the supply of housing in the short run is basically fixed, one might expect that lower real incomes for this group would lead to decreased housing costs. A couple of explanations are possible. First, the increase in prices may capitalize amenities that have improved over time. Gains in physical adequacy and neighborhoods, the use of air conditioning, a larger number of bathrooms, and more space per person are all amenities that suggest higher prices for housing. Alternatively, very little new housing at the bottom end of the price spectrum has been built over this period. Government regulations that limit supply have made it uneconomical to build new housing for low-income households. Finally, the "lumpy" nature of housing may encourage young, low-income households to over-consume housing early in life. Changes in the labor market may make this more likely for certain high-skill households.

From a policy perspective, it is important to differentiate between these alternative explanations for the increase in financial commitment. To the extent that housing quality has improved over time, it is hard to argue that there is a problem that requires policy intervention, as individual households could always choose to consume a lower quality bundle. In addition, the possibility that average housing quality has increased over time may provide more evidence in support of those who argue that the consumer price index is biased.

Gyourko and Tracy also find that house prices do not track real incomes, even after controlling for changes in observed quality. Here we need to consider other factors

that affect the demand for housing in addition to the quality of the units. For example, the user cost of housing (such as the after-tax real cost of living in an owner-occupied unit) has changed substantially over time. Changes in nominal interest rates (and thus the "tilt" on mortgage payments) and the tax code will lead to deviations in the relative price of housing for low- and high-income households (Poterba 1991). In addition, previous research suggests that high-priced trade-up homes exhibit excess volatility over the real estate cycle relative to low-priced units (Mayer 1993). The importance of cyclical factors is apparent in their data, as the prices of the 90th-percentile houses are certainly the most volatile over the sample period. Any policy conclusions that involve intertemporal comparisons of high- and low-priced houses should be sure to take into account the timing of the real estate cycle. Finally, as Mankiw and Weil (1991) suggest in their highly controversial paper, demographics can have an impact on longer term trends in the real estate market.

New construction is a wild card in this analysis. We know very little about the types of houses that are built and how new construction affects affordability, both for renter and owner-occupied housing. While anecdotal evidence suggests that cities erect significant barriers to new construction—including minimum lot sizes, restrictions on multi-family housing and clustered development, minimum quality standards, impact fees, and regulatory delays—we know little about how these barriers affect the overall price level of housing, especially for low-income households.² Future research is needed in this area.

IV. POLICIES TO ENCOURAGE HOME OWNERSHIP

While a number of policy implications follow from these papers, I would like to focus on home ownership in particular. After all, with the demise of federally subsidized housing, many policymakers have argued in favor of subsidizing home ownership for the poor as a way to deal with affordability problems. Proponents argue that homeowners are more likely to care for their houses and neighborhoods because they have a stake in the community. Possible benefits include lower crime, better

schools, cleaner neighborhoods, and even higher voter participation. In addition, home ownership is suggested as a natural vehicle to increase the savings of low-income households.

Although the claimed benefits of home ownership are many, the empirical evidence in favor of these hypotheses is scant. However, that is not to say that there is evidence suggesting that there are no societal benefits of home ownership.³ It is difficult to conduct good studies of the benefits of home ownership because of the endogeneity of the decision to become a homeowner. Home ownership may be correlated with improving neighborhoods. Yet, are improving neighborhoods a direct benefit of home ownership, or do they simply reflect homeowners choosing to live in neighborhoods that are getting better? In this sense, an influx of homeowners is a leading indicator of the direction of a neighborhood.

While home ownership may have some benefits, it also carries some risks for those in the lowest income groups. Gyourko and Tracy present evidence that homeowners in the lowest price decile may be undermaintaining their properties. If households are encouraged to become homeowners but they lack adequate financial resources to do proper maintenance, the possible benefits associated with higher maintenance might actually go in the other direction. In addition, home ownership involves a significant financial investment. Households who buy properties with small down payments owing to subsidized mortgages face the risk that even small declines in property values will leave them locked into their property, unable to sell and facing possible foreclosure and the loss of good credit.⁴ During a recession, low-income households—who face some of the most volatile labor markets in terms of job duration and probability of layoff—will face barriers to relocating when moving might present the best alternative to finding a new or higher paying job. Finally, from a portfolio perspective, low-income households may want to choose a more diversified portfolio, rather than simply putting all of their money into a house.

Despite the above-mentioned risks, proponents still argue that home ownership provides a good vehicle to encourage savings. The correlation between savings and home ownership is particularly strong in the data. A problem with this argument, however, is that the historical correlation may not be causal. First, homeowners are wealthier, and thus by definition should save more. Also, financial markets have changed over time. While it may have been costly to refinance a house a few years ago, today there are a large number of banks and mortgage brokers encouraging households to refinance and to use home equity loans to pull equity out of their houses. In fact, some lenders appear willing to lend more than the amount of equity in the property. To the extent that owning a home has historically provided a commitment mechanism to a higher savings rate, that link is probably less strong today.

V. CONCLUSION

As is always true of good research, the Orr and Peach and Gyourko and Tracy papers raise as many questions as they answer. While there has been a vast improvement in the living standards of those in the bottom income quintile, both studies suggest that housing affordability remains a problem. However, it is still difficult to know whether improvements in the quality of housing (Orr and Peach) or in the types of owner-occupied units (Gyourko and Tracy) can explain some of these findings. Data availability problems make it difficult to fully address this issue in a nationally representative study. The quantile regressions developed by Gyourko and Tracy make a very good start, but additional questions remain.

From a policy perspective, we need to know more about the contribution of supply restrictions to affordability, and the implications of encouraging home ownership for low-income households. Even in the absence of such studies, however, one thing is clear: If policymakers want a sure-fire way to encourage home ownership and make housing more affordable, the reduction of restrictions on new supply is a good place to start.

ENDNOTES

1. One might be able to test for this effect by using repeat observations of the same unit in the American Housing Survey.
2. See Fischel (1990) for a more complete summary of the issues and empirical evidence.
3. Green and White (1997) and Glaeser and DiPasquale (1998) document some benefits of home ownership.
4. See the discussion in Gyourko and Tracy, as well as Genesove and Mayer (1997).

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