

COMMENTARY

Housing affordability is a wide-ranging topic, and the conference organizers have wisely chosen to organize the program sessions around different themes. The theme of this session is housing markets, but it is really about housing markets as they are affected by local regulation. It is an appropriate and important focus.

I will do two things in these comments. First, I offer some thoughts on the paper by Tsurriel Somerville and Christopher Mayer, by way of the mandatory critique, and then go on to discuss some broader issues related to the topic of their paper.

The authors use a sample of rental housing units from thirty-eight metropolitan areas in the 1980s and 1990s to examine the effects of regulation on housing affordability. They find that regulation and other constraints on new construction put upward pressure on rents in the existing housing stock and cause units to filter up and out of the affordable stock. This is not a surprise. Their finding on rent control is a surprise, however, in that they estimate that uncontrolled units are less likely to leave the affordable stock in areas where rent control is more prevalent. This finding is at odds with previous findings and common sense, and as the authors indicate, they think it is due to the characteristics of these units.

There is a lot to like about this paper. First is its focus on regulation as an influence on housing affordability. There are two other ways by which governments influence housing affordability: demand subsidies to give people money or tax

breaks to help them buy or rent housing, and supply subsidies to reduce the cost of building or renovating housing. We know a fair amount about these two forms of government action to promote affordability. One thing we know is that they cost a lot of money. Regulation is different in that it involves neither cash outlays nor credit guarantees from governments.

But, with the exception of rent control, we do not know much about regulation's effects on housing affordability in the existing housing stock. There are many opinions and anecdotes, but little hard evidence, in part because it is difficult to quantify regulation. It is a tough topic to tackle empirically, and the authors are to be commended for taking it on.

Another attraction of this research is that it offers a new approach: following individual housing units over time and relating their performance to their characteristics and to the local market and regulatory structure around them. The research looks at multiple possible outcomes for affordable units—another innovation. And the authors explain how it fits into the literature. The paper is a logical extension of previous work by Somerville and Mayer and their coauthors.

Lastly, the data source is potentially quite powerful. The same questions are asked of statistically valid samples in a large number of metro areas. The data provide the opportunity to go way beyond case studies and anecdotes, which are useful but are hard to generalize with confidence.

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These are all strengths of the research. Yet the authors face a number of research challenges with this work as well.

One challenge to all researchers on housing affordability is to define what affordable housing is. The Somerville and Mayer study adopts a fairly conventional standard in terms of household income and how much of it can be allocated to housing. But affordability is an inherently subjective notion on which reasonable people can and do disagree. Yet even if people disagree on what affordable housing is, they may be able to agree on whether housing is getting more or less affordable over time. For this reason, counting units that cross a threshold (which is the approach in this study) can be less controversial than selecting the threshold itself. Picking another threshold would likely have produced qualitatively similar results.

Note that the authors only look at rental housing. This does not mean that owner-occupied housing presents no affordability issues, but renters have lower incomes on average than owners, and therefore appropriately receive special attention in policy discussions. In addition, measurements of housing costs, market dynamics, and government programs all differ between rental and owner-occupied housing. For all these reasons, it is sensible to study rental housing on its own.

A second challenge is to quantify regulation. It is very tough to boil regulation down to a ten-point scale or anything similar. Much of regulation's effect on housing affordability comes down to land-use controls, and the authors rightly focus on this effect.

Another challenge is to use the American Housing Survey (AHS) data fully, but to avoid pushing the data beyond their limits. I have used the AHS data a lot, and I know that these data are not easy to link longitudinally or to aggregate across the different metro surveys. Much behind-the-scenes work was needed to get the data to where the authors have them, and Somerville and Mayer should be credited for that work.

But I am concerned that the resulting data set is a bit of a grab bag. It mixes time periods, jurisdictional differences within metropolitan areas, and different sampling fractions across metro areas. And the timing of the growth management survey does not necessarily match the timing of the housing unit observations to which it is linked.

Without getting into the econometrics, let me just say that these characteristics of the sample put pressure on the model to include all the relevant variables so that influences ascribed to one variable are not really reflecting the influence of a variable left out of the model. Some of these data issues, as well as simple misreporting of rent control and subsidy status in the AHS, may help explain the counterintuitive rent control results. The interpretation given by the authors is not inconsistent with the data, but it seems just a little too easy and convenient.

Separate from these data issues is the paper's approach of using long-run differences across areas to explain short-run dynamics. In particular, land-use regulations are used to explain movement of units across the affordability threshold. It seems more appropriate to look at the regulations' effects on the proportion of units above and below the threshold. The model's specification calls for caution in drawing conclusions. For example, one cannot project from these results that, if regulations were changed, a jurisdiction would experience within that same three- or four-year period the changes in filtering estimated by the model.

A last comment specifically about the paper regards the summary statement that regulation is less important than unit or neighborhood characteristics in determining filtering. I take exception to this as a portable conclusion that can be applied elsewhere. It is very specific to the variables used in this analysis, their calibration, and the model specification. This will always be the case, so it is unlikely that any general statement about the relative importance of regulation, housing unit, and neighborhood characteristics in the filtering process is a meaningful statement.

The paper is about housing filtering. Let me offer a framework and set of charts that I think capture the authors' approach and will help me to illustrate some more general points: Every housing unit in a local market can be defined in terms of a quality index and a price index. The quality index (q) is a single-dimensional summary of all the size, amenity, and locational attributes that are valued in housing. The price index (p) measures the price per unit of housing quality paid for that house or apartment. This price index will vary from house to house and from apartment to apartment even within a local housing market due to segmentation of the market and various market "imperfections." Speaking loosely, this price index can be viewed as a profitability index from the supplier's perspective and as an (inverse) "good deal" index from the consumer's perspective. Chart 1 offers an illustration, where each dot represents a house or apartment. Apartments A and B provide the same quality housing, but Apartment A is more expensive. Similarly, Apartments B and C have the same price per unit of quality, but unit B is of higher quality.

To be in the housing stock, units must meet two criteria: a minimum quality standard, set by government through code enforcement, zoning, and occupancy standards; and a price (loosely a proxy for profitability) threshold, set by the market. In Chart 1, these two minimums are indicated by the hash marks.

When people think about affordable housing, many think about modest but decent housing that is not too expensive and fits within a family's budget. A household's expenditure on housing is the product of how much housing they consume (q)

and the price per unit of quality (p) that they pay. A fixed budget for housing is consistent with various combinations of q and p . All households hope, of course, to get a good deal on housing so that their housing expenditure gives them a lot of q at a low p .

The triangle in Chart 1 defines the housing units with combinations of p and q that meet all three requirements for affordable housing: minimum standards, minimum profitability, and within a moderate-income household's budget constraint. The downward slope to the hypotenuse indicates that households that get a better deal (lower p) on their housing can consume more housing (higher q) without exceeding their housing budget. Drawn here for simplicity as a straight line, the combinations of p and q consistent with a fixed budget actually trace out a line that bows inward (concave to the origin).

Filtering in its simple form is represented by horizontal movement over time of individual housing units in the chart. Units increase or decrease in housing quality, but with no change in the "profitability" of the units. Vertical movement, in contrast, indicates a change in housing price or profitability, but with no change in physical characteristics.

Gentrification, shown in Chart 2, can be represented by a unit filtering up in quality level, with a profit incentive driving the upgrading, indicated here by the upward tilt to the line.

Housing can also be lost from the affordable stock if its profitability turns negative due to insufficient demand relative to available supply. This phenomenon is depicted in Chart 3 by

the price index falling below the threshold level for the site and structure to avoid abandonment or redevelopment into nonresidential use. Redevelopment can occur on any residential site providing any level of housing quality, but it typically occurs where the existing structures are reaching the end of their economic life and often are in the affordable triangle.

Lastly, housing can be lost to the affordable stock through government action. Local governments establish and enforce the zoning ordinances, building codes, and occupancy standards that set the minimum quality level of housing in a neighborhood. If units fall below that threshold, as shown in Chart 4, they are subject to removal from the stock, regardless of their profitability.

In this paper and in a previous one, Somerville and Mayer show that neighborhood influences are especially important in determining whether housing filters up and out of the affordable stock. They find that, all else equal, units are more likely to filter up if they are surrounded by higher value housing. In other words, it is hard to maintain housing heterogeneity in neighborhoods with strong housing demand. Let me say a few things about neighborhood heterogeneity.

It is a value judgment, to be sure, but many people want diversity in their local populations and housing. Despite "NIMBYism," many communities promote diversity, if not within blocks, then diversity within neighborhoods, or at least within local jurisdictions.

CHART 1
The Affordable Housing Triangle

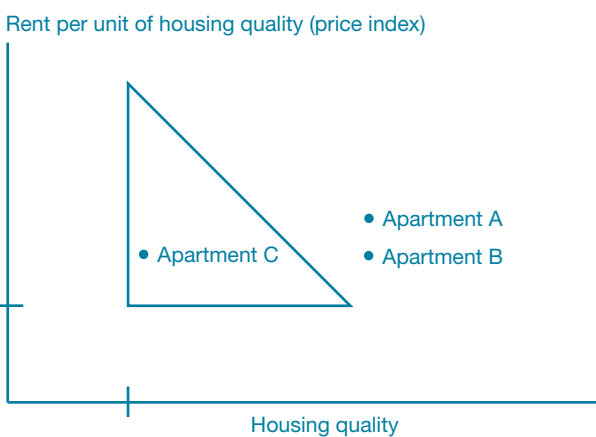
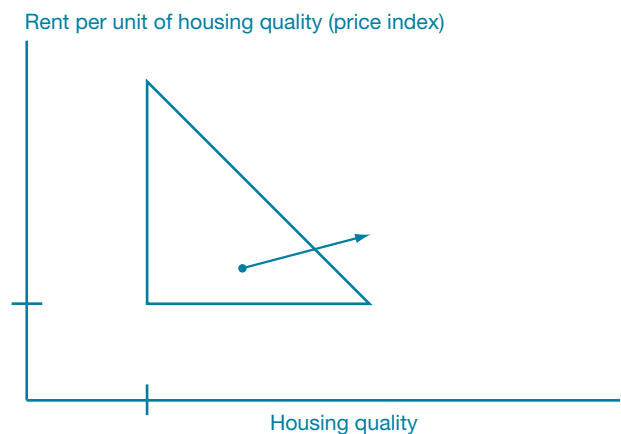


CHART 2
Gentrification



Neighborhood is important to housing affordability because mixed, diverse neighborhoods are where a lot of the affordable stock is found. But neighborhood diversity tends to be transitional, a nonequilibrium condition. Some diverse neighborhoods are on their way up, growing in demand and being redeveloped into newer, higher density places. Other mixed neighborhoods are on their way down, characterized by outmigration by those who can leave and by housing abandonment. Affordable housing is lost in both instances.

The challenges of maintaining a housing mix in neighborhoods and communities growing in popularity are different from those that are declining. If citizens should charge their government with maintaining a housing mix, what can government do to achieve that objective?

Here, I am talking about local governments. Each of the three levels of government has a distinct role, I would argue, in promoting housing affordability. First, the federal government is the program designer and financier for most of the country's largest demand- and supply-side affordability initiatives. Second, state governments are the gatekeepers that provide legislative authority to local jurisdictions and allocate funds from some federal and state revenues. Third, local governments are the enablers/implementers that run or oversee programs and control development and property operations through zoning and building codes.

Local governments have a lot of sticks and carrots that can be brought to bear on maintaining housing diversity. But these tools work better in growing areas than in declining ones. In declining neighborhoods, government intervention is a bit like

pushing on a string. Regulation usually means keeping people from doing something, and you cannot keep people from moving out of a neighborhood.

In growing areas, depending on state laws, local governments may be able to mandate that development be of a certain type and include affordable housing. In other jurisdictions, a “carrot” approach of offering density bonuses or other regulatory incentives for inclusion of on-site affordable housing may be more appropriate. The bonus density approach will not always result in diversity in housing types, but it can retain diversity in neighborhood incomes.

There is another, potentially powerful but much more controversial, tool that local governments have at their disposal for promoting housing affordability: housing-quality standards can be relaxed. The housing affordability problem in large part is an income problem. People do not have enough money to pay rent for the housing that is available. And that housing is constrained not only by the cost of building and maintaining it, but also by restrictions placed by government on the types of housing that can be offered in the community. These government restrictions force some residents to consume more housing than they would choose to, given their resources.

“Reduce housing-quality standards,” is a phrase certain to raise blood pressures among some in the local electorate. But closely related policy prescriptions include “eliminate exclusionary zoning” and “remove barriers to affordable housing.” The latter, by the way, is very close to the name of the presidentially mandated Advisory Commission on Regulatory Barriers to Affordable Housing, which issued its report in 1991.

CHART 3
Lost through Insufficient Demand

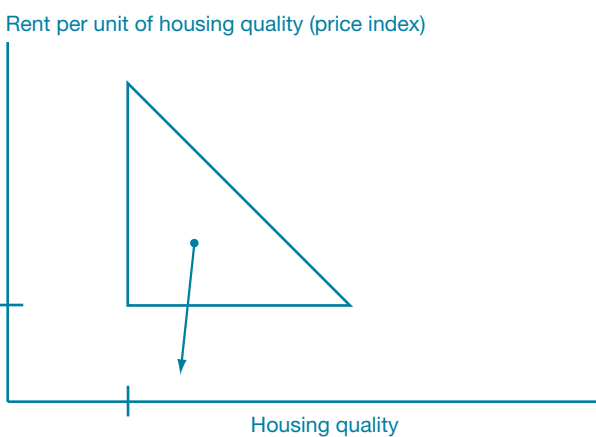


CHART 4
Lost through Government Regulation

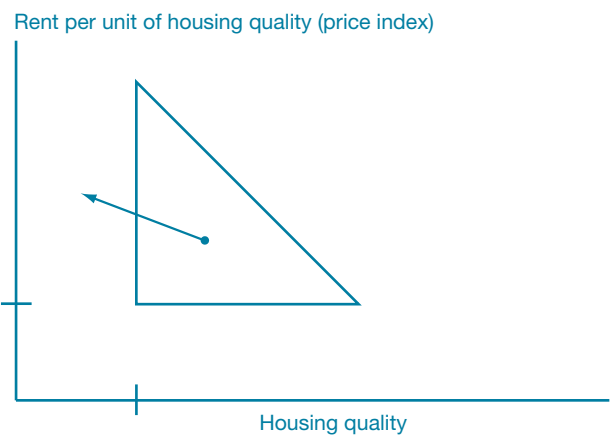


CHART 5

Effect of Government Easing of Quality Constraint

Rent per unit of housing quality (price index)



A policy focus on housing-quality standards is not a new or radical idea, but one that may need reinforcing.

Housing standards typically are set at levels way above those required to ensure safety and sanitation. Zoning and building code restrictions on lot sizes and required interior space per housing unit are good examples of regulations that can force overconsumption or exclusion. Easing standards can have significant effects on the availability of affordable housing. Within the triangle framework, this potential is illustrated in Chart 5.

In conclusion, any way you look at it, local governments, through their regulations, directly and indirectly affect the affordable housing stock and changes to it. The paper by Somerville and Mayer and others similar to it shed light on this local government role and help to calibrate it, and by doing so provide a valuable resource to the policy debate.

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