"Filtering, Regulation, and Housing Affordability"

Comments by

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on a research paper titled
"Government Regulation and Changes in the Affordable Housing Stock"
by Chris Mayer and C. Tsuriel Somerville

presented at the conference on
"Policies to Promote Affordable Housing"
Federal Reserve Bank of New York
February 7, 2002

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

I will to do two things with my time. First, I'll offer some comments on the paper by Mayer and Somerville, by way of the mandatory critique, and then go on to discuss some broader issues related to the topic of the paper.

Starting with the paper, the authors use a sample of rental housing units from 38 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 puts upward pressure on rents in the existing housing stock and causes 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 is at odds with previous findings and common sense, and as Tsur said, the authors think it is due to the characteristics of these units.

Now, 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, giving 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 or credit guarantees from government.

But, with the exception of rent control, we don't 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 hard 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 research 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 let you know how it fits in to the literature. The paper is a logical extension of work done earlier by its authors and their co-authors.

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.

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

One challenge to everyone doing research on housing affordability is to define what affordable housing is. This paper 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 is affordable housing, 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 (as is the approach in this paper) can be less controversial than selection of the threshold itself. Picking another threshold would likely have produced qualitatively similar results.

Note that the authors only look at rental housing. That does not mean 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, measurement 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 here 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.

Another challenge is to use the American Housing Survey (AHS) data fully, but to avoid pushing it beyond its limits. I have used the American Housing Survey data a lot, and I know that it is 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 it, and they should be credited for that.

But I am concerned that the resulting data set is a bit of a grab bag. It mixes time periods, jurisdicitonal 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.

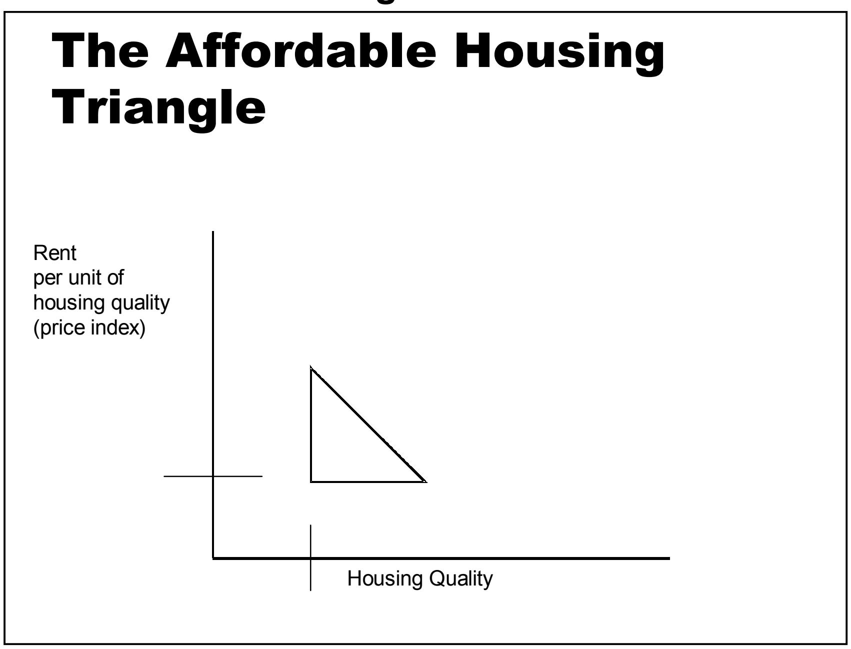
Separate from these data issues is the paper's approach of using long-run differences across areas to explain short-run dynamics. In particular, land use regulations are used to explain movement of units across the affordability threshold. It seems more appropriate to look at regulations' effects on 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 3-or-4 year period the changes in filtering estimated by the models.

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 with 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 picture that I think captures the authors' approach and also will help me illustrate some more general points. Every housing unit in a local market can be defined in terms of a quality level and a price index. In Figure 1, the price index measures the price per unit of housing quality provided by the house or apartment. 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.

When people think about affordable housing, many think about modest but decent quality housing that is not too expensive. Housing units falling within the triangle in Figure 1 constitute the affordable stock. These units meet the quality and expense criteria. The triangle's sloped line (hypotenuse) simply indicates that if people find a "good deal" on housing, they can get more housing within a fixed budget. 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. These two minimums are indicated by the hash marks in the chart.

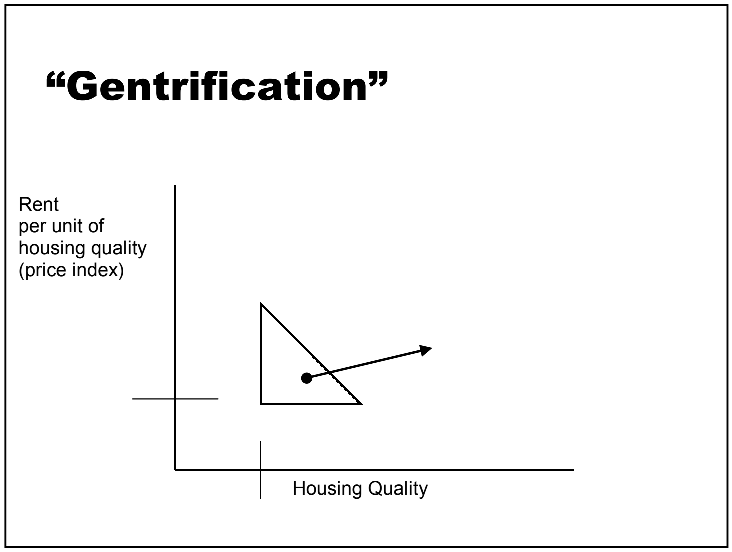
Figure 1



Filtering in its simple form is represented by horizontal movement of housing units in this 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.

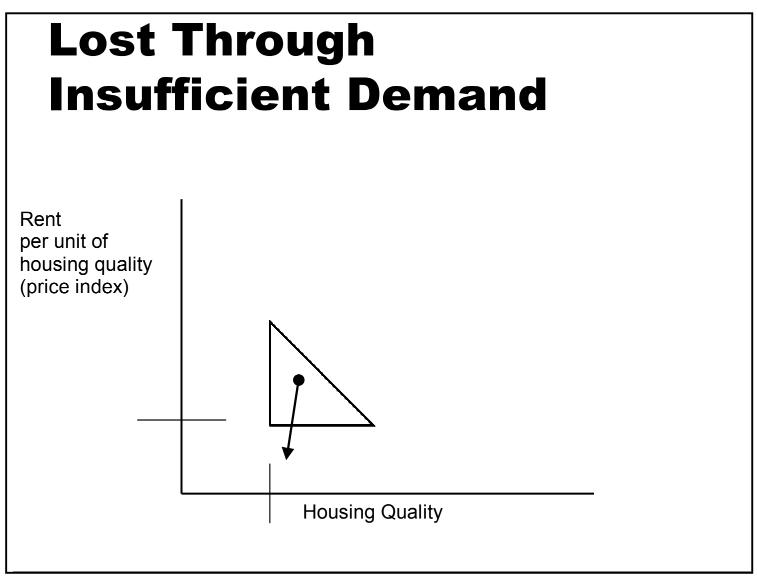
Gentrification, illustrated in Figure 2, can be represented by a unit filtering up in quality level, with a profit incentive driving the upgrading, indicated here by the upward tilt to the line.

Figure 2



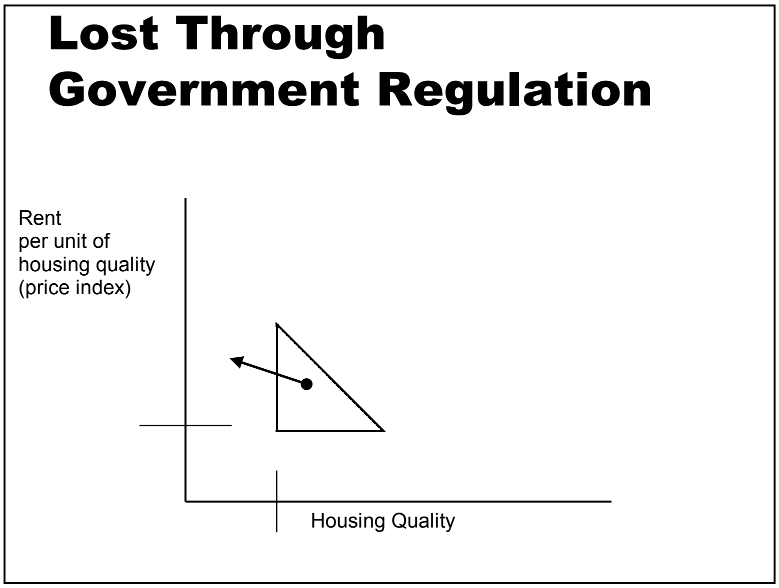
Housing can also be lost from the affordable stock if its profitability turns negative due to insufficient demand relative to available supply. Illustrated in Figure 3 by the price index falling below the threshold level for the site and structure to avoid abandonment or redevelopment into non-residential use. Redevelopment can occur on any residential site providing any level of housing quality, but typically occurs where the existing structures are reaching the end of their economic life and often are in the affordable triangle.

Figure 3



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 quality in a neighborhood. If units fall below that threshold, as shown in Figure 4, they are subject to removal from the stock, regardless of their profitability.

Figure 4



In this paper and an earlier one, the authors 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 valued 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.

Neighborhood is important to housing affordability because mixed, diverse neighborhoods is where a lot of the affordable stock is found. But neighborhood diversity tends to be transitional, a non-equilibrium 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 and by housing abandonment. Affordable housing is lost in both instances.

The challenges of maintaining a housing mix are different in neighborhoods and communities growing in popularity from those 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 gate keepers who 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.

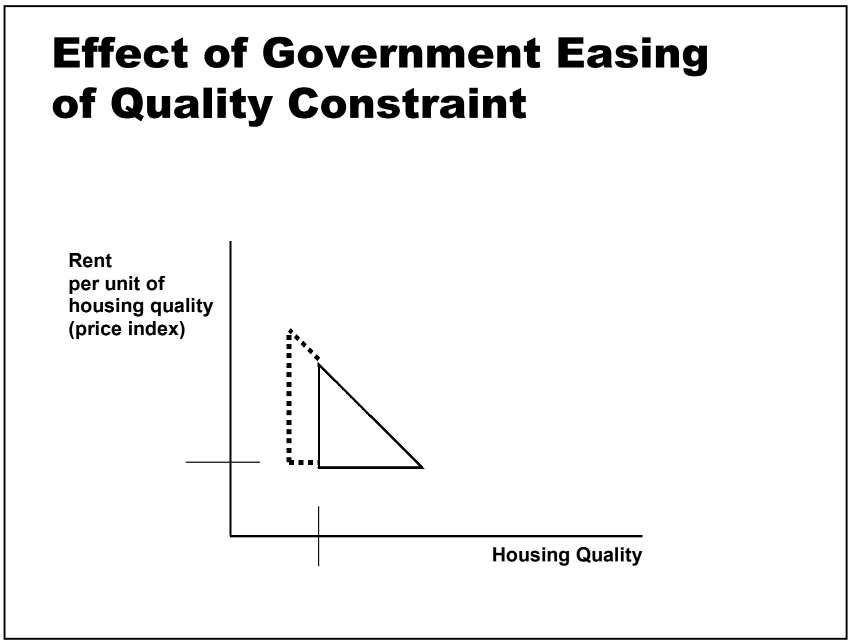
In growing areas, depending on state laws, local governments may be able to mandate that development be of a certain type and include affordable housing. In other jurisdictions, a "carrot" approach of offering density bonuses or other regulatory incentives for inclusion of on-site affordable housing may be more appropriate. The bonus density approach won't always yield 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 place 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, given their resources.

"Reduce housing quality standards," is a phrasing 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 of these, 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. A policy focus on housing quality standards is not a new or radical idea, but one that may need reinforcing.

Housing standards are typically 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 Figure 5.

Figure 5



In conclusion, let me just say that any way you look at it, local governments through their regulations directly and indirectly affect the affordable housing stock and changes to it. Work such as that by Mayer and Somerville sheds light on this local government role, helps calibrate it, and by doing so provides a valuable resource to the policy debate.