

## **Urban Housing Demand**

Prepared for the *New Palgrave Dictionary of Economics*

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Edited version: March 8, 2007

Urban housing demand is a reflection of households' desire to live in cities. In this article, I discuss possible reasons why US households have exhibited an increasing taste for urban living, including employment, urban amenities, and consumption opportunities. Next, I explain how growing urban housing demand led to rising house prices and a sorting of households across cities by income. That dynamic generated a divergence across housing markets in the value of the tax subsidy to owner-occupied housing as well as housing market risk. Those factors, in turn, had a feedback effect on urban housing demand.

At its core, the demand for urban housing is just the manifestation of the demand for living in urban areas. On net, residence patterns suggest that most people want to live in or near cities, and that desire is increasing over time. In fact, by 1999, 75 per cent of US households lived in cities (Rosenthal and Strange, 2003). Today, urban America is where housing demand is most likely to exceed housing supply and generate rising house prices, where the tax system provides the greatest subsidy to owner-occupied housing, and where the housing market is the most volatile. In this article I discuss some of the causes and consequences of urban housing demand, and the supporting evidence.

### **Location**

The classic explanation for the concentration of households in cities is that people want to live close to their jobs. That notion, developed in the Alonso/Muth/Mills monocentric city model, leads to a prediction that is rarely as evident in reality as it is in theory: housing costs should rise as the distance to the employment centre falls since households would be willing to pay more in order to save time getting to work. Instead, households often settle for a longer commute in exchange for other positive qualities of a non-urban community, such as the density

of development, the calibre of the school system, local taxes and amenities, and the similarity of the other residents to themselves.

Since the 1960s, the patterns of where people live have begun to shift back to cities, even though people are now less likely to work in the downtown areas. According to Glaeser et al. (2001), between 1960 and 1990 the rate of growth of commutes where the household lives in the city increased while the growth rate of commutes originating in the suburbs fell. Within cities, the high-income population has been moving closer to the central downtown area. Glaeser et al. argue that nowadays thriving cities are ‘consumer cities’, ones that attract highly educated households through appealing cultural amenities, such as museums, restaurants and opera. In fact, between 1977 and 1995, a temperate and dry climate, a coastal location, and more live performance venues and restaurants per capita predicted future population growth. By contrast, having more bowling alleys was correlated with population decline.

Indeed, the very congestion that urban economists typically point to as a reason that cities become unattractive may lead to an availability and quality of goods and services that are appealing. In a city, the large number of residents living in close proximity makes it feasible for even niche markets to be served since a critical mass of potential customers exists. Joel Waldfogel (2003), who in a series of papers termed this phenomenon ‘preference externalities’, found empirical support in the markets for broadcast radio, newspapers, and restaurants. For example, when there is a larger local consumer base for a certain format of radio station, calibre of newspaper, or style of restaurant, the more of them exist in a city. By revealed preference, that greater variety increases city dwellers’ welfare, because the more options there are for residents that share a particular set of tastes the more they consume.

Even the advent of the Internet has not dampened the consumption appeal of living in cities. Since the Internet makes information and goods universally available to anyone, no matter where they live, it substitutes for living in a city. However, Sinai and Waldfogel (2004) find that the number and variety of websites focused on a city increases with the city’s population. By enhancing the welfare benefits of living in cities – perhaps by mitigating the effects of congestion or facilitating communication and connection among city residents – these sites have an offsetting positive effect on urban housing demand.

### **Urban housing demand and house prices**

Two measures of the intensity of urban housing demand are house prices and the rate of house price growth. In some cities, housing is in inelastic supply because there is little or no open land and local regulations either restrict development or make it prohibitively expensive or slow. In that case, demand for a location leads to bidding up of the price of land in order to equilibrate housing demand with the available supply. Indeed, when one compares house prices across cities and towns, areas that presumably have higher demand because they offer better amenities and fiscal conditions exhibit higher house prices (Roback, (1982). Another indication of high demand for a city is population growth, which occurs when housing development is easy. I focus on high house prices because they can change the character of a city, which then has a further effect on urban housing demand.

Since the 1950s, a handful of metropolitan areas experienced real house price growth that significantly exceeded the national average, leading to a widening gap across locations in average house prices. For example, in 1950 the average house price in San Francisco was 37 per cent higher than the average across all metropolitan areas. By 2000 the gap had grown to 218 per cent. In order for land prices to continually grow in one location relative to another, the demand for that location must be growing as well. One possible explanation is that productivity growth in a handful of cities has exceeded the national average, and residents pay more to live in productive cities because their wage rises with their productivity. Another potential rationalization is that some cities are becoming more appealing over time and residents are paying more for increasingly higher quality.

Another possibility is that the rapid growth in the number and earnings of high-income households in the United States has led to an increased willingness-to-pay for scarce locations. Since some cities are in such limited supply, households have to outbid each other to live there, leading to land prices that grow with the aggregate spending power of the clientele that prefers that particular city. In 'Superstar Cities', Gyourko, Mayer and Sinai (2006) show that inelastically supplied, high-demand cities have income distributions that are shifted to the right: low-income families can live there only if they have a very strong preference for the city, while high-income families can live there even if they only modestly prefer it. As the national high-income population grows, the greater number of high-income families outbid relatively low-income families (as well as some high-income families) who are unwilling or unable to pay a higher premium to live in their preferred location. Gyourko, Mayer and Sinai find that such

superstar locations experience supra-normal house price growth and a shift of their income distributions to the right as they experience inflows of high-income households and outflows of their lowest-income residents. This pattern has been intensified as cities have begun to ‘fill up’ due to the growing national population. For example, in 1960 only Los Angeles and San Francisco were demonstrably inelastically supplied. By 2000 more than 20 cities were. Gyourko, Mayer and Sinai show that cities that ‘fill up’ experience a right-shift in their income distributions and higher price growth after their transition into superstar city status.

These findings imply that there must be something unique and attractive about superstar cities, otherwise potential residents would turn to cheaper locations and superstar cities would not be able to sustain excess price growth. A niche-market appeal may be due to particular amenities, or the kind of preference externalities described by Waldfogel. As preference agglomerations form, the highest willingness-to-pay households are those that share the same preferences. If such sorting is along income lines, rising house prices can lead to high-income homogeneity, which itself makes an area more desirable to high-income residents. That dynamic implies that certain urban markets will evolve into luxury areas and grow increasingly unaffordable for the average household.

The inelasticity of housing supply also leads to price changes, and a correlated change in the demand for urban housing, in cities that are experiencing *declining* demand. Glaeser and Gyourko (2005) point out that, since housing does not quickly depreciate once built, if the demand for a city declines then house prices must fall since quantity cannot easily adjust downwards. That decline in prices can spur demand by low-income households that cannot afford to live anywhere else, leading to sorting into low-income enclaves rather than high-income ones.

### **The tax subsidy to owner-occupied housing**

Differences in house prices among cities also affect the benefits homeowners obtain from their houses, which in turn affect the demand for urban housing. One such benefit in the United States that often is especially valuable in cities is the favourable Federal income tax treatment for owner-occupied housing, worth a total of \$420 billion in 1999 (see HOUSING MARKETS AND POLICY). Gyourko and Sinai (2004) note that two conditions are necessary in order to receive a

high value of this tax subsidy: a high-priced home, so that the subsidy operates on a larger base, and a high tax rate, which in the progressive US tax system follows from having a high income.

Because of this, the very same superstar city dynamic discussed earlier leads to an unequal distribution of the housing subsidy across the country. Superstar cities experience both house price growth and relatively high-income residents, and thus should also have the highest tax subsidies, further increasing the demand for urban housing in hot markets. Indeed, the tax subsidy is highly concentrated in a handful of cities, with just five metropolitan areas receiving more than 85 per cent of the total tax benefits in 1990. Between 1980 and 2000, the rise in house prices in superstar cities more than offset declining marginal tax rates, leading to a greater concentration of tax benefits in a handful of metropolitan areas.

This tax subsidy has been shown to lead to higher house prices, either because the subsidy induces households to consume a larger quantity of housing or simply because house prices capitalize the present value of the future tax savings. Recent estimates of the after-tax price elasticity of housing demand cluster around  $-0.5$ , and the income elasticity around  $0.25$ . Urban areas tend to exhibit relatively high demand elasticities, as demand is more readily capitalized into land prices rather than the limited new supply. By contrast, rural areas have much lower measured elasticities of housing demand.

### **Risk and the demand for urban housing**

Since urban housing markets tend to have inelastic supply, they are more volatile as shocks to housing demand are transmitted more completely into rents and prices. That higher risk may deter households from living in urban areas since they would face more uncertainty over housing costs, whether they rented or owned. Also, house price volatility generates an additional cost because it distorts other investment decisions (Flavin and Yamashita, 2002). A mitigating factor, demonstrated in Sinai and Souleles (2005), is that long length-of-stay households can reduce their effective risk by owning their houses, in essence prepaying their housing costs. Other research suggests that uncertainty over house price growth simply may lead households to purchase housing in a city sooner than they otherwise would have in order to prevent housing costs from outpacing their income growth.

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