Housing Affordability[☆]

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Abstract

Housing affordability broadly refers to the cost of housing services and shelter - both for renters and owner occupiers - relative to a given individual's or household's disposable income. While there is no universal definition for this term, housing affordability is an easy concept to grasp in general. At the same time, affordability can be hard to pin down in practice, especially in terms of defining the appropriate geographic scope for housing markets, suitable definitions of representative reference individuals and households, and their changing circumstances over time. In its most crude form, housing affordability simply refers to the rent-to-income ratio or house-price-to-income ratio; more sophisticated measures of housing affordability consider (i) how much nonhousing expenditures are limited by how much is left after paying for housing or (ii) in addition to "income affordability", they distinguish between "purchase affordability" (the ability to borrow funds to purchase a house), "repayment affordability" (the ability to afford housing finance re-payments). Over the last three decades or so, policy makers have increasingly begun to frame discussions of the availability of adequate housing opportunities in terms housing affordability as opposed to the more traditional notion of housing need.

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JEL classification: Q5, R2, R3

1. Overview

While housing is often the largest expense most families face, concerns over its affordability have traditionally not seen commensurate reflection in national public policy debates. For most of the post-war era, national welfare policies were predominantly focused on other welfare programs, such as social security or health care. Indeed, in most developed countries, housing affordability has joined more traditional housing issues such as fair housing access and substandard quality units as a focal point of discussions about housing policy only since

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the 1980s (Gyourko, Kahn, and Tracy, 1999). The more widespread usage of the term housing affordability among housing policy advocates, particularly in the United States and Europe, has been widely criticized, both as a concept for analyzing housing problems and as a definition of housing need (see Hulchanski, 1995, for a detailed overview of these criticism). The literature on housing affordability tends to focus on either low-income families or median households.

When operationalizing housing affordability, policymakers have widely relied on the standard rule of thumb that households should not spend more than 30-35 percent of their income on housing expenditures (Quigley and Raphael, 2004). In the United States, for example, policymakers have relied on the 30 percent threshold to identify the appropriate level of housing subsidies for programs such as the Housing Choice Voucher (HCV) program. In this program, the U.S. Department of Housing and Urban Development (HUD) defines metropolitan-level "fair market rents" which are expressed in terms of the 40th percentile rent of standard-quality rental housing units. This includes occupied units which are on 10 acres or less, which have full plumbing and kitchen facilities, and which are more than two years old. HUD then provides assistance sufficient to close the gap between this fair market rents and 30 percent of a low income household's income.

In the United States, concerns over the availability of financing of affordable housing for low- and moderate income families saw the establishment of Affordable Housing Goals in the 1980s requiring the Government Sponsored Enterprises to increase their purchases of mortgages originated by low- and moderate income households (Ambrose and Thibodeau, 2004).

Overall, the complex nature of the term housing affordability is reflected by the fact that affordability is both a function of housing demand and supply factors. On the housing demand side, affordability primarily depends on household income and the accessibility and cost housing credit. On the supply side, affordability depends on factors such as the cost of construction, local land-use regulation (e.g. zoning restrictions, growth boundaries), and rent controls.

2. Measuring Housing Affordability

While the affordability of rental housing is usually directly captured in rent-to-income ratios, economists argue that - in addition to real interest rate that measures the user cost of hous-

ing capital - an equivalent affordability measure of owner-occupied housing also depends on taxes, depreciation and capital gains. Furthermore, since affordability measures depend both on housing costs and incomes, developments in the distribution of income are likely to be of particular importance when explaining changes affordability experienced by lower-income households. While the housing-cost-to-income ratio approach has the longest history and widest recognition, economists have recently re-emphasised an opportunity-cost based definition of affordability in terms of "residual income"; according to this definition of affordability, a household is viewed as having an affordability problem if it cannot meet its nonhousing at some basic level of adequacy after paying for shelter (Stone, 2008).

2.1. Alternative Measures

In addition to the housing cost-to-income ratio, structural changes in mortgage markets have given rise to the notion of "purchase affordability" (the ability to borrow funds to purchase a house) and "repayment affordability" (the burden imposed on a household from repaying housing debt) as important metrics for policy makers (Gan and Hill, 2009). Taking into account the debt-servicing ratio leads to a different assessment of current house prices than do developments in the rent-to-income ratio itself. In most countries, the general increase in indebtedness, due in part to deregulation in the mortgage markets, has been mostly offset by the secular decline in borrowing rates and, with a few exceptions, households do not seem to devote a greater share of their income to debt service than in the recent past.

In the United States, the National Association of Realtors provides a widely-used Housing Affordability Index (HAI) that measures whether or not a typical family could qualify for a mortgage loan on a typical home. Alternative versions of HAI that do not incorporate the cost of housing finance simply express the average cost of a typical home as a multiple of the annual average household income.

However, important aspects of housing quality depend on local nonmarket goods, such as local public goods and amenities that are tied to the location of housing which in turn affects the well-being of individuals and households. Consequently, an ideal measure of affordability should also incorporate the opportunity facing households due to housing location, such as,

for example, differences in job accessibility, school quality, environmental quality and public safety (see section 3 below for more discussion of this point; Fisher, Pollakowski, and Zabel (2009) propose such an amenity-based housing affordability index.)

3. Housing Affordability and Quality of Life

Economists have long raised concerns about an affordability metric that combines both income and housing costs, thus potentially conflating issues of income inequality with problems in the housing market and households' consumption choices of nonmarket goods, such as amenities or local public goods (see e.g. Glaeser and Gyourko, 2008). Indeed, the national 30 percent affordability threshold seems particularly problematic given that significant inter-metropolitan differences in the ratio of income to housing cost are consistent with the basic notion of a locational equilibrium, because differences in nonmarket goods are capitalised into both housing prices and wages.

3.1. Wages, Rents and the Quality of Life

Urban economists generally think about quality of life in terms of the relative importance of different factors to household well-being, usually expressed as utility. The key insight of this literature rests on the observation that location-specific differences in wages and (land) rents should compensate for the differences in nonmarket characteristics, such as natural or cultural amenities that increase the attractiveness of a given locality. In other words, local differences in the quality of life compensate households for below-average housing affordability, as approximated by the housing cost-to-income ratio.

A growing body of literature has tried to produce theoretically consistent quality-of-life rankings for urban areas by deriving wage and rent differentials via hedonic methods, calculating the implicit prices of location-specific amenities which are then used as utility valuation weights. Seminal work by Rosen (1979) and Roback (1982) demonstrates that households are willing to pay more for housing and accept lower wages in metropolitan areas which provide a higher quality of life because of local amenity differences (see also Blomquist, Berger, and Hoehn, 1988; Gyourko and Tracy, 1991; Albouy, 2008). For comprehensive surveys of

the growing quality of life literature, see, for example, Gyourko, Kahn, and Tracy (1999), Blomquist and Dahlberg (2006), or Lambiri, Biagi, and Royuela (2007).

3.2. Housing Affordability with Local Wage and Price Variation

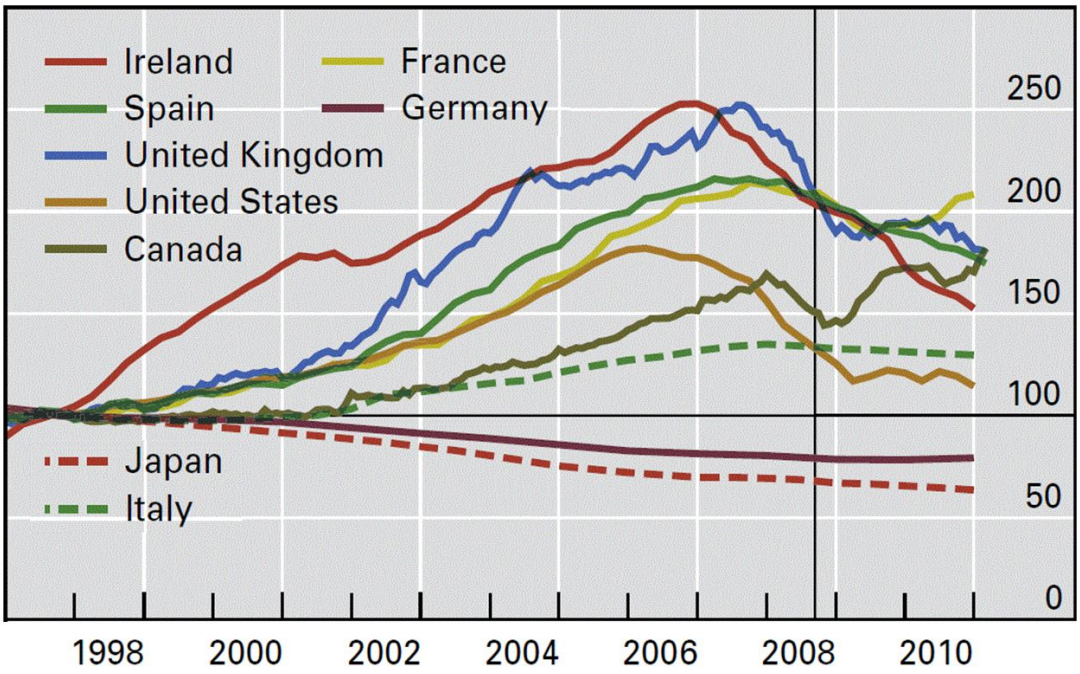
To the extent that this is the case, locations with the highest quality of life tend to be places – ceteris paribus – with above average housing cost and below average wages. As a result, local housing affordability conditions and quality of life tends to be negatively related as the most desirable locations are likely to have the highest rent-to-income ratios. This has specific implications for the conduct of national housing policy. In the United States, for example, the standard subsidy is equivalent to the gap between fair market rents and 30 percent of income. Such a housing affordability-related subsidy ignores differences in the typical housing bundle available within different types of metropolitan areas. For example, if the difference in fair market rents between high-amenity and low-amenity metropolitan areas is fully capitalised into housing prices, then federal housing subsidies may be merely offsetting metropolitan differences in amenity-related quality of life. As a result, households living in low-amenity metropolitan areas may be receiving lower quality housing bundles than households residing in high-amenity areas, given an equivalent subsidy.

Yet, federal public housing and rental vouchers programs in the United States, for example, are explicitly indexed to local prices by relying on local metropolitan-area median incomes to determine eligibility and local fair market rents to determine the level of benefits. In their current form, the affordability objectives of US federal housing policy are thus introducing both locational inefficiencies and housing consumption inefficiencies (Bieri and Dawkins, 2012).

4. Housing Affordability during the Great Housing Boom and Bust

In the vast majority of OECD economies, there has been a secular upward trend in house prices in real terms (the ratio of actual house prices to the consumer price index) since the 1970s, with a pronounced increase in growth rates since the mid-1990s that culminated in the historic highs at the peak of the great housing boom of 2006.

Figure 1: Real Prices of Residential Properties



Notes: The vertical line marks 15 September 2008, the date on which Lehman Brothers filed for Chapter 11 bankruptcy protection. Price indices are deflated by consumer prices; Source: *Sources*: Bank for International Settlements (2011), 81st Annual Report, Basel: Switzerland, p. 20.

As average incomes grew more slowly during the 15-year run-up in house prices prior to the financial crisis, overall housing affordability decreased in most of the major advanced economies. However, the steep collapse in residential property prices has released some of the pressure on housing affordability – at least at the national level – as personal incomes did not experience a comparable contraction in most countries (see figure 1).

In the wake of the financial crisis, there seems to be a disconnect between affordability and the anaemic recovery of the housing market, particularly in the United States and the United Kingdom where affordable housing might not register as a political issue once the global economic recovery is in full swing. Unlike other major political issues and despite its role in sparking the financial crisis, housing is not seen as universally broken and housing policy advocates are concerned how to better position affordable housing on the national agenda (Lang, Anacker, and Hornburg, 2008).

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