lending and fair housing laws, and (d) monitor and evaluate public-private housing finance programs. Community-based organizations and sometimes local governments have analyzed HMDA data to define the problem of redlining, demonstrate the failure of lending institutions to comply with CRA, and negotiate lending agreements targeted to underserved areas and groups. This HMDA research can be effective in building a coalition for negotiations, collectively designing and implementing a reinvestment program, and generating media attention. Under the revised CRA regulation, the federal financial regulatory agencies must use HMDA data as the primary source of information for evaluating CRA lending performance, and HMDA analysis is an important component of CRA strategic plans that financial institutions have the option of preparing, in collaboration with community-based organizations and the regulatory agencies. Also, market studies prepared by specialized community development financial institutions increasingly rely on HMDA analysis to demonstrate the need for financial services in distressed communities.

Research on housing credit access can be used by local governments to support the planning requirements of the federal Community Development Block Grant and the federal HOME housing block grant and to prepare the "analysis of impediments" study mandated by the local planning requirements of the Fair Housing Act. This research can also be used in the planning process for federal empowerment zones. State housing finance agencies can use data on primary and secondary mortgage markets to create financing partnerships that leverage state government funds. Analyses of mortgage-lending patterns in metropolitan areas can also support growth management programs by informing strategies to control the spatial pattern of investment and expand the supply of affordable low- and moderate-income housing, through inclusionary or "fair share" housing programs. Finally, HMDA analysis may indicate a possible pattern or practice of discrimination by a lending institution (such as differential treatment based on race) and lead to investigations of discrimination in mortgage loan underwriting and marketing. The high-profile investigations of Decatur Federal Savings and Loan and Shawmut Mortgage Company during the early 1990s were prompted by HMDA studies conducted by the Atlanta Journal-Constitution (Decatur) and the Federal Reserve Bank of Boston (Shawmut).

Compared with U.S. census information, which is gathered every 10 years, HMDA data describes on an annual basis in each census tract who is applying for housing credit (and being approved or rejected) from which institutional lenders. In this way, HMDA analysis is a tool to monitor local residential real estate markets. To determine local credit needs, mortgage-lending data are correlated with census tract information on race, income, population, households, and housing units and mapped spatially through the use of geographic information systems, to analyze disparities by race, gender, income, and location. Market share analysis is used to compare the volume of loan applications, approvals, and purchases among competing institutions in defined markets and submarkets.

Housing credit access in the United States is increasingly being impaired by larger trends in financial services, such as the computerization of mortgage loan origination, the rise of "subprime" lenders and finance companies that charge high interest rates to borrowers with low credit scores, and the growth of "predatory" lenders in low-income and urban areas where bank branches have closed and financial services are unavailable or inadequate. HMDA data do not include the interest rate charged on mortgages, and reporting the race and gender of the borrower for applications taken by phone is optional. The revised CRA regulation is making available additional information on bank branch locations, recent branch closings, and small-business lending.

In India, southeast Asia, and South Africa, community-based organizations—also known as nongovernmental organizations (NGOs)—are reforming the practices of national and international development finance institutions to expand access to credit for low-income housing and neighborhood development. "Peer group" lending and savings models pioneered in developing countries are being replicated in the United States through strategies such as individual development accounts (IDAs), designed to stimulate savings by the poor for housing expenses, education, and enterprise development. (SEE ALSO: Affordability; Community Reinvestment Act; Discrimination; Fannie Mae; Home Mortgage Disclosure Act; Housing Finance; Lending Institutions; Neighborhood Housing Services of America; Redlining; Section 237; Section 502; Uniform Residential Landlord and Tenant Act)

—John T. Metzger

Further Reading

Housing Demand

Housing demand is the preference for accommodation expressed subject to the constraints of income and price. Economists usually presume that each consumer has preferences that he or she uses to rank choices from most to
least preferred. These rankings are generally thought not to vary over time or with respect to income and price. Faced with a set of prices, consumers then choose the highest ranked from among choices within their budget. Demand is also usefully seen as the outcome of strategies used to cope with a costly part of the consumer’s budget. Coping strategies include choosing less adequate housing (e.g., smaller dwelling, housing in poor repair, or housing with few amenities), moving to a remote location where housing is cheaper, sharing accommodation with others, taking greater risks in financing, rent payments in-kind, and use of sweat equity (e.g., buying a dilapidated home to fix up with one’s own labor).

Demand is commonly viewed as a list of prices for housing and the specific quantity of housing chosen or demanded at each price—with income, other prices, and preferences held constant. A demand curve portrays this price-quantity relationship in graphical form. For many commodities, demand can be readily measured as a quantity—for example, fifty loaves of bread annually. In the case of housing, the quantity demanded is usually just one dwelling. However, the housing stock includes much variety; dwellings differ in attributes such as floor area, number of rooms, number of baths, quality of construction, design, built-in features (e.g., central air-conditioning), contract conditions and property rights, access to local public services, and other neighborhood amenities, including safety, social mix, and proximity to work, schools, and shopping. Here, consumer demand is usually measured in terms of the bundle of attributes (generically referred to as “quality”) of the dwelling.

In view of this widely observed variety of stock, some scholars characterize housing in terms of presence, absence, or amount of one or a few important attributes. This includes studies in which a single measurable feature of the dwelling is used to proxy quality: for example, number of rooms, number of baths, lot size, or age of dwelling. Related to these are studies based on discrete choice—typically, the presence or absence of a specified dwelling attribute (e.g., brick sheathing or central air-conditioning). Still other scholars combine these two and model demand simultaneously as a discrete choice (e.g., tenure) and as continuous variable (e.g., floor area).

Many economists use a different approach in which they attempt to estimate, for each dwelling, an unobservable flow of “housing service” (i.e., a quality of accommodation). Underlying this approach is the assumption that producers in a competitive market will, over time, vary the amounts of housing attributes supplied until each attribute is equally profitable; hence, the expenditure on housing as a consumption good should be directly proportional to the flow of housing services. This perspective has led some scholars to measure demand simply as housing expenditure. However, expenditure can be thought of as the product of the quantity of housing service and the price of a unit of service. This concern over quantity-price decomposition has led other scholars to estimate the demand for housing by a consumer by dividing housing expenditure by the typical expenditure for a dwelling of standard quality. Hence, demand is measured as the number of dwellings of standard quality that a given expenditure could purchase.

That housing stock is a capital good with a long life complicates the analysis of housing demand. As a thought experiment, imagine that all housing was made of cardboard and quickly became run-down; each consumer would have to return to the market frequently to purchase new cardboard stock from homebuilders. In that case, the suppliers of housing stock would be largely the new homebuilders; there would be little demand for resales of cardboard stock. In the real world, however, housing is durable, and consumers are more likely to sell their dwellings at some point in their lives. They then become suppliers of existing stock and are mindful of the capital gain, or loss, realized on disposition. A high resale price downstream reduces the effective price of homeownership and hence increases the demand for housing today.

Many studies of housing demand focus on mode of tenure. Most of these studies look at only two alternatives (private sector rental and homeownership) and ignore others (e.g., leasehold, equity cooperatives, nonequity cooperatives, public housing, collective housing, or reservation housing) or blur distinctions (e.g., condominium versus freehold ownership, long-term vs. short-term leases). In such studies, the demand for homeownership is sometimes seen as a portfolio choice problem (how the household holds its financial assets) but more often is seen in terms of the relative costs of homeownership vis-à-vis renting. Here, aspects of income taxation as they relate to the imputed rents of homeowners, capital gains (or losses) on disposition of property, and deductions for mortgage interest, property tax, and depreciation are commonly found to be important.

In an important sense, there are actually two kinds of demand for housing. One is the demand for housing stock by homeowners and landlords. This is the demand that leads to investment in new construction and to new housing starts and completions. The other is the demand for housing services by consumers (whether homeowners or renters). Landlords typically combine housing stock with property management services, utilities, security, and maintenance to supply the accommodation that renters demand. Homeowners typically combine stock with utilities, security, maintenance, and their own management skills to supply accommodation to themselves.

Suppose that in a local housing market over a short period of time, we observe the number of dwellings sold or newly rented and the corresponding price paid. Let us refer to these consumers as “new” homeowners or renters, in contrast to “sitting” consumers (those who acquired or last relet their premises before the period of time under study). In a market in competitive equilibrium, no new consumer willing to pay the market price forgos consumption, and hence, the amount of housing service exchanged is the amount demanded at that price. If we further assume that sitting consumers are utility maximizing and have no transaction costs (e.g., associated with lease or contract termination, moving, or property transfer), then the housing services provided by their dwellings can be added to the amount purchased by new consumers. To the extent that sitting consumers have such transaction costs, a dis-
crepancy can rise between the demand for housing over the short term and over a longer term. (SEE ALSO: Housing Investment; Housing Markets; Housing Supply, Tenure Sectors) —John R. Miron

Further Reading

Housing Distribution Mechanisms

Processes of housing distribution are fundamental to patterns of social and spatial segregation, residential mobility, and the operation of housing choice. These processes link the physical housing stock (newly built dwellings as well as the existing stock of dwellings) with users of the stock. Essentially, housing distribution mechanisms engage when dwellings are available for use, and they serve in determining who comes to use these dwellings.

Housing distribution mechanisms cannot be assumed to operate efficiently or fairly and cannot be taken for granted as reflecting various features of the housing market. Nor, however, do they operate in a wholly independent or autonomous fashion. Rather, they relate to the structure and operation of other processes (production, finance, consumption) but introduce additional factors that cannot always be read off from these processes. For example, the fact that a dwelling has been built by a private developer and builder does not determine what the distribution mechanism will be after construction is completed. The dwelling could have been built for a variety of different owners or in different locations that will affect how distribution is managed.

Discussion of housing distribution processes, nonetheless, cannot be wholly divorced from supply or the features of the dwelling. The stock available for distribution (newly built or secondhand dwellings becoming vacant) changes over time and differs between locations. Potential users are in competition for the supply that is available, and those mediating this competition will adjust their policies and practices in the light of changes in supply as well as demand.

The most appropriate framework for considering the operation of housing distribution is one that starts with competition between individuals (or households) for housing resources. Because dwellings differ in terms of building type, size, age, location, quality, and condition, competition will be more or less intense. This does not assume uniform values: Different households will have different requirements for housing, depending on health, age, family size and structure, type and location of employment, schools and other services, and lifestyle factors. In a pure market system, the price mechanism would be the key way of resolving this competition. However, no housing systems work in this way. In many countries, there are significant nonmarket sectors. In addition, the structure of legislation and regulation affects the operation of market sectors and the particular features of housing distinguish it from other commodities. These features mean that more complex and elaborate arrangements are required to sustain flows of information about what is available in terms of properties and financial arrangements for paying for housing. Market failure is an intrinsic feature of the housing sector, and arrangements to prevent and compensate for this have been widely developed.

The conventional framework for the analysis of how housing competition is managed in advanced economies (and more widely) distinguishes between different distribution mechanisms in different tenures. Such mechanisms exist in all tenures, but they may be very different in different tenures. The conventional approach distinguishes between mechanisms associated with house purchase and renting. Within each of these initial categories are important subdivisions. These are most evident in the rented sector, where processes in private (market) sectors are generally distinguished from those in nonmarket or nonprofit sectors (e.g., public sector housing, voluntary or charitable organizations, and cooperatives) where distribution mechanisms are labeled as bureaucratic rather than market.

Where owners of housing seek to distribute or allocate their housing on criteria other than ability to pay a market price, they are involved in nonmarket bureaucratic rationing processes. In the housing research literature, these processes have been most fully investigated for large public sector and nonprofit landlords. In this literature, a number of separate elements in bureaucratic processes are apparent:

1. Primary eligibility criteria are generally laid down in policy to determine who can obtain housing. Such criteria may involve specific tests of income (as in the United States) and of residence. They may also refer to age and family structure (e.g., married couples or families with children). Where households would otherwise be excluded, there may be specific exemptions, for example, for veterans, people with family ties to the area, or those with particular disabilities.

2. Secondary criteria that determine how households are selected from among those qualifying in terms of primary criteria. These criteria will determine whether people are offered a house at all (in a situation of overall shortage) or what property is offered (who gets the best houses and who gets the worst).

3. This secondary allocation process may be operated by managers in an unaccountable fashion. However, it is more likely to be the case that clear published rules and systems are used. For example, in the large professional public and nonprofit housing sectors in the democracies of Western and Northern Europe, various rules are set out. These may involve points schemes (prioritizing applicants in terms of specific circumstances, such as overcrowding, lack of adequate amenities, sharing, housing condition, health status), date order schemes (first come, first served), or a combination of these. Other bureaucratic schemes have placed great importance on occupational or other merit