

Everyone has to live somewhere, so the growing number and proportion of older residents has a direct impact on the amount, type, and location of housing demand created by both buyers and renters. The response of designers, developers, builders, lenders, and public officials will determine whether the housing options provided match consumer preferences and resources. The issues surrounding this topic are interrelated, but I will organize around physical structures and location, living environment (including services), and financial considerations.

When one thinks of housing, one usually pictures the physical structure. The existing housing stock in most communities was designed for the majority of house buyers—young, healthy adults. It was not designed to allow aging in place. Thus, the majority of elderly residents who want to age in place, whether on their own or in multi-generational households, must either adjust their physical environment to fit their life or adjust their life to fit their physical environment. Older people tend to live in older houses because they purchased them in young adulthood and have not moved. The houses may not be designed to safely accommodate an elderly resident and allow full use of the property. Many single family houses contain stairs, counters that require standing, built-ins with sharp edges, shelves and cabinets at tall heights, uneven flooring, and bath tubs. Older multifamily buildings do not contain flats and the flats feature many of the same characteristics of the single family houses. Older houses, especially in rural areas, are more likely to suffer from disrepair as well. One study indicates that a majority of older Spanish homeowners are unwilling to make structural improvements to improve their housing conditions despite their preference to age in place. Why? It is because they do not think they need the improvements, or do they do not like what the changes represent, or do they not have the money? Retrofitting houses to accommodate aging in place has focused on installing supportive features for the disabled (such as wheelchair ramps and grab bars); however, the majority of elderly residents are not disabled and do not want that self-image reflected in their house; they are simply old. The cost of retrofitting is variable and generally unknown. Thus, there is tremendous opportunity to study the attitudes of the current elderly as well as the following cohorts to determine their attitudes about current housing environments, possible retrofits, and financing such changes. The remodeling/retrofit industry provides substantial economic opportunity for design, materials, and construction. Financial study is needed to estimate the impact of retrofitting on house values. While the growing number of older residents might suggest the resale value of retrofitted houses will rise with increased number of potential buyers, the low elderly mobility rate suggests the likelihood of an elderly resident buying a retrofitted house from another elderly resident is lower than the likelihood of a younger buyer purchasing the house or a younger relative inheriting the house, so the attitudes of younger consumers should be examined along with older consumers. Previous hedonic research has focused on the valuation impact of other housing attributes, but only a few have considered these features. For rental housing, the financial proposition from the owner's position is important, whether the housing is publicly or privately owned and operated. Does retrofitting provide a sufficient rate of return or does it limit the potential pool of renters, devaluing the property? Financing the retrofit can also be a challenge for lower income and less wealthy house owners. While the logical source of the funds would be home equity, there can be obstacles to accessing this wealth, including lack of reverse mortgages, high home equity loan costs, and concerns about the financial return on the investment in the retrofit. The role of lenders and governmental agencies in the reverse mortgage market has attracted researchers focusing on the rate of return, pricing and default. Little research examines the subject from the borrower's point of view.

New construction offers a technically easier opportunity to design and build housing that allows aging in place. Universal design (design for all) features have long been technically understood, but builders have resisted installation in houses intended for buyers of all ages, complaining of increased

cost and lack of consumer demand. Meanwhile, visitors to universal design model units only notice features intended to accommodate disabled residents in wheelchairs, not the other features that make the house safe for both infants and the elderly. Research is needed about how to either “camouflage” universal design or educate and create demand among younger as well as older buyers. Another option is adaptable design which incorporates features that are adjustable or capable of being easily added or removed as needed during later retrofit. Financial analysis has not been conducted to investigate the costs of universal design or adaptable design if widely adopted or the effect of these designs on house values. Government regulations requiring these designs risk setting minimum standards that will result in the institutional appearance that buyers do not want. These options offer economic opportunities for design and materials as part of the construction process.

An alternative to the problem of designing and constructing houses suitable for residents of all ages is to build different housing targeted to each age group with either marketing or private restrictions signaling the intended resident group. The success of these developments depends on whether aging residents want to live only among people of the same age group. Housing developments targeted to older residents can encompass diverse physical designs with a range of services. The range of options offers consumer choice, but the lack of standardization of terms and offerings has created confusion in the marketplace. Active adult independent living communities target residents age 55 and older, promising low housing maintenance coupled with leisure activities, but usually attract residents in their 60s. Active adult communities are likely to appeal to retiree destination migrants, including international immigrants, whose flow has fallen since the start of the recession. Although these immigrant flows have attracted substantial research interest, many of the studies have used case studies and vignettes to illustrate example lifestyles. Significant gaps exist in understanding residents’ decision making and housing preferences as well as how these are translated into housing prices. Little is known about whether these aging residents have plans to move again or age in place. The active adult communities may be eventually transformed into inactive adult communities whose residents suffer the same mismatch of housing that was not designed for aging in place. One specialized housing community that attracts the early retiree resident is the golf course community. These communities create a large physical footprint on the land, require substantial amounts of water to maintain, and may create runoff of chemicals into the surrounding environment. Cost-benefit analyses of these types of communities are rare. The growth in popularity of active adult retiree communities affords economic opportunities for construction and ongoing housing maintenance and other service delivery.

Assisted living and congregate care units are usually located in multifamily buildings, cater to single women who need assistance with activities of daily living, and attract residents in their 70s. Specialized memory care and nursing care facilities are usually housing of last resort. The resistance to moving into any group housing that offers services is partially based on the desire to age in place, but also related to the institutional appearance and operation of many of these facilities. The “home” part of supportive or sheltered housing is often lost, so potential consumers will continue to resist this option unless new designs and operating plans are developed. It is understandable that nursing care facilities that serve as extensions of hospitals to provide short-term care and rehabilitation services often resemble hospitals in terms of physical structure, furnishings, and operations; however, long-term care housing should be housing. Even with the institutional approach, any housing that offers services tends to be expensive when compared with the wealth and income of most residents. In many countries, the government will directly provide or subsidize supportive housing for low-income residents and the wealthy can afford the cost, but middle class residents often cannot afford these options and must rely on family financial support to pay the cost or else settle for low quality facilities and care. Research is needed to create group housing designs that can be affordably constructed and operated, yet give the appearance and feel of a home. Small-

scale affordable alternatives to the economies of scale that large operators provide in typical supportive multifamily buildings are needed to integrate housing for elderly residents of all ages and abilities into residential communities. Such plans require research into community resident acceptance of designs and the effect such developments have on surrounding house values. Financial analysis of different provider structures, facilities sizes, and service combinations would assist with identifying viable alternatives. Alternative ownership structures, such as cooperatives, which are common for other types of housing in Scandinavian countries, could be explored.

The continuing care retirement community concept is attractive to many elderly residents because it entails just one move, then planned aging in place. The financial structure of these communities has proved a challenge as residents tend to live longer than expected. The result is that most are priced as luxury communities that only high wealth individuals can afford. Developing an affordable CCRC concept would satisfy multiple demands from the aging population. One concept that warrants research is a scattered CCRC in which instead of being located on one isolated campus, the components of independent living, assisted living, and nursing care are located scattered within a neighborhood so that residents are integrated into the community and can age in the neighborhood as they move from one level of supportive housing to another. The regulatory, design, and financial aspects need further research along with understanding of younger residents' attitudes about such housing being integrated in their neighborhood and, therefore, the impact on property values.

Research is already underway for supportive technology to improve older residents' living environments to enable aging in place with limited human service provision. Among the promising, although still very expensive, products being developed are floors that sense when a person has fallen and sensors that determine when a person does not rise from bed at the normal time. Telecare is a way to monitor elderly residents in multiple residences. Opportunities exist to develop a variety of systems, software, and equipment that can be mass produced and then installed in existing housing. Such systems will create jobs for trainers, technicians, and medical specialists.

The elderly resident's ability to age in place is often predicated upon younger family members living either in the same house or nearby. This is most common in urban areas. The recent labor emigration flows resulted in young people moving to larger cities or other countries for employment opportunities. Their parents are faced with the choice of leaving the family house or living alone. Thus, the houses in which elderly people live may more often be located in less economically vibrant sections of the country. On the one hand, the demand for home-delivered services may create economic opportunities in otherwise depressed communities. On the other hand, there may be a shortage of qualified local workers to take advantage of the opportunities. Another possibility is that the small number of roommate or cohabitation plans could grow, allowing aging residents to maintain a traditional residence, but share responsibilities and costs with other seniors in the community rather than family members. A more dispersed approach is cohousing that promotes "active neighboring" and/or includes professional caregivers living in the neighborhood.

Site selection for purpose built senior housing must be tied into the community. Because of the institutional style of much senior housing, it is often placed onto sites appropriate for hotels rather than permanent residences. Active adult communities are often built as self-contained residential neighborhoods. Seniors housing locations should offer walking opportunities for shopping and exercise and not be reliant on automobile transportation. Co-location is an option that has not been well explored. Older residents benefit from interaction and stimulation from younger people. Schools, day care centers, and enclosed malls might be suitable neighbors for independent living and assisted living facilities so long as government regulations do not hinder such innovative designs. The long-term cost to both the residents and the community of creating isolated groups of aging

residents is an area for discussion. Service delivery offers both economic opportunity and potential public costs.

The drop in house values since the start of the recession directly affects the net wealth of elderly homeowners. The reliance of homeowners in most developed economies on housing equity as the primary household asset puts aging homeowners at risk of slipping into poverty, potentially creating a greater fiscal burden on the government. With slowing or negative population growth, the overall demand for houses could decline, reducing house values and further eroding homeowners' savings. The current oversupply of houses in countries like Spain also depresses values. The positive aspect of the decline in house prices is increased affordability for lower income residents. The recent recession and its enduring effects on employment rates and income have increased demand for rentals. This shift, if enduring, will also contribute to lower values for the houses owned by elderly residents. The role of second/vacation houses in the elderly lifestyle is another relevant topic. With the financial hardships faced by many families since the recession, their ability to retain both houses may be challenged.

I am unfamiliar with taxation of housing in Spain and Portugal, but in many countries the income and property tax preferential treatment given to elderly owner occupants will have substantial negative consequences for tax revenue collection as the population ages. Meanwhile, those same residents demand greater services. Alternative fiscal financing plans for public services will be required as the proportion of elderly homeowners grows.

The high level of homeownership among the elderly in Spain and Portugal along with the large percentage of elderly who live in their own homes, either alone or as a couple, rather than living with their children, suggest that these housing and related financial issues should be significant concerns. The variability of population composition, house prices, and economic growth among the different regions in each country suggest that national solutions may not be appropriate and a combination of housing and financing alternatives may be the best approach.

Age versus cohort effect