

The Reverse Mortgage as an Asset Management Tool

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Abstract

Reverse mortgages are usually seen as a vehicle for increasing the income of poor, elderly households. This perspective, coupled with the relatively slow growth of reverse mortgage programs, has led some observers to question the growth potential of the reverse mortgage market. This article presents a more expansive view of reverse mortgages as a financial tool for tapping housing equity for various purposes and at various stages in the life cycle.

Three market segments for reverse mortgages are discussed: elderly persons living alone, other elderly households, and non-elderly households. Potential uses include turning housing equity into personal human capital investment accounts, enabling children to provide care for their disabled parents, funding elderly households' long-term care insurance, and sustaining consumption. Recent progress in product development and availability and political pressures to find private financing for health and long-term care suggest that the reverse mortgage market has considerable growth potential.

Keywords: Reverse mortgages; Elderly; Homeownership

Introduction

Reverse mortgages provide a flow of payments to homeowners who have amassed considerable housing equity. These instruments may be thought of as the “reverse” of forward mortgages in that they result in an outstanding balance that grows over the life of the loan. The academic literature not only explains why elderly households will demand reverse mortgages¹ but

¹ The life-cycle theory of consumption and saving predicts that households accumulate assets before retirement and draw them down after retirement, suggesting that elderly households are the most likely consumers of reverse mortgages.

also reports a large potential demand for these mortgage instruments² and indicates relatively few binding supply constraints in the reverse mortgage market.³ Skeptics are not convinced by the literature, however; they question why the Home Equity Conversion Mortgage (HECM) demonstration program of the Federal Housing Administration (FHA) and the U.S. Department of Housing and Urban Development (HUD) is operating far below its authorized level if the reverse mortgage market offers so much potential. Newman (1993, 559–60) characterizes this view:

Experience with HECM over the past 10 or more years suggests that there is no great demand for these instruments. For example, in the early 1980s, the Buffalo Home Equity Loan Program had a difficult time recruiting participants despite vigorous marketing and outreach efforts.... Roughly 10 years later—and again despite strong outreach, marketing, and substantial flexibility in the form of the HECM (e.g., line of credit, lump-sum payment, or annuitized monthly payment)—the rate of application to HUD’s HECM Insurance Demonstration Program since 1989 is described as “slow but steady”.... Although Congress has authorized funding for up to 25,000 insured loans through September 1995, only 5,000 loans have been written to date. In contrast to most HUD programs, there has been no need to maintain a waiting list.

Skepticism about significant growth in the reverse mortgage market seems justified when elderly households are asked

² Given that studying demand in the nascent reverse mortgage market is impossible, a few papers have explored the potential demand (Mayer and Simons 1994; Merrill, Finkel, and Kutty 1994; Rasmussen, Megbolugbe, and Morgan 1995). These studies use data from the Annual Housing Survey (AHS), the Survey of Income and Program Participation (SIPP), and the U.S. Census Bureau’s Public Use Microdata Sample (PUMS) to estimate the number of elderly households that had accumulated sufficient equity to receive a potentially “significant” benefit from a reverse mortgage. These studies suggest a potential market for reverse mortgages of 3 million to 5 million elderly households in 1990.

³ Supplying reverse mortgages to elderly households carries unique crossover, interest rate, and maintenance risks to lenders (Boehm and Ehrhardt 1994; Chinloy and Megbolugbe 1994; Klein and Sirmans 1994; Miceli and Sirmans 1994; Szymanoski 1994), but these risks do not appear to be a major obstacle to the development of the market. Fannie Mae’s announcement of the Home Keeper reverse mortgage product in November 1995 makes clear the absence of significant supply constraints.

directly about their interest in reverse mortgages. Among the respondents in a national survey of elderly homeowners who were “familiar” or “somewhat familiar” with reverse mortgages, 94 percent said that they were “not at all interested” in learning more about them and 86 percent indicated that they could not imagine a time in the future when they might be interested in learning more about them (Rasmussen 1995). These attitudes, combined with program experience, suggest that the effective demand for reverse mortgages is limited.

A requiem for reverse mortgages is, however, premature. Scholen (1993), a major advocate of reverse mortgages, points out that consumers have been slow to accept many product innovations. Furthermore, the almost exclusive focus on poor, single, elderly persons as the consumers of reverse mortgages has ignored several potentially important market niches for the product. Among them are middle-aged homeowners who want to use housing equity as a human capital investment account or to finance long-term care for their disabled parents, and nonpoor, multiple-person elderly households that want to tap their housing equity to finance long-term care insurance or to make inter vivos bequests.

Most discussions of the demand for reverse mortgages are rooted in the life-cycle model of consumption and saving, which predicts that people will accumulate assets before retirement and then spend the assets to maintain consumption after retirement. This model is particularly germane for reverse mortgages because most elderly households command few assets aside from their homes. Indeed, Venti and Wise (1990) suggest that home equity accounts for about 80 percent of the nonpension wealth of older households. House-rich and cash-poor households with a limited life expectancy—the elderly—are therefore the most logical source of demand for reverse mortgages. This perspective has led to studies focusing on the number of elderly households that could significantly increase their income by tapping their housing equity. Merrill, Finkel, and Kutty (1994) and Mayer and Simons (1994), for example, estimate the number of elderly households that would receive a 20 to 25 percent increase in income by drawing down their housing equity.

Viewing the demand for reverse mortgages from the perspective of the life-cycle model, however, restricts the market to elderly households that wish to increase current consumption expenditures. Instead, reverse mortgages may best be viewed as offering another option in the range of portfolio choices available to households. We argue that reverse mortgages for the elderly can

also serve as an asset management tool to finance extraordinary expenses, transfer assets between generations, or purchase long-term care insurance while preserving more liquid assets (Rasmussen, Megbolugbe, and Simmons 1996).

In the remaining three sections of this article, we explore three market segments and examine how reverse mortgages can serve the long-term financial planning needs of each, investigate demographic and labor market trends that are likely to affect the reverse mortgage market, and examine the impact of medical care financing arrangements and the availability of public support for long-term care for the frail elderly on the reverse mortgage market. The final section provides concluding comments.

Market segments

Three market segments are examined in this section. The first—elderly persons who live alone—is the most likely to use home equity to meet financial exigencies. The other two segments—other elderly households and non-elderly households—are more likely to use reverse mortgage instruments as an asset management tool.

Elderly living alone

Because the literature has already documented a fairly extensive potential market for reverse mortgages among the elderly living alone (Mayer and Simons 1994; Merrill, Finkel, and Kutty 1994; Rasmussen, Megbolugbe, and Morgan 1995), we discuss this topic only briefly. Two-thirds of households headed by a person aged 75 years or older are single-person households, and three-quarters of this population is female. These individuals have characteristics that are favorable for the development of the reverse mortgage market. In 1990, female householders aged 65 or older held approximately \$300 billion in housing equity.⁴ Nevertheless, many of these women subsisted on an extremely low income. Almost 27 percent had an income below the poverty threshold of \$6,268.⁵ Another 22 percent had incomes between

⁴ This estimate is based on PUMS from the 1990 census (Morgan, Megbolugbe, and Rasmussen 1996).

⁵ Morgan, Megbolugbe, and Rasmussen (1996) show that reverse annuity mortgages could reduce the proportion of single elderly female householders living in poverty from 19.5 to 5.8 percent. Jacobs (1986) found a similar impact using 1983 AHS data.

100 and 150 percent of the poverty threshold. Given their precarious financial condition, many of these women might substantially increase their well-being by tapping housing wealth to increase consumption and sustain independent living.

A potential problem for lenders in this market niche is that an adequate level of property maintenance is not guaranteed. An equity stake in their home might not give elderly persons living alone sufficient incentive to maintain their property at an optimum level. Routine maintenance, which is usually performed by homeowners, is difficult for the frail elderly. Although they could contract out maintenance activities, the elderly tend to delay such expenditures in favor of some depreciation of the dwelling.⁶

The likelihood of inadequate maintenance might be mitigated by the presence of family members who stand to inherit the house and thus have an interest in its long-term upkeep. Relatives who reside nearby might perform routine maintenance, but they have only a modest incentive to make substantial maintenance expenditures. After all, the relatives must make an immediate outlay in hopes of a return at some point in the indefinite future. These family “investors” face the same crossover risk faced by mortgage holders; that is, they may receive no return on their investment if the outstanding loan value exceeds (i.e., crosses over) the property value. Family members who have a relatively high discount rate have no guarantee of a positive return from maintenance expenditures.⁷

Lenders can alleviate, but not eliminate, this problem by requiring excessive repair expenditures prior to closing. Consider the following example. A 75-year-old woman seeks a reverse mortgage on her home. An inspection reveals that the roof is in adequate condition but is likely to need significant repair or replacement in 3 years. The expected term of the loan is the borrower’s life expectancy, or about 9.1 years for a white female.

⁶ Lenders could use an escrow arrangement to ensure continuation of the maintenance contract, but, as noted below, this creates an incentive for lenders to contract for excessive maintenance.

⁷ In addition to the straightforward investment risks that involve housing prices, interest rates, and householder longevity, the family investor faces the risk that the householder will not consider these maintenance investments when dividing the property among the heirs. If the property is to be divided equally among the heirs, regardless of the contribution made to maintenance, the optimum maintenance investment strategy for any heir is to make no investment while the others make expenditures to maintain the property’s value.

If the roof starts to leak within 3 years and is not repaired promptly, the lender's investment can be compromised. Thus the lender has a strong incentive to claim that the roof needs replacement, thereby effectively reducing the loan proceeds by several thousand dollars.⁸

Demand for reverse mortgages might be relatively price inelastic for the elderly living alone. To a large degree, this market segment mirrors that currently served by the HECM demonstration, a population whose home equity is their only source of funds for extraordinary expenditures. Participants in the program are impoverished widows (their median income of \$7,572 is less than 125 percent of the poverty level for a single person over age 65). More than half of them (51.2 percent) take out credit lines that are drawn down quickly (Case and Schnare 1994). This behavior suggests that the elderly living alone are taking out reverse loans not to cover ordinary living expenses but to cover extraordinary costs.⁹

Reverse mortgages are a good deal for those who expect to live a long time. Lenders, however, might find this market segment unprofitable if "adverse selection" occurs—that is, if people who are in good health and expect to live a long time are disproportionately represented among those who demand the product. However, Szymanoski (1994, 352) points out that people in poor health find the HECM program particularly attractive: "HECM originators state that many of their clients are very poor and ill." Two factors account for the clients' health status. One is that borrowers can take out a lump-sum line of credit rather than an actuarially based lifetime annuity, thereby allowing persons in poor health to gain access to their housing equity while they can still use it. The second is that persons in good health, who are generally younger, more likely to be living with a spouse, and more likely to have an income substantially above the poverty level, have less need for a reverse mortgage.

Although the elderly living alone provide a good market match with the lenders of reverse mortgages, they are at an inherent disadvantage in terms of bargaining power relative to the

⁸ The potential severity of this bias toward extensive preapproval repairs is reflected by the fact that it is an antidote to the maintenance risk analyzed by Miceli and Sirmans (1994).

⁹ This behavior is also consistent with survey results showing that the elderly are extremely reluctant to consider using the proceeds of a reverse mortgage to augment current spending (Rasmussen 1995).

industry. Because it has access to other investment outlets, the lending industry can insist on reverse mortgage terms that are adjusted for risk. While such a practice is hardly sinister, it has a negative impact on impoverished persons with no other assets or options to pay off their debts or increase their income. It is this seller's market that provides an ideal environment for fraudulent practices. Of the three market segments discussed here, the elderly living alone are the most likely to require regulatory action to guard against such abuse.

Other elderly households

Two distinct household types are considered in this market segment: (1) householders who do not live alone and are at least 75 years old and (2) households headed by a person between the ages of 65 and 74. Both groups are dominated by married couples with relatively high incomes. Only 6.8 percent of households in the first group were below the poverty level in 1990.¹⁰ Likewise, only 9.4 percent of the second group (only 4.3 percent of married-couple households) had incomes below the official poverty threshold in 1990.

The incentive compatibility of borrowers and lenders for these groups is far less than that for the elderly living alone. Reverse mortgages offer these other elderly households lower benefits because of their longer life expectancy. With suppliers facing greater uncertainty with respect to crossover risk, lenders are forced to offer lower loan amounts per dollar of equity. One would expect the lower benefits, combined with higher incomes, to dampen this group's demand for reverse mortgages as a supplement to current income.

A potential source of demand for reverse mortgages among members of this market segment, however, emerges from their desire to transfer wealth to their heirs without sacrificing their current consumption or giving up control of their liquid assets. Because a house is the principal asset passed on to heirs (Mayer and Simons 1994), it is often argued that a bequest motive actually undermines the demand for reverse mortgages. On the contrary, a strong motive to transfer assets to potential heirs

¹⁰ Childless couples account for more than 90 percent of elderly households aged 75 and older that are composed of more than one person. Single parents and married couples with children under age 18 account for 1 percent of these households, and about 8 percent are married with children over age 18 (U.S. Bureau of the Census 1991, table 5).

could increase the demand for reverse mortgages. Elderly households of modest means could transfer wealth to their offspring without lowering current consumption or compromising their economic security. They could do this by transferring assets *inter vivos* at the most favorable time for them and their beneficiaries. Of course, the beneficiaries would pay for the *inter vivos* transfer by a reduction in their future bequest, because the rising balance of the reverse mortgage would greatly reduce (or eliminate) their claim on the donor's home. Armed with the appropriate information, however, both parents and heirs could find themselves better off after an immediate transfer of assets. The donors are better off because they derive utility from seeing the beneficiaries enjoy their gift. The recipients are better off as long as the gift's current value exceeds their estimate of the present value of the higher bequest they would receive upon the donor's death.

Uncovering evidence of a bequest motive—that is, a desire to transfer wealth to another person after death—is difficult. Because of the uncertainty of life expectancy, someone hoping to exit this world with a zero net worth is likely to have an estate. Such an observation led Kessler and Masson (1989, 145) to argue that it is “virtually impossible to distinguish life-cycle saving from bequest saving.” Nonetheless, recent evidence provides a compelling case for the importance of a demand for *inter vivos* transfer. Using data from the Survey of Consumer Finances to determine how many households contributed \$3,000 or more to another household between 1983 and 1985, Gale and Scholz (1994) found that benefactors accounted for 9.4 percent of the population aged 25 or older and that children accounted for 75.4 percent of the recipients and 74.9 percent of the dollar value of transfers. More important, Gale and Scholz determined that the probability of making a major gift rose with the age of the household head. In fact, the participation rate was highest among heads aged 55 to 64 (16 percent). These data underscore the considerable potential demand for *inter vivos* transfers that can be tapped by a reverse mortgage instrument.¹¹

A second and perhaps more important source of potential demand for reverse mortgages among homeowners aged 65 to 74—the purchase of private long-term care insurance—is discussed later.

¹¹ Gale and Scholz (1994) point out that many of these transfers between living persons may be disguised bequests designed to avoid estate taxes or means tests required for Medicaid funding of nursing home care.

Non-elderly households

Most discussions of reverse mortgage markets focus on elderly households and virtually ignore the potential demand among middle-aged households in the 45–54 age group and, to a lesser extent, the 55–64 age group. There are several reasons for the emphasis on senior citizens. First, reliance on the life-cycle theory to explain the demand for dissaving through the use of housing equity suggests that reverse mortgages are best suited for house-rich, cash-poor elderly households. Second, younger households with relatively high incomes can already tap their housing equity through home equity loans and lines of credit, leaving the elderly as the unserved market segment. Third, as the HECM demonstration has revealed, program participants tend to be old and poor; the median participant is over 75 and very near the poverty line.

Despite good reasons to consider elderly households as the most important reverse mortgage market segment, non-elderly households are also an attractive market segment, at least from the perspective of the industry, primarily because of the highly compatible incentives of borrowers and lenders. Household heads between 45 and 54 are at the peak of their age-earnings profile and thus are not logical candidates for life-tenure reverse mortgages. And relatively short-term reverse mortgages are less risky than conventional mortgages. In contrast to conventional mortgages, which are often collateralized by only 5 percent of dwelling value, reverse mortgages at their origination are collateralized by a considerable amount of home equity.

Since the terms of fixed-term reverse mortgages are designed to entitle the owner to retain a major portion of the equity and repay the loan to regain mortgage-free, or declining-balance, status, the lender faces no greater maintenance risk than that typically borne in forward mortgages. Further, foreclosure in the event of a failure to repay is no more problematic than in the forward mortgage market: Evicting a deadbeat working household does not carry the same stigma as taking the home of an impoverished widow. Accordingly, incentive compatibility is highly favorable for the non-elderly.

Because relatively young homeowners with substantial housing equity usually have a significant income from earnings, their demand for reverse mortgages stems primarily from investment rather than consumption needs. Data from the 1989 Survey of Consumer Finance show that investment motives are predominant among about 75 percent of borrowers who take out home

equity loans or home equity lines of credit. Investment activities include home improvements or purchases, investments, debt consolidation, and education.

Since working homeowners already enjoy easy access to their housing wealth through home equity loans and home equity lines of credit, under what circumstances would they want a reverse mortgage? The answer is straightforward: when the investment expenditures they want to make are so large that they prefer to postpone all repayment until some future date. Although the home equity tapped by a reverse mortgage can be used to finance a wide range of financial investments, it is especially useful for providing the additional income needed to pay for a child's education or to generate replacement income for workers required to acquire new job skills. The 15-year reverse mortgage (or extra monthly payments on a 30-year mortgage) can serve as a type of private "human capital investment account" that becomes available when the need for such investments is likely to be high.

An example demonstrates the advantages of using reverse mortgages in the context of long-term human capital investment. Consider a family with a three-year-old child that is about to purchase a home and is committed to planning for the child's college education. The family has access to a prepaid tuition and dormitory contract that permits it to lock in the current payment schedules for a lump-sum payment or a monthly fee.¹² For a three-year-old child, the monthly cost for prepaying four years of tuition and dormitory rent is \$116.

Assume the family has chosen to buy a \$68,400 home and will finance it with a \$65,000 mortgage. Financial constraints are such that the family has the following options: (1) take a 30-year term loan at 9 percent interest (the monthly payment being \$523) and pay \$116 to the prepaid college program or (2) take a 15-year mortgage at 8.5 percent (requiring a \$640 monthly payment) and pay the college costs with the proceeds of a reverse mortgage. Which option is preferred from a financial perspective?

Prepaying college costs offers a fixed price, while a self-financing scheme leaves the prospective student with uncertainty as to future tuition and dormitory fees. The prepaid program's price schedule provides insight into what the state expects future fees

¹² The parameters of the program described here are taken from the 1994 Florida Prepaid College Program, which can be used at any institution in Florida's state university system.

to be, since the future value of the monthly payments is expected to cover the costs of tuition and housing. Assuming that the state can earn a 4 percent real rate of return on its investment of these funds, the expected cost for 4 years of tuition and housing 15 years hence is \$28,546. This amounts to \$595 a month for a 48-month college career.

A reverse mortgage program allows the family to tap the equity of the home, which is owned free and clear after 15 years. The maximum loan-to-value ratio is 50 percent, and the home value is assumed constant at \$68,400 in 1994 prices, allowing the family to take out a reverse mortgage of \$34,200. This amount is loaned to the family as a 30-year forward mortgage at 9 percent, requiring a monthly payment of \$275. An annuity is paid on the same balance but is paid over the 4-year period required for college. The monthly payment on this 4-year contract, assuming an 8 percent interest rate, is \$835. The borrowers receive \$560 net per month and at the end of 4 years owe \$34,200.¹³

Consider the family's wealth position upon the completion of 4 years of college. After using the reverse mortgage to pay for college under the 15-year mortgage plan, the family carries a mortgage balance of \$34,200 at the end of the 19th year. Had the family taken advantage of the college prepayment program and a 30-year mortgage, its mortgage indebtedness would be \$46,657. Thus, after 19 years, when the student has presumably finished college, the family using a reverse mortgage in the financial planning process would have over \$12,000 more housing wealth than if it had opted for a 30-year mortgage and a separate scheme for funding higher education.

¹³ Case and Schnare (1994) report that some private lenders have offered fixed-term reverse mortgages as a way to reduce risk when mortgage insurance was not available. The details of this reverse mortgage program are modeled on a program offered by Royal Trust in Canada, as described in an internal Fannie Mae (1992) document on reverse mortgage initiatives. Even though the reverse mortgage proceeds are \$35 short of the expected monthly college costs, they should be considered as equivalent to the estimated costs. First, if a child chooses not to go to college, the money paid into the program is returned without interest, less a \$50 cancellation fee. If the student attends college out of state, the refund is limited to the money paid to the program with a 5 percent nominal rate of return, which obviously falls below the opportunity cost offered by other investments. Thus a positive probability of not using the program lowers the attractiveness of the prepaid program relative to the self-financing scheme that employs a 15-year mortgage and a reverse mortgage. Second, the program requires the student to live in the dormitory for 4 years, an option that may not maximize the student's welfare. Offsetting these risks is the option to transfer the program benefits among offspring.

The success of the Florida Prepaid College Program, which served as the basis for the above analysis, suggests a considerable demand for financial planning to cover college costs long before enrollment. The Florida program, which was established in 1987, has written more than 276,000 contracts and claims more than \$4 billion in assets. While Florida has the nation's largest prepaid college tuition program, Alabama, Alaska, Massachusetts, Kentucky, Ohio, Pennsylvania, Texas, and Wyoming have adopted similar programs.¹⁴

Another illustration of the role that fixed-term reverse mortgages can play in the life-cycle financial planning of younger households relates to the care of elderly parents. An increasing proportion of middle-aged households will have aged parents in need of some personal care. Indeed, depending on developments in public policy for long-term care, many grown children may find that caring for their parents, rather than institutionalizing them, is the only acceptable option. In coming decades, an increasing proportion of middle-aged workers may choose to withdraw from the workplace, either temporarily or on a part-time basis, to focus on their parent care responsibilities. Since parent care saps the productivity of workers, firms may find it in their interest to facilitate leaves for such purposes (*Wall Street Journal* 1995). For the same reasons they facilitate midcareer human capital investments, fixed-term reverse mortgages are an ideal instrument to finance a temporary leave from work. Virtually all middle-aged homeowners with significant housing equity can potentially demand reverse mortgages for this purpose.¹⁵

¹⁴ Some might be skeptical about this example because a simple saving plan for college or relying on low-cost student loans might be a "better" financial plan in some objective sense. Another alternative to reverse mortgages would be to tap housing equity with a home equity loan, an inferior choice for households that feel they cannot afford additional monthly expenses while they support children in college. The point of this example is not to argue that reverse mortgages are an optimum way to finance college but to show that this option may be significantly better than an alternative that has already been chosen by several hundred thousand people.

¹⁵ It is interesting to note that caring for parents in this way can, from the perspective of the caregiver, represent an investment that can increase the expected bequest. If personal care is substituted for institutional care that would consume the parent's housing and financial assets, the caregiver may be compensated with a higher bequest than would be possible if the parents were left to finance their long-term care.

Demographic and labor market changes

The existing literature does not consider the impact of demographic or labor market changes on the potential demand for reverse mortgages. How are these changes likely to affect the three market segments discussed earlier? The potential market among the elderly living alone will increase as a consequence of the aging of the population.¹⁶ Recent evidence on changes in income growth and pension coverage by gender does not dim the prospects for growth of the reverse mortgage market in this market segment. Wiener, Illston, and Hanley (1994) have projected the income and assets of elderly households through 2018. Estimated median family income for 75- to 84-year-olds in that year is \$20,873 (in 1993 dollars). This estimate suggests that the potential role of housing equity in the financial planning of the elderly is not likely to diminish, especially in light of the projection that the median household will have only \$35,981 in financial assets but housing valued at \$116,428 in 2018. The need to use these assets for long-term care seems especially likely because Wiener, Illston, and Hanley expect nursing home and home care prices to increase at 1.5 percent a year faster than the general price index.

These income and wealth projections are based on assumed real wage and benefit growth of 1.5 percent per year over a 30-year period, which may be a bit high. Even and Macpherson (1995) show that average real earnings for females aged 36 to 55 working in the private sector rose 9.8 percent between 1979 and 1988. During the same period, the proportion of these females covered by private pensions increased by 16.2 percent (although by 1988 the proportion covered was still only 49.4 percent). In contrast, males aged 36 to 55 had the opposite experience. Their mean real earnings fell 8.6 percent, and their pension coverage fell 2.3 percent. Together, the recent gender-specific trends in wages and pension coverage suggest that the projections of Wiener, Illston, and Hanley (1994) are too optimistic and that the elderly for decades to come are likely to find it useful to tap their home equity for the variety of purposes discussed in this article.

The numbers of elderly married-couple households and persons aged 65 to 74 are also projected to increase. For this market segment, the aging of the population also has a potential impact on intergenerational wealth transfer. Longer life expectancies

¹⁶ For example, the number of households headed by persons aged 75 or older is expected to increase almost 50 percent between 1990 and 2010 (Joint Center for Housing Studies 1996).

mean that the average age at which wealth is inherited is also increasing. In practical terms, the inheritance that might once have become available just in time to provide for a grandchild's education may now be a little late in arriving. The transfer of wealth by means of reverse mortgages permits a great deal of flexibility in the timing of such bequests.

Finally, how will potential demand among younger (45–54 and 55–64) age groups be affected in the future? Over the next several decades, people of working age will be members of relatively small cohorts that demand high salaries at the same time they face relatively low prices for family housing (Summers 1993). Such individuals could build up home equity relatively rapidly through a 15-year mortgage. Scholen (1993) has pointed out that the process by which consumer preferences are altered to embrace new products can be lengthy. However, cohorts aged 45 to 54 and 55 to 64 have readily embraced home equity loans and credit-card buying and thus may be especially receptive to the idea of reverse mortgages as an additional financial planning tool.

Most observers of labor markets emphasize the increasing need for lifetime learning and the expectation of multiple careers because of rapid technological change. If the prognosticators are correct, middle-aged workers will increasingly require retooling in the midst of dynamic careers. Exacerbating the need for acquiring human capital in midlife is the fact that workers' careers are likely to lengthen as the population ages. Instead of looking forward to early retirement after 25 years of work, a 47-year-old in the next century will have at least 20 more years of work. Temporary income from a reverse mortgage in midlife can facilitate retraining, enabling workers to take time to acquire needed education and training for new job skills.

Reverse mortgages under alternative policy regimes

Public policy issues such as medical care reform and the delivery of long-term care could significantly affect the demand for reverse mortgages. Even though elderly households constitute the only market segment for life-term reverse mortgages, for many elderly households, housing equity is the last financial buffer held as a form of insurance against substantial medical care expenses or long-term disability (Skinner 1993). More specifically, the need to hold housing equity as insurance is obviously related to the public schemes that provide for the health and long-term care needs of the elderly. If coverage for health and

long-term care were complete and universal, for example, housing equity would not need to play such an important insurance role. What future public policy changes in medical and long-term care for the elderly might influence the potential demand for reverse mortgages?

Medical care reform

A change in health care policy is a virtual certainty. The fiscal reality requiring reform is described by Cutler (1994, 21, footnote in original):

Currently, over 20 percent of both federal and state and local revenues are spent on health care. In the past two decades, real public sector health spending has increased almost 6 percent annually, and federal health spending is the fastest growing part of the federal budget.¹⁷ It is clear that long-term deficit reduction is integrally related to the ability of the public sector to manage health care spending.

Reducing outlays for health care is not easy, for technical change is a major contributor to the growth in medical costs and, according to Newhouse (1992), accounts for as much as half of the increase. Whatever efforts are made to control costs, one result of reform seems certain: The financial contributions required from the insured are likely to increase.¹⁸ Attempts to lower costs by reducing payments to doctors and other providers might also increase the need for other types of care. Early discharge of surgery patients might require more home care, for example, and would increase out-of-pocket expenses and financial burdens on the elderly.

Projecting health care costs forward from the 1980s implies annual increases of about 4.4 percent. The Brookings-ICF Long-Term Care Financing Model estimates that median family

¹⁷ Over the next five years, health entitlements are expected to grow by almost 8 percent annually in real terms compared to 2 percent for Social Security and net interest payments. Declines of 1 percent for other entitlements and non-defense discretionary spending and of 5 percent for defense are also anticipated.

¹⁸ For example, one Republican plan in May 1995 considered changing Medicare into a voucher program, with seniors receiving more than \$5,000 per year to buy private insurance. Another option suggested by the U.S. House Budget Committee was to increase the \$100 annual deductible to \$200 and to boost monthly premiums for beneficiaries.

income for the 75–84 age group will grow annually by 1.75 percent between 1993 and 2008 and 2.1 percent during the subsequent decade. Incomes for those over age 84 are expected to grow more slowly. By contrast, housing equity is projected to rise more rapidly than family incomes between 1993 and 2018, increasing annually by 2.1 percent for the 75–84 age group and by almost 3.3 percent for those over age 84. These data suggest that using reverse mortgages to finance a portion of health care costs may be a relatively painless solution for many householders.

Long-term care insurance

Demand for the long-term care of disabled people will increase as the number of senior citizens increases.¹⁹ Although most elderly persons are able to care for themselves, more than 4 in 10 of those who live to age 65 will spend some time in a nursing home, and 1 in 4 will spend more than a year there (Kemper and Murtaugh 1991). Because many elderly persons apparently cannot afford private long-term care insurance, a Medicaid-like program is an essential ingredient in long-term care policy.

Home care rather than institutionalization seems to be the preferred method of delivering long-term care. Olson (1994, 41) writes:

Family members in general, and women in particular, are not only the major caregivers in the U.S., but studies show that the vast majority prefer to provide such care rather than to institutionalize their relatives. Both older people and their families strongly resist nursing home placement, viewing it only as a last resort after all other alternatives have been tried.... In fact, as pointed out by several researchers, older people are institutionalized primarily when their caretaker becomes exhausted, ill, or dies.

Struyk and Katsura (1988) studied the process of aging at home, focusing on housing adjustments made in response to disabilities. They argued that public policy innovations should approach long-term care policy issues cautiously because “households have worked out careful arrangements to meet their needs that involve a wide variety of sources” (p. 165).

¹⁹ Disabled people have difficulty with activities of daily living—eating, bathing, toileting, dressing, and getting in and out of bed.

By using home equity to tap reverse mortgages, some people can sustain home care for a longer time. The equity used, of course, can come from the home of either the caregiver or the disabled person. Taking out fixed-term reverse mortgages on their own homes can provide caregivers with the resources to take time off from work or pay for assistance that postpones caregiver burnout.²⁰ Reverse mortgages can also finance home retrofitting so that disabled persons can continue to live at home. In fact, private long-term insurance policies now offer a full array of coverages that include at-home care through institutionalization. These policies offer two major benefits to the elderly. First, they guarantee better quality of care than Medicaid provides. Second, they help the wealthy elderly preserve their bequest since their assets are less likely to be spent down before they become eligible for Medicaid. Just as home equity can serve as a human capital investment account, it can also function as a tax-deferred asset—a long-term care self-insurance account—when relatively modest outlays are needed to sustain in-home care.²¹

Although there is general agreement that private long-term care insurance should play some role in the policy mix, there is less agreement about the extent of that role. Wiener, Hanley, and Illston (1992; Wiener, Illston, and Hanley 1994) argue that public initiatives must dominate long-term care efforts, for they estimate that only 10 to 20 percent of the elderly can afford private long-term care. Cohen et al. (1992a, 1992b, 1993), on the other hand, advocate a more dominant role for private insurance, claiming that more than 40 percent of the target population can afford the premiums.

These wildly divergent estimates of affordability are rooted in different assumptions about what constitutes reasonable coverage and about the affordability of long-term care insurance premiums. By focusing their discussion on current income and liquid assets—which, of course, exclude home equity—most

²⁰ The Council for Jewish Elderly prepared a chapter in Bogdonoff et al. (1991) entitled “The Many Meanings of Respite.” The chapter indicates that caregivers can benefit greatly from a variety of assistance that reduces the relentlessness of the caregiving process.

²¹ Jacobs and Weissert (1987) report that nearly half of the single elderly who are at “high risk” of needing home care services could pay for the services with a reverse mortgage. Jacobs and Weissert also consider the use of reverse mortgages to pay for long-term care insurance, but their article did not have the benefit of information generated by the HECM demonstration and by recent developments in the long-term care insurance market.

policy analysts underestimate the role that private initiatives can play in the long-term care of disabled elderly persons.²²

By turning a portion of home equity into a liquid asset, reverse mortgages could have a dramatic effect on the affordability of private long-term insurance. Assume, for example, that the long-term care insurance package purchased by the elderly with incomes in excess of \$50,000 provides adequate coverage and that the annual premium at age 65 is \$1,500 (Cohen, Kumar, and Wallack 1993).²³ At age 65, life expectancy is 17.2 years. Discounting the stream of \$1,500 annual premiums at 4 percent yields a present value of \$18,400. Thus, a single upfront premium of approximately \$20,000 at age 65 should guarantee access to long-term care.²⁴

Under FHA guidelines for the HECM program, the loan-to-value ratio for a 65-year-old is 0.28 at a 10 percent rate of interest. Home equity of \$80,000 will therefore generate a \$22,400 loan, and about 35 percent of homeowners in the 65–74 age group own homes valued in excess of \$80,000 free and clear. Paying for long-term care insurance with an upfront premium drawn out of housing equity requires neither a reduction in current income nor a depletion of nonhousing assets. Reverse mortgages increase the affordability of private long-term care insurance and so should have a major impact on the discussion of the optimal mix of public and private provision of long-term care.

²² It is remarkable that the policy debate so thoroughly ignores housing equity, given the potential identified by Jacobs and Weissert (1987). Wolfe (1993, 137) briefly mentions that reverse mortgages could be marketed by insurance and financial institutions as one of several recommended “complementary combinations of coverage and other financial arrangements” to promote the expansion of long-term care. Redfoot (1993) is an exception, suggesting a strong link between housing finance and long-term care reform.

²³ This figure is probably upwardly biased. Premiums increase with age, and virtually all purchasers in the study were over age 65.

²⁴ Premiums could be lowered by developing a tax-sheltered insurance program. Under such a public-private partnership, the elderly would buy their long-term care insurance from an insurance company that would also service claims. The premiums would be held in a government trust to allow assets to accumulate faster. Since the home equity used to pay the premium is not subject to taxation, the innovation produces no revenue effect as long as it is limited to policies purchased with home equity—assets are simply moved from one nontaxed status to another. Thus long-term care insurance can be substantially subsidized with no impact on the federal budget.

Concluding comments

In this article, we have argued that reverse mortgages are a valuable financial tool for consumers, particularly in the three market segments identified. These instruments, combined with home equity lines of credit, can make housing equity the cornerstone of financial planning over the life cycle. The reverse mortgage market might see rapid growth if the industry aggressively promotes the creative use of home equity to finance long-term care insurance, debt reduction, the retrofitting of homes for the disabled elderly, college educations, and, of course, sustaining consumption. Both fixed-term and life-term reverse mortgages are required if all market segments are to be served.

Although it is uncertain when the market will experience substantial growth, the stage seems to be set. The industry is providing information to help consumers compare alternative products. Moreover, the product is widely available, and high-visibility financial advisers are providing more information to consumers about advantages of reverse mortgages. Demographic and labor market trends will support faster growth. Finally, the political popularity of reducing the size of government, coupled with the high costs of medical care and care for the disabled elderly, almost guarantees a need to tap home equity to support the elderly. Given recent product development, long-term demographic trends, and political realities, the reverse mortgage market seems poised for sustained growth.

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