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# Reverse Mortgage Purchases by Seniors

*Toshiro Kojima*

*Senior Analyst*

*Nomura Institute of Capital Markets Research*

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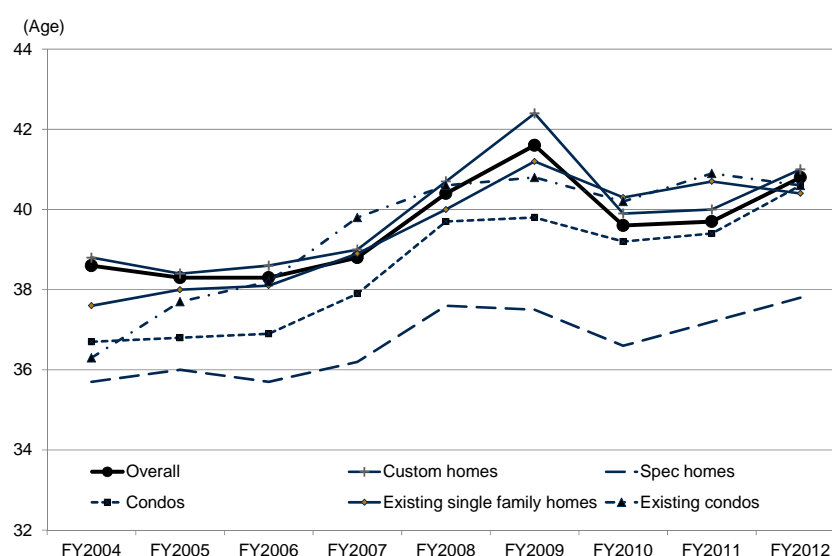
## I. Home loans held by seniors

### 1. Age of home buyers is rising

When asked what the usual age bracket of homebuyers in Japan is, the answer used to be “late 30s.” The often-used basis for that answer is the survey on Flat 35 loan borrowers conducted by the Japan Housing Finance Agency (JHF).

According to the JHF FY2012 borrower survey, the average age of a Flat 35 loan<sup>1</sup> borrower was 40.8 years for a custom home, 37.8 years for a spec home, and 40.6 years for a condominium. This average age is in a rising trend, and although momentarily declining after the March 2011 earthquake and tsunami, it rose by approximately 2 years over the past five (Figure 1). The average age of a homebuyer is thus currently around 40. When taking out a home loan, borrowers normally use the longest possible repayment period, because as the number of payments increases, the amount of the monthly payment declines as does the income requirement, making it easier to qualify for the loan. Home loans typically have a repayment period of 35 years, but set to ensure the final payment is made by the time the borrower turns 80.

**Figure 1: Average age of Flat 35 borrowers**



Source: Nomura Institute of Capital Markets Research, based on JHF's FY2012 borrower survey

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<sup>1</sup> A long-term, fixed-rate home loan offered by the JHF.

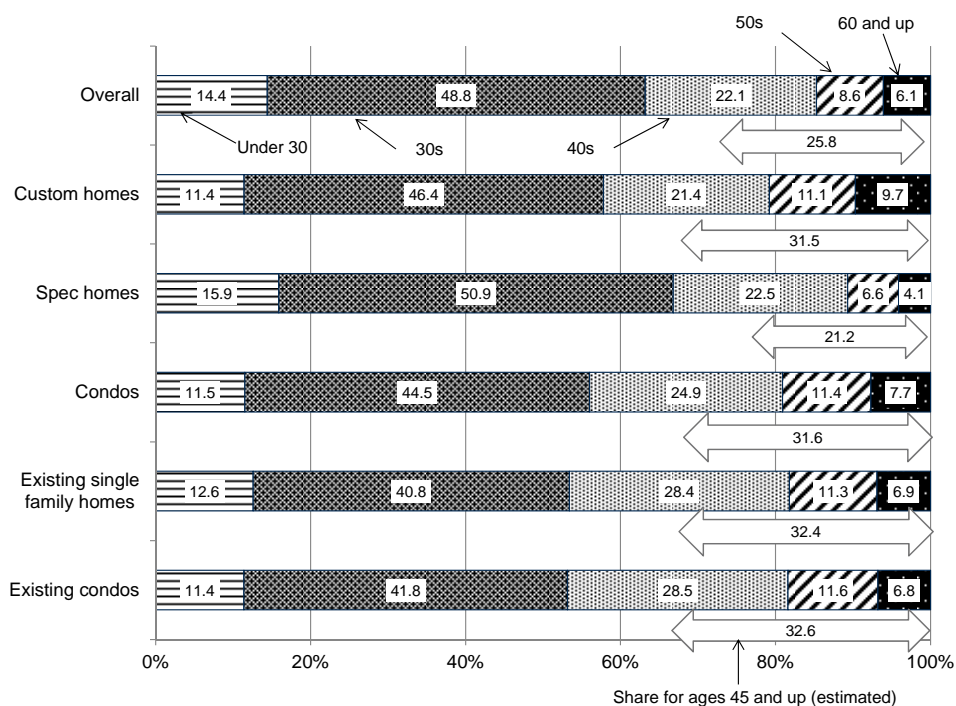
Thus the length of the loan is reduced a year for each year the borrower's age exceeds 45. Although the age of homebuyers is in a rising trend, a 40-year old borrower can obtain the maximum loan period of 35 years, and most borrowers probably try to purchase their home while their age still bodes well for loan qualification.

## 2. Completing repayments by the mandatory retirement age is difficult

Looking at the distribution rather than the average of borrower age, roughly half of all borrowers are in their 30s (Figure 2), and homebuilders and mortgage lenders focus the bulk of their marketing efforts on that age group. Annual incomes for males in their 30s average about ¥4–5m, and this is a sweet spot for writing home loans from the lender's perspective. Looking at the remainder of the distribution, however, 42.2% of borrowers purchasing custom homes, 33.2% spec homes, and 44.0% condominiums are at least 40 years old. Assuming half of borrowers in their 40s are at least 45, it would mean 31.5% of borrowers purchasing custom homes, 21.2% spec loans, and 31.6% condominiums were at least 45 when they purchased their home. This presents a different picture than does the average age of borrowers, and means that one out of every three borrowers who purchases a custom home or condominium is unable to use the maximum loan term.

Not being able to take advantage of the maximum 35-year repayment period does not appear to be a problem, given that a 50-year-old, for example, could still take out a 30-year mortgage. The problem, however, is that about 80% of Flat 35 borrowers are in occupations with a mandatory retirement age, including government and company employees, and could experience a substantial drop in income after reaching that age. In fact, according to the 2012 preliminary Family Income and Expenditure Survey

**Figure 2: Age distribution of Flat 35 borrowers**



Source: Nomura Institute of Capital Markets Research, based on JHF's FY2012 borrower survey

published by the Ministry of Internal Affairs and Communications, average incomes for people 60 or older are about two thirds what they are for people in their 50s.

Figure 3 shows a breakdown by age bracket of people who took out a Flat 35 loan to purchase a custom home. Each age group borrowed a total, counting both the JHF loan and other loans, of approximately ¥25m, had a monthly mortgage payment of about ¥100,000, and a debt-to-income (DTI) ratio of approximately 20%, all fairly reasonable. Because incomes decline in many households once a borrower reaches 60 years, however, the debt-to-income ratio can increase to 25% or more. Figure 4 shows estimates of DTI ratios for households with a home loan, based on the 2009 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications (MIC). The DTI for couple-only households where the husband is 65–69 years old is very high at 28.2%. Since it is normally difficult to lower one's standard of living even when income declines, an increase in the DTI would result in a significantly higher burden. Because of this, many financial planners, writing in magazines and other venues, recommend making prepayments so as to complete repayment by the retirement age. Figure 3 shows estimates of the amount of principal remaining at age 60 for borrowers in their 40s and in their 50s who pay down their mortgage on schedule without any prepayments: approximately ¥16.9m for the former and ¥21.5m for the latter. According to a survey by the Japan Business Federation (Keidanren), lump-sum retirement payouts for workers with a college degree averaged ¥24.917m in FY2012. A person who took out a mortgage in their 50s would not have much of their retirement payout left after using it to pay off their mortgage.

**Figure 3: Main characteristics of Flat 35 borrowers (for custom homes)**

|                  | Age  | Family size | Annual household income | Home size           | Construction /land cost | Cash down | JHF loan   | Other loans | Monthly payment | DTI   | Balance at age 60 (est.) |
|------------------|------|-------------|-------------------------|---------------------|-------------------------|-----------|------------|-------------|-----------------|-------|--------------------------|
| National average | 40.8 | 3.8         | ¥6.05mn                 | 132.4m <sup>2</sup> | ¥30.507 mn              | ¥6.031 mn | ¥22.996 mn | ¥1.481 mn   | ¥96,100         | 20.7% | ¥14.5 mn                 |
| 30s              | 34.5 | 3.7         | ¥5.471mn                | 131.4m <sup>2</sup> | ¥30.266 mn              | ¥5.511 mn | ¥23.043 mn | ¥1.712 mn   | ¥92,000         | 21.3% | ¥9.6 mn                  |
| 40s              | 43.5 | 3.9         | ¥6.814mn                | 132.2m <sup>2</sup> | ¥31.282 mn              | ¥6.626 mn | ¥22.839 mn | ¥1.822 mn   | ¥100,900        | 19.4% | ¥16.9 mn                 |
| 50s              | 54.4 | 4.0         | ¥7.974mn                | 139.5m <sup>2</sup> | ¥32.117 mn              | ¥6.985 mn | ¥24.27 mn  | ¥0.862 mn   | ¥111,200        | 19.0% | ¥21.5 mn                 |
| 60s              | 65.0 | 3.8         | ¥6.682mn                | 136.3m <sup>2</sup> | ¥31.184 mn              | ¥8.377 mn | ¥22.473 mn | ¥0.335 mn   | ¥101,600        | 19.0% | -                        |

Source: Nomura Institute of Capital Markets Research, based on JHF's FY2012 borrower survey

**Figure 4: Home loan repayment rates based on type household**

|  | Avg    | Nuclear households    |               |               |               |                                 |                          |                           |                                   |                 |        | Other households |        |
|--|--------|-----------------------|---------------|---------------|---------------|---------------------------------|--------------------------|---------------------------|-----------------------------------|-----------------|--------|------------------|--------|
|  |        | Two-person households |               |               |               | Couple with children households | Single parent households | Of which parent is mother | Couples with children and parents |                 |        |                  |        |
|  |        |                       | Husband 60-64 | Husband 65-69 | Husband 70-74 |                                 |                          |                           |                                   | Husband 75 & up |        |                  |        |
| Ann. Income (¥000s)                            | A      | 4,073                 | 3,965         | 3,934         | 3,792         | 4,031                           | 3,972                    | 3,871                     | 4,618                             | 2,761           | 2,674  | 5,718            | 4,909  |
| Avg. monthly income (¥000s)                    | B=A/12 | 339                   | 330           | 328           | 316           | 336                             | 331                      | 323                       | 385                               | 230             | 223    | 477              | 409    |
| Avg. payment for home or land loan for all (¥) | C      | 5,146                 | 4,798         | 4,320         | 5,936         | 6,729                           | 4,318                    | 1,799                     | 8,135                             | 2,153           | 1,438  | 12,392           | 7,299  |
| Share of people with a home loan (%)           | D      | 6.9                   | 6.5           | 5.8           | 9.6           | 7.1                             | 6.5                      | 2.8                       | 11                                | 3.7             | 2.2    | 17.1             | 9.5    |
| Avg. borrower's payment (¥)                    | E=C/D  | 74,580                | 73,815        | 74,483        | 61,833        | 94,775                          | 66,431                   | 64,250                    | 73,955                            | 58,189          | 65,364 | 72,468           | 76,832 |
| DTI (%)  | F=E/B  | 22.0                  | 22.3          | 22.7          | 19.6          | 28.2                            | 20.1                     | 19.9                      | 19.2                              | 25.3            | 29.3   | 15.2             | 18.8   |

Source: Nomura Institute of Capital Markets Research, based on the 2009 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

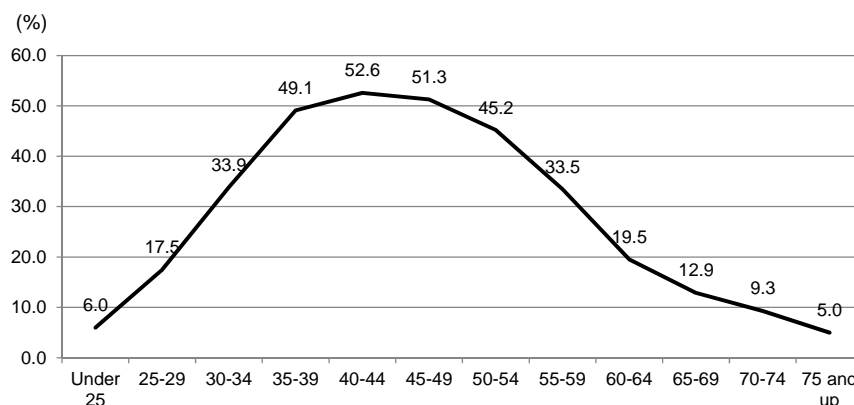
In the examples shown in Figure 3, the average monthly payment required for a borrower to fully pay off the mortgage by age 60 in each age category is ¥114,000 for borrowers in their 30s, ¥167,000 for borrowers in their 40s, and ¥375,000 for borrowers in their 50s. This would increase the DTI by about 4ppt to 25.0% for borrowers in their 30s, to 29.4% for borrowers in their 40s and to 56.4% for borrowers in their 50s, the last of which would be a very difficult payment to make.

Figure 5 shows the percentage of households in each age group with a home or land loan. Roughly half of all households in the 40–49 cohort have such a loan, and that share declines as the borrower’s age increases. The percentage of households with a home loan declines sharply in the 50–59 cohort, and drops further to 19.5% for the 60–64 and 12.9% for the 65–69 age groups. Although not strictly true because this is not time series data, the decline in that share from about 50% to about 16% (the average for people in their 60s) could be interpreted as indicating that of the people who took out a home loan (50% of the total), about 70% (34% of total) were able to pay off their mortgage by the retirement age of 60, and about 30% (16% of total) continued to make mortgage payments after reaching retirement age.

### 3. Senior households and home/land loans

Figure 6 looks at how the household savings of each age group are affected by having a home or land loan. Net savings are positive for people without home loans in

**Figure 5: Fraction of each age group with a home loan**



Source: Nomura Institute of Capital Markets Research, based on the 2009 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

**Figure 6: Net savings by age and by whether holding a home loan**

(¥000s)

|                          |               | Under 30 | 30-39   | 40-49  | 50-59  | 60-69  | 70 and up | 65 and up<br>(data repeated) |
|--------------------------|---------------|----------|---------|--------|--------|--------|-----------|------------------------------|
| Has no home or land loan | Annual Income | 4,529    | 5,795   | 7,272  | 8,232  | 5,844  | 4,811     | 5,064                        |
|                          | Savings       | 6,821    | 10,878  | 15,015 | 19,927 | 24,203 | 22,802    | 23,030                       |
|                          | Debt          | 489      | 563     | 755    | 1,009  | 978    | 575       | 715                          |
|                          | Net savings   | 6,332    | 10,315  | 14,260 | 18,918 | 23,225 | 22,227    | 22,315                       |
| Has a home or land loan  | Annual Income | 5,260    | 6,385   | 8,285  | 9,426  | 7,530  | 7,454     | 7,390                        |
|                          | Savings       | 3,533    | 5,675   | 9,326  | 11,885 | 15,070 | 16,433    | 15,656                       |
|                          | Debt          | 20,509   | 20,170  | 18,043 | 13,572 | 11,944 | 11,667    | 11,664                       |
|                          | Net savings   | -16,976  | -14,495 | -8,717 | -1,687 | 3,126  | 4,766     | 3,992                        |

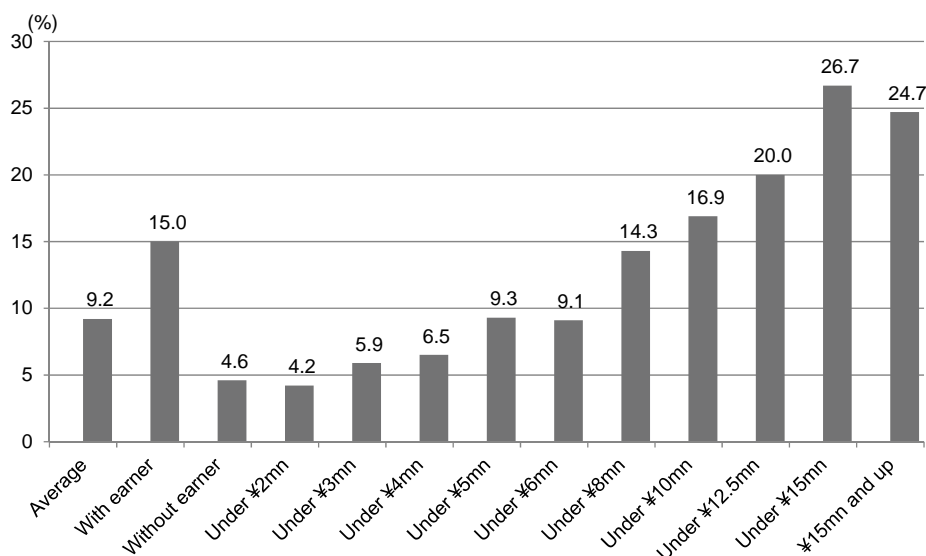
Source: Nomura Institute of Capital Markets Research, based on the 2009 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

all age groups, but are negative for people with home loans until the 50s cohort. Net savings turn positive starting with people in their 60s, but only amount to ¥3–4m, about ¥20m less than households without a home loan.

According to the Family Income and Expenditure Survey, nonworking elderly two-person households<sup>2</sup>, which are likely living off their pension, have a monthly income shortfall (relative to expenditures) of ¥51,674. Assuming the wife is aged 60 and draws on savings to cover that monthly shortfall of ¥51,000 over a 28-year period until reaching her average life expectancy of 88.33 years<sup>3</sup>, she would need financial assets of approximately ¥17m, assuming the current environment of zero interest rates remains in place. Although households without a home loan have net savings that exceed this amount, households with a home loan have savings considerably less than ¥17m, and this is a major problem.

What are the characteristics of households that continue making payments after reaching the age of 60? Figure 7 shows the share of households in each annual income cohort that has a mortgage. That share increases as annual incomes increase. Although the greater financial leeway afforded by a higher income would be expected to make it possible to pay mortgages off more quickly, the data shows the opposite trend. One reason for this is that higher income households are more likely to own rental properties. Figure 8 shows the share of mortgage holders and their average annual income for different levels of rental property ownership. The greater the amount of rental property owned, the higher the percentage of mortgage holders and the higher

**Figure 7: Fraction of two-person elderly households with a home loan based on with/without earner and income level**



Source: Nomura Institute of Capital Markets Research, based on the 2009 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

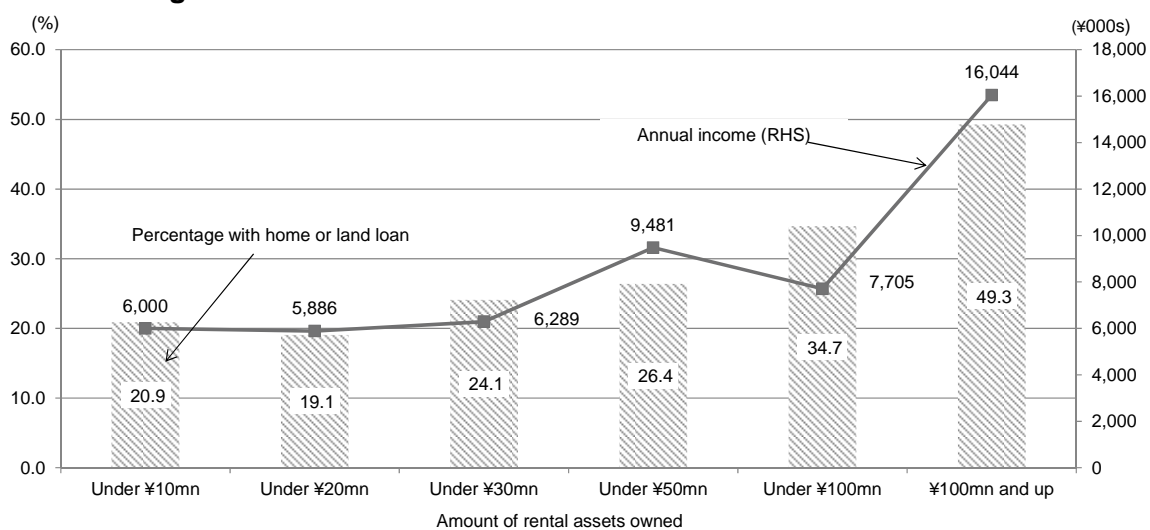
<sup>2</sup> Nonworking households with only a couple comprising a husband at least 65 and a wife at least 60 years old.

<sup>3</sup> This is the average remaining lifespan of a 60-year-old woman according to the 2012 mortality tables.

their income. Thus the higher share of mortgage holders among higher income households seems to be a result of the increase in debt required for the rental business. Stated differently, it is possible to hold a mortgage irrespective of age when income is high enough to cover mortgage payments.

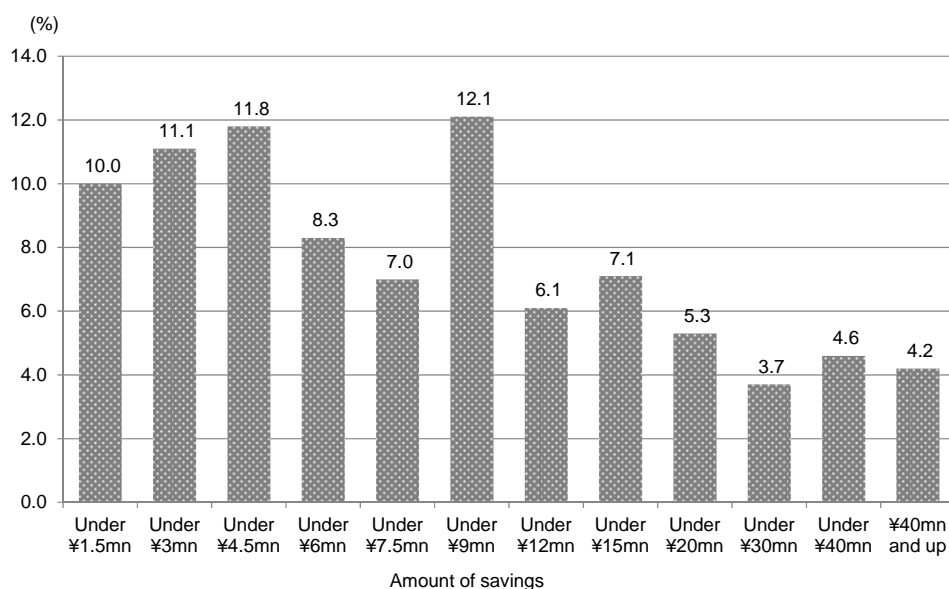
In contrast, Figure 9 shows the share of mortgage holders among senior two-person households based on their amount of savings. The share of mortgage holders is high in households with a savings balance less than ¥9m, and tends to decline as savings increases above that amount. Although this is not a problem if income is sufficient, regardless of the amount of savings, if income is low repayment could become difficult.

**Figure 8: Amount of rental assets owned and annual income**



Source: Nomura Institute of Capital Markets Research, based on the 2009 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

**Figure 9: Percentage of elderly two-person households with a home or land loan based on amount of savings**



Source: Nomura Institute of Capital Markets Research, based on the 2009 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

#### **4. “Residual value” mortgages**

We propose reverse mortgages as a product for households that take out a mortgage after the age of 40 and must continue repaying that mortgage even after reaching mandatory retirement age. A reverse mortgage<sup>4</sup> is a loan meant for seniors that uses a home as collateral, but the borrower need pay no principal or interest during their lifetime, and the debt is repaid upon the borrower's death by liquidating the home pledged as collateral. Mizuho Bank started offering reverse mortgages in July 2013, and the loans are becoming increasingly popular. For example, a household headed by someone 65 or older with a pension as the primary source of income can refinance their home loan using a reverse mortgage. After refinancing, the borrower need not for the rest of his life make the mortgage payments that he had been making until then, a change with the same effect as a roughly ¥100,000 increase in monthly income. Having the option of converting a home loan into a reverse mortgage at age 65 should make life easier. This would be a loan product similar to the residual value loans often made for automobiles, wherein a residual value for the collateral property when the borrower turns 65 is established, and if the value of the home at that point is higher than the residual value, the loan can be converted into a reverse mortgage. If the home's value is less than the initially set residual value upon turning 65, it would still be possible to convert to a reverse mortgage by paying the difference between the two. The decision on whether to convert to a reverse mortgage would of course be at the option of the borrower, and it would still be possible to continue paying down the loan. With this type of loan, even when it becomes impossible to receive the planned amount of post-retirement income, the monthly payment can be eliminated by converting to a reverse mortgage, thereby giving the borrower great peace of mind.

## **II. Seniors buying homes**

### **1. Many homes bought by seniors**

We have already seen how taking out a mortgage after the age of 40 can have a major impact on the post-retirement years, but what is even more surprising is the unexpectedly large number of people who take out home loans when 60 or older. As shown in Figure 2, buyers at least 60 years old account for 6.1% of all home purchases, 9.7% of custom home purchases, and 7.7% of condominium purchases.

What type of person 60 and up takes out a home loan? Although their family composition and annual income do not differ substantially from people in their 40s, their large amount of cash on hand constitutes a significant difference. There is also a substantial difference in their occupational breakdown. The proportion of government and private sector company employees is significantly lower among people in their 60s or older, while the proportion of pensioners and self-employed is quite a bit higher. The proportion in the “other occupation” category is also higher, but this can be attributed to the increased use of part-time and temporary workers (Figure 10). The Flat 35 loan program includes a provision for passing ownership of the loan from parent to child.

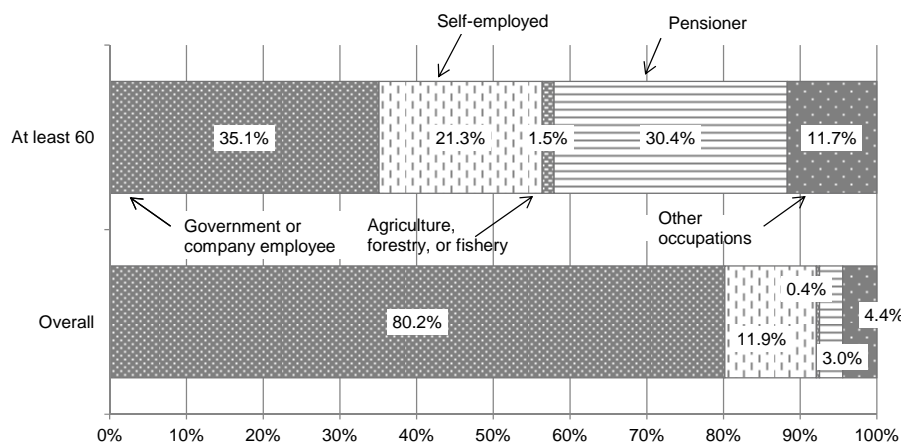
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<sup>4</sup> For more on reverse mortgages, see “How to make reverse mortgages more common in Japan,” Spring 2013 edition of Nomura Journal of Capital Markets.

Although the requirement for full repayment of Flat 35 loans by age 80 limits the length of the loan term for the elderly, provisions allowing for children to inherit the loan or cosign for it make it possible for loan applicants to use the full 35-year payback period regardless of their age. Roughly 60% of borrowers in their 60s or older use these provisions to extend the loan term, thereby reducing the monthly payment and DTI.

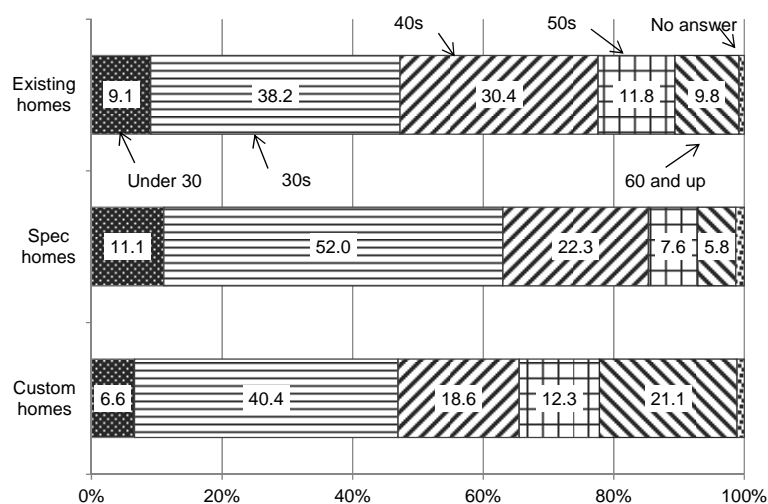
The JHF's survey is only of Flat 35 borrowers, and when including home purchases made without a mortgage the share made by people in their 60s or older is even higher. Figure 11 shows the distribution of heads of household based on the Ministry of Land, Infrastructure, Transport and Tourism's (MLIT's) housing market survey for FY2012, which was taken of people who purchased a home between April 2011 and March 2012<sup>5</sup>, and includes people who paid the entire purchase price with cash. According to the survey, people 60 or older accounted for 21.1% of all custom home purchases,

**Figure 10: Occupation of Flat 35 borrowers**



Source: Nomura Institute of Capital Markets Research, based on JHF's FY2012 borrower survey

**Figure 11: Age of head of household when purchasing home**



Source: Nomura Institute of Capital Markets Research, based on FY2012 Official Land Prices from the Ministry of Land, Infrastructure, and Transport.

<sup>5</sup> Specifically, of those who purchased a custom home, spec home, or existing home. The survey also included those who moved into rental housing or renovated their home between April 2011 and March 2012.

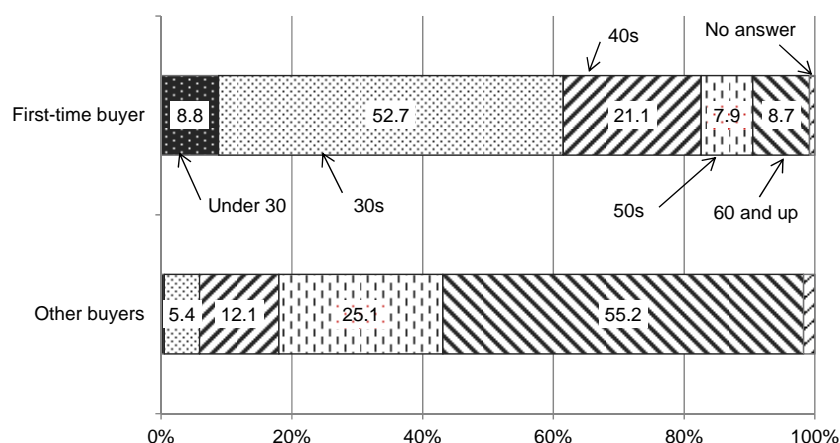


second only behind people in their 30s. One reason for the 60-and-up group's high share of custom home purchases is the high proportion of those that are reconstruction projects. People 60 and up only account for 8.7% of first-time homebuyers purchasing custom homes, but 55.2% of those who are not first-time buyers. The data shows that an usually large number of home buyers in Japan are elderly (Figure 12).

## 2. Where the elderly get their funds

How do the elderly obtain the funds for purchasing a home? According to a FY2012 survey of buyers of custom single-family homes by the Japan Federation of Housing Organizations (JFHO), heads of households in their 60s or older built homes on average that cost ¥32.56m, for which they used ¥29.56m of their own money. What was surprising is that 72.5% of those homes were built without taking out a mortgage (Figure 13). In a replacement purchase, the proceeds from selling the previous home

**Figure 12: Age of first-time home buyer and other home buyers**



Source: Nomura Institute of Capital Markets Research, based on FY2012 Official Land Prices from the Ministry of Land, Infrastructure, and Transport.

**Figure 13: Overview of custom home buyers**

|  | Under 30 | 30-34 | 35-39 | 40-44 | 45-49  | 50-54  | 55-59  | 60 and up | All    |
|--|----------|-------|-------|-------|--------|--------|--------|-----------|--------|
| Sample size (n)  | 406      | 887   | 989   | 668   | 337    | 274    | 219    | 575       | 4,502  |
| Share of total (%)                                       | 9.0%     | 19.7% | 22.0% | 14.8% | 7.5%   | 6.1%   | 4.9%   | 12.8%     | 100.0% |
| Avg. household income (¥mns)                             | 6.335    | 6.852 | 7.566 | 9.222 | 10.379 | 10.735 | 11.122 | 7.479     | 8.104  |
| Share for households with annual income below ¥5 million | 33.0     | 19.4  | 14.2  | 7.2   | 7.1    | 5.1    | 6.8    | 31.3      | 17.0   |
| Household breakdown (%)                                  |          |       |       |       |        |        |        |           |        |
| Single-person households                                 | 0.0      | 5.3   | 11.7  | 12.8  | 8.5    | 9.6    | 12.8   | 28.7      | 0.0    |
| Couple only  | 16.8     | 24.3  | 14.5  | 7.1   | 2.5    | 5.1    | 6.4    | 19.2      | 0.8    |
| Parents and children                                     | 7.9      | 20.3  | 26.3  | 17.7  | 8.3    | 5.5    | 3.3    | 8.2       | 0.4    |
| Two households cohabitating                              | 4.8      | 14.4  | 16.8  | 14.6  | 10.9   | 9.7    | 8.2    | 17.5      | 0.3    |
| Other  | 6.5      | 9.8   | 11.4  | 13.0  | 6.5    | 6.5    | 7.3    | 33.4      | 2.4    |
| Avg. total floor area (m <sup>2</sup> )                  | 119.5    | 123.6 | 126.1 | 130.7 | 138.2  | 137.3  | 139.6  | 133.5     | 129.0  |
| Avg. construction cost (¥mns)                            | 26.68    | 28.52 | 29.57 | 30.92 | 33.63  | 34.30  | 34.00  | 32.56     | 30.54  |
| Share for construction costing at least ¥50 million      | 1.6      | 2.5   | 3.0   | 4.8   | 10.1   | 11.3   | 8.7    | 9.9       | 5.5    |
| Avg. cash down   | 4.27     | 6.99  | 9.66  | 13.11 | 17.55  | 20.58  | 25.25  | 29.56     | 14.43  |
| Share purchased without loan (%)                         | 2.0      | 4.2   | 4.4   | 6.7   | 15.4   | 25.5   | 41.6   | 72.5      | 18.7   |

Source: Nomura Institute of Capital Markets Research, based on a FY2012 survey of single-family custom home buyers by the Japan Federation of Housing Organizations.

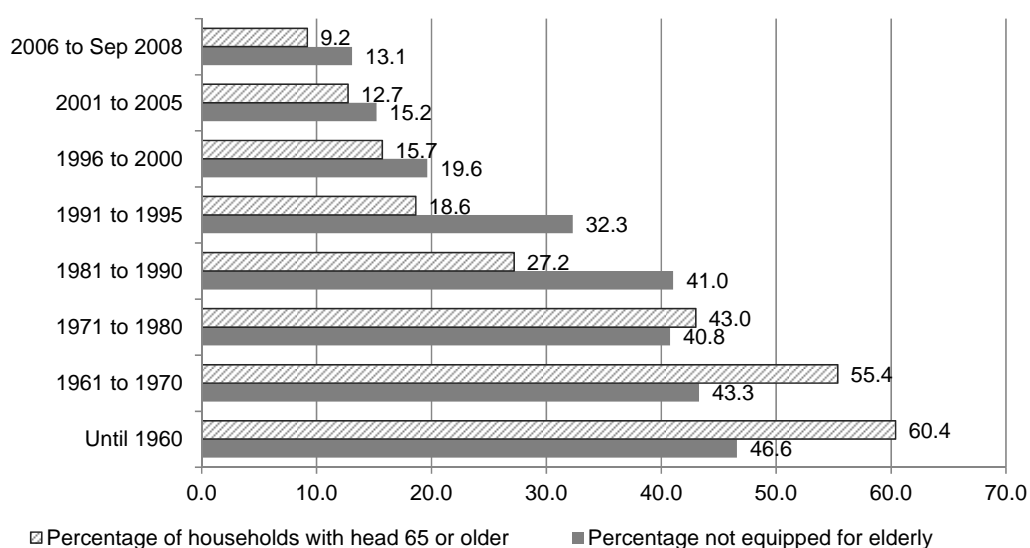
can be applied toward the purchase price, but those only accounted for 7.8% of purchases. Of the homes purchased by the elderly, 74.5% were reconstruction projects, and in many cases savings and other financial assets were used to fund the purchase.

How many elderly households can come up with ¥30m of their own funds? According to the National Survey of Family Income and Expenditure, about 20% of households receiving public pension benefits have savings of at least ¥30m, and most households would probably find it fairly difficult to purchase a home using only their own funds.

### 3. Reasons why the elderly purchase homes

There are a number of conceivable reasons why the elderly would purchase a home, but we think the main reason is to replace an aged and outdated existing home. According to the 2008 Housing and Land Survey, 58.2% of households primarily supported by a person 65 or older are in a home built at least 32 years ago (built by 1987). Of course, the older the home, the less likely it is to be equipped for seniors. That same survey found that over 40% of homes constructed in 1990 or earlier were not adapted for elderly living (Figure 14). The JFHO survey mentioned earlier found that a high percentage of newly purchased homes were equipped for the elderly, and that over 60% of custom homes had handrails and step-free interiors. Additionally, homes built up until 1981 complied with the old earthquake resistant standards, and since the March 2011 earthquake and tsunami there has been an increase in the number of elderly rebuilding their homes to make them more earthquake resistant.

**Figure 14: Share of households with head at least 65 and share of homes not adapted for seniors, by year built**



Source: Nomura Institute of Capital Markets Research, based on the Housing and Land Survey from the Ministry of Internal Affairs and Communications.

#### 4. An aging population and growth of in-home nursing care

In addition to the physical aspects of the home itself, it seems that seniors' growing need for a home equipped for their needs is also having a big impact, because Japan's population is aging at a very fast rate, and the supply of housing and facilities suitable for seniors is not likely to keep pace.

Although it was probably children that bore the cost of rebuilding homes in the past, the nuclearization of the family has increased the number of elderly-only households, and this is raising the need for home rebuilding projects handled by elderly households on their own. According to the 2010 census, 23.0% of Japan's population is at least 65, higher than any other country. On a household basis, there are 16.2m households headed by someone aged 65 or older, which amounts to 31.3% of all private households. Although the number of private households is expected to start declining from 2020, the number of households headed by a person 65 or older is expected to continue growing. The number of single-person and the number of two-person 65 and older households are also both high at over 6m, with the former expected to rise to 7.3m by 2030, roughly a 50% increase from the 4.98m single-person 65-and-up households in 2010 (Figure 15). The growth in single-person and two-person households is a result of the nuclearization of the family, and this also means a growing need for seniors to take care of themselves in their later years, without help from their children.

To deal with aging demographics, Japan's government has tried to promote housing to serve seniors, including housing with nursing care and assisted living, through the passage of legislation, including the Long-Term-Care Insurance Act in 2000, the Act on Securement of Stable Supply of Elderly Persons' Housing in 2001, a revision of the Long-Term-Care Insurance Act and a revision of the Act on Social Welfare for the Elderly in 2006, and revisions of Act on Securement of Stable Supply of Elderly Persons' Housing in 2009 and 2011. Starting with the establishment of rental housing for the elderly in 2005, the focus changed from facilities to housing. The 2011 revision of the law on housing for the elderly integrated three separate systems aimed at promoting new housing that included services for the elderly, one that facilitated their transition into rental housing, one that promoted the supply of rental housing for the elderly, and one that supported high-end rental housing for the elderly. Serviced housing for the elderly (1) includes monitoring and counseling by certified medical personnel and caregivers to check up on residents, (2) meets

**Figure 15: Elderly households by type, recent and future estimates**

|                                  | (No. of households (mns)) |       |       |       |       |       |
|----------------------------------|---------------------------|-------|-------|-------|-------|-------|
|                                  | 2005                      | 2006  | 2007  | 2008  | 2009  | 2010  |
| Regular households               | 49.06                     | 51.84 | 52.90 | 53.05 | 52.44 | 51.23 |
| Households headed by 65 or older | 13.55                     | 16.20 | 18.89 | 20.06 | 20.15 | 20.11 |
| Single-person households         | 3.87                      | 4.98  | 6.01  | 6.68  | 7.01  | 7.30  |
| Couple-only households           | 4.65                      | 5.40  | 6.21  | 6.51  | 6.45  | 6.33  |

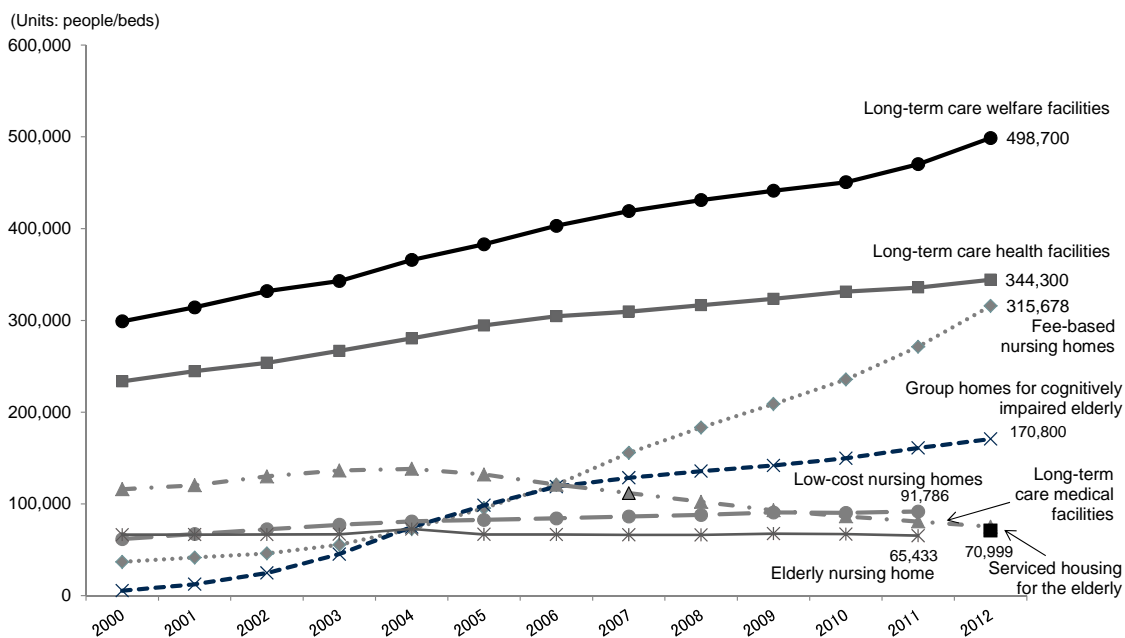
Source: Nomura Institute of Capital Markets Research, based on materials from the Ministry of Health, Labor, and Welfare's Social Insurance Council.

standards for dedicated floor space, facilities, and construction, and (3) provides rental terms and usage rights that allow the elderly to live comfortably. To promote serviced housing for the elderly, measures include a subsidy of up to ¥1m per unit, an accelerated depreciation schedule for personal and corporate taxes, a 5-year reduction of fixed asset taxes, and mitigation of real estate acquisition taxes. These measures have had an effect, and as of end-October 2013, 4,020 buildings with 130,447 rooms have been registered, ahead of schedule for meeting MLIT's 10-year goal of 600,000 serviced units for seniors.

There has also been a rapid increase in the number of fee-based nursing homes, which went from a total of only 46,121 beds in 2002 to 7X that, 315,678 beds, by 2012. Counting the beds in the three types of facilities under the nursing care insurance system<sup>6</sup>, elderly residential and care facilities in Japan have a total capacity of approximately 1.5m people/beds (Figure 16).

As of end-March 2013, the nursing care insurance system covered 30.72m category 1 insureds<sup>7</sup>, of which 5.39m (18%) were designated as requiring assistance or nursing care. The 1.5m person capacity of Japan's elderly residential and care facilities thus only covers about 28% of those people designated as requiring assistance or nursing care and only 4.9% of category 1 insureds. As Japan's population ages further, we expect the number and proportion of seniors who receive nursing care at home to continue increasing.

**Figure 16: Capacity of housing and facilities for the elderly**



Source: Nomura Institute of Capital Markets Research, based on materials from the Ministry of Health, Labor, and Welfare's Social Insurance Council.

<sup>6</sup> There are three types of facilities that can offer long-term care to the elderly under Japan's nursing care insurance system: long-term care welfare facilities, long-term care health facilities, and long-term care medical facilities.

<sup>7</sup> Nursing care insurance has two categories of insureds, those aged 65 and over are Category 1 insureds and those aged 40 to 59 are category 2 insureds.

## 5. Elderly homeowners not part of the discussion

There is recognition within the Council for Intensive Discussion on Social Security Reform of the increasing importance of securing a place to live for the elderly, who are the core constituency in regional economies, and the challenge is to provide low-cost rental housing and facilities for seniors with low income and few assets. Completely ignored in this debate, however, are seniors who own their home. The home ownership rate among households headed by someone 60 years or older is over 90%, and the data indicate that 40% of seniors who live in a home they own are living in one without proper facilities for the elderly. The government's assistance for homeowner households who renovate consists of a subsidy for construction costs under nursing care insurance as well as tax relief for that year, coming to a total of no more than about ¥400,000<sup>8</sup>.

It appears that only a limited number of seniors have the ability to renovate their home and equip it for elderly living using their own and/or borrowed funds. If a large number of seniors are forced to continue living in homes that are not equipped for seniors, there is a risk that at-home nursing care will be very costly when it becomes necessary.

## III. Reverse mortgages for purchasing homes

Can seniors use a reverse mortgage to purchase a home? In the US, which has been a leader in the reverse mortgage market, it became possible to use a reverse mortgage to purchase a home in 2009. Until then, using a reverse mortgage to purchase a home required first taking out a regular home loan for the initial home purchase and then refinancing with a reverse mortgage, thereby doubling the work involved as well as the loan closing and other fees. The even bigger problem was that many seniors do not have a high enough income to qualify for a home loan. In the US, however, income is not a factor in qualifying for a reverse mortgage, only the value of the home, making it possible for even low-income seniors with enough funds to cover the difference between the loan amount and home purchase price to purchase a home<sup>9</sup>. There are actual examples of seniors with a deceased spouse selling the home they had been living in and using the proceeds combined with a reverse mortgage purchase to buy a home near children who had moved away.

In the US, a down payment of about 50% is evidently enough to purchase a home with a reverse mortgage. Assuming the same were true in Japan and using the home purchase price from the JHFO survey, it would be possible to purchase that ¥30m home with a down payment of ¥15m.

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<sup>8</sup> According to an article in the *Nihon Keizai Shimbun* dated 17 December 2013, the government is considering providing a subsidy of between ¥1m and ¥2m for residential renovations that meet certain standards for earthquake resistance and energy efficiency.

<sup>9</sup> An assessment of the ability to pay property tax and fire insurance premiums is planned from January 2014.

Roughly 50% of senior households have savings of at least ¥15m, which means that roughly half of those households would be able to purchase a home. If 90% of senior households are able to purchase a replacement home even without financial assets because they are homeowners, cashing out home and land assets becomes possible. In other words, using a combination of a reverse mortgage and replacement purchase, many senior households should be able to purchase a home adapted for elderly living. The supply of condominiums meant for the seniors market has been in a rising trend since 2006, primarily in Japan's Kinki region, and multiple developers are participating in the market. The average age of purchasers is around 70 years old, and although the average price is higher because of the greater amount of common area compared with a regular condominium, apparently nearly all of the purchasers are buying the condominiums using savings. If reverse mortgage purchases become more common, the market for homes built-for-sale to seniors should expand.

There is also evidently a growing number of people who work in and have built their life around the city, but who are worried about nursing care for parents living in regional areas, as well as a growing number of "weekend caregivers" who basically return to their parents' home for the weekend to provide care. Although the idea of selling the family home and using the proceeds to live near children in the city sounds good, in many cases the proceeds from selling a home in the countryside will not be sufficient to buy another home in the city, but the ability to use a reverse mortgage to purchase a home would probably make such a move much more realistic.