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# ARE AMERICANS MORE ALTRUISTIC THAN THE JAPANESE? A U.S. - JAPAN COMPARISON OF SAVING AND BEQUEST MOTIVES

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#### ABSTRACT

In this paper, we analyze a variety of data on saving motives, bequest motives, and bequest division from the "Comparative Survey of Savings in Japan and the United States," a binational survey conducted in 1996 by the Institute for Posts and Telecommunications Policy of the Ministry of Posts and Telecommunications of the Government of Japan, in order to shed light on which model of household behavior applies in the two countries. We find (1) that the selfish life cycle model is the dominant model of household behavior in both countries but that it is far more applicable in Japan than it is in the U.S., (2) that the altruism model is far more applicable in the U.S. than it is in Japan but that it is not the dominant model of household behavior in either country, and (3) that the dynasty model is more applicable in Japan than it is in the U.S. but that it is of only limited applicability even in Japan.

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Key words: Households, household saving, saving, dissaving, bequests, inheritances, inter vivos transfers, intergenerational transfers, saving motives, precautionary saving, precautionary motive, bequest motives, intergenerational altruism, strategic bequest motive, selfish bequest motive, implicit intra-family annuity contract, life cycle model, altruism model, dynasty model, coresidence, living arrangements, Japan, United States, U.S.-Japan comparison.

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#### I. Introduction

An issue of critical importance for economists and policymakers alike is which model of household behavior (the life cycle model of Modigliani and Brumberg (1954), the altruism model of Barro (1974) and Becker (1974, 1981), the dynasty model of Weil (1989), etc.) is more applicable in the real world, and data on the saving and bequest motives of households can shed considerable light on this important issue because the various models have very different implications for saving and bequest motives. In this paper, we analyze a variety of data on saving and bequest motives in the United States and Japan from the "Comparative Survey of Savings in Japan and the United States (Chochiku ni kansuru Nichibei Hikaku Chousa)" (hereafter the "U.S.-Japan Survey"), conducted in 1996 by the Institute for Posts and Telecommunications Policy (IPTP) of the Ministry of Posts and Telecommunications of the Government of Japan, in order to shed light on which of the aforementioned models of household behavior applies in the U.S. and Japan.

There have been a number of previous studies that test for the validity of the various models in individual countries (for example, Bernheim, Shleifer, and Summers (1985), Cox (1987), Hurd (1987), Altonji, Hayashi, and Kotlikoff (1989) for the U.S. and Ohtake (1991), Ohtake and Horioka (1994), and Hayashi (1995) for Japan--see Horioka (1993) for a survey of the literature on Japan), but these studies are confined to individual countries and make inferences based on the actual behavior of individuals or households. To the best of our knowledge, the present study is unique in at least two respects: first, because it compares the extent to which the various models apply in the U.S. and Japan, and second, because it makes inferences based on direct information on the attitudes of respondents.

Conducting a U.S.-Japan comparison is a meaningful exercise for at least

three reasons--first, because it might shed light on why Japan's saving rate is so much higher than that of the U.S.; second, because there are important cultural differences between the two countries, and to the extent that cultural differences are important, we would expect different models of household behavior to apply in the two countries; and third, because the U.S. and Japan are by far the two largest economies in the world.

Our paper is organized as follows: we discuss theoretical considerations in section II, describe the data source in section III, and conduct a U.S.-Japan comparison of saving motives in section IV and a U.S.-Japan comparison of bequests, bequest motives, and attitudes toward bequest division in section V. Section VI is a brief concluding section.

To preview the main findings of our paper, our U.S.-Japan comparison of saving and bequest motives suggests (1) that the selfish life cycle model is the dominant model of household behavior in both the U.S. and Japan but that it is far more applicable in Japan than it is in the U.S., (2) that the altruism model is far more applicable in the U.S. than it is in Japan but that it is not the dominant model of household behavior in either country, and (3) that the dynasty model is more applicable in Japan than it is in the U.S. but that it is of only limited applicability even in Japan.

#### II. Theoretical Considerations

In this section, we briefly describe the three models of household behavior we will be considering and discuss the implications of these three models for saving motives, bequest motives, and bequest division.

#### A. The Life Cycle Model

The purest form of the life cycle model of Modigliani and Brumberg

(1954) assumes that individuals are selfish and do not care about their children or about anyone else. Thus, if this model is valid, households should be saving primarily for retirement and other life cycle motives (i.e., motives arising from differences in timing between income and expenditure streams over the course of their own lifetimes) and/or for precautionary motives (which are also consistent with the life cycle model), any bequests they leave should be unintended bequests arising from longevity risk or intended bequests motivated by selfish considerations such as a strategic bequest motive à la Bernheim, Shleifer, and Summers (1985) or an implicit intra-family annuity contract à la Kotlikoff and Spivak (1981), and bequests should be left only to children who provide something in return such as care and/or financial assistance during old age.

#### B. The Altruism Model

The altruism model assumes that households harbor intergenerational altruism (altruism toward their own children), and thus if this model is valid, households should be saving not only for life cycle motives but also in order to leave a bequest, their bequests should be motivated by intergenerational altruism, and their bequests should be compensatory in the sense that more is left to children with less earning capacity and/or greater needs.

#### C. The Dynasty Model

The dynasty model assumes that households wish to perpetuate their family line (dynasty) or family business, and thus if this model is valid, households should be saving not only for life cycle motives but also in order to leave a bequest, their bequests should be motivated by dynastic considerations, and their bequests should be divided unequally, with the

entire bequest being left to the first-born child or to the child who carries on the family line or the family business.<sup>1</sup>

Thus, the three models of household behavior have very different implications concerning saving motives, bequest motives, and bequest division, and data on saving motives, bequest motives, and bequest division should be able to shed considerable light on which model of household behavior is applicable in the real world.

#### III. The Data Source

In this section, we discuss the "Comparative Survey of Savings in Japan and the United States," the data source used for this analysis, in greater This survey was conducted roughly simultaneously in the U.S. and detail. Japan using identical questionnaires. The U.S. survey was conducted during the February 9-March 6, 1996, period by National Family Opinion, a private polling organization. 2,200 households were selected from among the 40,000 households already participating in this company's National Household Panel and asked to participate in this survey. Care was taken to ensure that the resulting sample was representative of the total population. These households were mailed questionnaires and were asked to mail them back; those not returning their questionnaires were sent one reminder. This resulted in 1,508 responses, a response rate of 68.5%. The Japanese survey was conducted during the January 31-February 16, 1996, period by Nippon Research Center, a private polling organization. 1,800 households were selected by a stratified random sampling procedure, and questionnaires were delivered in person to, and collected in person from, these households. This resulted in 1,243 responses, a response rate of 69.1%.<sup>2</sup>

The target population in both countries was all households (including single-person households) with a head aged 20 or older. The geographic coverage was as follows: cities in the 48 contiguous states plus the District of Columbia in the case of the U.S. and three large cities (cities with a population of 1,000,000 or more), five medium-sized cities (cities with a population of 500,000 to 600,000), and four small cities (cities with a population of less than 200,000) in the case of Japan.

The survey includes a variety of questions not only about the respondents' behavior but also about their attitudes toward saving, bequests, etc., and to the best of our knowledge, it is the first such survey to be conducted simultaneously in the U.S. and Japan and one of the first such surveys to be conducted in the U.S.<sup>3</sup>

#### IV. A U.S.-Japan Comparison of Saving Motives

In this section, we present data from the U.S.-Japan Survey on saving motives. In particular, we estimate the amount of saving for each of thirteen motives in order to determine how much saving for each motive contributes to overall household saving in the U.S. and Japan (see Horioka, Yokota, Miyaji, and Kasuga (1997) and Horioka and Watanabe (1997, 1998) for a similar analysis using Japanese data only).

#### A. Theoretical Considerations

Before presenting our results, we wish to discuss some theoretical considerations. It is important to bear in mind that, at any given point in time, there are households saving for any given motive as well as households dissaving for that motive. For example, at any given time, there are young (pre-retirement) households that are saving for retirement as well as aged

(post-retirement) households that are dissaving for retirement. What contributes to overall household saving is the amount by which the saving of those saving for a given motive (hereafter called "gross saving") exceeds the dissaving of those dissaving for that motive. We will hereafter refer to this difference as "net saving." The amount of net saving for any given motive can be either positive, zero, or negative depending on the relative magnitudes of gross saving and dissaving for that motive, and it will not necessarily be large or even positive no matter how large gross saving for that motive is.

Gross saving for a given motive consists of the saving in the form of the accumulation of financial assets of those planning to realize that motive in the future and the saving in the form of loan repayments of those realizing that motive in the past (the repayment of principal is a form of saving because it increases the household's net worth). Similarly, dissaving for a given motive consists of the dissaving in the form of the decumulation of financial assets and the dissaving in the form of newly incurred debt of those realizing that motive during the current period. In the case of motives involving investment in depreciable fixed assets such as housing, consumer durables, and plant and equipment, dissaving in the form of the decumulation of financial assets and that in the form of newly incurred debt will be precisely offset by saving in the form of investment in such assets, but dissaving will still occur in the form of the depreciation on such assets of those realizing such motives in the past.<sup>4</sup>

### B. The Calculation Method

Fortunately, the U.S.-Japan Survey collects the information needed to calculate the various components of gross saving and dissaving for each of thirteen motives: "in order to save up for life after retirement" (hereafter

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the "retirement motive"), "in order to provide extra living expenses" (hereafter the "living expenses motive"), "for unexpected expenses required by illness, disaster, etc." (hereafter the "illness motive"), "for one's children's education" (hereafter the "education motive"), "for one's children's marriage" (hereafter the "marriage motive"), "to purchase one's own home (and land) (including rebuilding and upgrading)" (hereafter the "housing motive"), "for the purchase of durable goods" (hereafter the "consumer durables motive"), "for leisure" (hereafter the "leisure motive"), "to pay taxes" (hereafter the "tax motive"), "to start up one's own business" (hereafter the "business motive"), "saving not for any specific purpose but for the sake of peace of mind" (hereafter the "peace of mind motive"), "to leave as a bequest" (hereafter the "bequest motive"), and "other."

Direct information is collected on the accumulation and decumulation of financial assets and on newly incurred debt and loan repayments for each motive. The only exceptions are that information is not collected on loan repayments and newly incurred debt for the retirement, tax, business, peace of mind, and bequest motives in both countries and that information is not collected on the accumulation of financial assets for the living expenses motive or on the decumulation of financial assets for the retirement and peace of mind motives in the case of Japan only. Dissaving for the living expenses motive in the form of the decumulation of financial assets is regarded as being for the peace of mind motive in the case of those aged 59 or younger and for the retirement motive in the case of those aged 60 or older, while saving in the form of loan repayments and dissaving in the form of newly incurred debt for the living expenses motive, regardless of the age of the respondent. <sup>5 6</sup>

Turning to dissaving in the form of depreciation on owner-occupied

housing, direct information is not collected thereon, but it can be calculated by multiplying the market value of owner-occupied housing (the structure only) by an appropriate depreciation rate. The most recent housing censuses in the U.S. and Japan (the 1993 American Housing Survey in the U.S. and the 1993 Housing Survey in Japan) found that the median age of owner-occupied housing in the two countries is 27 and 17 years, respectively, and we assumed that the useful life of owner-occupied housing in the two countries is twice the median age--54 and 34 years, respectively. Assuming geometric depreciation, the rates of depreciation corresponding to these useful lives are 4.1744% and 6.5481%, respectively. Unfortunately, the data needed to calculate the depreciation on consumer durables and on the plant and equipment of family businesses were not available. Thus, we had no choice but to ignore the fact that there is saving in the form of investment in real assets in the case of the consumer durables and business motives and to assume that dissaving for these motives takes the form of the decumulation of financial assets and newly incurred debt.

#### C. The Estimation Results

Our estimates of household saving by motive are shown in Tables 1-6 and Figure 1. Table 1 shows data on gross saving in the form of the accumulation of financial assets by motive, Table 2 data on gross saving in the form of loan repayments by motive, Table 3 data on dissaving in the form of the decumulation of financial assets by motive, Table 4 data on dissaving in the form of newly incurred debt by motive, Table 5 data on dissaving in the form of depreciation on owner-occupied housing, and Table 6 and Figure 1 data on the total amount of gross saving, dissaving, and net saving by motive.<sup>7</sup>

Let us look first at our estimates of the total amount of gross saving,

dissaving, and net saving for each motive (see Table 6 and Figure 1). As can be seen from Table 6, the composition of gross saving is remarkably similar in the two countries: the housing motive ranks first in both countries with a share of 25.21% in the U.S. and 28.95% in Japan, the retirement motive ranks a close second in both countries with a share of 21.36% and 26.11%, respectively, and the peace of mind motive ranks third in both countries with a share of 15.37% and 14.18%, respectively. Turning to the composition of dissaving, the housing motive ranks first by far in both countries with a share of 41.14% and 56.58%, respectively, and the consumer durables and education motives in the U.S. and the peace of mind motive and "other" in Japan are the only other motives with a share exceeding ten percent. Turning finally to the composition of net saving, which is what measures the contribution of saving for each motive to overall household saving, it is by far the highest in the case of the retirement motive in both countries, but the share of this motive is more than twice as high in Japan as it is in the U.S. (62.23% vs. 30.84%). The peace of mind and housing motives rank second and third in the U.S. with shares of 20.74% and 14.60%, respectively, while the illness and peace of mind motives rank second and third in Japan with shares of 22.26% and 18.92%, respectively. Note, however, that the illness and peace of mind motives are both precautionary motives and that if they are combined, their combined share is 27.93% in the U.S. and 41.18% in Japan. Thus, the precautionary motive broadly defined is the second most important motive for saving (after the retirement motive) in both countries and is far more important in Japan than it is in the U.S. (see Figure 1). Note, finally, that net saving for the housing motive has a negative share in Japan because, even though there is a substantial amount of gross saving for the housing motive in Japan, it is more than offset by an even larger amount of housing-related dissaving

(depreciation) and that the larger amount of depreciation on housing in Japan is due, in turn, to the shorter useful life (lower durability) of housing in Japan.

Next, we would like to look at data on the importance of the bequest motive, which is primarily consistent with the altruism and dynasty models. The bequest motive is of only negligible importance in both countries, with bequest-related saving amounting to only 3.03% and 0.72% of gross saving and only 5.04% and 1.50% of net saving and with only 10.77% and 3.63% of households saving for the bequest motive in the form of the accumulation of financial assets in the U.S. and Japan, respectively. It should be noted, however, that the bequest motive can be defined more broadly to include the education and marriage motives (because these motives entail intergenerational transfers to one's children) as well as the housing and business motives (because housing and family businesses are often bequeathed to one's children), but even if the bequest motive is defined broadly to include these motives, its share of net saving is only 24.96% in the U.S. and 1.64% in Japan.<sup>8</sup> Thus, it appears that the bequest motive is stronger in the U.S. than in Japan but that it is not very strong even in the U.S.

Looking more briefly at the composition of gross saving and dissaving, it can be seen from Tables 1 and 2 that gross saving consists primarily of the accumulation of financial assets in the case of most motives, with loan repayments exceeding the accumulation of financial assets only in the case of the housing and consumer durables motives and "other" in both countries. Similarly, as can be seen from Tables 3 and 4, dissaving consists primarily of the decumulation of financial assets, with newly incurred debt exceeding the decumulation of financial assets only in the case of the housing motive and "other" (in both countries) and the consumer durables and education motives

(in the case of the U.S.). These findings are not surprising because it is primarily in the case of housing, consumer durables, and (in the case of the U.S.) education that credit markets are well-developed. As noted earlier, however, in the case of the housing motive, both dissaving in the form of the decumulation of financial assets and dissaving in the form of newly incurred debt are fully offset by saving in the form of housing investment, as a result of which the only form of dissaving is depreciation on owner-occupied housing (see Table 5).

#### D. Summary

Our results suggest that the life cycle model is much more applicable than the altruism and dynasty models in both the U.S. and Japan inasmuch as life cycle motives such as the retirement motive and precautionary motives such as the illness and peace of mind motives (which are also consistent with the life cycle model) are of dominant importance and the bequest motive is of negligible importance in both countries. Moreover, our results also suggest that the life cycle model is of much greater applicability in Japan than it is in the U.S. and that the altruism and dynasty models are much more applicable in the U.S. than they are in Japan inasmuch as the share of the retirement motive (the most important life cycle motive) in net saving is twice as large in Japan as it is in the U.S., the share of the precautionary motive is also much higher in Japan, and the share of the bequest motive in gross saving and net saving as well as the proportion of households saving for the bequest motive in the form of the accumulation of financial assets are much smaller in Japan than they are in the U.S. (regardless of whether bequests are defined narrowly or broadly).<sup>9</sup> Note, moreover, that the altruism and dynasty models might be even less applicable in both countries than suggested by our findings

because, as noted earlier, bequests could well be motivated by selfish considerations, which are consistent with the life cycle model rather than with the altruism and dynasty models. (We present data on bequest motives in section V.B.)

Note, however, that U.S.-Japan differences in the relative importance of the various saving motives may be due not to differences in which model(s) of household behavior apply in the two countries but to differences in the economic and institutional environments (the size and source of external shocks, the availability of a social safety net, the position of the economy in the business cycle, etc.) faced by households in the two countries or to differences in the age and/or income distribution of the population in the two countries. With respect to the former, it could be, for example, that saving for the retirement motive is far more important in Japan than it is in the U.S. not because the life cycle model is more applicable in Japan but because public and private pensions are less available or because there is greater uncertainty about future benefit levels in Japan. With respect to the latter, saving motives differ greatly by age (see the breakdown by age in Horioka and Watanabe (1997, 1998)), and thus U.S.-Japan differences in the relative importance of the various saving motives could be due in part to differences in the age distribution of the population in the two countries. For example, the importance of the retirement motive increases sharply with age in both countries, and thus the fact that Japan's population is much older than that of the U.S. can help explain why the retirement motive was found to be so much more important in Japan than it is in the U.S.<sup>10</sup> Thus, our conclusions must be regarded as tentative.<sup>11</sup>

#### V. A U.S.-Japan Comparison of Bequests, Bequest Motives, and Bequest Division

In this section, we present data from the U.S.-Japan Survey on bequests, bequest motives, and bequest division, where bequests are defined throughout to include inter vivos transfers.

#### A. A U.S.-Japan Comparison of the Importance of Bequests

Table 7 shows data on the prevalence of bequests in the two countries, and as can be seen from this table, the proportion of respondents who have received bequests in the past is 28.67% in the U.S. but only 22.35% in Japan, the proportion of respondents who expect to receive bequests in the future is 28.40% in the U.S. but only 22.10% in Japan, and the proportion of respondents who have received bequests in the past and/or who expect to receive them in the future is 48.88% in the U.S. but only 40.18% in Japan. Moreover, as can be seen from Table 8, 45.92% of U.S. respondents want to make efforts to leave behind a bequest to their children, whereas this proportion is only 25.72% in Japan (these figures represent the proportion of respondents holding either view 1 or view 2). Finally, as we saw in section IV, 10.77% of U.S. respondents are saving in the form of the accumulation of financial assets in order to leave a bequest, whereas this proportion is only 3.63% in Japan. It thus appears that individuals who have received or expect to receive bequests and individuals who plan to leave bequests are in the minority in both countries but that bequests are considerably more prevalent in the U.S. than they are in Japan. These results suggest that the bequest motive is relatively weak in both countries but especially weak in Japan.

However, Table 7 also shows data on the amount of bequests, and as can be seen from this table, the average bequest (at current market value) of respondents who have received bequests in the past is \$74,756 (2.131 times

average annual household disposable income) in the U.S. and 54,110,000 yen (9.630 times average annual household disposable income) in Japan. Moreover, the average bequest of all respondents is \$21,431 (0.611 times average annual household disposable income) in the U.S. and 12,090,000 yen (2.152 times average annual household disposable income) in Japan. Thus, the average bequest-income ratio is much higher in Japan than it is in the U.S. The proportion of respondents who have received bequests in the past is somewhat higher in the U.S. and thus the U.S.-Japan gap in the bequest-income ratio is smaller in the case of all respondents than it is not the case of respondents who have received bequests in the past, but it is still quite high (the bequest-income ratio in Japan is 4.520 times higher than the U.S. ratio in the case of respondents who have received bequests in the past and 3.524 times higher than the U.S. ratio in the case of all respondents).

Thus, whether bequests are more prevalent in the U.S. or in Japan depends on which criterion is used, but all measures pertaining to the proportion of households receiving or leaving bequests suggest that bequests are considerably more prevalent in the U.S. It thus appears that a smaller proportion of households receive or leave bequests in Japan but that those who do receive or leave bequests receive or leave much larger bequests than in the U.S.

#### B. A U.S.-Japan Comparison of Bequest Motives

Note, however, that whether the life cycle model, the altruism model, or the dynasty model applies in the real world depends more on the motives for which people leave bequests than on the prevalence or amount of bequests. Fortunately, the U.S.-Japan Survey also collects data on the bequest motives of respondents, and it is to these data that we now turn.

In one question, respondents are asked which of four views they hold with respect to leaving a bequest to their children. View 1 ("I want to make efforts to leave behind a bequest regardless of whether my child or children look after me after I retire") is an altruistic or dynastic bequest motive, view 2 ("I want to make efforts to leave behind a bequest as long as my child or children look after me after I retire") is a selfish bequest motive (either a strategic bequest motive à la Bernheim, Shleifer, and Summers (1985) or an implicit intra-family annuity contract à la Kotlikoff and Spivak (1981)), view 3 ("I will not make any particular efforts to leave behind a bequest but will leave to my child or children whatever assets happen to be left over") indicates that only unintended or accidental bequests will be left, and view 4 ("I will not leave any bequest at all to my child or children") indicates the total absence of a bequest motive. View 1 is consistent with the altruism and dynasty models whereas views 2, 3 and 4 are consistent with the life cycle model, and thus information on the relative prevalence of these views will shed light on whether the life cycle model, the altruism model, or the dynasty model is applicable in the real world.

The results are shown in Table 8, and as this table shows, 42.60% of U.S. respondents hold view 1, whereas this proportion is only 19.29% in Japan. Since view 1 is consistent with the altruism and dynasty models, this result suggests that the proportion of households whose behavior is consistent with the altruism and dynasty models is more than twice as high in the U.S. as it is in Japan. By contrast, the proportion of respondents holding views 2, 3, and 4 is much lower in the U.S. than in Japan (3.32% vs. 6.43% in the case of view 2, 51.14% vs. 70.10% in the case of view 3, 2.94% vs. 4.18% in the case of view 4, and 57.40% vs. 80.71% in the case of these three views combined). Since views 2, 3, and 4 are all consistent with the life cycle model, the fact

that a majority of respondents in both countries adhere to views 2, 3, or 4 suggests that the life cycle model is the dominant model of household behavior in both countries, and the fact that the proportion of respondents adhering to views 2, 3, or 4 is much higher in Japan than it is in the U.S. suggests that the life cycle model is much more applicable in Japan than it is in the U.S.

#### C. A U.S.-Japan Comparison of Attitudes toward Bequest Division

The U.S.-Japan Survey also asks about the respondents' attitudes toward bequest division, with respondents being asked to choose from among six views. View 1 ("It will be divided equally among my children") is not, in general, consistent with any theoretical model but is consistent with the altruism model if parents love their children equally and believe that their children's own resources and needs are roughly equal, and view 2 ("Most or all of it will be willed to the child or children with the least income") is consistent with the altruism model, whereas view 3 ("Most or all of it will be willed to the child or children who look after me") is consistent with the life cycle model, and view 4 ("Most or all of it will be willed to the child or children who carry on my business") and view 5 ("Most or all of it will be willed to my oldest son/daughter regardless of whether he/she looks after me") are consistent with the dynasty model.<sup>12</sup> (It is not possible to say a priori with which model view 6 ("other") is consistent.) Thus, information on the relative prevalence of these views will shed further light on whether the life cycle model, the altruism model, or the dynasty model is applicable in the real world.

The results are shown in Table 9, and as this table shows, in the U.S., the proportion of respondents holding view 1 is 96.28% and the proportion holding either view 1 or view 2 is 96.83%, whereas these proportions are only

48.74% and 51.10%, respectively, in the case of Japan.<sup>13</sup> Since views 1 and 2 are (or may be) consistent with the altruism model, these results suggest that the proportion of households whose behavior is consistent with the altruism model is nearly twice as high in the U.S. as it is in Japan. By contrast, the proportion of households holding views 3, 4, and 5 is much higher in Japan than in the U.S. (32.38% vs. 2.48% in the case of view 3, 6.91% vs. 0.00% in the case of view 4, and 7.59% vs. 0.41% in the case of view 5). Since view 3 is consistent with the life cycle model, these results suggest that the proportion of households whose behavior is consistent with the life cycle model is far higher in Japan than it is in the U.S. (32.38% vs. 2.48%), and since views 4 and 5 are consistent with the dynasty model, these results suggest that the proportion of households whose behavior is consistent with the dynasty model is far higher in Japan than it is in the U.S. (14.50% vs. 0.41%). However, the proportion of respondents holding a view that is consistent with the dynasty model is only 14.50% even in Japan, suggesting that the dynasty model is not the dominant model of household behavior in either country.

#### D. Further Evidence on the Applicability of the Dynasty Model

Additional evidence on the applicability of the dynasty model is given in Tables 10 and 11. First, Table 10 shows data on the types of assets respondents plan to leave as a bequest, and as this table shows, 32.67% of Americans planning to leave bequests plan to leave assets they inherited and 96.60% plan to leave assets they acquired themselves, whereas in Japan the corresponding proportions are 39.71% and 83.35%. Thus, the tendency to leave acquired assets is much stronger than the tendency to leave inherited assets in both countries, and the tendency to leave acquired assets is considerably

stronger in the U.S. than it is in Japan whereas the tendency to leave inherited assets is considerably stronger in Japan than it is in the U.S. Individuals regard inherited assets as belonging to their family (dynasty) rather than to themselves personally, according to the dynasty model, and thus these findings suggest that the dynasty model is more applicable in Japan than it is in the U.S. but that it is of only limited applicability even in Japan. Note that these conclusions are fully consistent with our conclusions based on data on attitudes toward bequest division.

Turning to the second type of evidence, Table 11 shows the distribution of respondents by bequest motive, broken down by whether the respondent has received bequests in the past and/or expects to receive them in the future. As this table shows, in both countries, those who have received bequests in the past and/or who expect to receive bequests in the future are considerably more likely to have an altruistic or dynastic bequest motive (view 1) or a selfish bequest motive (view 2) and considerably less likely to plan to leave only unintended bequests (view 3) or to plan to leave no bequest at all (view 4). This suggests that both Americans and Japanese are motivated to some extent by dynastic considerations (i.e., that they tend to feel obligated to leave a bequest to their children if they themselves received a bequest from their parents). However, this tendency is not necessarily any stronger in the case of Japan, contrary to what the data in Table 10 suggest.

#### E. A U.S.-Japan Comparison of the Behavior of Bequest Recipients

Thus far, we have focused almost exclusively on the attitudes and behavior of bequest givers (the parents), but in this section we focus on the behavior of bequest recipients (the children). If the children are altruistic, we would expect them to look after their aged parents whether or not they

expect to receive a bequest from them and whether or not the receipt of a bequest is conditional on their looking after their parents. By contrast, if the children are selfish, we would expect them to look after their aged parents only if they expect to receive a bequest from them or, more precisely, only if the receipt of the bequest is conditional on their looking after their parents. Thus, we can shed light on whether the children are altruistic or selfish by seeing whether there is any correlation between the parent's bequest intentions and the children's behavior (in particular, whether or not they look after their aged parents). The U.S.-Japan Survey did not collect direct information on how must care children provide to their aged parents so we have used coresidence as a proxy therefor. Since it is presumably easier for children to care for their parents and to provide financial and in-kind assistance to their parents if they live together, we believe that coresidence is likely to be a good proxy for care provided by children to their aged parents.

First, Table 12 shows data on the coresidence rates of respondents aged 49 years and younger and their parents, broken down by whether or not the respondent expects to receive a bequest from their parents, and as this table shows, in both countries, respondents who expect to receive a bequest from their parents are more likely to live with them. This suggests that children are motivated by selfish considerations in both countries. However, the impact of bequest expectations on coresidence is much greater in Japan than it is in the U.S.: the coresidence rate of those with (without) bequest expectations is 24.61% (18.79%) in Japan and 7.02 (6.75%) in the U.S. This suggests that children are much more selfish in Japan than they are in the U.S.<sup>14</sup>

Next, Table 13 shows data on coresidence rates of aged respondents

(respondents aged 60 and older) and their children, broken down by bequest motive, and as this table shows, the coresidence rate varies relatively little by bequest motive in the U.S. and is, in fact, lowest in the case of respondents with a selfish bequest motive (6.67%) and second lowest in the case of respondents with an altruistic bequest motive (7.53%) even though we would expect it to the highest for these respondents if their children are selfish (the coresidence rate is highest for respondents planning to leave only unintended bequests (12.02%) and second highest for respondents planning to leave no bequest at all (7.69%)). By contrast, the coresidence rate varies substantially by bequest motive in Japan and the observed pattern is fully consistent with the hypothesis that children are selfish in Japan: the coresidence rates of respondents with selfish or altruistic bequest motives is by far the highest (63.89% and 63.46%, respectively) and is about 1.3 times as high as that of respondents planning to leave only unintended bequests (49.45%) and more than two-and-a-half times as high as that of respondents with no bequest motive (25.00%). These results suggest that American children are altruistic whereas Japanese children are selfish.<sup>15</sup>

We also did a probit analysis of coresidence between aged parents and their children including as explanatory variables income, the square of income, the age, marital status, sex, and health of the household head, housing tenure, city size, bequest motives, and (in the case of the U.S.) the race of the household head and found that the bequest motive dummies are totally insignificant in the case of the U.S. but that the dummies for the altruistic and selfish bequest motives are positive and marginally significant in the case of Japan. This demonstrates that the conclusion we drew from Table 13 does not change even when we control for other factors.

#### F. Summary

To sum up, bequests appear to be motivated primarily by selfish considerations in both countries, suggesting that the life cycle model is the dominant model of household behavior in both countries, but they appear to be motivated to a far greater extent by intergenerational altruism in the U.S. than they are in Japan, suggesting that the altruism model is far more applicable in the U.S. than it is in Japan. By contrast, bequests appear to be motivated to a far greater extent by selfish and dynastic motives (especially the former) in Japan than they are in the U.S., suggesting that the life cycle and dynasty models (especially the former) are far more applicable in Japan than they are in the U.S.

#### VI. Conclusions

In this paper, we analyzed a variety of data on saving and bequest motives in the U.S. and Japan from the "Comparative Survey of Savings in Japan and the U.S.," a binational household survey conducted in 1996 by the Institute for Posts and Telecommunications Policy of the Ministry of Posts and Telecommunications of the Government of Japan, in order to shed light on which model of household behavior applies in the two countries. The evidence is remarkably consistent, with the vast majority of it suggesting (1) that the selfish life cycle model is the dominant model of household behavior in both countries but that it is far more applicable in Japan than it is in the U.S., (2) that the altruism model is far more applicable in the U.S. than it is in Japan but that it is not the dominant model of household behavior in either country, and (3) that the dynasty model is more applicable in Japan than it is in the U.S. but that it is of only limited applicability even in Japan.

Looking first at the evidence in support of our conclusion that the life

cycle model is the dominant model of household behavior in both countries, we found (1) that saving for life-cycle motives (especially saving for the retirement and precautionary motives) comprises the bulk of household saving in both countries, (2) that saving for the bequest motive is of negligible importance in both countries, (3) that individuals who received or expect to receive bequests, individuals who plan to make efforts to leave behind a bequest, and individuals who are saving for the purpose of leaving behind a bequest are in the minority in both countries, (4) that a majority of individuals in both countries either do not plan to leave a bequest, plan to leave only unintended or accidental bequests, or plan to leave a bequest only if their children look after them in their old age, and (5) that, in both countries, those who expect to receive a bequest are more likely to live with their parents than those who do not expect to receive a bequest.

Turning to the evidence that the selfish life cycle model is more applicable in Japan than it is in the U.S., we found (1) that the share of saving for motives that are consistent with the life cycle model (especially the retirement and precautionary motives) is much higher in Japan than it is in the U.S., (2) that the proportion of households saving in order to leave behind a bequest as well as the share of bequest-related saving are much higher in the U.S. than they are in Japan, (3) that the proportion of households receiving or expecting to receive bequests is somewhat higher in the U.S. than it is in Japan, (4) that the proportion of households planning to make efforts to leave behind a bequest is much higher in the U.S. than it is in Japan, (5) that bequests are motivated to a far greater extent by selfish considerations in Japan than they are in the U.S. and that they are motivated to a far greater extent by intergenerational altruism in the U.S. than they are in Japan, judging not only from the data on bequest motives but

also from the data on attitudes toward bequest division, and (6) that the correlation between whether or not one expects to receive a bequest from one's parents and whether or not one lives with one's parents and that between whether or not one has a bequest motive and whether or not one lives with one's children is much stronger in Japan than it is in the U.S.

Turning finally to the evidence that the dynasty model is more applicable in Japan than it is in the U.S. but that it is of only limited applicability even in Japan, we found (1) that the proportion of respondents who plan to leave most or all of their bequest to the child who carries on the family business or to the eldest child (regardless of whether that child takes care of them) is much higher in Japan than it is in the U.S. but not very high even in Japan, (2) that the proportion of respondents who plan to leave behind assets that they themselves inherited is higher in Japan than it is in the U.S. but not very high even in Japan, and (3) that the correlation between whether or not a respondent received or expects to receive a bequest and whether or not a respondent plans to make efforts to leave behind a bequest is positive in both countries but not overwhelming.

Reassuringly, our findings are broadly consistent with those of previous studies for both countries. With respect to Japan, our finding that the life cycle model is the dominant model of household behavior is fully consistent with the findings of Ohtake (1991), Ohtake and Horioka (1994), Hayashi (1995), and other previous studies. With respect to the U.S., our finding that the life cycle model is the dominant model of household behavior is consistent with the findings of Bernheim, Shleifer, and Summers (1985), Cox (1987), Hurd (1987), Altonji, Hayashi, and Kotlikoff (1989), and other previous studies, but our finding that a substantial minority of Americans is altruistic is somewhat at variance with some previous studies.

Turning next to directions for further research, our finding that the various models of household behavior coexist in both countries suggests that theoretical, empirical, and policy-oriented analyses must take account of this coexistence. Second, our finding that the altruism and dynasty models are not the dominant models of household behavior in either country suggests that further theoretical work using these models is of limited value. Third, our finding that precautionary saving is of significant importance in both countries suggests that further work in this area holds great promise. Fourth, we found that the proportion of households whose behavior is consistent with each model varies greatly depending on which criterion is used, and thus it would be desirable to reconcile the various findings. Fifth, our finding that the magnitude of bequests is much larger in Japan than it is in the U.S. is surprising because income growth has been much more rapid in Japan, meaning that the gap between the lifetime incomes of younger generations and those of older generations is much greater in Japan than it is in the U.S., which in turn means that one would expect Japanese parents to leave far smaller bequests to their children than American parents. A further investigation of the reasons for our counterintuitive result is warranted.<sup>16</sup> Sixth, it would be interesting if similar data could be obtained for other countries as well.<sup>17</sup>

Turning finally to policy implications, as discussed by Barro (1974), Becker (1974, 1981), and Weil (1989), the various models have very different policy implications. For example, competitive equilibria will always be efficient, the existence of asset bubbles is ruled out, and the Ricardian debt neutrality proposition holds in the case of the altruism model, while the opposite holds in the case of the life cycle and dynasty models. Thus, our findings should be of interest not only to economists but also to policymakers.

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#### Footnotes

<sup>1</sup>Note that the dynasty model is a special case of Weil's (1989) model, which assumes that new and infinitely linked dynasties, which are not linked to preexisting families through operative intergenerational transfers, continuously enter the economy over time, because children who are not first-born or who do not carry on the family line or the family business represent the new dynasties that Weil's model requires.

<sup>2</sup>A comparison of the samples for each country with those of similar household surveys in the same country showed that the samples are more or less representative.

 $^{3}\text{A}$  copy of the full questionnaire is available upon request from the corresponding author.

<sup>4</sup>It could be argued that capital gains and losses on fixed assets such as land, housing, etc., should be included in the saving for the purchase of such assets, but I have chosen not to do so because I was interested in knowing how much saving for each motive contributes to the national income accounts concept of saving, which does not include capital gains or losses.

<sup>5</sup>Unfortunately, it is not possible to calculate the proportion of respondents saving for each motive in the form of the accumulation of financial assets, the proportion of respondents saving for each motive in the form of loan repayments, the proportion of respondents dissaving for each motive in the form of the decumulation of financial assets, or the proportion of respondents dissaving for each motive in the form of newly incurred debt from the data in the U.S.-Japan Survey because it is not possible to differentiate between those who are not saving or dissaving for a given motive and those who did not respond to the question. Thus, we estimated the proportion of respondents saving for each motive in the form of the accumulation of financial assets on the assumption that all respondents who hold financial assets for the motive in question but did not indicate whether or not they accumulated further financial assets for that motive during the past year did, in fact, do so. Similarly, we estimated the proportion of respondents saving for each motive in the form of loan repayments on the assumption that all respondents who have outstanding loans for the motive in question but did not indicate whether or not they made any payments on such loans during the past year did, in fact, do We made the aforementioned assumptions because households holding so. financial assets for a given motive are likely to be accumulating financial assets for that motive on a regular basis, even if they did not indicate whether or not they are doing so, and similarly, households with outstanding loans for a given motive are likely to be repaying those loans on a regular basis, even if they did not indicate whether or not they are doing so. By contrast, we estimated the proportion of respondents dissaving for each motive in the form of the decumulation of financial assets on the assumption that all respondents who hold financial assets for a given motive but did not indicate whether or not they decumulated any of these assets during the past year did

not, in fact, do so. Similarly, we estimated the proportion of respondents dissaving for each motive in the form of newly incurred debt on the assumption that all respondents who have outstanding loans for a given motive but did not indicate whether or not they incurred any new debts for the motive in question during the past year did not, in fact, do so. It appeared reasonable to make these assumptions because decumulating financial assets and/or incurring new debt in order to realize a given motive are likely to be one-time events involving large sums of money, and thus we would expect non-response to be less of a problem than in the case of saving in the form of the accumulation of financial assets or in the form of loan repayments.

<sup>6</sup>With respect to the treatment of outliers, it is customary to decumulate a considerable amount of financial assets or to incur a considerable amount of new debt when realizing certain motives such as the housing motive; hence, a large amount of dissaving in the form of the decumulation of financial assets or in the form of newly incurred debt is not necessarily suspect. By contrast, saving in the form of the accumulation of financial assets or in the form of the accumulation of financial assets or in the form of current income. Thus, we excluded what appeared to be outliers only in the case of saving in the form of the accumulation of financial assets or in the form of the form of the accumulation of financial assets or in the form of current income.

<sup>7</sup>As the results show, the net saving rate implied by our results is broadly consistent with the National Accounts figure in the case of Japan but is much higher than the National Accounts figure in the case of the United States. The reason for this is not clear and warrants further investigation, but in this paper, we are interested in the composition of saving by motive rather than in the level thereof. We are indebted to B. Douglas Bernheim and Daekeun Park for this point.

<sup>8</sup>Note, however, that the share of the bequest motive broadly defined in gross saving is 35.59% in the U.S. and 39.69% in Japan, meaning that it is substantial in both countries and slightly higher in Japan than it is in the U.S. We are indebted to Joon-Ho Hahm for this point.

<sup>9</sup>Refer to Horioka and Okui (1999) for an analysis of the importance and determinants of retirement saving in the U.S. and Japan using the same data source. They find that, in both countries, retirement saving is influenced by some (though not all) of the factors identified by the extended life cycle model, especially expected living expenses during retirement.

 $^{\scriptscriptstyle 10}\text{We}$  are indebted to Joon-Ho Hahm and Daekeun Park for these points.

<sup>11</sup>The shares of the population aged 0-19, 20-39, 40-59, and 60 and over were 32.0% (22.4%), 31.9% (27.8%), 20.3% (28.9%), and 15.7% (21.0%), respectively, in the United States (Japan) as of July 1, 1996.

<sup>12</sup>In Japan, it has traditionally been the eldest son who carries on the family line or the family business, and in prewar Japan, the law stipulated that the entire bequest goes to the eldest son.

 $^{13}\mathrm{The}$  U.S. results are broadly consistent with the findings of Dunn and Phillips (1997), who find that 90% of Americans bequeath at least some assets to all of their children.

<sup>14</sup>Note, however, that the altruism model requires only that the parents be

altruistic. Thus, the fact that the children are selfish does not necessarily contradict the altruism model.

<sup>15</sup>Horioka et al. (1996) also find that, in Japan, aged respondents with an altruistic or selfish bequest motive are roughly twice as likely to receive financial assistance from their children as those with no bequest motive, which again suggests that children are selfish in Japan.

<sup>16</sup>We are indebted to Christopher D. Carroll and Daekeun Park for this point. One possible explanation of our result is habit formation (see, for example, Carroll (2000)).

 $^{17}$ The Urban Households Saving Market Study, conducted by the Bank of Korea in 1995, asked Korean households about their bequest motives and found that the proportion of respondents with an altruistic bequest motive is somewhat higher in Korea than it is in Japan but not nearly as high as it is in the U.S. (25.7% in Korea vs. 42.6% in the U.S. and 19.3% in Japan), that the proportion of respondents with a selfish bequest motive is far, far higher in Korea than it is in either the U.S. or Japan (22.8% in Korea vs. 3.3% in the U.S. and 6.4% in Japan), and that the proportion of respondents with no bequest motive (or planning to leave only unintended bequests) is lower in Korea than it is in either the U.S. or Japan (51.5% in Korea vs. 54.1% in the U.S. and 74.3% in Japan). Since the second and third responses are consistent with the life cycle model, these findings imply that the proportion of respondents adhering to the life cycle model in Korea is much higher than it is in the U.S. but somewhat lower than it is in Japan (74.3% in Korea vs. 57.4% in the U.S. and 80.6% in Japan). Thus, it appears that Korea is between the U.S. and Japan but closer to Japan with respect to the degree of applicability of the altruism and life cycle models. We are indebted to Joon-Ho Hahm for providing us with the Korean data.

	(1)		(2)		(3)	(4)	(4)		(6)
Motive	The proporti	on of	The average amount of	gross	The ratio of (2)	The average amount	of gross	The ratio of (4)	The share of (4) in
	households say	ving for	saving for each motive in	the form	to average	saving for each motiv	ve in the		gross saving in the
	each motive	in the	of the accumulation of f	inancial	annual	form of the accumul	ation of	annual	form of the
	form of the	he	assets of households sav	ing for	household	financial assets of	of all	household	accumulation of
	accumulatio	on of	each motive in that form	(in units	disposable	households (in un	its of	disposable	financial assets for
	financial asse	ets (%)	of dollars or 10,000	yen)	income (%)	dollars or 10,000	yen)	income (%)	all motives (%)
				United S					
1 Retirement	48.57	(1)	5797	(1)	16.52	2815	(1)	8.02	30.85
2 Living expenses	33.58	(5)	2411	(8)	6.87	810	(3)	2.31	8.87
3 Illness	42.57	(2)	1611	(12)	4.59	686	(5)	1.95	7.52
4 Education	21.10	(8)	2137	(9)	6.09	451	(8)	1.28	4.94
5 Marriage	6.78	(11)	3450	(4)	9.83	234	(11)	0.67	2.56
6 Housing	19.08	(9)	3289	(5)	9.37	627	(6)	1.79	6.88
7 Consumer durables	24.60	(7)	1667	(11)	4.75	410	(9)	1.17	4.49
8 Leisure	34.81	(4)	1703	(10)	4.85	593	(7)	1.69	6.50
9 Tax	30.87	(6)	2443	(7)	6.96	754	(4)	2.15	8.27
10 Business	3.95	(12)	5220	(2)	14.88	206	(12)	0.59	2.26
11 Peace of mind	37.70	(3)	2930	(6)	8.35	1105	(2)	3.15	12.10
12 Bequest	10.77	(10)	3708	(3)	10.57	399	(10)	1.14	4.38
13 Other	1.54		2260		6.44	35		0.10	0.38
Total	315.92					9125		26.01	100.00
				Japa					
1 Retirement	45.21	(1)	84.87	(1)	15.10	38.37	(1)	6.83	36.86
2 Living expenses									
3 Illness	37.21	(3)	41.19	(4)	7.33	15.33	(3)	2.73	14.73
4 Education	23.95	(4)	35.74	(6)	6.36	8.56	(5)	1.52	8.22
5 Marriage	11.36	(5)	39.46	(5)	7.02	4.48	(6)	0.80	4.31
6 Housing	10.76	(6)	80.26	(2)	14.28	8.63	(4)	1.54	8.30
7 Consumer durables	6.14	(8)	28.76	(8)	5.12	1.77	(8)	0.31	1.70
8 Leisure	9.84	(7)	27.17	(9)	4.84	2.67	(7)	0.48	2.57
9 Tax	5.69	(9)	23.67	(10)	4.21	1.35	(9)	0.24	1.29
10 Business	0.96	(11)	12.00	(11)	2.14	0.12	(11)	0.02	0.11
11 Peace of mind	39.62	(2)	50.61	(3)	9.01	20.05	(2)	3.57	19.26
12 Bequest	3.63	(10)	29.38	(7)	5.23	1.07	(10)	0.19	1.02
13 Other	3.19		53.00		9.43	1.69		0.30	1.62
Total	197.56					104.08		18.52	100.00

# Table 1: A U.S.-Japan Comparison of Gross Saving in the Form of the Accumulation of Financial Assets for Each Motive

Notes: Refer to the main text for an explanation of the calculation method. The figures in parentheses denote the rank of each motive (excluding "other").

Data source: The Institute for Posts and Telecommunications Policy, Ministry of Posts and Telecommunications, Government of Japan, "A Comparative Survey of Savings in Japan and the United States" (1996).

	(1)		(2)		(3)	(4)		(5)	(6)
	The proport	ion of	The average amount of gross	s saving	The ratio of (2) to	The average amount of	f gross	The ratio of (4)	The share of (4) in
	households s	saving	for each motive in the form		average annual	saving for each motive in the		to average annual	gross saving in the
	for each mot	tive in	repayments of households sa	ving for	household	form of loan repayme	ents of	household	form of loan
	the form of	loan	each motive in that form (in	units of	disposable	all households (in ur	its of	disposable	repayments for all
Motive	repayments	s (%)	dollars or 10,000 yen	)	income (%)	dollars or 10,000 y	ven)	income (%)	motives (%)
				Unite	d States				
1 Living expenses	5.16	(5)	2181	(4)	6.22	113	(4)	0.32	3.01
2 Illness	8.09	(3)	1569	(5)	4.47	127	(3)	0.36	3.39
3 Education	2.37	(6)	3128	(2)	8.92	74	(6)	0.21	1.98
4 Marriage	0.52	(7)	800	(7)	2.28	4	(7)	0.01	0.11
5 Housing	39.54	(1)	6821	(1)	19.44	2697	(1)	7.69	72.08
6 Consumer durables	21.64	(2)	3044	(3)	8.67	659	(2)	1.88	17.60
7 Leisure	5.47	(4)	1394	(6)	3.97	76	(5)	0.22	2.04
8 Other	11.11		2786		7.94	310		0.88	8.27
Total	77.75					3741		10.66	100.00
				Ja	apan				
1 Living expenses	2.12	(4)	37.33	(6)	6.64	0.79	(4)	0.14	1.96
2 Illness	0.30	(7)	50.00	(3)	8.90	0.15	(6)	0.03	0.37
3 Education	2.50	(3)	41.12	(4.5)	7.32	1.03	(3)	0.18	2.55
4 Marriage	0.81	(5)	67.00	(2)	11.92	0.54	(5)	0.10	1.35
5 Housing	24.08	(1)	140.84	(1)	25.06	33.91	(1)	6.04	84.00
6 Consumer durables	6.90	(2)	41.12	(4.5)	7.32	2.84	(2)	0.51	7.03
7 Leisure	0.61	(6)	23.60	(7)	4.20	0.14	(7)	0.03	0.35
8 Other	5.17		67.29		11.98	3.48		0.62	8.61
Total	36.75					40.37		7.18	100.00

 Table 2: A U.S.-Japan Comparison of Gross Saving in the Form of Loan Repayments for Each Motive

Notes: Refer to the main text for an explanation of the calculation method. The figures in parentheses denote the rank of each motive (excluding "other").

	(1)		(2)		(3)	(4)		(5)	(6)	(7)
	The propo	rtion of	The average amou	nt of	The ratio of	The average an	nount of	The ratio of	The share of (4) in	The share of (4) in
	households	dissaving	dissaving in the form	of the	(2) to average	dissaving in the	form of	(4) to average	dissaving in the	dissaving in the form of
	for each m	otive in	decumulation of fin	ancial	annual	the decumula	tion of	annual	form of the	the decumulation of
	the form	of the	assets of househo	olds	household	financial asset	s of all	household	decumulation of	financial assets for all
	decumula	tion of	dissaving for each me	otive in	disposable	households (in	units of	disposable	financial assets for	motives (excluding the
	financial as	sets (%)	that form (in units of	dollars	income (%)	dollars or 10,0	00 yen)	income (%)	all motives (%)	housing motive) (%)
Motive			or 10,000 yen)	)						
Wouve					United State	5				
1 Retirement	6.33	(4)	5368	(3)	15.30	340	(1)	0.97	23.14	23.80
2A Living expenses	0.55	()	5500	(3)	15.50	540	(1)	0.77	23.14	25.00
(age 59 or younger)	4.24	(5)	2004	(9)	5.71	85	(8)	2.42	5.78	5.95
2B Living expenses	7.27	(3)	2004	$(\mathcal{I})$	5.71	05	(0)	2.72	5.70	5.75
(age 60 or older)	1.41	(9)	2565	(7)	7.31	36	(10)	1.03	2.47	2.54
3 Illness	7.27	(3)	1894	(10)	5.40	138	(10)	3.92	9.38	9.65
4 Education	1.36	(10)	6734	(10)	19.19	91	(7)	2.60	6.22	6.40
5 Marriage	0.18	(11.5)	6000	(1)	17.10	11	(11)	0.31	0.73	0.40
6 Housing	1.83	(11.5)	2236	(8)	6.37	41	(9)	1.17	2.79	0.75
7 Consumer durables	3.35	(7)	3897	(5)	11.11	131	(5)	3.72	8.90	9.15
8 Leisure	7.42	(7)	1717	(11)	4.89	127	(6)	3.63	8.69	8.93
9 Tax	8.33	(1)	2974	(11)	8.48	248	(0)	7.06	16.89	17.37
10 Business	0.18	(11.5)	600	(13)	1.71	1	(12.5)	0.03	0.08	0.08
11 Peace of mind	4.11	(11.5)	5136	(13)	14.64	211	(12.3)	6.02	14.40	14.81
12 Bequest	0.09	(13)	1000	(12)	2.85	1	(12.5)	0.02	0.06	0.06
13 Other	0.09	(15)	4200	(12)	11.97	7	(12.5)	0.03	0.49	0.50
Total	46.27		4200		11.97	1468		4.18	100.00	100.00
Total	10127				Japan	1.00			100100	100100
1 Retirement										
2A Living expenses										
(age 59 or younger)	10.02	(1)	96.86	(8)	17.24	9.71	(2)	1.73	18.60	34.32
2B Living expenses				( )						
(age 60 or older)	3.13	(4)	106.90	(7)	19.02	3.34	(4)	0.59	6.40	11.81
3 Illness	2.73	(5)	108.35	(6)	19.28	2.95	(5)	0.53	5.66	10.44
4 Education	3.47	(3)	116.73	(5)	20.77	4.05	(3)	0.72	7.76	14.30
5 Marriage	0.42	(10)	167.50	(3)	29.81	0.71	(9)	0.13	1.36	2.51
6 Housing	2.13	(6)	1121.50	(1)	199.58	23.89	(1)	4.25	45.78	
7 Consumer durables	1.51	(8)	134.29	(4)	23.90	2.03	(6)	0.36	3.88	7.16
8 Leisure	3.74	(2)	37.49	(11)	6.67	1.40	(7)	0.25	2.69	4.96
9 Tax	1.72	(7)	70.25	(9)	12.50	1.21	(8)	0.21	2.31	4.27
10 Business	0.11	(11)	300.00	(2)	53.39	0.32	(10)	0.06	0.62	1.14
11 Peace of mind	0.00	(12)		(-)		0.00	(12)	0.00	0.00	0.00
12 Bequest	0.55	(9)	40.40	(10)	7.19	0.22	(11)	0.04	0.43	0.78
13 Other	1.06	~ /	221.00	/	39.33	2.35		0.42	4.50	8.31
Total	30.58					52.17		9.28	100.00	100.00

# Table 3: A U.S.-Japan Comparison of Dissaving in the Form of the Decumulation of Financial Assets for Each Motive

Notes: Refer to the main text for a description of the calculation method. The figures in parentheses denote the rank of each motive (excluding "other"). Data source: The same as Table 1.

	(1)		(2)		(3)	(4)		(5)	(6)	(7)
	The propor	tion of	The average amount of dissa	aving	The ratio of	The average am	ount of	The ratio of	The share of (4) in	The share of (4) in
	househo	olds	for each motive in the form	n of	(2) to average	dissaving for each	n motive	(4) to average	dissaving in the	dissaving in the form of
	dissaving fo	or each	newly incurred debt of		annual	in the form of	newly	annual	form of newly	newly incurred debt for
	motive in th	ne form	households dissaving for e	each	household	incurred debt	of all	household	incurred debt for	all motives (excluding
	of newly in	curred	motive in that form (in unit	ts of	disposable	households (in u	units of	disposable	all motives (%)	the housing motive) (%)
Motive	debt (%	6)	dollars or 10,000 yen)		income (%)	dollars or 10,00	0 yen)	income (%)		
					United Sta	tes				
1 Living expenses	1.60	(5)	5631	(4)	16.05	90	(5)	0.26	2.58	5.38
2 Illness	2.67	(3)	3989	(5)	11.37	106	(4)	0.30	3.05	6.35
3 Education	0.59	(6)	75071	(1)	213.95	445	(3)	1.27	12.74	26.55
4 Marriage	0.00	(7)				0	(7)	0.00	0.00	0.00
5 Housing	3.60	(2)	50442	(2)	143.76	1816	(1)	5.18	52.00	
6 Consumer durables	8.00	(1)	7575	(3)	21.59	606	(2)	1.73	17.35	36.14
7 Leisure	1.82	(4)	2167	(6)	6.17	40	(6)	0.11	1.13	2.36
8 Other	3.09		12601		35.91	390		1.11	11.15	23.23
Total	16.52					2851		8.13	81.63	88.28
					Japan					
1 Living expenses	1.01	(3)	48.00	(5)	8.54	0.48	(4)	0.09	0.49	0.48
2 Illness	0.00	(7)				0.00	(7)	0.00	0.00	0.00
3 Education	0.50	(4)	120.40	(3)	21.43	0.60	(3)	0.11	0.61	0.60
4 Marriage	0.10	(6)	200.00	(2)	35.59	0.20	(5)	0.04	0.20	0.20
5 Housing	2.17	(1)	4117.50	(1)	732.74	89.46	(1)	15.92	90.13	
6 Consumer durables	2.10	(2)	81.52	(4)	14.51	1.71	(2)	0.30	1.73	1.71
7 Leisure	0.20	(5)	20.00	(6)	3.56	0.04	(6)	0.01	0.04	0.04
8 Other	1.49		539.73		96.05	8.04		1.43	8.11	8.04
Total	5.97					99.25		17.66	100.00	9.79

Table 4: A U.S.-Japan Comparison of Dissaving in the Form of Newly Incurred Debt for Each Motive

Notes: Refer to the main text for a description of the calculation method. The figures in parentheses denote the rank of each motive (excluding "other").

Table 5: A U.SJapa	n Comparison	of Dissaving in th	e Form of Depreciation	on Owner-Occupied Housing

	(1)	(2)	(3)	(4)	(5)
	The proportion of households	The average amount of dissaving in the	The ratio of (2) to	The average amount of dissaving in the	The ratio of (4) to
	dissaving in the form of	form of depreciation on owner-occupied	average annual	form of depreciation on owner-occupied	average annual
	depreciation on owner-	housing of households dissaving in that	household disposable	housing of all households (in units of	household disposable
Motive	occupied housing (%)	form (in units of dollars or 10,000 yen)	income (%)	dollars or 10,000 yen)	income (%)
		United	d States		
Housing	67.90	3195	9.11	2169	6.18
Total	67.90			2169	6.18
		Ja	pan		
Housing	62.74	81.78	14.55	51.31	9.13
Total	62.74			51.31	9.13

Notes: Refer to the main text for a description of the calculation method.

	(1)		(2)	(3)	(4)		(5)	(6)	(7)		(8)	(9)
	The average	amount	The ratio of	The share	The average	amount	The ratio of	The share	The average	amount	The ratio of	The share
	of gross savi	ng for	(1) to average	of (1) in	of dissaving	for each	(4) to average	of (4) in	of net saving	for each	(7) to average	of (7) in
	each motive		annual	gross	motive of		annual	dissaving	motive o		annual	net saving
	households (i	in units	household	0	households		household	for all	households (		household	for all
	of dollars or	10,000	disposable	all motives	of dollars of	r 10,000	disposable	motives	of dollars or	10,000	disposable	motives
Motive	yen)		income (%)	(%)	yen		income (%)	(%)	yen)		income (%)	(%)
					United S							
1 Retirement	2815	(2)	8.02	21.36	376	(5)	1.07	7.13	2440	(1)	6.95	30.84
2 Illness	813	(5)	2.32	6.16	244	(7)	0.70	4.63	569	(4)	1.62	7.19
3 Education	525	(8)	1.50	3.98	536	(3)	1.53	10.17	-11	(11)	-0.03	-0.14
4 Marriage	238	(10)	0.68	1.81	11	(9)	0.03	0.20	227	(9)	0.65	2.87
5 Housing	3324	(1)	9.47	25.21	2169	(1)	6.18	41.14	1155	(3)	3.29	14.60
6 Consumer durables	1069	(4)	3.05	8.11	737	(2)	2.10	13.97	332	(8)	0.95	4.20
7 Leisure	669	(7)	1.91	5.07	167	(8)	0.48	3.17	502	(6)	1.43	6.35
8 Tax	754	(6)	2.15	5.72	248	(6)	0.71	4.70	506	(5)	1.44	6.40
9 Business	206	(11)	0.59	1.56	1	(10.5)	0.00	0.02	205	(10)	0.58	2.59
10 Peace of mind	2027	(3)	5.78	15.37	386	(4)	1.10	7.33	1640	(2)	4.68	20.74
11 Bequest	399	(9)	1.14	3.03	1	(10.5)	0.00	0.02	398	(7)	1.14	5.04
12 Other	344		0.98	2.61	397		1.13	7.52	-52		-0.15	-0.66
Total	13184		37.57	100.00	5273		15.03	100.00	7911		22.55	100.00
					Japa							
1 Retirement	38.37	(2)	6.83	26.11	3.34	(5)	0.59	3.68	35.03	(1)	6.23	62.23
2 Illness	15.48	(4)	2.75	10.53	2.95	(6)	0.53	3.26	12.53	(2)	2.23	22.26
3 Education	9.59	(5)	1.71	6.52	4.65	(3)	0.83	5.13	4.94	(4)	0.88	8.77
4 Marriage	5.03	(6)	0.89	3.42	0.91	(9)	0.16	1.01	4.11	(5)	0.73	7.31
5 Housing	42.55	(1)	7.57	28.95	51.31	(1)	9.13	56.58	-8.76	(11)	-1.56	-15.57
6 Consumer durables	4.61	(7)	0.82	3.13	3.74	(4)	0.67	4.12	0.87	(7)	0.15	1.54
7 Leisure	2.82	(8)	0.50	1.92	1.44	(7)	0.26	1.59	1.37	(6)	0.24	2.44
8 Tax	1.35	(9)	0.24	0.92	1.21	(8)	0.21	1.33	0.14	(9)	0.02	0.25
9 Business	0.12	(11)	0.02	0.08	0.32	(10)	0.06	0.35	-0.21	(10)	-0.04	-0.37
10 Peace of mind	20.84	(3)	3.71	14.18	10.19	(2)	1.81	11.24	10.65	(3)	1.90	18.92
11 Bequest	1.07	(10)	0.19	0.72	0.22	(11)	0.04	0.24	0.84	(8)	0.15	1.50
12 Other	5.17		0.92	3.52	10.39		1.85	11.46	-5.23		-0.93	-9.29
Total	146.97		26.15	100.00	90.68		16.14	100.00	56.28		10.02	100.00

# Table 6: A U.S.-Japan Comparison of Gross Saving, Dissaving, and Net Saving for Each Motive

(continued)

Table 6 (continued)

Notes: Gross saving is the sum of gross saving in the form of the accumulation of financial assets and gross saving in the form of loan repayments, while dissaving is the sum of dissaving in the form of the decumulation of financial assets, dissaving in the form of newly incurred debt, and dissaving in the form of depreciation on owner-occupied housing (but excluding dissaving in the form of the decumulation of financial assets and dissaving in the form of newly incurred debt for the housing motive). Net saving was calculated as gross saving minus dissaving. The gross saving in the form of the accumulation of financial assets and that in the form of loan repayments for the living expenses motive of those of all ages, the dissaving in the form of the decumulation of financial assets for the living expenses motive of those of all ages were regarded as being for the peace of mind motive, while the dissaving in the form of the decumulation of financial assets for the retirement motive. The figures in parentheses denote the rank of each motive (excluding "other").

Data source: Tables 1-5.

# Table 7: A U.S.-Japan Comparison of the Importance of Bequests

	United States	Japan
1. The proportion of respondents who have received		•
bequests in the past (%)	28.67	22.35
2. The average current market value of bequests received		
(the average for respondents who have received bequests		
in the past) (in units of dollars or yen)	\$74,756	¥54,114,240
3. 2 as a multiple of average annual household disposable		
income (times)	2.131	9.630
4. The average current market value of bequests received		
(the average for all respondents) (in units of dollars or	\$21,431	¥12,094,555
5. 4 as a multiple of average annual household disposable		
income (times)	0.611	2.152
6. The average annual household disposable income of all		
respondents (in units of dollars or yen)	\$35,088	¥5,619,294
7. The proportion of respondents who expect to receive		
bequests in the future (%)	28.40	22.10
8. The proportion of respondents who have received		
bequests in the past and/or who expect to receive		
bequests in the future (%)	48.88	40.18
The number of respondents	1479	1217

Notes: Respondents not replying to the question about whether they have received bequests received in the past and/or to the question about whether they expect to receive bequests in the future were excluded from the sample when calculating the proportions in lines 1, 7, and 8.

# Table 8: A U.S.-Japan Comparison of Bequest Motives

Attitude toward bequests	The proportion of respondent	s holding each view (%)
	United States	Japan
1. I want to make efforts to leave behind a bequest regardless of		
whether my child or children look after me after I retire	42.60	19.29
2. I want to make efforts to leave behind a bequest as long as		
my child or children look after me after I retire	3.32	6.43
1+2. I want to make efforts to leave behind a bequest		
(regrouped)	45.92	25.72
3. I will not make any particular efforts to leave behind a		
bequest but will leave to my child or children whatever assets		
happen to be left over	51.14	70.10
4. I will not leave any bequest at all to my child or children	2.94	4.18
Total	100.00	100.00
Number of respondents	1054	933

Notes: Respondents with no children, those not replying to the question about whether or not they have children, those replying "I don't know, I have never thought about it" or not replying to the question about bequest motives were excluded from the sample when computing these proportions.

## Table 9: A U.S.-Japan Comparison of Attitudes toward Bequest Division

Attitude toward bequest division	The proportion of responden	ts holding each view (%)
	United States	Japan
1. It will be divided equally among my children	96.28	48.74
2. Most or all of it will be willed to the child or children with		
the least income	0.55	2.36
3. Most or all of it will be willed to the child or children who		
look after me	2.48	32.38
4. Most or all of it will be willed to the child or children who		
carry on my business	0.00	6.91
5. Most or all of it will be willed to my oldest son/daughter		
regardless of whether he/she looks after me	0.41	7.59
6. Other	0.28	2.02
Total	100.00	100.00
Number of respondents	725	593

Notes: Respondents with one or no children, those not replying to the question about whether or not they have children and/or to the question about how many children they have, those replying "I don't know, I've never thought about it" or not replying to the question about bequest motives and/or to the question about the division of their bequest, and those replying "I will not leave any bequest to my child or children" in response to the question about bequest motives were excluded from the sample when calculating these proportions.

# Table 10: A U.S.-Japan Comparison of the Composition of Bequests

	The proportion of		
	respondents who plan to	The proportion of respondents	The proportion of respondents who
	bequeath assets they inherited	who plan to bequeath assets	plan to bequeath assets they inherited
Type of asset	(%)	they acquired on their own (%)	and/or acquired on their own (%)
	Ŭ	United States	
Land/housing	17.28	78.12	83.82
Financial assets	21.58	80.52	84.42
Other	15.68	54.65	57.84
Total	32.67	96.60	100.00
Number of respondents			1001
		Japan	
Land/housing	37.35	51.86	79.87
Financial assets	5.96	54.78	57.26
Other	3.37	15.52	17.89
Total	39.71	83.35	100.00
Number of respondents			889

Notes: Respondents who have no children, those not replying to the question about whether or not they have children, those replying "I do not plan to leave a bequest to my child or children" or "I don't know, I've never thought about it" or not replying to the question about bequest motives, and those not replying to the question about the composition of their bequests were excluded from the sample when calculating these proportions.

# Table 11: A U.S.-Japan Comparison of the Distribution of Respondents by Bequest Motive, Broken Down by Whether or Not They Have Received and/or Expect to Receive Bequests

Attitude toward bequests	The proportion of respondents holding each view (%)								
	Unite	d States	Japan						
	Respondents who	Respondents who	Respondents who	Respondents who					
	have received and/or	have neither received	have received and/or	have neither received					
	expect to receive	nor expect to receive	expect to receive	nor expect to receive					
	bequests	bequests	bequests	bequests					
1. I want to make efforts to leave behind a									
bequest regardless of whether my child or									
children look after me after I retire	49.43	35.18	25.72	14.14					
2. I want to make efforts to leave behind a									
bequest as long as my child or children look									
after me after I retire	3.60	3.16	6.73	6.37					
3. I will not make any particular efforts to									
leave behind a bequest but will leave to my									
child or children whatever assets happen to									
be left over	45.45	57.11	66.35	72.71					
4. I will not leave any bequest at all to my									
child or children	1.52	4.55	1.20	6.77					
Total	100.00	100.00	100.00	100.00					
Number of respondents	528	506	416	502					

Notes: Respondents with no children, those not replying to the question about whether or not they have children, and those replying "I don't know, I've never thought about it" or not replying to the question about bequest motives were excluded from the sample when calculating these proportions. Moreover, the results are not shown for respondents not replying to the question about whether or not they have received bequests in the past and/or to the question about whether or not they expect to receive bequests in the future.

# Table 12: A U.S.-Japan Comparison of Parental Coresidence Rates by Bequest Expectations

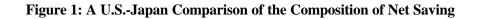
Subsample	Parental coresidence rate (%)			
	United States		Japan	
the future	7.02	(228)	24.61	(191)
Respondents who do not expect to receive any				
bequests in the future	6.75	(326)	18.79	(346)
All respondents (excluding those who did not				
reply to the question about whether or not they				
expect to receive bequests in the future)	6.86	(554)	20.86	(537)
All respondents	6.80	(559)	20.82	(538)

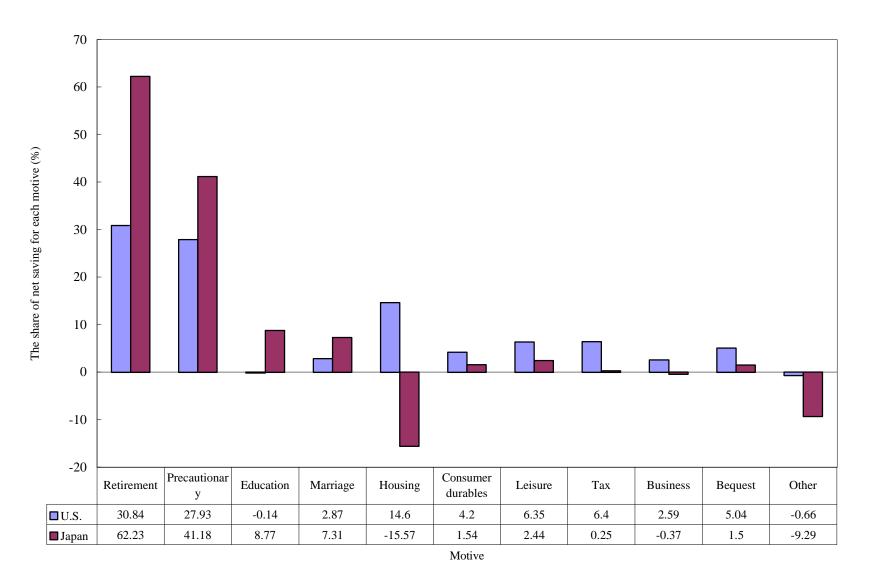
Notes: These figures show the proportion of respondents aged 49 years or younger who live with one or more parents or parents-inlaw. Respondents not replying to the question about whether or not they live with their parents or parents-in-law were excluded from the sample when calculating these proportions. Moreover, the results are not shown for respondents not replying to the question about whether or not they expect to receive bequests in the future. The figures in parentheses show the number of respondents.

# Table 13: A U.S.-Japan Comparison of Child Coresidence Rates by Bequest Motive

Attitude toward bequests	Child coresidence rate (%)				
	United States		Japan		
1. I want to make efforts to leave behind a bequest					
regardless of whether my child or children look after					
me after I retire	7.53	(146)	63.46	(52)	
2. I want to make efforts to leave behind a bequest as					
long as my child or children look after me after I					
retire	6.67	(15)	63.89	(36)	
3. I will not make any particular efforts to leave					
behind a bequest but will leave to my child or					
children whatever assets happen to be left over	12.02	(208)	49.45	(182)	
4. I will not leave any bequest to my child or					
children	7.69	(13)	25.00	(16)	
All respondents (excluding those who replied "I don't					
know, I've never thought about it" or who did not					
reply to the question about bequest motives)	9.95	(382)	52.45	(286)	
All respondents	10.05	(398)	49.70	(334)	

Notes: These figures show the proportion of respondents aged 60 or older who live with one or more of their children. Respondents with no children, respondents not replying to the question about whether or not they have children, and respondents not replying to the question about whether or not they live with their children were excluded from the sample when calculating these proportions. Moreover, the results are not shown for respondents replying "I don't know, I've never thought about it" or not replying to the question about bequest motives. The figures in parentheses show the number of respondents.





Note: The precautionary motive represents the sum of the illness and peace of mind motives.

Data source: Table 6.