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# Bequests and Household Assets

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## I. Introduction

The issue of bequests, or intergenerational transfers, cannot be ignored when considering household assets. The importance of bequests has been widely accepted in macroeconomics since 1981, when research was published noting that only about 20% of savings in the US can be explained with the life cycle hypothesis, with the remaining 80% related to inherited property.<sup>1</sup> A 1991 paper comparing inheritances in Japan and the US estimated that bequests accounted for 27.8% to 42.3% of overall assets in Japan and over 25% in the US.<sup>2</sup>

Thus about 30-40% of household assets in Japan are thought to derive from bequests,<sup>3</sup> and bequests play a major role. In this paper, we address a number of important issues related to inheritance. A summary of the arguments made in each chapter follows.

In the next chapter (II), we analyze the state of inheritance and asset portfolios in the upper class using inheritance tax receipts and other data. Inheritance data from 2004 shows the group with the largest bequests inherits an average of ¥4.1 billion in assets per inheritance, with each heir receiving ¥940 million. This is equivalent to  $3.3 \times$ <sup>4</sup> the lifetime earnings of a male university graduate.

Inherited property is also the asset portfolio of the upper class. We examine the asset composition of several types of "wealthy households," and also look at the geographic distribution of the wealthy.

In Chapter III, we make several important points regarding how bequests are perceived. First, there is less intentional estate planning done in Japan compared to

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<sup>1</sup> Kotlikoff, L., and L. Summers, "The Role of Intergenerational Transfers in Capital Accumulation," *Journal of Political Economy* 89, 706-32, 1981.

<sup>2</sup> Barthold, T., and T. Ito, "Bequest Taxes and Accumulation of Household Wealth: U.S.-Japan Comparison," *NBER Working Paper* No. 3692, 1991.

<sup>3</sup> Tachibanaki and Takata, "Bequests and Asset Distribution: Human Capital Investment and Intergenerational Wealth Transfers," in T. Tachibanaki (ed.), *Savings and Bequests*, Ann Arbor: University of Michigan Press, 1991, and Toshiaki Tachibanaki, *Nihon no Keizai Kakusa* (Economic Inequality in Japan), Iwanami Shinsho, 1998 (in Japanese). In this research, the authors estimate that bequests account for 44.5% of household assets in Japan.

<sup>4</sup> This calculation is based on the lifetime earnings of a typical worker (when working at the same company from graduation until age 60). Numbers are based on 2003 data, and exclude retirement pay. Source is the Japan Institute for Labor Policy and Training, *Yuusufuru Roudou Toukei* (Useful Labor Data (2006) (in Japanese).

the US. Consequently, bequests wind up being "windfall income" for which both the timing and amount is difficult to predict.

Second, there is also a cohort that does estate planning as done by Americans. For many Japanese, bequests are something to leave to descendants if there is anything left over, whereas among the wealthy there is a sense that bequests should be left intentionally, which implies that thought is given to the protection and distribution of assets.

Third, with the increase in the average life span that has occurred over the past 30 years, the timing of inheritance has been pushed farther out. Previously, inheritances were mostly received when people were in their 40s and 50s, the stage of their life cycle when they need money the most, but now many of those inheritances are not coming until heirs are in their late 60s, a stage of life where it is likely that assets have already been accumulated through income savings. Because of this, there is probably much more freedom in choosing how to use the funds.

In Chapter IV, we examine the possibility that awareness of inheritance increases with the formation of assets. More than half of the assets in Japan today are concentrated in senior households, but the declining birth rate is reducing the number of heirs and thus increasing the amount of inheritance each one receives. There has been considerable debate recently over the income gap, and we look here at the possibility of the size of bequests exacerbating differences in lifetime income.

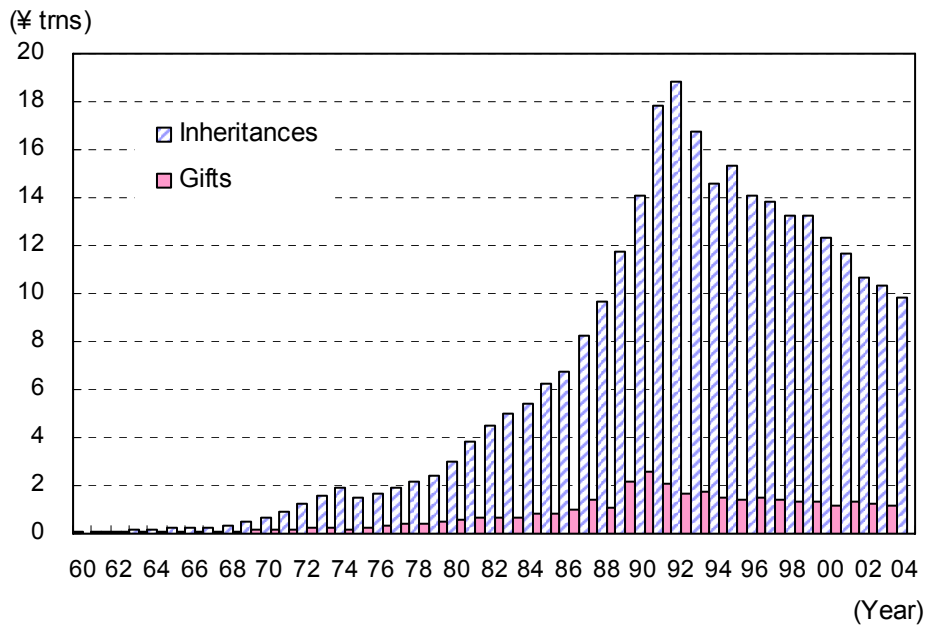
## **II. Assets of the wealthy viewed from data on inheritance tax receipts**

### **1. Size and changes in inheritance viewed from data on inheritance tax receipts**

The data on bequests in Japan is extremely limited and likely to contain many errors, since most of the data that exists relies on voluntary reporting. In this chapter, we focus our examination on inheritance tax receipts, which should be objective data.

According to 2005 data from Japan's National Tax Agency (NTA), a total of approximately ¥11.0 trillion in property was subject to inheritance tax, and after deducting liabilities the total taxable value was ¥9.9 trillion. Figure 1 shows inherited property and gifted property based on taxable value. Inherited property dwarfs gifted property, and in 1992, immediately after Japan's bubble years when asset values skyrocketed, the taxable value of inherited property reached ¥18.8 trillion. The total later declined under the effects of deflation, but inherited property was recently still quite high by historical standards. We expect the total to resume a growth trajectory in the future, reflecting the impact from an exit from deflation and the further aging of society (discussed in Chapter IV).

**Figure 1 Extent of inherited and gifted property based on taxable value**



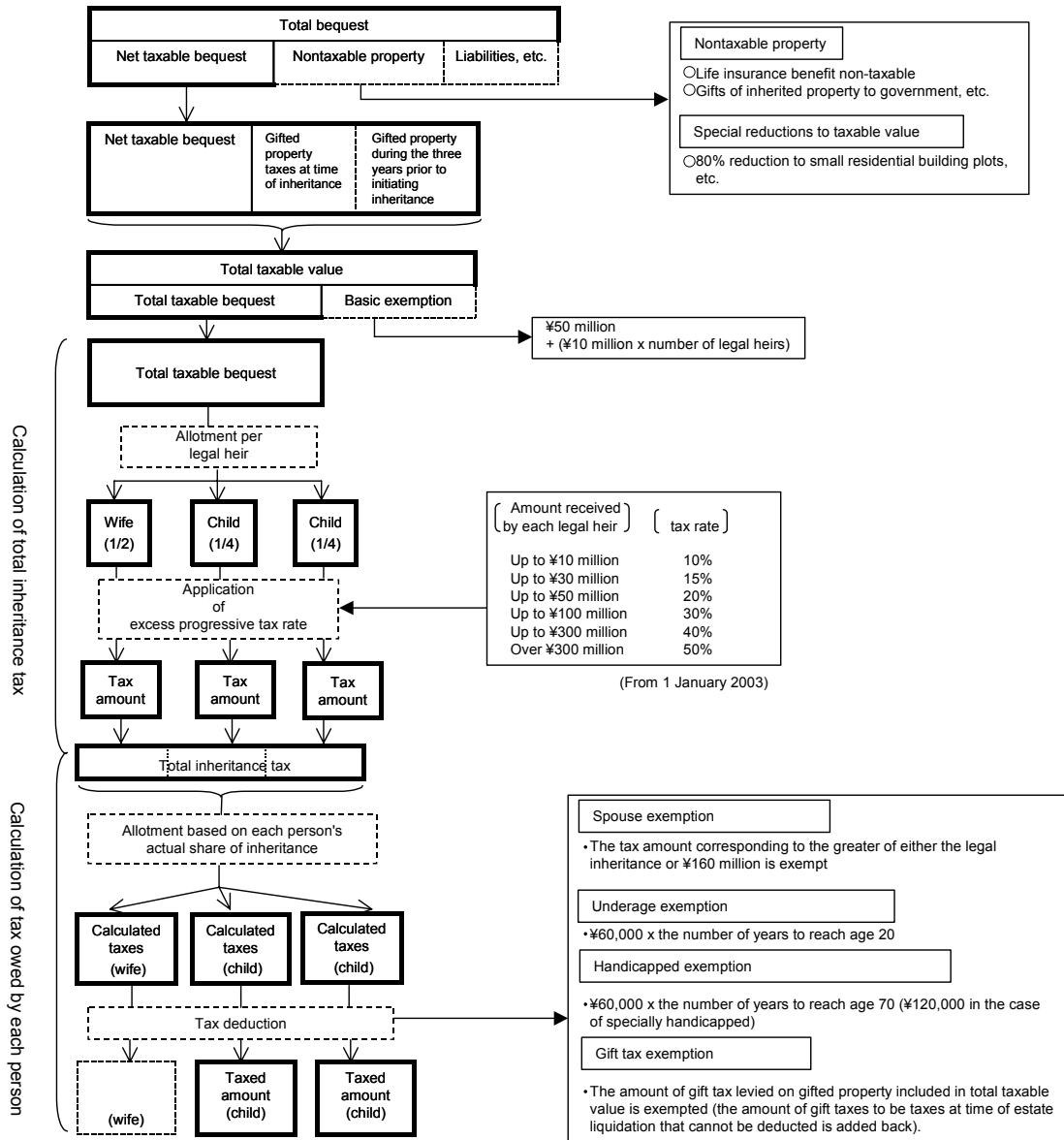
Source: National Tax Agency data at <http://www.nta.go.jp>

## 2. Only a limited number of people are subject to inheritance tax

The tax receipt data shown in Figure 1 reflects only the taxable value of assets subject to the inheritance tax, and does not include tax-exempt assets. Because the inheritance tax is only levied on estates that exceed the basic exemption (¥50 million + ¥10 million x the number of legal heirs), the vast majority of people are not subject to the tax. The number of people (inheritees) who passed away leaving property subject to inheritance taxes was 44,000 in 2004, only 4.2% of the total number who died that year, and the taxable value of property per estate averaged ¥230 million (Figure 3).

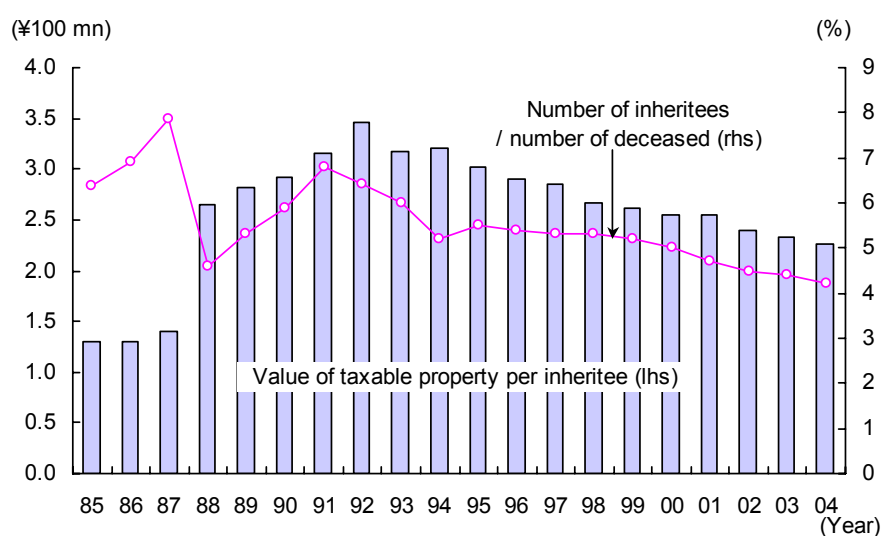
**Figure 2 How the inheritance tax works**

<Assuming survivors are spouse and two children>



Source: Ministry of Finance, Materials related to inheritance and gift taxes at <http://www.mof.go.jp/jouhou/syuzei/siryou/135.htm>

**Figure 3 Only limited number of people subject to inheritance tax**



Note: The inheritee is the person who dies leaving property subject to payment of inheritance tax.

Source: Nomura Institute of Capital Markets Research, based on NTA data.

### 3. Why are so few people subject to inheritance tax?

The reason so few people are subject to inheritance tax is that the basic exemption (¥50 million + ¥10 million x the number of legal heirs) is set fairly high. According to data from the Ministry of Internal Affairs and Communications,<sup>5</sup> the average net worth (savings minus debt) of all households with two or more people was ¥35.21 million, and for households headed by a person aged 70 or more the average was ¥52.6 million. The amount of assets held by the average household is below the basic exemption, and thus not subject to inheritance tax.

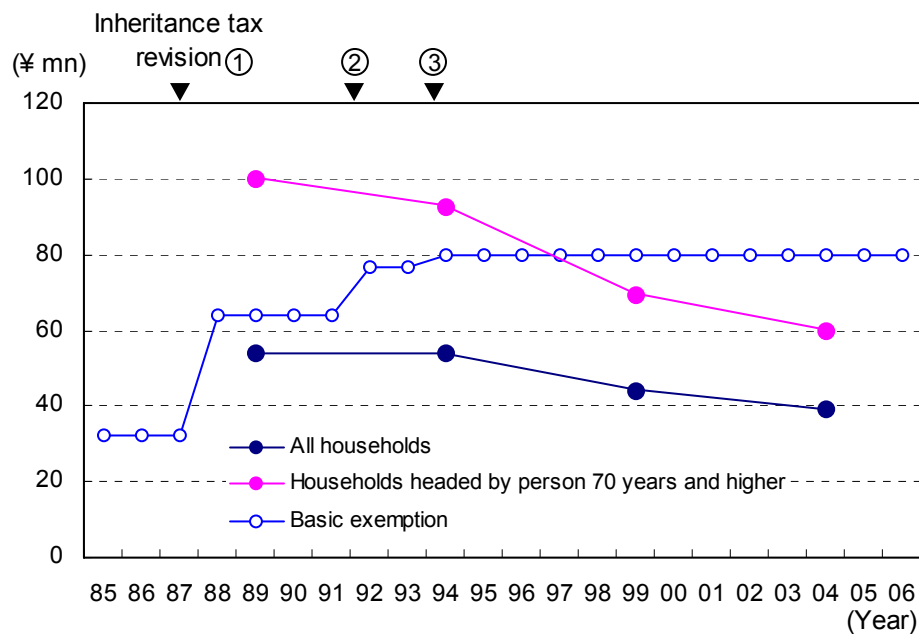
This basic exemption has not always been set at an amount above the average asset holdings. Figure 4 shows the basic exemption assuming a spouse and two children as survivors versus average net worth per household (for two categories: all households and households headed by a person aged 70 or higher). The basic exemption was ¥32 million prior to the inheritance tax overhaul of 1988, but has been raised in several increments to ¥80 million to accommodate the sharp increase in asset values during the bubble years. Average net worth during the bubble (1989) was ¥53.71 million for all households and ¥99.72 million for households headed by a person aged 70 or higher, and the latter estate was subject to inheritance taxes.

Subsequently, however, asset values declined dramatically relative to the bubble years while the basic exemption remained the same, and this resulted in the assets of the average household headed by a person aged 70 or higher no longer being subject to the tax. Consequently, the number of estates (inheritees) subject to inheritance taxes as a percentage of all people who die declined from 7.9% in 1987 to 4.2% more recently, after tax reform (Figure 3). The current inheritance tax has thus become much more of a "tax on the rich" than it used to be.

<sup>5</sup> From 2004 National Survey of Family Income and Expenditure

Another reason so few people are subject to inheritance tax is the number of special exceptions, including for building lots. There are two types of exceptions, building lots for specified businesses and building lots for specified residences,<sup>6</sup> both of which reduce the normal assessment value of the land by 20% when either a parent's business or a home cohabitated by parent and child is passed on. Under this system, the majority of average households, for which their house represents their biggest asset, are not subject to inheritance tax, which is only applied to households that have substantial assets besides their home.

**Figure 4 Basic exemption for inheritance tax overtakes average household net worth**



- Notes:
1. Figures on household net worth are released every five years; data for 1989 and earlier unavailable.
  2. Figures for "All households" and "Households headed by person aged 70 or higher" are both averages for households with at least two people.
  3. Basic exemption calculated assuming three survivors.
  4. The inheritance tax revisions were in (1) 1988, (2) 1992, and (3) 1994.

Source: Nomura Institute of Capital Markets Research, based on Ministry of Finance data and the 2004 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

<sup>6</sup> Under the first exception, when a parent's business is passed on to a child, the taxable value, pursuant to the inheritance tax law, of up to 400 sq. meters of a building plot, for use by a designated business that is core to that business, is reduced to 20% of its normal assessed value. Under the second, the assessed value of up to 240 sq. meters of a building plot for a designated residence that is passed on when still cohabitating with the parent is reduced to 20%.

#### 4. Asset amounts of the wealthy

Currently, the inheritance tax is only levied on the rich (meaning those holding a large amount of assets). Because of this, it is possible to catch a glimpse of the holdings of the rich by looking at data on inheritance tax receipts.

Figure 5 shows inheritance taxes broken down by the taxable value of estates. The figures in the bottom row of the table show the averages for taxable value (¥230 million), inheritance per heir (¥70 million), and after-tax inheritance per heir (¥ 60 million). The greatest number of estates had a taxable value of over ¥100 million (but less than ¥200 million), roughly half (47.6%) of all estates (43,000). The next greatest number was estates with a value of ¥100 million or less, which was 20.0% of all estates. The two combined accounted for nearly 70% (67.6%) of all estates.

There is a big difference, however, between the number of estates valued at ¥100 million and under and the number of those valued over ¥2 billion. There were 141 estates (0.3% of the total) in the highest taxable value category of over ¥2 billion, and they had an average taxable value of ¥4.12 billion. Because these assets went to 618 people (0.4% of all legal heirs), the average size of inheritance per legal heir was ¥940 million. The lifetime earnings (before tax) of a male university graduate, assuming he worked at the same company from graduation until the retirement age of 60, would be ¥288.6 million.<sup>7</sup> Thus the legal heirs in the highest taxable value bracket receive on average property valued at 3.3x the lifetime earnings of a male university graduate. Even after paying taxes, they receive net assets worth ¥670 million per person.

**Figure 5 Large disparity in assets of wealthy – inheritance by taxable value**

Taxable value	Number of estates		Taxable value			Assessed taxes		Legal heirs		Inheritance per legal heir	
	No. of estates (a)	Share	Total (b)	Share	Average (b/a)	Tax (c)	Share	No. of persons	Share	Before tax	After tax
										Average (b/d)	Average (b-c/d)
	Estates	%	¥100 mn	%	¥100 mn	¥100 mn	%	Persons	%	¥100 mn	¥100 mn
Up to ¥ 100 mn	8,678	20.0	7,372	7.5	0.8	102	1.0	20,735	14.2	0.4	0.4
Over ¥ 100 mn	20,706	47.6	28,949	29.4	1.4	1,064	10.0	70,374	48.3	0.4	0.4
Over ¥ 200 mn	6,672	15.3	16,189	16.4	2.4	1,234	11.6	25,054	17.2	0.6	0.6
Over ¥ 300 mn	4,377	10.1	16,589	16.8	3.8	2,043	19.2	17,328	11.9	1.0	0.8
Over ¥ 500 mn	1,468	3.4	8,599	8.7	5.9	1,417	13.3	5,794	4.0	1.5	1.2
Over ¥ 700 mn	832	1.9	6,848	7.0	8.2	1,301	12.2	3,399	2.3	2.0	1.6
Over ¥ 700 mn	614	1.4	8,162	8.3	13.3	1,840	17.3	2,544	1.7	3.2	2.5
Over ¥ 2 bn	141	0.3	5,803	5.9	41.2	1,640	15.4	618	0.4	9.4	6.7
Total	43,488	100.0	98,512	100.0		10,641	100.0	145,846	100.0		
Average					2.3					0.7	0.6

Source: Nomura Institute of Capital Markets Research, based on NTA Annual Statistics Report FY2004.

<sup>7</sup> Same as footnote 4.

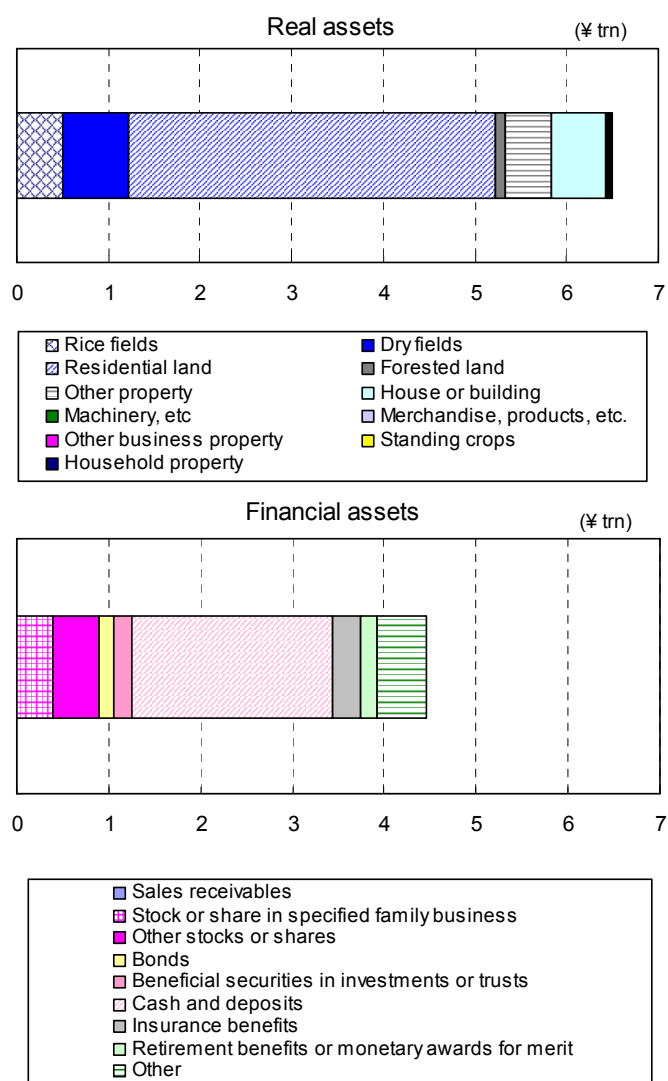
## 5. Asset portfolios of the wealthy

### 1) Assets portfolios of the wealthy viewed from inheritance data

What do the asset portfolios of the wealthy look like? Inherited property is also the asset portfolio of the upper class. Up until the previous section we have looked at inheritances in the aggregate, but now we want to look at these assets by specific property types.

Based on the breakdown of 2004 inherited property shown in Figure 6, real assets totaled ¥6.5 trillion (59%) and financial assets ¥4.5 trillion (41%). Land was by far the largest category at 50% of bequests, followed by cash and deposits at 20% and stocks at 10%. Residential land was the most common type of land, accounting for 36% of all inherited property, while dry fields, rice fields, and forest land all comprised a relatively small proportion. Houses and other buildings only accounted for 5% of all inherited property.

**Figure 6 Inherited property by type (2004)**

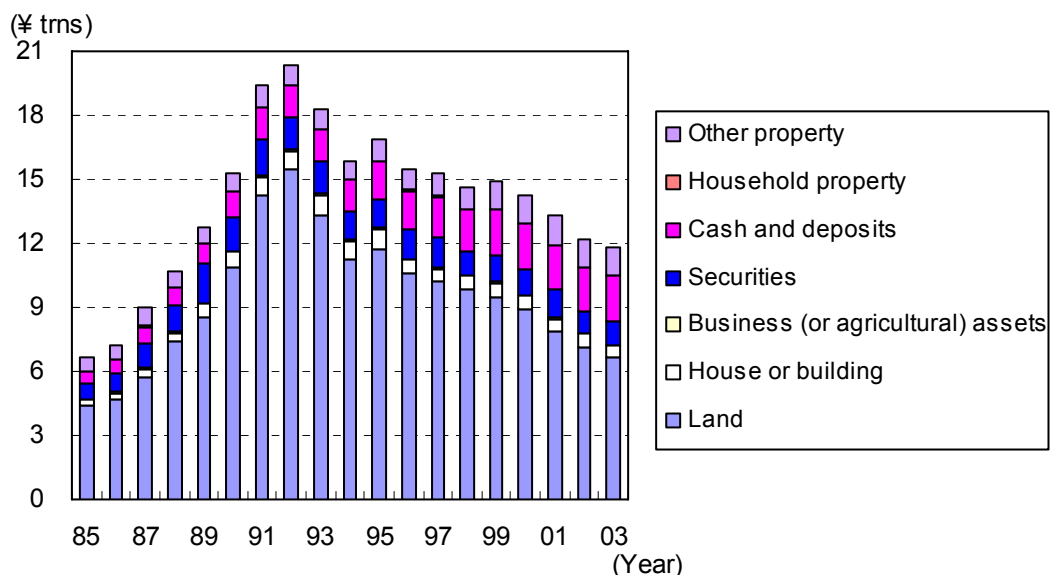


Source: NTA Annual Statistics Report FY2004.



Land has always accounted for a large share of inherited property. This could be attributed to the myth that land prices always go up in value, something that was generally believed until the economic bubble burst, while another reason is probably the more favorable treatment given to land relative to financial assets under inheritance tax laws. For example, the *rosenka*, which is the basis for valuing building plots in urban areas, aims at about 70-80% of the declared value, and assessments are made using below-market prices.<sup>8</sup> The exception for small building plots noted earlier also gives an advantage to inherited land. The valuation of financial assets, meanwhile, is in principal marked to market on a continuous basis. Thus it seems likely that the favorable inheritance tax treatment of land has had an impact on the asset mix of inherited property.

**Figure 7 Inherited property by type over time – land consistently comprises bulk of inherited property**



Source: NTA statistics

## 2) Comparing the asset portfolios of the wealthy versus those of average households

Next, we confirm the asset mix of average households and wealthy households using the Ministry of Internal Affairs and Communications' sample survey, the National Survey of Family Income and Expenditure.

As shown in the column at the left of Figure 8, out of the ¥39 million in total assets held by the average household, 76% were real assets. Nearly all of that (57% of overall assets and 80% of real assets) was the current domicile and largest asset of a sole owner. Securities accounted for 4% of financial assets and debt 15%.

<sup>8</sup> According to Barthold and Ito (1991), the declared value (*kouji kakaku*) is 70-80% of the market value, and the land tax assessment (*rosenka*) is 50-70% of the declared value.

Since there are no data sets limited to the wealthy, what we attempt to do here is use the general data to get a better picture of the wealthy. Figure 8 is a comparison of several types of wealthy households using data on the strata with the highest incomes and highest asset balances.

Wealthy households with savings of ¥40 million and higher owned assets worth ¥121.36 million, roughly equally divided between financial assets and real assets. Securities, which are risk assets, accounted for 9% of financial assets, while debt only accounted for 4%.<sup>9</sup>

Wealthy households with their current residence valued at ¥100 million or higher owned assets of ¥251.77 million, of which over 90% were real assets. Securities only accounted for 2% of these financial assets, while debt was 6%.

Wealthy households with assets other than their current residence valued at ¥100 million or higher owned assets of ¥349 million, nearly all of which were real assets. Securities only accounted for 1% of these financial assets, while debt was 9%.

Wealthy households with annual income of at least ¥20 million owned assets worth ¥163.26 million, of which 85% were real assets, almost evenly split between the current residence and other assets. Securities accounted for 5% of financial assets and debt 17%.

Data on payers of inheritance tax is the inheritance shown in the previous section converted to assets per estate. Out of assets of ¥227.12 million, 66% were real assets. Securities accounted for 13% of financial assets and debt 11% (with 31% of securities stock in certain family-owned companies<sup>10</sup>). These numbers are based on assessments made at the time of inheritance taxation, making straight comparison with the other household data in Figure 8 impossible. Compared with the average household, however, the proportion of securities (risk assets) is higher, and a high proportion of those risk assets are stock in certain family-owned companies.<sup>11</sup>

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<sup>9</sup> For an analysis of debt ratios and household risk tolerance, see Sachiko Miyamoto, "Changing Asset Selection by Households", Nomura Securities Macroeconomic Report No. 06-019.

<sup>10</sup> Certain family-owned companies means non-listed companies for which the total stock and equity stakes of the persons receiving property through inheritance or gift and persons in a special relationship with said person comprises at least 50% of the stock or equity in said company. There are a number of issues requiring discussion related to stock in certain family-owned companies that is inherited or gifted property, including issues related to valuation and business succession, but these are not dealt with in this paper.

<sup>11</sup> When treasury shares and other special shares account for a large proportion of assets, some sort of scheme related to distribution of the remaining assets will probably be necessary.

**Figure 8 Portfolio comparison – wealthy versus average households**

(¥10,000)

	Average households		Wealthy households									
			Group with highest current saving balance (at least ¥40 million)		Group with highest equity in home (at least ¥100 million)		Group with highest amount of assets other than home equity (at least ¥100 million)		Group with highest annual income (at least ¥20 million)		Persons subject to inheritance tax	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share	Amount	Share
<b>Total assets</b>	3,900	100%	12,136	100%	25,177	100%	34,900	100%	16,326	100%	22,712	100%
<b>Net financial assets (savings minus debt)</b>	950	24%	6,094	50%	1,949	8%	601	2%	2,504	15%	6,562	29%
Savings balance	1,520	39%	6,522	54%	3,437	14%	3,651	10%	5,334	33%	9,039	40%
Current deposits	232	6%	883	7%	570	2%	607	2%	876	5%	5,027	22%
Time deposits	694	18%	3,212	26%	1,530	6%	1,746	5%	2,435	15%	1,137	5%
Life insurance, etc.	398	10%	1,207	10%	715	3%	759	2%	1,084	7%	2,875	13%
Securities	166	4%	1,147	9%	609	2%	502	1%	879	5%	2,477	11%
Liabilities outstanding	569	15%	428	4%	1,488	6%	3,050	9%	2,830	17%		
<b>Real assets</b>	2,950	76%	6,042	50%	23,228	92%	34,299	98%	13,822	85%	14,930	66%
Home and residential land assets	2,786	71%	5,790	48%	22,935	91%	34,008	97%	13,363	82%	14,785	65%
Land for current residence	2,209	57%	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	6,751	41%	N.A.	N.A.
Durable goods assets	150	4%	181	1%	192	1%	202	1%	270	2%	145	1%
Golf club memberships and other assets	14	0%	71	1%	102	0%	89	0%	190	1%	N.A.	N.A.
<b>Other</b>	0	0%	0	0%	0	0%	0	0%	0	0%	1,220	5%

- Notes:
1. For households with at least two people, although "person subject to inheritance tax" column shows assets per person. Share is percentage of total assets.
  2. Here, wealthy households refers to (1) households in the highest category based on various asset amounts taken from the household asset data (savings, residence, annual income, etc.) and (2) people with assets large enough to be subject to inheritance tax.
  3. Figures for person subject to inheritance tax is the average share of assets comprised by the inherited property of each estate, based on property acquisition value per estate. The breakdown of inherited property in this table is a result of our recategorization of the inherited property by type in Figure 6.

Source: Nomura Institute of Capital Markets Research, based on the NTA Annual Statistics Report FY2004 and the 2004 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

## 6. Where are the wealthy?

Just where are these people wealthy enough to pay inheritance tax? Figure 9, which shows taxation by each National Tax Agency office, makes it clear that there are large differences in the distribution of inherited property across regions. According to the inheritance tax receipt data, out of a total taxable value of ¥9.9 trillion in inherited property, Tokyo accounted for 35%. Tokyo had the largest number of inheritees at 12,478 as well as a large number of estates with property of high taxable value, with 92 having over ¥2 billion in taxable value.

Furthermore, because of its large number of super wealthy, Tokyo had a taxable value per heir (taxable value of inherited assets divided by the number of heirs) of ¥89 million, much higher than any other region. This probably reflects the fact that land is the primary type of inherited property, and land prices are relatively higher in urban areas.

For this reason, it makes sense that Tokyo and other major cities would attract more interest regarding bequests and their impact.

**Figure 9 Where are the wealthy? Taxation by NTA office**

NTA office	Taxable value of inherited property		Number of inheritees					Number of inheritors (b) (persons)	Taxable value per inheritor (a/b) (¥ mn)	
	Total amount (a) (¥ mn)	Share (%)	Total (persons)	Taxable value categories						
				Up to ¥100 mn	Up to ¥500 mn	Up to ¥1 bn	Up to ¥2 bn			Over ¥2 bn
Sapporo	188,750	2	867	180	635	45	6	1	2,688	70
Sendai	378,059	4	1,877	332	1,448	83	13	1	5,529	68
Kanto Shinetsu	1,382,042	14	6,256	1,229	4,587	335	90	15	18,830	73
Tokyo	3,427,850	35	12,478	2,585	8,509	940	352	92	38,508	89
Kanazawa	196,426	2	989	175	762	46	6	0	2,868	68
Nagoya	1,463,077	15	6,989	1,295	5,336	301	48	9	21,502	68
Osaka	1,536,356	16	7,266	1,468	5,375	342	66	15	21,204	72
Hiroshima	414,683	4	2,394	550	1,785	52	6	1	6,733	62
Takamatsu	275,428	3	1,498	316	1,132	47	1	2	4,261	65
Fukuoka	330,965	3	1,538	300	1,147	68	20	3	4,748	70
Kumamoto	187,486	2	997	214	749	28	5	1	3,059	61
Okinawa	80,651	1	339	34	290	13	1	1	1,369	59
Total	9,861,773	100	43,488	8,678	31,755	2,300	614	141	131,299	75

Note: Figures are from 2004. NTA offices and the prefectures they cover are as follows.

Sapporo (Hokkaido)

Sendai (Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima)

Kanto Shinetsu (Ibaragi, Tochigi, Gunma, Saitama, Niigata, Nagano)

Tokyo (Chiba, Tokyo, Kanagawa, Yamanashi)

Kanazawa (Toyama, Ishikawa, Fukui)

Nagoya (Gifu, Shizuoka, Aichi, Mie)

Osaka (Shiga, Kyoto, Osaka, Hyogo, Nara, Wakayama)

Hiroshima (Tottori, Shimane, Okayama, Hiroshima, Yamaguchi)

Takamatsu (Tokushima, Kagawa, Ehime, Kochi)

Fukuoka (Fukuoka, Saga, Nagasaki)

Kumamoto (Kumamoto, Oita, Miyazaki, Kagoshima)

Okinawa (Okinawa)

Source: Nomura Institute of Capital Markets Research, based on NTA Annual Statistics Report FY2004.

### III. Key points concerning perception of bequests

In the previous chapter, we examined the inheritance status and asset portfolios of the wealthy. In this chapter, we examine three critical points in regard to the perception of bequests: (1) Japan-US differences in bequest motivation; (2) differences in bequest behavior across income levels; and (3) the impact from the later timing of inheritance resulting from longer average life spans.

#### 1. Japan-US comparison of bequest motivation

Figure 10 shows a comparison of surveys on attitudes on bequests taken in Japan and the US. Only one in four of respondents with children in Japan answered that they would "definitely leave a bequest," with most of the rest answering they "would leave one if anything remained." In contrast, although the largest number of respondents in the US also answered "would leave one if anything remained," nearly an equal

proportion answered they "would leave a bequest." This suggests that Japanese are less motivated to leave a bequest than are Americans, and that the majority of bequests are "windfall bequests" owing to uncertainty in the timing of death.

There were also differences between Japan and the US in approaches to the distribution of bequests (Figure 11). In the US, the vast majority answered "equally," whereas in Japan, although "equally" was also the most common answer, there were also a large number answering "give more to the child who takes care of me." This suggests that the proportion of people who look at a bequest as payback for having been cared for more than as a bequest specifically with the children in mind is higher in Japan.

Overall, there is less of a desire for estate planning in Japan than there is in the US, and thus for the heir, these are windfall bequests in which both the amount and timing of the inheritance are unknown.<sup>12</sup>

**Figure 10 Proportion of people who plan to leave a bequest (Japan-US comparison)**

(%)

Proportion of people planning to leave a bequest	Japan-US comparative survey on savings (1996)	
	US	Japan
1. Plan to leave bequest	45.9	25.7
No matter what	42.6	19.3
If I'm taken care of	3.3	6.4
If my business is continued on	N.A	N.A
2. Not totally committed to leaving a bequest, but will if anything is left over	51.1	70.1
3. Other	N.A	N.A
4. No need to leave bequests	2.9	4.2
Total	100.0	100.0

Note: Denominator is number of respondents with children

Source: Recompiled by Nomura Institute of Capital Markets Research, based on Horioka, Yamashita, Nishikawa, Iwamoto, "On The Importance, Nature and Impact of Bequest Motives in Japan" *Yusei Kenkyujyo Geppo*, Japan Post Research Institute, April 2002 (in Japanese).

<sup>12</sup> Three classic models of bequest behavior are the life cycle model, the altruism model, and the dynasty model. An interpretation of the survey results using each of these models suggests that the life cycle model applies to both Japan and the US, but is a better fit with the Japanese data. Conversely, the altruism model fits the US data better than the Japanese data.

**Figure 11 Thinking on distribution of bequests (Japan-US comparison)**

(%)

Thinking on allocation of bequests	Japan-US comparative survey on savings (1996)	
	US	Japan
1. Equally	96.3	48.7
2. More to the child with less income	0.6	2.4
3. More to the child who takes care of me	2.5	32.4
4. More to the child who continues my business	0.0	6.9
5. More to the oldest son or daughter	0.4	7.6
6. Other	0.3	2.0
Total	100.0	100.0

Note: Denominator is number of respondents with at least two children  
 Source: Horioka, Yamashita, Nishikawa, Iwamoto, "On The Importance, Nature and Impact of Bequest Motives in Japan" *Yusei Kenkyujyo Geppo*, Japan Post Research Institute, April 2002 (in Japanese).

## 2. Bequest behavior patterns differ across income levels

Any discussion of bequest behavior patterns should include consideration of income levels. In the normal life cycle, it is thought that people save from their younger years into their prime years, and then start tapping into their savings from their 60s, when they near retirement. In reality, however, behavior patterns differ according to income level.

Figure 12 shows the savings rate for different levels of income. For nearly all income levels, a considerable portion of income was allocated to savings up until the 50s age group, with differences between income levels minor. From the 60s age group, however savings rates differed depending on the income level.

For nearly all income levels, the savings rate declined after people turned 60. The survey shown in Figures 10 and 11 in the previous section was given to a broad spectrum of people, and the majority of respondents likely belonged to the income levels II to IX shown in Figure 12.

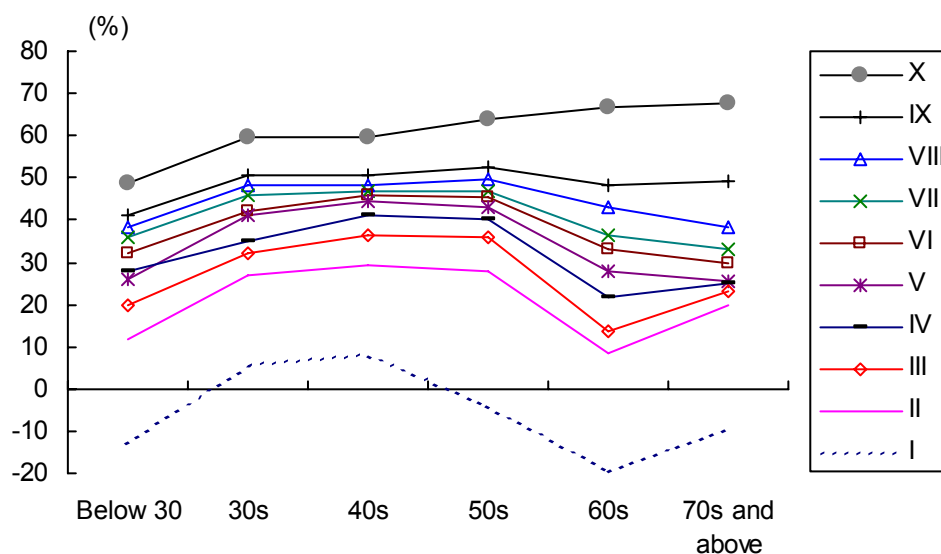
Once people get into their 60s and approach retirement age, income starts shifting from worker income to pension income, while spending hinges on a number of uncertain factors, including the amount of medical expenses and other emergency outlays as well as how long each person lives.

Under such a scenario, as explained in the previous section, it is only natural to see a decline in the desire to plan on leaving a bequest. As a result, bequests wind up being "windfall income" for which both the timing and amount is difficult to predict.

In the highest income category X, however, the savings rate actually increases with age, with people 70 and older saving approximately 70% of their income.

There are many facets regarding bequest motivation and intention that can only be discerned through a survey, and the lack of separate surveys for different income levels makes this difficult to understand. Nevertheless, this difference in savings behavior in the senior years depending on income level suggests that although Japanese overall are less motivated to leave bequests than Americans, this does not apply across the board, and bequest behavioral patterns are likely to differ depending on the income level.

**Figure 12 Changes in savings rate by income level for the 60 and over age group**



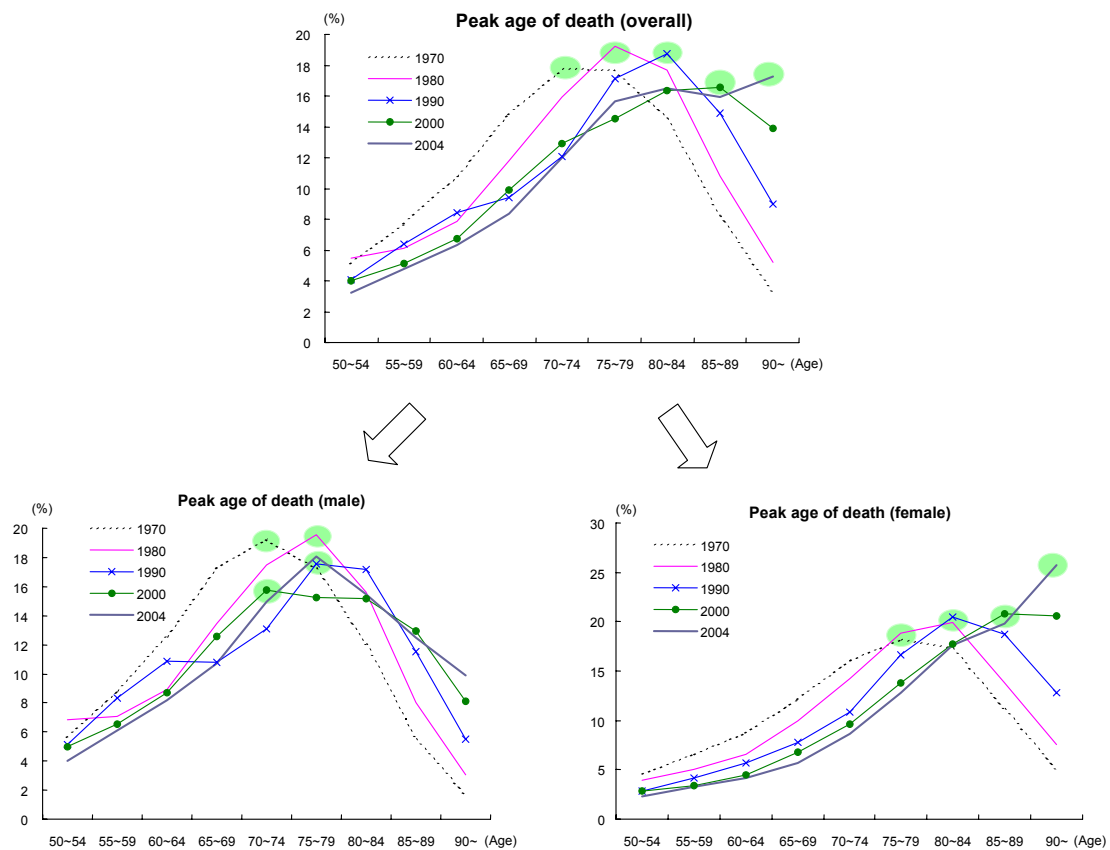
Note: I to X are ten categories of annual income, with X the highest. Savings rate is calculated as  $(\text{annual income} - \text{annual consumption}) / \text{annual income} \times 100$ .

Source: Nomura Institute of Capital Markets Research, based on the 2004 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

### 3. Later timing of inheritances

One recent change regarding inheritances is that they are occurring later in life. As shown in Figure 13, the most frequent age of death (modal value) has gradually gotten later over the past 30 years. Of particular interest here is the large difference in the trend between males and females. Over the past 30 years, the modal value of age at death for males has been virtually unchanged while that of females has increased more than 15 years, resulting in a widening gender gap.

**Figure 13 Peak of age at death differs widely between male and female**



Note: The number of people dying in each age group expressed as percentage of total number of people who died at age 50 or higher  
Shaded portion indicates the peak.

Source: Nomura Institute of Capital Markets Research, based on Demographic Data from the Ministry of Health, Labor, and Welfare.

Figure 14 looks at the timing of when the eldest child inherits property. It calculates the age of the oldest child receiving a bequest when the parents pass away at the modal age, taking into account the modal age of death, the age difference between husband and wife, and the age of the mother when she first gives birth. The results are that while the eldest child is 46-50 years old when the father passes away, because the mother lives longer, the eldest child's age when the mother passes away has increased 15 years over the past 30 years, to over 66 years old.

This has several ramifications with respect to inheritance. When, for example, the father passes away and is survived by the mother and two children, the legal division of the father's estate is one half to the spouse (the mother) and the remaining half divided equally among the children. Therefore, the assets inherited when the eldest child is 46-50 years old only amount to 1/4 of the father's estate. When the mother passes away 20 years later, 1/2 of her estate (effectively nearly all of which is the bequest from the father) is passed on to the eldest child, who is now over 66 years old.

What sort of impact is this delay in the timing of inheritance likely to have? Looking at household spending by generation, the 40-59 age group is the one with the



largest quasi-fixed expenses, specifically mortgage payments and educational costs. From 1970 to 1990, most inheritances went to people in this 40-59 age group with high fixed expenses. Recently, however, more inheritances are going to people in their late 60s, and thus no longer coincide with the period in an individual's life cycle when they have the greatest need for money.

It seems likely that the use of bequests has changed because of this. Previously, inheritances were mostly used to supplement fixed spending, but the late 60s age group, when most inheritances are now received, is a stage of life where it is likely that assets have already been accumulated through income savings. Consequently, there is a relatively wider range of options for using those funds, which often become reserve funds for old age.

**Figure 14 Later timing of inheritances**

(Age)

	Age of parent's death (mode)		Age of oldest child	
	Father	Mother	When father dies	When mother dies
1970	70-74	75-79	41-45	51-55
1980	75-79	80-84	46-50	56-60
1990	75-79	80-84	46-50	56-60
2000	70-74	85-89	41-45	61-65
2004	75-79	90 ~	46-50	66 ~

Note: Age of eldest child at time of parent's death calculated using the husband-wife age difference and the mother's age when first giving birth.

Source: Nomura Institute of Capital Markets Research, based on Population Survey Report from the Ministry of Health, Labor, and Welfare.

## IV. Awareness of bequests is growing

We expect Japanese society to become more aware of bequests moving forward. In this chapter, we look at the reasons why.

### 1. The weight of bequests in household assets

In the introduction, we referred to prior literature that has found that bequests comprise about 30-40% of the total assets owned by households, but this research was published over 10 years ago. In this section, we would like to make a simple calculation<sup>13</sup> using the results from recent surveys and the most recent data to confirm whether that proportion has substantially changed.

<sup>13</sup> This is a simple method that differs from the estimation method used in prior literature.

We start with a survey regarding bequests received, a 1996 survey on the selection of financial assets by households, the results of which are in Figure 15. According to the survey, roughly one out of five people in Japan had received a bequest in the past, and the average value of the bequest was ¥42.345 million. Divided across all households, including people who have not received a bequest, the average bequest was ¥9.13 million, which represents 24% of the average net worth for all households of ¥38.2 million. Something to be aware of regarding the survey, however, is the possibility that respondents put down the value of assets received many years ago at their value back then, rather than converting them to a present value; another factor to consider is the tendency to fill in a smaller amount than actual.

**Figure 15 Results of survey on inheritance experience**

Proportion of respondents who have received bequest	21.6%
Average value of bequests received for those who received bequest	¥ 42.34 mn
Average value of bequests received for all respondents	¥ 9.13 mn
Proportion of the net worth of all respondents	23.9%

Source: Partially extracted from a table in Horioka, Yamashita, Nishikawa, Iwamoto, "On The Importance, Nature and Impact of Bequest Motives in Japan" *Yusei Kenkyujyo Geppo*, Japan Post Research Institute, April 2002 (in Japanese).

Next, we use the most recent data on inheritance and gift taxes to estimate the portion of household assets that were subject to those taxes. The results are shown in Figure 16. Based on the simple assumption that real estate was assessed at 70% of its market value, we estimate that ¥14 trillion in assets were so taxed in 2004.

Using this same method to estimate the percentage of household net worth comprised of taxed inherited or gifted property each year, we came up with results ranging from 0.7% to 1.2%. Assuming each generation spans 25 years as in the prior literature, we found that taxed inherited property accounted for 20% of household net assets.

To further calculate the percentage of household assets accounted for by bequests overall, it is necessary to add to these figures those bequests exempt from tax. Those people who were not taxed can be assumed to have received bequests valued below the basic inheritance tax exemption. Based on data from the Ministry of Internal Affairs and Communications,<sup>14</sup> the average net worth of households with an average net worth below the minimum basic exemption amount of ¥50 million and headed by a person 75 and older was ¥22.5 million.

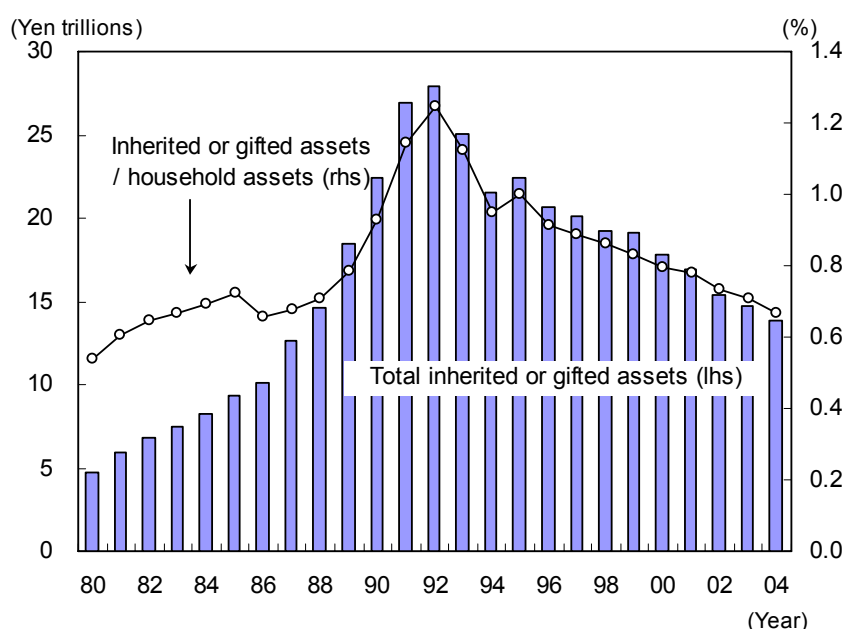
<sup>14</sup> "2004 National Survey of Family Income and Expenditure," Ministry of Internal Affairs and Communications. Owing to limitations on data concerning household assets, our calculations are based on the assumption that all untaxed estates own the same amount of assets as do households headed by a person 75 or older.

Multiplying this amount by 985,000, the number of estates not subject to the tax (annual deaths of 1.0286 million less 43,500 who were taxed), gives a figure of about ¥22 trillion. This is equivalent to 1.1% of household net worth in 2004. Assuming that 1.1% of household net assets are inherited tax-free every year and that a generation spans 25 years, we find a 27% weighting.

Based on this, we estimate that taxable inheritances and tax-exempt inheritances combined would equate to 47% of household net worth over a 25-year period.

Therefore, even taking into account recent surveys and the most recent data, it seems safe to assume that bequests account for at least 30-40% of household assets, consistent with the results of prior literature.

**Figure 16 Estimated market value and share of inherited property estimated from tax receipts**



Note: Inheritance taxable value of land and real estate estimated to be 70% of market value.

Source: Nomura Institute of Capital Markets Research, based on data from NTA and the Cabinet Office.

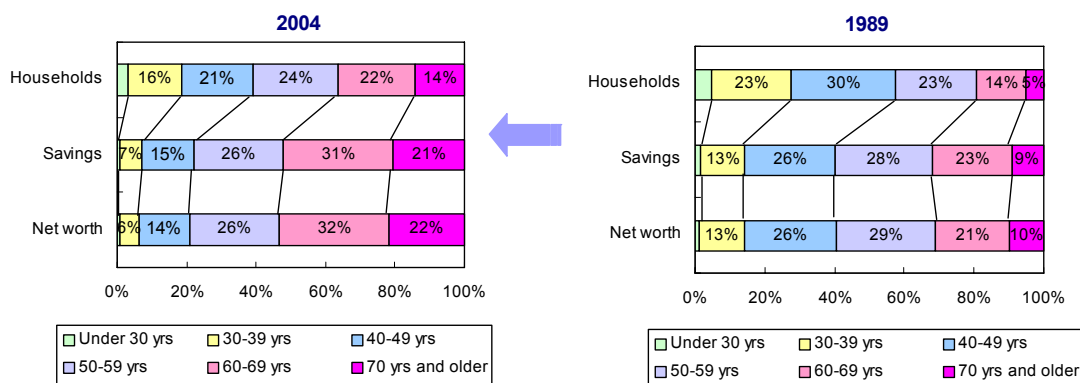
## 2. Household assets concentrated among the elderly

The current distribution of assets in Japan shows a concentration of assets in senior households. According to the results of the 2004 survey shown in Figure 17, households headed by a person 70 or older only comprise 14% of all households, but have 21% of savings and 22% of net worth. Extending this to households headed by a person 60 or older, those households are 35% of total, but have over half of both savings (52%) and net worth (54%).

We have already shown in Figure 1 that inherited property was at its highest during the bubble years. In a survey taken then (1989), households headed by a person 60 or older were 15% of households and owned only 30% of savings and 31% of net worth. Asset prices, both stocks and land, are currently hovering at around 60% of the peaks reached during the bubble years,<sup>15</sup> but the proportion of assets held by senior households is considerably higher now than it was then.

Partly owing to the plunge in asset prices, society overall recently does not appear to be that conscious of the size of bequests. As asset prices rise moving forward, however, the impact from inheritances is likely to have a greater impact on the generation now in the workforce.

**Figure 17 Distribution of assets across generations has changed substantially over past 15 years**



Note: For households with at least two people. Net worth is total assets, including real assets, less liabilities.

Source: Nomura Institute of Capital Markets Research, based on the 1989 and 2004 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.

### 3. Lower birth rates causing decline in number of heirs

Meanwhile, as the birth rate declines, the number of people in the generation that will receive bequests is becoming a relatively smaller. Figure 18 shows the total fertility rate since 1930. This rate, equivalent to the number of children born to a single woman in her lifetime, declined from 4.54 in 1947 to 2.0 in 1957, and more recently (2005) is down to 1.25.

Looked at from another angle, people born in 1947 (currently 59 years old, the most populous cohort in Japan's baby boom generation) are one of four to five siblings, people born in 1957 (currently 49 years old) are one of two, and in recent years, families with only one child are common. This means that people born in 1947 are most likely to inherit 1/4 to 1/5 of their parents' assets, those born in 1957 half, and those born in 2005 nearly all.

<sup>15</sup> Calculations use the Indices of Urban Land Prices (residential land) for land prices and TOPIX for share prices.

The generations that have received inheritances thus far have had many siblings, and a significant number have either not inherited anything or, even when their parents did leave a bequest, received small inheritances per person.

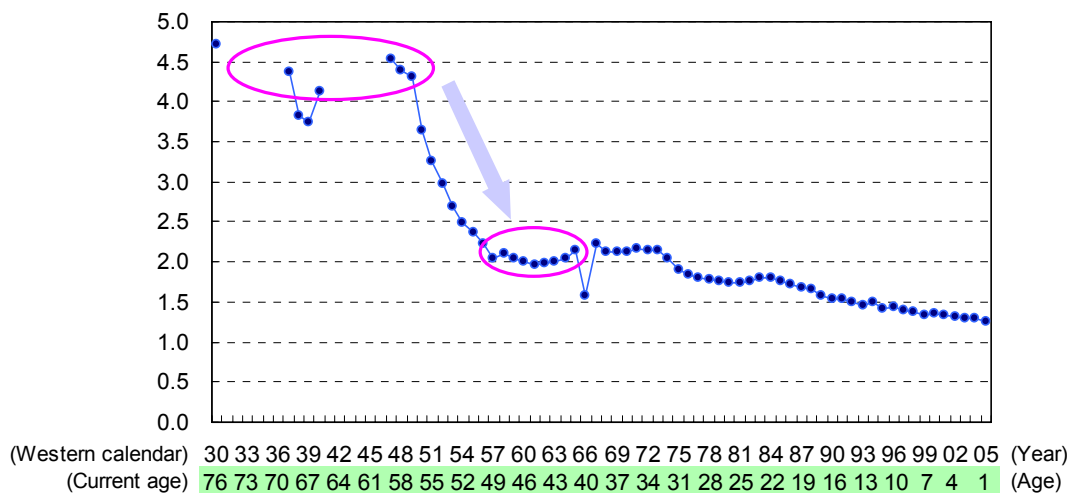
In future, however, the generations receiving inheritances will have a smaller number of siblings, as would be expected from the decline in fertility rates. It follows that many children will therefore be able to receive a bequest, and that the amount and their percentage share of inherited assets will become larger.

Also of interest here is that the generation born when the fertility rate was declining from 4 to 2 (with the eldest child 46-50 years old) is now approaching the age when they will receive an inheritance (see Figures 14 and 18). This suggests the possibility of a dramatic increase in the amount of inherited assets per person over the next ten years. The changes after that will also be substantial, of course. The decline in the fertility rate from 2 to 1.25 should be reflected in the amount and percentage share of inherited assets per person in about 30 years.

We also expect other factors beside the number of heirs to have an impact on the per-person value of bequests. Survey results indicate that people who have received inheritances themselves have a stronger desire to leave a bequest than do those who have not (Figure 19).

This is why we expect the impact of bequests from parents to their children and grandchildren to continue to strengthen moving forward.

**Figure 18 Decline in fertility rate suggests future decline in number of heirs**



Notes: 1. Shows total fertility rate. This is the aggregate fertility rate by age for females aged 15 to 49, and is equivalent to the number of children born during the lifetime of one woman.

2. Figures for 2005 are rough estimates.

Source: Population Survey Report from the Ministry of Health, Labor, and Welfare.

**Figure 19 Thinking toward bequests differs based on whether person has received inheritance**

(%)

	Have received bequest	Have never received bequest
1. Plan to leave bequest	38.6	18.9
No matter what	28.1	13.8
If I'm taken care of	7.0	4.2
If my business is continued on	3.5	0.9
2. Not totally committed to leaving a bequest, but will if anything is left over	47.0	45.8
3. Other	2.4	2.5
4. No need to leave bequests	12.0	32.8
Total	100.0	100.0

Note: These are results from the 7th Households' Financial Asset Selection Survey from Japan Post Research Institute.

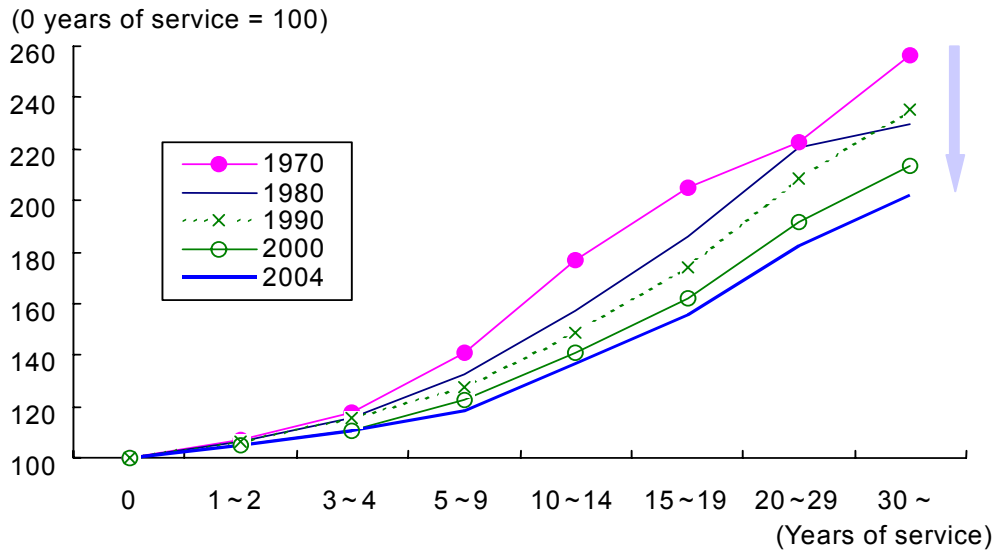
Source: Recompiled by the Nomura Institute of Capital Markets Research, based on Tomoichi Takahashi, "*Isan Douki to Souzoku Keiken*" (Bequest Motive and Inheritance Experience), *Yusei Kenkyujyo Geppo*, Japan Post Research Institute, March 2003 (in Japanese).

#### 4. Stagnating wage income for working generations

We also expect the relative relationship between bequests and income to change. In recent years, wage income of currently working generations has begun to stagnate. As shown in Figure 20, the seniority system has broken down, making longer years of service less likely to translate into higher wages, and this trend is expected to remain in place. As already noted in Chapter II, the fiscal year 2004 data show that heirs in the highest tax bracket inherited an average of ¥940 million per person. This equates to 3.3x the lifetime wages of a male university graduate.

We expect the impact of inheritances to increase relative to wage income, and this will probably contribute substantially to lifetime income disparity.

**Figure 20 Wage curve continues to flatten**



Source: Nomura Institute of Capital Markets Research, based on the Basic Survey on Wage Structure from the Ministry of Health, Labor, and Welfare.

## 5. Which regions are expected to experience asset transfers on a large scale?

Next, we look at where there are large amounts of assets pending an intergenerational transfer. It makes sense that households with large assets are likely to experience large inheritances in the future. Figure 21 shows the number of households with a net worth of at least ¥100 million in each prefecture as well as those households' share of assets held by all households.<sup>16</sup>

According to the table, the prefectures with the largest number of households with a net worth of at least ¥100 million are Tokyo, Kanagawa, and Aichi, in that order, and the three prefectures combined represent roughly one half of all such households in Japan. These prefectures are also notable for having high proportions of high net-worth households relative to total households.

<sup>16</sup> Although these data do not show the ages of the people in these wealthy households, since older households typically have larger assets, we focus here on the households with high net worth.

**Figure 21 Where are the wealthy households?**

Region	Prefecture	Number of households in each prefecture (a)	Number of households with a net worth of at least ¥100 mn (b)	Percentage of households with a net worth of at least ¥100 mn (b/a)
Hokkaido	Hokkaido	4,720	72	2%
Tohoku	Aomori	1,134	29	3%
	Iwate	1,061	40	4%
	Miyagi	1,758	63	4%
	Akita	906	17	2%
	Yamagata	892	36	4%
	Fukushima	1,573	52	3%
Kanto	Ibaragi	2,286	162	7%
	Tochigi	1,527	117	8%
	Gunma	1,600	111	7%
	Saitama	5,579	426	8%
	Chiba	4,773	247	5%
	Tokyo	9,306	1720	18%
	Kanagawa	6,915	687	10%
	Yamanashi	691	31	4%
	Nagano	1,720	90	5%
Hokuriku	Niigata	1,789	72	4%
	Toyama	843	59	7%
	Ishikawa	889	40	4%
	Fukui	605	64	11%
Tokai	Gifu	1,610	124	8%
	Shizuoka	2,911	236	8%
	Aichi	5,506	669	12%
	Mie	1,470	103	7%
Kinki	Shiga	1,010	42	4%
	Kyoto	2,072	173	8%
	Osaka	7,177	468	7%
	Hyogo	4,513	257	6%
	Nara	1,160	72	6%
	Wakayama	877	53	6%
Chugoku	Tottori	458	21	5%
	Shimane	575	24	4%
	Okayama	1,532	66	4%
	Hiroshima	2,331	157	7%
	Yamaguchi	1,262	53	4%
Shikoku	Tokushima	647	57	9%
	Kagawa	821	49	6%
	Ehime	1,220	64	5%
	Kochi	662	37	6%
Kyushu	Fukuoka	3,933	147	4%
	Saga	649	26	4%
	Nagasaki	1,198	26	2%
	Kumamoto	1,430	37	3%
	Oita	982	29	3%
	Miyazaki	962	11	1%
	Kagoshima	1,478	29	2%
Okinawa	Okinawa	987	24	2%
All of Japan		100,000	7189	7%

- Notes: 1. For households with at least two people; regional breakdowns follow those used by the Ministry of Internal Affairs and Communications.  
2. The number of households in each prefecture is the number assuming 100,000 total households nationwide.

Source: Nomura Institute of Capital Markets Research, based on the 2004 National Survey of Family Income and Expenditure from the Ministry of Internal Affairs and Communications.



## V. Conclusion

In Japan today, more than half of all savings and net assets are concentrated in senior households. Meanwhile, as a result of the declining birth rate, the number of people in the generation that will receive bequests is becoming relatively smaller. We expect the amount of bequests per heir to become larger, and the impact of inheritances passed on to children and grandchildren to become even greater. With wage income having recently stagnated, there has been much debate over income disparity, but the size of bequests also has an immensely important impact on lifetime income.

We would like to conclude with a discussion of several implications from the discussion thus far.

### 1. The possibility of investing inherited property

In Chapter III, section 3, we pointed out that longer life expectancies have slipped back the time of inheritance from the 40-59 age bracket, the period in the life cycle with the greatest need for money, to the late 60s, when assets have already been accumulated through income savings.

This means that in contrast with bequests in the past that were mostly used to help pay for home loans, educational expenses and other fixed expenditures, future heirs will have a relatively wider range of options for using those funds, which will often become reserve funds for old age. This presents the possibility that surplus funds created by inheritances may increasingly be allocated toward investments.

In regards to the products these funds are invested in, there seems to be a fairly strong difference in how bequests are thought of between the typical Japanese and American. As Japan's financial markets have evolved to become more like the US model, existing product concepts like pensions and mutual funds have been imported from the US. Although it appears that there is still much to learn from the US, there will probably be a need for financial planning and the design of investment products that are suited to bequest motivation in Japan.

### 2. Tools for hedging the risk of seniors

We now shift our view point to that of the person that bequests the assets. As a means to encourage intergenerational transfers of funds at a time when the funds are most needed, Japan introduced a system of delaying taxation of gifts until the time of inheritance<sup>17</sup> in FY2003. This had the effect of increasing the amount of gifts given while still living.

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<sup>17</sup> Under this system, gifts received from a parent up to ¥25 million are combined with other property to be passed on as inheritance and taxed then, and thereby tax exempt at the time it is received.

This is a big advantage for people not subject to the inheritance tax, since they are able to make lump-sum gifts to their children when necessary. Even for those subject to inheritance tax, gifting property that is likely to rise in value in the future can be an effective estate planning tool, and since it enables the division of property ahead of time, it is also an effective way to prevent family disputes. For details, see <http://www.mof.go.jp/jouhou/syuzei/pan1504-1/01.htm>.

This is not viewed as a positive by everybody, however.<sup>18</sup> According to a Cabinet Office survey on lifestyle choices taken in 2005, a larger number of people in their 60s gave negative responses, such as "I do not plan on giving a gift, since I do not know how much I will use myself," than positive responses, such as "I like the idea of being able to help my children when they need it."

As can be surmised from these negative responses, seniors now face a greater number of risks, including (1) declining confidence in the pension program and (2) lower expectations of mutual support between families, which has traditionally provided a cushion against risks. This has made it more difficult for seniors to calculate how much money they will need.

Currently, however, there are insufficient hedging instruments that directly deal with seniors' risk (particularly the risk of a shortage of funds caused by living longer than expected). We think this is one cause of the hesitancy to make gifts while living.

What is needed is the development of products that deal directly with the various risks faced by seniors. This is a pressing issue for Japan, which is at the front of the pack in the aging of its society.

### **3. Tools for hedging the risk of women**

As noted in Chapter III, section 3, widows on average live on for more than 20 years after the death of their spouses. Women probably need to start planning their finances while their spouse is still living.

Although products claiming to be targeted at women have been developed recently, these are primarily funds that invest in issues likely to be favored by women or that are aimed at capturing the growing purchasing power of women.

There is still a shortage of product developed with the purpose of incorporating instruments that hedge the risks faced by women into portfolios. There will probably be demand for product development and financial planning from this perspective in the future.

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<sup>18</sup> These gifts while living can also be made in the form of children's education. For a discussion of the value of household spending on education, see Sachiko Miyamoto, "The Value of spending on education," Nomura Securities Macroeconomic Report No. 05-035.