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Discussion Paper No. 684

**A SURVEY OF  
HOUSEHOLD SAVING BEHAVIOR  
IN JAPAN**

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March 2007

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## A SURVEY OF HOUSEHOLD SAVING BEHAVIOR IN JAPAN\*

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**Abstract:** This paper presents data on Japan's household saving rate, considers the reasons for Japan's high household saving rate in the past and the reasons for the recent decline therein, projects future trends in Japan's household saving rate, and consider the implications of my findings. It finds that Japan's high household saving rate was a temporary phenomenon and that it was high in both absolute and relative terms during the 1955-95 period (especially during the 1960s and 1970s) but that it was not unusually high during the prewar and early postwar periods or after 1995; second, that Japan's temporarily high household saving rate was due not to culture but to temporary economic, demographic, and institutional factors; third, that the decline in Japan's household saving rate since the mid-1970s is due to the weakening of these factors and that Japan's household saving rate can be expected to decline even further as these factors become even less applicable and that the rapid aging of Japan's population has played the most important role; and fourth, that there is nothing to worry about even if Japan's household saving rate falls to zero or even negative levels.

**Keywords:** Household Saving Rate, Household Saving, Saving, Japan, Aging, Culture  
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## **1. Introduction**

It is often claimed that the Japanese are big savers and that they save a lot because it is part of their national character to do so and/or because of the influence of Confucian teachings, which regard frugality as a virtue. In this paper, I examine (1) whether or not the Japanese really do save a lot and whether or not they have always saved a lot, (2) why the Japanese save a lot (if indeed they do), and (3) whether or not we can expect the Japanese to continue saving a lot in the future as well.

The organization of the paper is as follows: In section 2, I present data on trends over time in Japan's household saving rate and on household saving rates in international perspective; in section 3, I consider the reasons for Japan's high household saving rate; in section 4, I consider the reasons for the recent decline in Japan's household saving rate; in section 5, I project future trends in Japan's household saving rate; in section 6, I consider the implications of my findings; and section 7 is a brief concluding section.

To preview my main findings, I find, first, that Japan's high household saving rate was a temporary phenomenon and that it was high in both absolute and relative terms during the 1955-95 period (especially during the 1960s and 1970s) but that it was not unusually high during the prewar and early postwar periods or after 1995; second, that Japan's temporarily high household saving rate was due not to culture but to

temporary economic, demographic, and institutional factors such as the high growth rate of income, the low level of household wealth holdings, the unavailability of consumer credit, the young age structure of the population, the bonus system of compensation, tax breaks for saving, the low level of public pension benefits, and saving promotion activities; third, that the decline in Japan's household saving rate since the mid-1970s is due to the weakening of these factors and that Japan's household saving rate can be expected to decline even further as these factors become even less applicable and that the rapid aging of Japan's population has played the most important role; and fourth, that there is nothing to worry about even if Japan's household saving rate falls to zero or even negative levels because the other sectors of the economy will at least partly take up the slack, because investment can also be expected to decline, and because Japan always has the option of borrowing from abroad.

## **2. Do (Did) the Japanese Really Save a Lot?**

In this section, I present data on trends over time in Japan's household saving rates and on household saving rates in international perspective in order to shed light on whether Japan's household saving rate is high in absolute and/or relative terms. I present data on net saving (saving net of depreciation on fixed capital) because it is net

saving that leads to an increase in wealth or assets and that is thus the more meaningful concept.

## **2.1. Trends over Time in Japan's Household Saving Rate**

I look first at trends over the past century in Japan's household saving rate. As I have shown in Horioka (1993a), Japan's household saving rate was volatile during the prewar, wartime, and early postwar periods. It was low, sometimes even negative, during about half of the years in this period (1907-15, 1921-30, and 1946-49) but was high and generally in the double digits during the other years (1906, 1916-20, 1931-44, and 1950-54). In fact, it exceeded 30 or even 40 percent at the height of World War II (1941-44), but during the war years, goods were scarce or rationed and the state encouraged and often forced people to save. If we exclude the war years (1937-45), Japan's household saving rate was low, on average, during both the prewar and early postwar periods, averaging only 4.3 percent during the prewar period (1906-1936) according to the Long-Term Economic Statistics and only 5.6 percent during the early postwar period (1945-54) according to the former System of National Accounts (hereafter SNA).<sup>1</sup>

Turning to the post-1955 period, a continuous time series is unfortunately not

available for the entire post-1955 period. The Japanese government switched from the 1968 United Nations SNA to the 1993 United Nations SNA in 2000, and thus data based on the 1968 SNA are available only for the 1955-1998 period whereas data based on the 1993 SNA are available only since 1980.<sup>2</sup> Two further complications are that the 1995 benchmark revision was implemented at the same time as the conversion to the 1993 SNA and that the 2000 benchmark revision was implemented in 2005. As a result, there are three different data series for the 1955-2004 period, with data based on the 1968 SNA (1990 benchmark revision) being available only for the 1955-1998 period, data based on the 1993 SNA (1995 benchmark revision) being available only for the 1980-2003 period, and data based on the 1993 SNA (2000 benchmark revision) being available only for the 1996-2004 period.

In the case of the 1993 SNA, I present data on the adjusted household saving rate because it includes social transfers in kind (i.e., social benefits in kind and transfers of individual non-market goods and services from the government and from private non-profit institutions serving households) in both the numerator and the denominator and hence is the correct theoretical concept and because it is consistent with the household saving rate based on the 1968 SNA.

Figure 1 and Table A-1 show data on all three series for the 1955-2004 period,

and as can be seen from this figure and table, Japan's household saving rate showed a steady upward trend from the mid-1950s until the mid-1970s, increasing from 11.9 percent in 1955 to a phenomenal level of 23.2 percent in 1974 and 1976, but has shown a downward trend since then, falling to the 2 to 3 percent level in recent years.

(Figure 1 about here)

If we give precedence to data based on the 1993 SNA whenever possible, Japan's household saving rate exceeded 20 percent only during the six-year period from 1973 until 1978, exceeded 15 percent only during the 21-year period from 1961 until 1981, and exceeded 10 percent only during the 41-year period from 1955 until 1995.

To sum up, Japan's household saving rate was not always high. It was high during much of the postwar period (especially during the 1960s and 1970s), but it was not necessarily high during the prewar and early postwar periods and has by no means been high in recent years.

## **2.2. International Comparison of Household Saving Rates**

I turn now to an international comparison of household saving rates. Horioka (1989, Table 1) shows data on household saving rates for the 1975-84 period for the sixteen Organization for Economic Cooperation and Development (OECD) member



countries for which data are available, while Table 1 shows data on household saving rates for the 1985-2005 period for the 23 OECD member countries for which data are available. Data are available only on gross household saving rates for five of these countries, but since net household saving rates are, on average, about 70 percent of gross household saving rates, the figures on the gross household saving rate were converted to a net basis using this conversion factor in the case of the five countries for which only gross data are available.

(Table 1 about here)

As can be seen from Horioka (1989, Table 1) and Table 1, Japan's household saving rate was one of the highest among the OECD member countries during the 1975-85 period. It ranked first in 1975, was second only to Italy in 1980 and 1985, and was 1.79, 1.61, and 1.81 times the OECD average in 1975, 1980, and 1985, respectively. However, Japan's rank among the OECD member countries as well as the ratio of her household saving rate to the OECD average both fell steadily during the subsequent twenty years. For example, by 1990, Japan had fallen to fourth place (tie) and her household saving rate had fallen to 1.43 times the OECD average. By 1995, Japan had fallen further to seventh place, and her household saving rate had fallen further to 1.25 times the OECD average. By 2000, Japan had fallen further to tenth

place although her household saving rate rose slightly to 1.32 times the OECD average. Finally, by 2005, Japan had fallen further to 17th place and her household saving rate had fallen to only 43 percent of the OECD average.

Thus, Japan's household saving rate was formerly high not only in absolute terms but also relative to the other developed countries and was at one point the highest in the developed world, but it has since fallen not only in absolute terms but also relative to the other developed countries and is no longer high by any standard.

What is especially striking is that Japan's relative ranking fell sharply during the 1985-2005 period even though 17 of the 23 OECD member countries for which data are available as well as the OECD average showed downward trends during the same period (with the OECD average falling to only 62 percent of its 1985 level by 2005). This is because Japan's household saving rate declined even more sharply than that of the other OECD member countries.

Incidentally, what OECD member countries have shown the highest household saving rates? Japan occupied the number one position in 1975, Italy occupied the number one position in 1980, 1985, 1990, and 1995, and Hungary occupied the number one position in 2000 and 2005. Moreover, these countries have ranked relatively high in other years as well (except for Japan in 2005). France, Germany, South Korea, and

Switzerland have also shown relatively high household saving rates (except for South Korea in 2005). By contrast, the Scandinavian countries (Denmark, Finland, Norway, and Sweden), the Czech Republic, New Zealand, the United Kingdom, and the United States have shown relatively low household saving rates (except for Norway in 2005). Thus, the rank ordering of the OECD member countries has been relatively stable over time.

An exploration of the reasons for these inter-country differences in household saving rates is beyond the scope of this paper, but many of the countries with low household saving rates have generous social insurance systems, and thus households in these countries may not feel the need to save for retirement and/or for precautionary purposes.

Note, however, that these inter-country differences in household saving rates have not necessarily been stable over time. For example, the relative positions of Australia and Canada fell by as much as that of Japan during the 1985-2005 period (from seventh place to 22nd place and from third place to 18th place, respectively), and Finland, South Korea, New Zealand, and the United States also showed sharp declines in their relative positions. By contrast, Norway showed a sharp increase in its relative position (from 17th place in 1985 to second place in 2005), and France, Ireland, and

Sweden also showed substantial increases. An interesting case is that of the Netherlands, whose rank increased sharply from 13th place in 1985 to third place in 1990 before falling back down to 13th place in 2005.

The fact that inter-country differences in household saving rates are relatively stable but sometimes show sharp variations over time suggests that these differences are due partly to long-term factors and partly to short-term factors.

To sum up, Japan's household saving rate was high in both absolute and relative terms during the 1955-95 period (especially during the 1960s and the 1970s) but has declined in both absolute and relative terms since the mid-1970s and is no longer high by any standard.

### **3. Why Did the Japanese Save So Much?**

In the previous section, we found that the Japanese saved a lot during the 1955-95 period (especially during the 1960s and 1970s) but not before or after. In this section, we consider the reasons why the Japanese saved so much during this period.

#### **3.1. The Impact of Culture**

One oft-heard hypothesis is that Japan's household saving rate has been high

for cultural and/or religious reasons. One variant of this hypothesis is that it is part of the national character of the Japanese to save a lot, and another variant is that the Japanese save a lot because of the influence of Confucian teachings, which regard frugality as a virtue. In this subsection, I consider how much explanatory power this hypothesis has.

First, if Japan's household saving rate was high for cultural reasons, it should always have been high because culture is presumably relatively invariant over time. As we saw in section 2, however, Japan's household saving rate was high primarily during the 1955-95 period (especially during the 1960s and 1970s) and was not unusually high during the prewar and early postwar periods or after 1995.

Second, since culture presumably weakens over time as better transportation and communication systems facilitate the influx of foreign influences, we would expect Japan's household saving rate to show a downward trend over time if culture is an important determinant thereof. However, as we saw in section 2, Japan's household saving rate did not show any clear trend during the prewar period and showed a clear *upward* trend during the early postwar period (until the mid-1970s) although it has shown a downward trend since the mid-1970s.

These two pieces of evidence strongly suggest that culture is not an important

explanation of why Japan's household saving rate was high during much of the postwar period.

### **3.2. The Impact of Economic, Demographic, and Institutional Factors**

What then can explain why Japan's household saving rate has been high during much of the postwar period? My hypothesis is that Japan's household saving rate was high during the 1955-95 period (especially during the 1960s and 1970s) because of various temporary economic, demographic, and institutional factors that were applicable during this period. Horioka (1990) lists more than thirty such factors, and Hayashi (1986, 1997) and Horioka (1993b, 2006a) are also useful summaries of the literature on household saving behavior in Japan. Here, I examine what I consider to be the eight most important explanations of why Japan's high household saving rate was high during the 1955-95 period (especially during the 1960s and 1970s).

(1) The High Growth Rate of Income. The high growth rate of income during the high-growth era from the 1950s to the early 1970s undoubtedly helped raise Japan's household saving rate. When income grows rapidly and/or unexpectedly, households often cannot adjust their living standards and consumption patterns at the same pace, and as a result, saving (the difference between income and consumption)

tends to increase, at least temporarily.

(2) The Low Level of Household Wealth Holdings. Household wealth holdings were very low in Japan just after the Second World War because the war destroyed much of Japan's housing stock and the postwar hyperinflation reduced the real value of financial assets. Japanese households presumably saved as much as they did in part to restore their wealth holdings to desired levels.

(3) The Unavailability of Consumer Credit. Consumer credit was not readily available in Japan until recently, and thus Japanese households found it necessary to save in advance of purchases of such big-ticket items as housing, automobiles, furniture, and electrical appliances. Moreover, the paucity of credit also increased the need for precautionary saving because Japanese households knew that they would not be able to borrow in times of emergency.

(4) The Young Age Structure of the Population. The age structure of Japan's population was one of the youngest among the industrialized countries until recently. As Table 2 shows, in 1975, the share of the elderly (those aged 65 or older) in Japan's total population was only 7.9 percent, which was the lowest among the OECD member countries at the time (this ratio was 3.6 percent in South Korea in 1975, but South Korea was not yet an OECD member country at the time). According to the life cycle

hypothesis, the aggregate household saving rate will be higher in a country with a young population because the young typically work and save, whereas the elderly typically retire from work and dissave, and thus the young age structure of Japan's population can help explain her high household saving rate in the past (see, for example, Modigliani and Brumberg 1955). Indeed, Horioka (1989) finds that the low ratio of the aged population to the working-age population was by far the most important cause of Japan's high private saving rate during the 1975-84 period, and the same undoubtedly holds for her household saving rate.

(Table 2 about here.)

(5) The Bonus System of Compensation. Japan's bonus system of compensation, whereby a large chunk of employee compensation is paid in the form of semiannual lump-sum bonuses, is often said to have encouraged, or at least facilitated, saving (see, for example, Ishikawa and Ueda 1984).

(6) Tax Breaks for Saving. The Japanese government introduced many tax breaks for saving such as the *maruyū* system (the tax-exempt system for small savings whereby the interest income on bank and postal deposits and on government bonds was tax-exempt, up to a limit), and these tax breaks for saving may have induced Japanese households to save more than they would have otherwise.



(7) **The Low Level of Public Pension Benefits.** Public old-age pension benefits were relatively low in Japan until 1973. This made it necessary for Japanese households to save on their own to prepare for their life after retirement.

(8) **Saving Promotion Activities.** The Japanese government and the quasi-governmental Central Council for Savings Promotion engaged in a variety of saving promotion activities such as the preparation and distribution of magazines, statistical handbooks, booklets, leaflets, posters, films, household financial ledgers, and money boxes, the appointment of private citizens as saving promotion leaders, etc., during much of the postwar period, and Garon (1997, Chapter 5) has argued that these saving promotion activities helped to raise Japan's household saving rate.

#### **4. Why Don't the Japanese Save As Much Now?**

In the previous section, I discussed why Japan's household saving rate was so high in the past, but in this section, I discuss why Japan's household saving rate has shown a downward trend since the mid-1970s. My thesis is that Japan's household saving rate has declined since the mid-1970s because the factors that caused Japan's household saving rate to be high until the mid-1970s gradually became less applicable after the mid-1970s.

(1) Double-digit rates of economic growth ended in the early 1970s, and income growth rates have been low in recent years, especially in the 1990s.

(2) The wealth holdings of Japanese households increased rapidly as a result of their high saving rates, and by 1990, the ratio of household wealth holdings to household disposable income in Japan was by far the highest among the Group of 7 (G7) countries (Canada, France, Germany, Italy, Japan, the United States, and the United Kingdom) (see Horioka 2006a, Table 5.3).<sup>3</sup>

(3) Consumer credit has become more and more available over time, and by 1990, the ratio of household liabilities outstanding to household disposable income in Japan was by far the highest among the G7 countries (see Horioka 2006, Table 5.3).

(4) Japan's population is aging at an unprecedented rate, with the share of the population aged 65 or older to the total population rising from 7.9 percent (lowest among the OECD member countries at the time) in 1975 to 17.2 percent (third place among the OECD member countries) in 2000 (see Table 2).

(5) According to the Basic Survey on Wage Structure (*Chingin Kouzou Kihon Toukei Chousa*), conducted annually by the Ministry of Health, Labour and Welfare, there has been a long-term decline in the ratio of bonus income to regular employee compensation since 1975: the ratio of "average annual special cash earnings" to

“average monthly scheduled cash earnings” showed an upward trend until 1975, peaking at 3.92, but has shown a downward trend since then (except for a temporary increase during the 1979-92 period when economic conditions were favorable), falling to 3.00 by 2005.

(6) Most tax breaks for saving including the aforementioned *maruyū* system were abolished (except for the elderly) in 1988.

(7) Public old-age pension benefits were dramatically improved in 1973, and a public long-term care insurance program was introduced in 2000

(8) Government saving promotion activities have been scaled back, and the Central Council for Savings Promotion was renamed the Central Council for Savings Information in 1987 (and renamed the Central Council for Financial Services Information in 2001), gradually shifting from the active encouragement of saving to providing consumers with information on the array of financial services available and helping them with life planning.

Moreover, I concluded earlier that culture was not an important determinant of Japan’s high household saving rate, but to the extent that it is important, it can help explain the decline in Japan’s household saving rate since culture presumably weakens over time due to the increasing influx of foreign influences.

Thus, virtually all of the factors that caused Japan's household saving rate to be high have weakened over time, and this can explain why Japan's household saving rate has declined so sharply since the mid-1970s.

### **5. How Much Will the Japanese Save in the Future?**

In this section, I speculate about future trends in Japan's household saving rate. In my opinion, the most important factor determining future trends in Japan's household saving rate will be the rapid aging of her population. Japan's population is aging at the fastest rate in human history and has already become virtually the most aged in the world. As Table 2 shows, the share of the population aged 65 or older to the total population in Japan is projected to increase from 17.2 percent in 2000 to 28.9 percent in 2025, rising from third to first place among the OECD member countries). This will cause her household saving rate to continue its rapid decline if the life-cycle hypothesis, which assumes that the elderly finance their living expenses during retirement by drawing down their previously accumulated savings, is valid, and Horioka (1993b, 2002, and 2006b) argues that it is. Indeed, a number of authors, myself included, have projected that the rapid aging of Japan's population will cause Japan's household saving rate to decline to zero or even negative levels by around 2010 (see Horioka 1989,

Horioka 1991, and for a useful survey Horioka 1992).

I should note, however, that the discussion thus far has focused exclusively on the impact of the aging of the population on the household saving rate. The other factors that caused Japan's household saving rate to be high during most of the postwar period will continue weakening, and this will cause Japan's household saving rate to decline even more sharply.

For example, the growth rate of income can be expected to recover somewhat as the economy recovers but is very unlikely to return to the levels of the high-growth period; the level of household wealth holdings can be expected to resume its increase as land and equity prices stabilize and/or recover; the ratio of bonus income to regular employee compensation shows no signs of recovering; the special tax breaks on capital gains on stock sales and dividend income, which were introduced in 2003, are scheduled to be abolished shortly; saving promotion activities have already been discontinued; and the impact of culture can be expected to continue weakening due to the continued influx of foreign influences.

The primary exceptions are uncertainty about the future of the public pension system and changes in the lending law. The rapid ageing of the population, combined with the pay-as-you-go nature of the public pension system, is causing the finances of

the system to deteriorate, which in turn is necessitating cuts in benefits, increases in contribution rates, and considerable uncertainty about the future of the system. This is likely to cause Japanese households to save more for life during retirement, thereby putting upward pressure on Japan's household saving rate.

In addition, the lending law was revised in December 2006, and as part of this revision, the ceiling on the lending rate for unsecured consumer loans was reduced and a limit was imposed on loan amounts. It has been projected that this will cause the outstanding loans of consumer finance companies to be halved, and the reduced availability of consumer loans may cause households to spend less and save more.

In my opinion, however, the factors putting downward pressure on Japan's household saving rate far exceed the factors putting upward pressure thereon, and thus there is no doubt that Japan's household saving rate will continue to decline sharply in the coming years.

## **6. Policy Implications**

In this section, I present the policy implications of my finding that Japan's household saving rate was high during much of the postwar period but that it has been falling since the mid-1970s and is projected to continue declining in the future as well.

First, however, I would like to step back and consider the role that saving plays in the economy as a whole. Saving is indispensable in any economy because it provides the funds for financing investment in plant and equipment, housing, social infrastructure, etc. Investment cannot be done without a corresponding amount of saving from somewhere—either from the same sector, from another sector of the same economy, or from abroad.

In the case of Japan, the household sector saved at high levels throughout most of the postwar period, and this abundant saving of the household sector was used in a variety of different ways. For example, during the high-growth period of the 1950s, 1960s, and early 1970s, household saving was used primarily to finance corporate investment in plant and equipment, and hence was instrumental in increasing the productive capacity of the economy and in achieving rapid economic growth. Since the 1970s, however, a considerable share of household saving has been used to finance investment in housing and social infrastructure, thereby contributing toward improving the quality of life of the Japanese people and toward facilitating economic growth. And since the 1980s, a considerable share of household saving has been lent abroad (either directly or indirectly via financial intermediaries), thereby helping to alleviate saving shortages in the United States and other countries but at the same time leading to

enormous capital account deficits that had to be offset by correspondingly large trade and current account surpluses. Thus, Japan's abundant supply of household saving has played an important role throughout the postwar period, but the nature of its role has shifted over time.

Since the abundant supply of household saving in Japan has played such an important role in the past, one might be tempted to conclude that the sharp decline in Japan's household saving rate that began in the mid-1970s and that is projected to continue in the future as well will lead to a severe saving shortage, spelling disaster for the Japanese economy, if not the world economy. However, I do not share this view for the following reasons.

First, even if the household saving rate declines, the overall level of national saving in Japan will not decline if there is a corresponding increase in the saving of the other sectors of the economy such as the government and corporate sectors. The Japanese government is currently giving top priority to reconstructing its finances (reducing its fiscal deficits) by cutting expenditures and raising taxes, and assuming it succeeds, government saving will increase. Moreover, as the economy recovers, the profits of corporations will presumably increase, enabling them to retain more earnings, which count as corporate saving. Thus, it is likely that the saving of both the



government and corporate sectors will increase in the coming years, thereby at least partially offsetting the decline in household saving.

Moreover, even if the overall level of national saving declines because the decline in household saving is not fully offset by increases in the saving of other sectors of the economy, a saving shortage will not necessarily emerge because investment may also decline. Japan's population has been declining since 2005, and a declining population means that there is less need to increase the productive capacity of the economy and hence less need for investment. And if the decline in investment demand is comparable to the decline in saving, no saving shortage will emerge.

Moreover, even if a saving shortage emerges because the decline in investment demand falls short of the decline in saving, this does not necessarily spell disaster either because Japan always has the option of borrowing from abroad. There are currently many countries with very high saving rates such as China, Hong Kong, Taiwan, and Singapore, and Japan should be able to borrow from these countries.

Thus, I conclude that the prolonged decline in Japan's household saving rate does not necessarily spell disaster for the Japanese economy.

## **7. Conclusions**

This paper presented a variety of data on Japan's household saving rate and found that Japan's high household saving rate was a temporary phenomenon: Japan's household saving rate was high in both absolute and relative terms during the 1955-95 period (especially during the 1960s and 1970s) but it was not unusually high during the prewar and early postwar periods or after 1995.

Moreover, this paper found that Japan's temporarily high household saving rate was due not to culture but to temporary economic, demographic, and institutional factors such as the high growth rate of income, the low level of household wealth holdings, the unavailability of consumer credit, the young age structure of the population, the bonus system of compensation, tax breaks for saving, the low level of public pension benefits, and saving promotion activities.

This paper then argued that the decline in Japan's household saving rate since the mid-1970s is due to the weakening of these factors and that Japan's household saving rate can be expected to decline even further as these factors become even less applicable and that the rapid aging of Japan's population has played the most important role.

Finally, this paper considered the policy implications of my findings and concluded that there is nothing to worry about even if Japan's household saving rate

falls to zero or even negative levels because the other sectors of the economy will at least partly take up the slack, because investment can also be expected to decline, and because Japan always has the option of borrowing from abroad.

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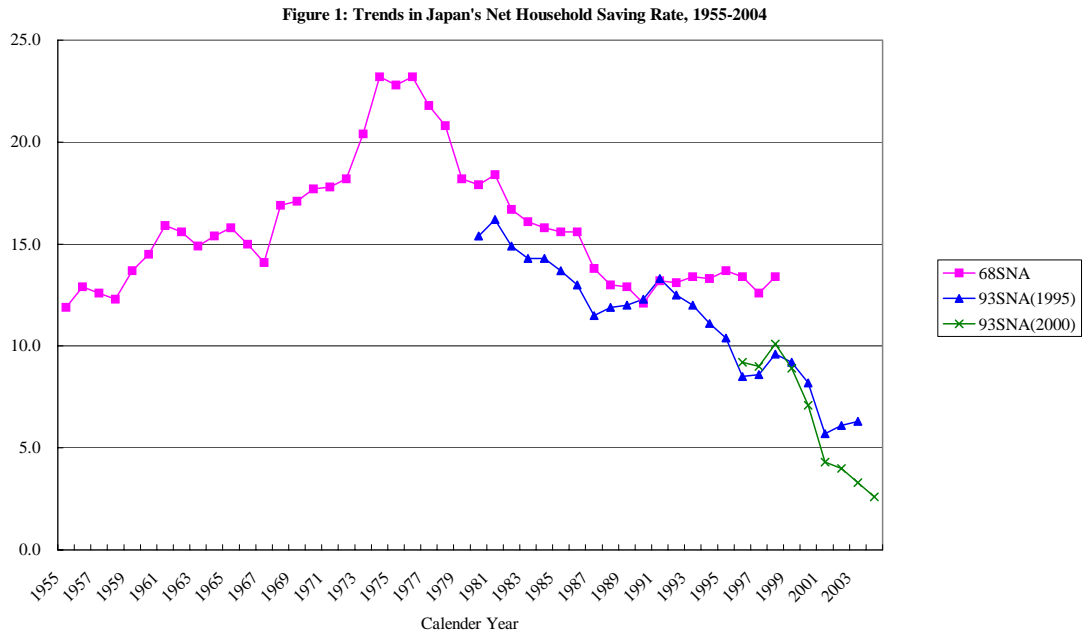
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Notes: The line marked “68SNA” shows data based on the 1968 United Nations System of National Accounts, whereas the line marked “93SNA” shows data based on the 1993 United Nations System of National Accounts. The 68SNA figures show the net household saving rate, while the 93SNA figures show the adjusted net household saving rate.

Source: Department of National Accounts, Economic and Social Research Institute, Cabinet Office, Government of Japan, ed., *Annual Report on National Accounts*, 2006 edition (Tokyo: Mediarando Kabushiki Kaisha, 2006), and the 2004 and 2005 editions of the same.

**Table 1: Net Household Saving Rates of Selected OECD Countries, 1985-2005**

	1985		1990		1995		2000		2005	
Australia	10.8	7	8.5	12	6.7	18	2.8	19	-2.6	22
Austria	10.5	8	13.3	6	10.9	11	8.4	8T	9.5	6T
*Belgium	11.1	6	9.2	11	13.2	5	9.8	5	7.8	10
Canada	15.8	3	13.0	7	9.2	13	4.7	15	-0.2	18
Czech Rep.	na		na		9.0	14	3.6	16	3.3	16
*Denmark	na		1.3	19	0.9	22	-1.3	21T	-0.6	21
Finland	3.4	14	3.6	16	4.7	19	-1.3	21T	-0.5	20
France	8.9	10	9.3	10	12.7	6	11.4	3	11.6	3
Germany	12.1	5	13.9	4T	11.0	10	9.2	7	10.7	4
Hungary	na		na		15.6	3	16.0	1	17.7	1
Ireland	na		6.1	13	8.5	16	9.6	6	10.9	5
Italy	21.5	1	23.8	1	17.7	1	8.4	8T	9.5	6T
Japan	16.5	2	13.9	4T	11.9	7	8.3	10	2.4	17
South Korea	14.8	4	22.5	2	17.5	2	10.7	4	4.3	14
Netherlands	5.6	13	17.7	3	14.6	4	7.0	12T	5.7	13
New Zealand	1.3	16	0.7	20	-3.8	23	-4.1	23	-7.1	23
Norway	-3.3	17	2.2	18	4.6	20T	5.2	14	11.8	2
*Portugal	na		na		10.1	12	7.0	12T	6.9	12
*Spain	7.8	11	9.8	8	11.5	9	7.8	11	7.3	11
Sweden	2.2	15	3.2	17	9.1	15	3.2	18	7.9	9
Switzerland	na		9.6	9	11.6	8	11.8	2	8.8	8
*United Kingdom	6.9	12	5.6	15	7.0	17	3.5	17	3.5	15
United States	9.2	9	7.0	14	4.6	20T	2.3	20	-0.4	19
OECD Mean	9.1		9.7		9.5		6.3		5.6	

Notes: The left-hand figures denote the household saving rate, defined as household saving as a ratio of disposable household income, while the right-hand figures denote the rank of each country. "na" denotes "not available," while "T" denotes "tie." The first figure for New Zealand is the figure for 1986 because the figure for 1985 was not available. The figures include the saving of households as well as that of non-profit institutions except in the case of the Czech Republic, Finland, France, Japan, and New Zealand. For countries marked by an asterisk, only figures on gross household saving rates were available, and the gross figures were converted to a net basis by using a conversion factor of 0.7 (which is the approximate ratio of the average net household saving rate to the average gross household saving rate for the countries and years used in the present analysis). In the case of Italy and Sweden, the figures for 1985 were computed from figures on the gross household saving rate.

Source: For 1985 data, *OECD Economic Outlook*, vol. 2003/1, no. 73 (June 2003), Annex Table 24; for 1990, 1995, 2000, and 2005 data, the same source, vol. 2006/1, no. 79 (June 2006), Annex Table 23 (in the case of Hungary and New Zealand, the same source, vol. 2004/2, no. 76 (Dec. 2004), and in the case of Ireland, the same source, vol. 2005/2, no. 78 (Dec. 2005), Annex Table 23).

**Table 2: Share of the Aged Population in Selected OECD Countries, 1975-2025**

Country	1975		2000		2025	
Australia	8.7	19T	12.3	19T	18.6	19
Austria	14.9	2	15.6	10T	24.3	7
Belgium	13.9	5	17.0	4T	23.7	8
Canada	8.5	21	12.6	18	20.7	17T
Czech Rep.	12.9	9	13.8	16	23.1	10
Denmark	13.4	8	15.0	13	22.5	11
Finland	10.6	15	14.9	14	25.2	5
France	13.5	7	16.0	7T	22.2	12
Germany	14.8	3	16.4	6	24.6	6
Hungary	12.6	10T	14.6	15	21.2	16
Ireland	11.0	13	11.3	22	16.3	23
Italy	12.0	12	18.1	1	25.7	3
Japan	7.9	22	17.2	3	28.9	1
South Korea	3.6	23	7.1	23	16.9	22
Netherlands	10.8	14	13.6	17	21.9	13T
New Zealand	8.7	19T	11.7	21	18.5	20T
Norway	13.7	6	15.4	12	21.8	15
Portugal	9.9	18	15.6	10T	20.7	17T
Spain	10.0	17	17.0	4T	23.6	9
Sweden	15.1	1	17.4	2	25.4	4
Switzerland	12.6	10T	16.0	7T	27.1	2
United Kingdom	14.0	4	15.8	9	21.9	13T
United States	10.5	16	12.3	19T	18.5	20T
OECD Mean	12.6		16.0		24.4	

Notes: The left-hand figures denote the share of the population aged 65 or older to the total population, while the right-hand figures denote the rank of each country. "na" denotes "not available," while "T" denotes "tie."

Source: United Nations, *World Population Ageing, 1950-2050* (New York: United Nations, 2002).



**Table A-1: Trends in Japan's Net Household Saving Rate, 1955-2004**

Calendar Year	SNA68		SNA93	
	1990 Benchmark Revision	1995 Benchmark Revision	2000 Benchmark Revision	2000 Benchmark Revision
1955	11.9			
1956	12.9			
1957	12.6			
1958	12.3			
1959	13.7			
1960	14.5			
1961	15.9			
1962	15.6			
1963	14.9			
1964	15.4			
1965	15.8			
1966	15.0			
1967	14.1			
1968	16.9			
1969	17.1			
1970	17.7			
1971	17.8			
1972	18.2			
1973	20.4			
1974	23.2			
1975	22.8			
1976	23.2			
1977	21.8			
1978	20.8			
1979	18.2			
1980	17.9		15.4	
1981	18.4		16.2	
1982	16.7		14.9	
1983	16.1		14.3	
1984	15.8		14.3	
1985	15.6		13.7	
1986	15.6		13.0	
1987	13.8		11.5	
1988	13.0		11.9	
1989	12.9		12.0	
1990	12.1		12.3	
1991	13.2		13.3	
1992	13.1		12.5	
1993	13.4		12.0	
1994	13.3		11.1	
1995	13.7		10.4	
1996	13.4		8.5	9.2
1997	12.6		8.6	9.0
1998	13.4		9.6	10.1
1999			9.2	8.9
2000			8.2	7.1
2001			5.7	4.3
2002			6.1	4.0
2003			6.3	3.3
2004				2.6

Notes: SNA68 denotes the 1968 United Nations System of National Accounts, while SNA93 denotes the 1993 United Nations System of National Accounts. The SNA68 figures show the net household saving rate, while the SNA93 figures show the adjusted net household saving rate.

Source: Department of National Accounts, Economic and Social Research Institute, Cabinet Office, Government of Japan, ed., *Annual Report on National Accounts*, 2006 edition (Tokyo: Mediarando Kabushiki Kaisha, 2006), and the 2004 and 2005 editions of the same.

## Endnotes

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<sup>1</sup> However, Japan's household saving rate was high (in excess of 15 percent) during the 1935-37 period according to the former System of National Accounts.

<sup>2</sup> A detailed discussion of the conceptual differences between the 1968 SNA and the 1993 SNA is beyond the scope of this paper, but the main difference between the two lies in their treatment of bad loans. Under the 1968 SNA, write-offs of bad loans to households and unincorporated businesses are treated as a current transfer from financial institutions to households. Thus, bad loan write-offs increase the incomes of households, and because their consumption does not change, their measured saving increases. By contrast, 1993 SNA treats write-offs of bad loans to households and unincorporated businesses as a decline in the asset holdings of financial institutions, and thus they do not affect the saving rate of households.

<sup>3</sup> The sharp decline in land and equity prices during the 1990s led to a temporary reversal in the increase in the level of household wealth holdings, but both land and equity prices seem to have bottomed out.