The Flow of Household Funds in Japan[1]

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Abstract

In this paper, I consider why Japan's household saving rate was so high in the past and why it has shown a downward trend in more recent years, and based on this analysis, I project future trends in Japan's household saving rate. To preview my main findings, I find, first, that Japan's household saving rate used to be high but that it has declined sharply in recent years and that it is no longer high in either absolute or relative terms. Moreover, Japan's household saving rate will continue its decline due to the rapid aging of her population and other factors and may well become zero or negative within a few years. However, the government's fiscal deficits (government dissaving) as well as corporate investment in plant and equipment can be expected to decline at the same time, and moreover, there is always the option of borrowing from abroad, so the sharp decline in the household saving rate will not necessarily cause any problems.

I. Introduction

Until recently, Japan was one of the world's largest savers, and according to the National Accounts compiled by the Japanese Government, Japan's household saving rate attained a level of 23.2 percent in 1974 and 1976. Japan's high saving rate attracted the attention of the entire world, and Malaysia and many other countries trying to raise their saving rates sought to learn from the Japanese experience. However, Japan's household saving rate has declined steadily since then, and by 2004, it was only 2.6 percent and Japan was no longer a high-saver country. In this paper, I consider why Japan's household saving rate was so high in the past and why it has shown a downward trend in more recent years, and based on this analysis, I project future trends in Japan's household saving rate.

The organization of the paper is as follows: In section Ⅱ, I present data on trends over time

[1] This article is based on a study first reported in Horioka(2008), 'Kakei no Shikin no Nagare,' *Financial Review*, No.88, pp. 6-18 (in Japanese).

in Japan's household saving rate and on household saving rates in international perspective; in section Ⅲ, I consider the reasons for why Japan's household saving rate was so high in the past and why it has declined in more recent years; in section Ⅳ, I project future trends in Japan's household saving rate; in section Ⅴ, I summarize my findings and consider the policy implications of my findings.

To preview my main findings, I find, first, that Japan's household saving rate used to be high but that it has declined sharply in recent years and that it is no longer high in either absolute or relative terms. Moreover, Japan's household saving rate will continue its decline due to the rapid aging of her population and other factors and may well become zero or negative within a few years. However, the government's fiscal deficits (government dissaving) as well as corporate investment in plant and equipment can be expected to decline at the same time, and moreover, there is always the option of borrowing from abroad, so the sharp decline in the household saving rate will not necessarily cause any problems.

II. The Level of, and Trends over Time in, Japan's Household Saving Rate

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.

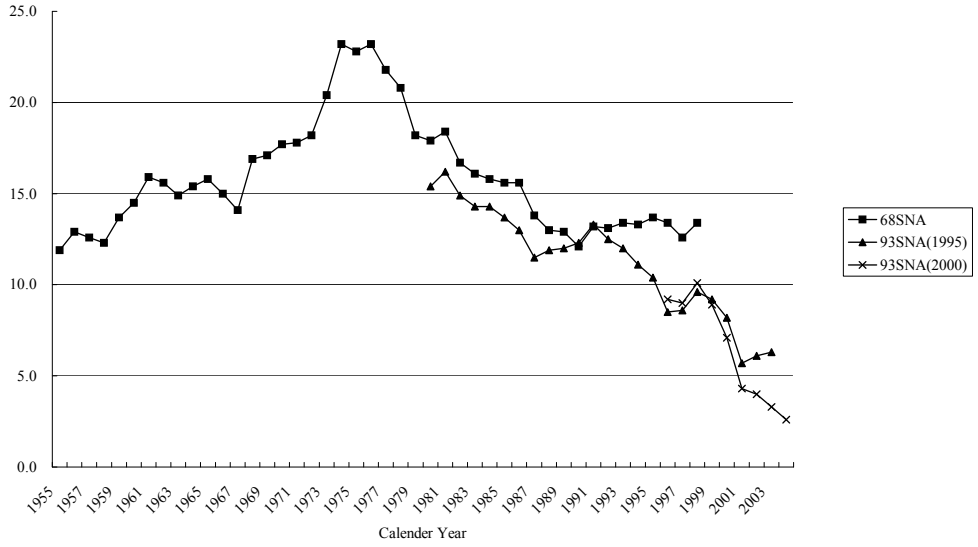
The level of Japan's household saving rate varies greatly depending on what data source one uses, and it is not clear whether or not Japan's household saving rate is still high. In this section, I will present and compare data on household saving rates from the two most commonly used data sources—the National Accounts data compiled by the Economic and Social Research Institute of the Cabinet Office of the Japanese Government and data from the Family Income and Expenditure Survey (FIES) conducted by the Statistics Bureau of the Ministry of Internal Affairs and Communications of the Japanese Government.

According to National Accounts data based on the 1993 United Nations System of National Accounts (see Section II-2 for details), Japan's household saving rate has fallen to 2.6 percent, whereas according to the Family Income and Expenditure Survey, Japan's household saving rate is still about 27 percent, and according to National Accounts data based on the 1968 United Nations System of National Accounts, Japan's household saving rate is in between these two extremes.

Moreover, trends over time in Japan's household saving rate also vary greatly according to the data source. Figure 1 and Table A-1 show trends over time in National Accounts data on Japan's household saving rate for the 1955-2004 period, and as can be seen from this figure and table, according to National Accounts data based on the 1968 System of National Accounts, Japan's household saving rate showed an upward trend until the mid-1970s, a downward trend from the mid-1970s until 1990, and levelled off at the 12-13 percent level after 1990. By

contrast, according to National Accounts data based on the 1993 System of National Accounts, Japan's household saving rate has continued declining even after 1990, falling to the 2 percent level by 2004. Finally, according to the Family Income and Expenditure Survey, Japan's household saving rate continued increasing until 1998 and has been declining since then but is still around 27 percent. Which series are we to believe?

Figure 1: Trends in Japan's Household Saving Rate (1955–2004)



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 A-1: Trends in Japan's Household Saving Rate (1955–2004)

	SNA68	SNA93	
Calendar Year	1990 Benchmark Revision	1995 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.

II.1. A Comparison of National Accounts Data and Data from the Family Income and Expenditure Survey

First, I conduct a comparison of National Accounts data and data from the Family Income and Expenditure Survey. In 2004, the household saving rate was 2.6 percent according to the former and 25.6 percent according to the latter, meaning that the latter was about ten times the former. Why is there such a big difference between the two?

The difference is due to several factors. First, the National Accounts figure pertains to all households, whereas the figure from the Family Income and Expenditure Survey pertains only to salaried worker households and excludes individual entrepreneurs, unemployed households, and retired households.

Second, the National Accounts figure is net of depreciation on fixed capital (mostly housing), whereas the figure from the Family Income and Expenditure Survey is gross of depreciation.

Third, imputed rent on owner-occupied housing and employer-provided housing is included in household consumption and household disposable income when calculating the National Accounts figure but it is not included in either household consumption or household disposable income when calculating the figure from the Family Income and Expenditure Survey.

Since the National Account figure covers all households and uses the conceptually correct definitions of household saving, consumption, and disposable income, it is the more accurate figure and thus there is no mistake that Japan's household saving rate is no longer high and that it is declining sharply.

II.2. A Comparison of the 1968 and 1993 Systems of National Accounts

The household saving rate based on the 1968 System of National Accounts and the adjusted household saving rate based on the 1993 System of National Accounts are conceptually very similar, with the main difference being how write-offs of non-performing loans of the household sector are treated. Under the 1968 System of National Accounts, write-offs of non-performing loans to households and unincorporated businesses are treated as a current transfer from financial institutions to households. Thus, such write-offs increase the incomes of households, and because their consumption does not change, their measured saving increases. By contrast, the 1993 System of National Accounts treats write-offs of non-performing 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.

The way in which the 1968 System of National Accounts treats write-offs of non-performing loans is the conceptually preferred way, but unfortunately, data based on this System of National Accounts are not available after 1998. However, since the magnitude of write-offs of non-performing loans are presumably no longer very large and since the decline in

the household saving rate based on the 1993 System of National Accounts is so pronounced, there is no doubt that Japan's household saving rate would show a sharp decline even if write-offs of non-performing loans were treated correctly.

II.3. An 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 per cent 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: Net Household Saving Rate 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).

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 per cent 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.

To sum up, Japan's household saving rate was high in both absolute and relative terms until the mid-1970s but has declined in both absolute and relative terms since the mid-1970s and is no longer high by any standard.

III. The Determinants of Japan's Household Saving Rate

In this section, we explore why Japan's household saving rate was high until the mid-1970s and why it has declined since then (see Hayashi (1986, 1997) and Horioka (1990, 1993, 2006a) for useful summaries of the literature on household saving behaviour 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 until the mid-1970s.

(1) 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 per cent, which was the lowest among the OECD member countries at the time (this ratio was 3.6 per cent 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: 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).

(2) 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.

(3) 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.

(4) 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 post-war 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.

(5) 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.

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

(7) 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.

(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 post-war period, and Garon (1997, Chapter 5) has argued that these saving promotion activities helped to raise Japan's household saving rate.

I have thus far discussed the factors that caused Japan's household saving rate to be so high in the past, but I now 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) 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 per cent (lowest among the OECD member countries at the time) in 1975 to 17.2 per cent (third place among the OECD member countries) in 2000 (see Table 2).

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

(3) 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.

(4) 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).

(5) 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 (2006a), Table 5.3).

(6) According to the Basic Survey on Wage Structure (Chingin Kōzō Kihon Tōkei Chōsa), 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 favourable), falling to 3.00 by 2005.

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

(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.

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.

IV. Future Trends in Japan's Household Saving Rate

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 in the total population in Japan is projected to increase from 17.2 per cent in 2000 to 28.9 per cent 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 (1993, 2000, 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, 1991); for a useful survey, see 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 post-war 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 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, have been abolished; and saving promotion activities have already been discontinued.

However, there are at least two factors working in the other direction. First, land and equity prices have declined sharply since the 1990s, and this has greatly reduced the value of household asset holdings and created an incentive for households to increase their saving in order to make up for the loss in the value of their assets. Second, the rapid aging of the population, combined with the pay-as-you-go nature of the public pension system, is causing the finances of Japan's public pension system to deteriorate, which in turn is necessitating cuts in benefits, increases in contribution rates, increases in the pensionable age, 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 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.

V. Conclusion and Policy Implications

In this paper, I showed that Japan's household saving rate was high until the mid-1970s but has been declining sharply since then and is no longer high in either absolute or relative terms, I then explored the causes of these trends, and based on this analysis, I projected future trends in Japan's household saving rate, arguing that it can be expected to decline even further due to the rapid aging of her population and other factors.

Before concluding, I would like to consider the implications of my findings for households as

well as for the economy as a whole.

First of all, I would like to consider the implications of my findings for households. A household saving rate of zero means that household assets do not increase or decrease, and a negative household saving rate means that household assets decline. However, Japanese households have shown one of the highest asset-to-income ratios among the Group of Seven countries, and thus household assets in Japan will not hit bottom even if a zero or negative household saving rate continues for some time.

Next, I would like to consider the implications of my findings for 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 post-war 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 post-war period, but the nature of its role has changed 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 stable or declining since 2005, and a stable or 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.

References

Garon, Sheldon (1997), Molding Japanese Minds: The State in Everyday Life. Princeton, N.J.: Princeton University Press.

Hayashi, Fumio (1986), "Why Is Japan's Saving Rate So Apparently High?" in Stanley Fischer, ed., NBER Macroeconomics Annual (Cambridge, Massachusetts: MIT Press), vol. 1, pp. 147–210.

Hayashi, Fumio (1997), "A Review of Recent Literature on Japanese Saving," in Fumio Hayashi, Understanding Saving: Evidence from the United States and Japan (Cambridge, Massachusetts: MIT Press), pp. 289–330.

Horioka, Charles Yuji (1989), "Why Is Japan's Private Saving Rate So High?" in Ryuzo Sato and Takashi Negishi, eds., Developments in Japanese Economics (Tokyo: Academic Press/Harcourt Brace Jovanovich, Publishers), pp. 145–178.

Horioka, Charles Yuji (1990), "Why Is Japan's Household Saving Rate So High? A Literature Survey," Journal of the Japanese and International Economies, vol. 4, no. 1 (March), pp. 49–92.

Horioka, Charles Yuji (1991), "The Determinants of Japan's Saving Rate: The Impact of the Age Structure of the Population and Other Factors," Economic Studies Quarterly, vol. 42, no. 3 (September) [now called Japanese Economic Review], pp. 237–253.

Horioka, Charles Yuji (1992), "Future Trends in Japan's Saving Rate and the Implications Thereof for Japan's External Imbalance," Japan and the World Economy, vol. 3, no. 4 (April), pp. 307–330.

Horioka, Charles Yuji (1993), "Saving in Japan," in Arnold Heertje, ed., World Savings: An International Survey (Oxford, UK, and Cambridge, USA: Blackwell Publishers), pp. 238–278.

Horioka, Charles Yuji (2002), "Are the Japanese Selfish, Altruistic, or Dynastic?" Japanese Economic Review, vol. 53, no. 1 (March), pp. 26–54.

Horioka, Charles Yuji (2006a), "Are the Japanese Unique? An Analysis of Consumption and Saving Behavior in Japan," in Sheldon Garon and Patricia Maclachlan, eds., The Ambivalent Consumer: Questioning Consumption in East Asia and the West (Ithaca, New York: Cornell University Press), pp. 113–136.

Horioka, Charles Yuji (2006b), "Do the Elderly Dissave in Japan?" in Lawrence R. Klein (ed.), Long-Run Growth and Short-Run Stabilization: Essays in Memory of Albert Ando (Cheltenham, UK, and Northampton, MA, USA: Edward Elgar), pp. 129–136.

Horioka, Charles Yuji; Hideki Fujisaki, Wako Watanabe and Takatsugu Kouno (2000), "Are Americans More Altruistic than the Japanese? A U.S.-Japan Comparison of Saving and Bequest Motives," International Economic Journal, vol. 14, no. 1 (Spring), pp. 1–31.

Ishikawa, Tsuneo, and Ueda, Kazuo (1984), "The Bonus Payment System and Japanese Personal Saving," in Masahiko Aoki, ed., The Economic Analysis of the Japanese Firm (Amsterdam: North-Holland), pp. 133–192.

Modigliani, Franco and Brumberg, Richard (1955), "Utility Analysis and the Consumption Function: An Interpretation of Cross-Section Data," in Kenneth K. Kurihara, ed., Post-Keynesian Economics (New Brunswick, N.J.: Rutgers University Press), pp. 388–436.