Rising Need for Education Financing in Japan -Student Loans and 529 Plans Can Meet This Need-

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I. Japanese households have a high burden from education costs

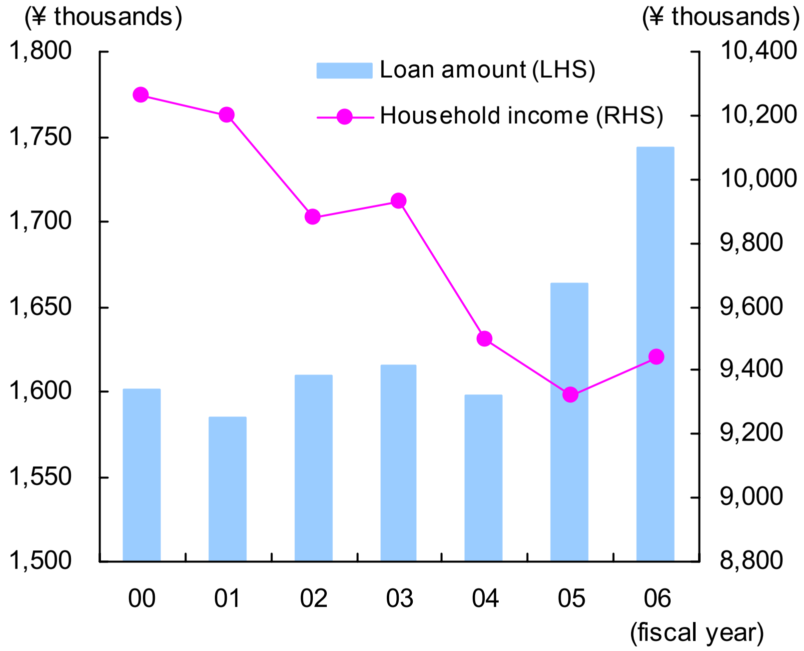
Households bear a higher share of education costs in Japan than in other developed countries. Although in other OECD countries the government and the educational institutions bear a substantial portion of education costs, particularly at the university (post-secondary) level, in Japan it is households that bear the brunt of these costs[1]. There are also many households in Japan that pay to put their children in tutoring programs (cram schools) starting in the preschool years. One reason for this is probably unease with the primary education system, but there are also probably many parents who ultimately consider cram schools an early investment in preparation for getting their child into college.

Spending on education as a percentage of the household budget has continued to rise, even during the economic malaise of the 1990s, meaning that households have sacrificed other spending in order to spend on education. Although families that send their children to private universities (rather than public universities) are thought to have a little more financial leeway, a survey of families who have just sent a child to private university revealed that one in four of those families had to borrow to pay tuition, and that the amount of funds borrowed has increased substantially (Figure 1).

For more on the burden of education costs on households, see Sachiko Miyamoto, *Kyoikuhi o dare ga dou futan suru no ka?* (Who pays for the cost of education?), Capital Market Quarterly, Winter 2007 issue (in Japanese).

[1] According to 2005 data, the OECD average for the government's share of education costs is 76%, versus only 41% in Japan, with almost all of the rest covered by households.

Figure 1: Loans for college tuition versus household income



Note: Survey of households with student entering private university.
Source: Nomura Institute of Capital Markets Research, based on data from the Tokyo Federation of Private University Faculty and Staff Unions

II. Limited means for households to obtain education financing or set aside education savings

In Japan, however, there are limited ways for households to obtain funding or save funds for education, and particularly in regard to savings, there are virtually no tax breaks for savings limited to funding education.

Figure 2 shows the primary means to save or borrow education funds. The most popular means for setting aside funds for education is the educational endowment insurance offered through the postal life insurance system. This program offers education funds as well as guarantees, but the insurance portion provides a lower yield than other financial products, and with interest rates as low as they are now, the amount paid in exceeds the amount received. In addition, the premium varies with the age of the insured at enrollment, and there are also restrictions on the enrollment age.

Figure 2: Primary savings and financing vehicles that can be used for funding education

For savings	
Educational endowment insurance from postal life insurance system	Sold through Post Office branches. Can select from policies that mature at ages 15, 18, or 22, in step with child's growth. When the parent dies, no need to pay subsequent premiums. Under the current monthly payment scheme, amount received is less than the amount paid in.
Children's insurance from the life insurance companies	Handled by private-sector life insurers. Can be more advantageous as a savings vehicle than the product from postal life insurance
Educational savings plan from Japan Post	A postal savings account for funding educational costs. Also provides access to government student loan up to amount of savings.
For borrowing	
Government student loans	There are three programs, general student loans sold by the National Life Finance Corporation, savings-type loans sold by Japan Post, and pension education loans sold by the pension welfare societies in each prefecture.
Asset-building education loans	Aimed at individuals with an asset-building savings plan. Sold through the prefectural centers of the Employment and Human Resources Development Organization of Japan
Scholarships	The Japan Student Services Organization handles both interest-free and interest-bearing loans

Source: 4 September 2006 edition of the *Nihon Keizai Shimbun*

One popular way to save funds for education without any insurance component was the education savings plan offered through Japan Post. Although the maximum allowable savings is not enough to pay for four years of tuition at a public university, once contributions have ended it is possible to take out a loan (at a lower interest rate than that available from a regular bank) from the National Life Finance Corporation up to the amount of funds saved. The interest rate on the loan is the same as that paid on the education savings plan, which was somewhat higher than on a regular savings account, and the tax exemption for postal savings also applied. Since the privatization of postal savings in October 2007, however, it has not been possible to set up a new account. Consequently, tax breaks on savings set aside for education have become even more limited.

Another popular way to fund education is through scholarships from the Japan Student Services Organization (JSSO). Nevertheless, although these are called scholarships, they are actually loans, and therefore must be paid back. There are a large number of applicants for these "scholarships," and the conditions that have to be met have become quite stringent, particularly for the interest-free versions. This is not a program that anyone can unconditionally access. In addition, although the number of scholarship recipients is growing, the default rate is also growing, and this becoming a problem.

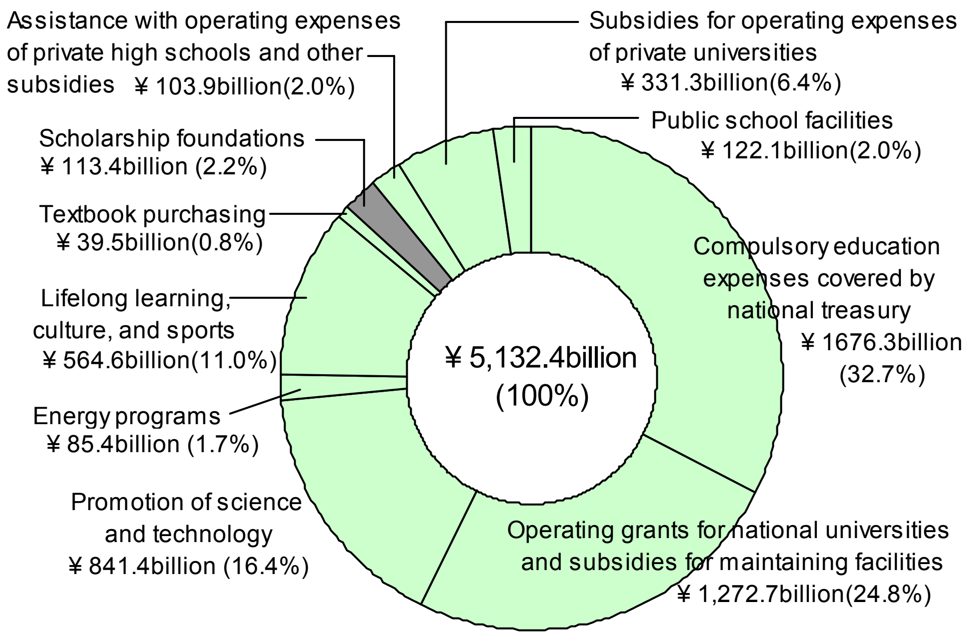
There are also student loans offered by private-sector financial institutions. Although these loans have the advantage of providing a greater degree of freedom in both how they are used and how much can be borrowed compared with the other ways of obtaining funds, qualifying for these loans, conditions for which include the age and income of the borrower, is not easy (for details, see Chapter V).

III. Households unlikely to receive assistance from governmental and educational institution scholarships

1. Government

In other developed economies, the burden on households is alleviated by the government and educational institutions bearing a portion of education costs. Such a system appears unlikely to develop in Japan, however. The government's education budget primarily takes the form of subsidies to educational institutions, rather than to individuals (Figure 3). Government subsidies provided to individuals for post-secondary education have primarily been through scholarship foundations, but these amounted to only 2.2% of total spending on education in FY2006. In view of the government's weak financial condition, there is unlikely to be any strengthening of individual subsidies based on establishing an enhanced scholarship program.

Figure 3: Budget for the Ministry of Education, Culture, Sports, Science and Technology (FY 2006)



Source: MEXT White Paper (FY2006)

2. Educational institutions

Japan's educational institutions get the majority of their revenue from tuition, which makes it difficult for them to reduce tuition or provide more scholarships (Figure 4). Private universities without income from an affiliated medical center are especially dependent on tuition for their revenue. This is a major difference with US educational institutions, which obtain the overwhelming majority of their revenue from sources other than tuition, such as from investments and contributions. They use these non-tuition sources of revenue to provide more generous scholarships, which is helpful in attracting the best students. Although Japan's financial institutions have also begun taking steps to stabilize their financial base, this will take time, and in the meantime it will likely remain difficult to refrain from raising tuition.

Figure 4: Japan-US comparison of private university revenue breakdown

		Japan (FY2005)		US (FY2004)	
		Entire organization	Excluding affiliated hospitals	Entire organization	Excluding affiliated hospitals
	Total revenue	¥2.3716trillion	¥1.7749trillion	$134.2billion	$134.2billion
Students→	<Breakdown>				
	Tuition and Enrollment fees, etc.	51.5%	68.8%	28.7%	29.5%
	Fees	2.6%	3.5%		
Administration→	Subsidies	10.0%	12.6%	15.2%	14.6%
University→	Endowments	4.8%	6.2%	11.8%	11.6%
	Income from invested assets	2.1%	2.6%	23.0%	24.0%
	Business revenue	26.5%	2.3%	17.4%	16.8%
	Profit on asset sales	0.9%	1.2%	4.2%	3.7%
	Miscellaneous income	2.3%	2.8%		

Note: Based on organization-wide numbers for organizations affiliated with the Japan Association of Private Colleges and Universities. Of the 111 affiliated organizations, 15 have medical and/or dental schools; revenue from medical centers is included in business revenue.

Source: Nomura Institute of Capital Markets Research, based on materials from the Japan Association of Private Colleges and Universities and the US Department of Education

IV. The future of the market for a college education

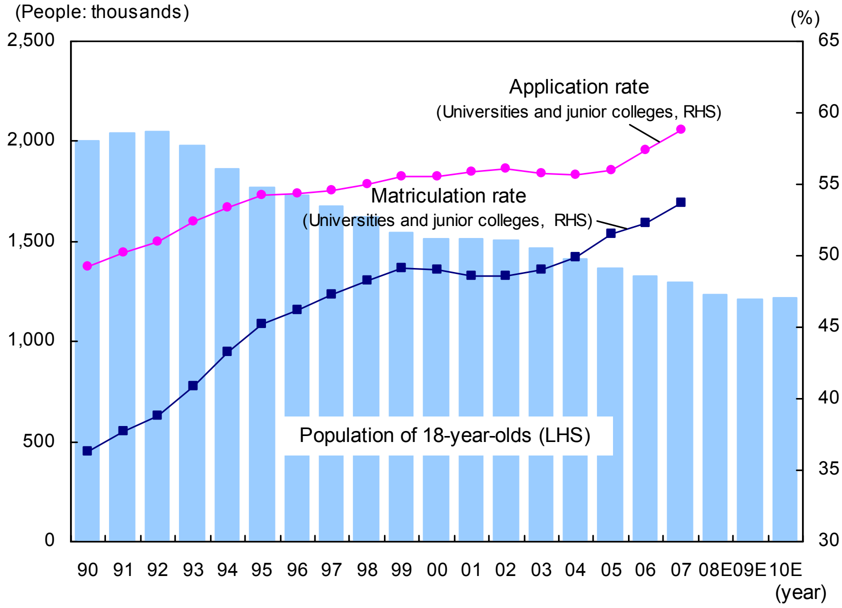
Many observers expect the market for a college education to shrink in step with declines in the population of 18-year-olds. It is necessary to think of market size in terms of both matriculation rates and the size of the potential student population. In light of the still large gap in lifetime wages between a university graduate and a high school graduate, we think there is strong potential demand for education in the household sector. Because of this, both the college application rate and the overall matriculation rate have continued to climb (Figure 5). There is also a growing number of adults who put their careers on hold and go back to school. Particularly at the graduate level, both the number and proportion of entering students who are adults continues to increase [2](Figure 6). This could be attributed in part to the increase in the number of graduate school openings resulting from universities pursuing policies that place a greater emphasis on graduate studies.

Although the US experienced a 12% decline in the population of 18-year-olds from 1980 to 1990, the number of university students continued to grow, thanks to a

2 According to the Ministry of Education, Culture, Sports, Science and Technology (MEXT), there is no published data on the share of adult students at the departmental level.

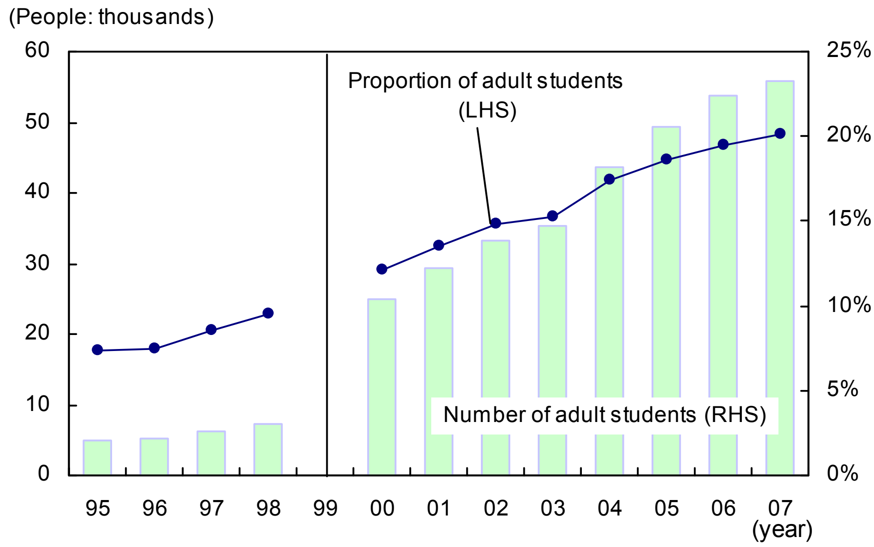
growing number and proportion of older adult students attracted by changes to the curriculum (Figure 7). Depending on reforms at the schools themselves, the market for a college education in Japan may not necessarily correlate directly with the population of 18-year-olds.

Figure 5: Population of 18-year-olds versus matriculation and application rates for higher education



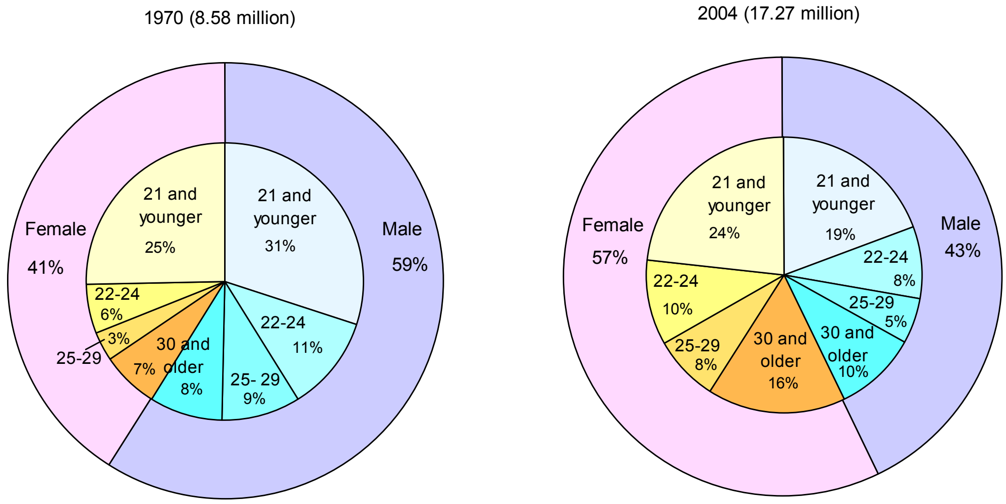
Note: Application rate is the percentage of high school graduates that submitted an application for university or junior college in said year.
Source: MEXT, Basic Survey on Schools (confirmed figures for FY2007)

Figure 6: Growing number of adult students



Note: Figures are for graduate school. Because figures based on the same standards are unavailable for 1999 and before, we use the number of adult students at schools that had special selective exams for adults.
Source: Nomura Institute of Capital Markets Research, based on MEXT data.

Figure 7: Composition of degree - granting institutions students in the US has changed



Source: Nomura Institute of Capital Markets Research, based on US Department of Education data.

V. Student loans provide an opportunity to gain new customers for financial institutions

1. Current status and problems of student loans in Japan

This increased of households to finance education costs, as well as growth in the demand for a college education from adults, suggests that it may be worthwhile for financial institutions that currently focus on the consumer finance sector to rethink their attitude toward student loans.

Most student loans in Japan today are loans taken out by parents for their child's (the student's) benefit, rather than loans taken out by the students themselves. Many of the loans specify that the borrower must be a guardian with a child who is entering or already enrolled in school, and must show a stable uninterrupted income and certain number of years with the same employer. Some of the loans offer a lower interest rate if the home is provided as collateral. The loan amount is normally capped at the estimated total of the enrollment fee and first year's tuition, with a maximum payback period of 10 years.

Consequently, children considering matriculation without help from their parents, as well as prospective adult students, find it difficult to take out student loans in their name, and often have to rely on regular consumer loans. In light of how the funds will be used and the investment value of education, however, it seems likely that individuals who borrow to fund education have the potential to become more valuable future customers than individuals who borrow for general purposes. This is particularly true for adult students, who in most cases are going back to school in order to advance their career, and thus have high expected incomes and can be expected to responsibly pay back their debt. It is difficult not to see the pursuit of such future valuable customers ahead of time as an effective way to expand the customer base.

2. Student loans in the US good for business

In the US, meanwhile, the recipient of a student loan is the child (student) rather than the parent. The market for student loans in the US has grown by a factor of 10 over the past decade [3](Figure 8). One reason for this growth is probably the sharp increase in financing needs caused by skyrocketing tuition. In addition, financial institutions in the US look at student loans as an opportunity to attract potential customers with whom they can build lifetime relationships, and are therefore aggressively seeking to expand those loans.

The financial institution making the loan determines the loan amount and loan conditions based on information on the student's income[4] and assets, the income and assets of the guarantor (usually the parents) if there is one, as well as credit scores and their own criteria, which can include debt-to-income (DTI) and bankruptcy history. Some financial institutions provide loans at more favorable terms to students who are pursuing specialized fields with the potential for high future incomes, such as law or medicine. There are also financial institutions that provide loans at more favorable terms to students at highly ranked universities or to students attending universities with which that financial institution has an alliance.

Once the loan decision is made, the financial institution discloses the name of the borrower and pays the funds directly to the student's educational institution. These procedures make it possible for the financial institution to ensure that the loaned funds are used for education purposes.

Figure 9 shows a comparison of loan terms at the primary financial institutions that handle student loans and general consumer loans in the US. Despite the fact that the loan is to the child rather than the parent, the interest rate on student loans is set lower than on general loans, and the default rate is also lower[5].

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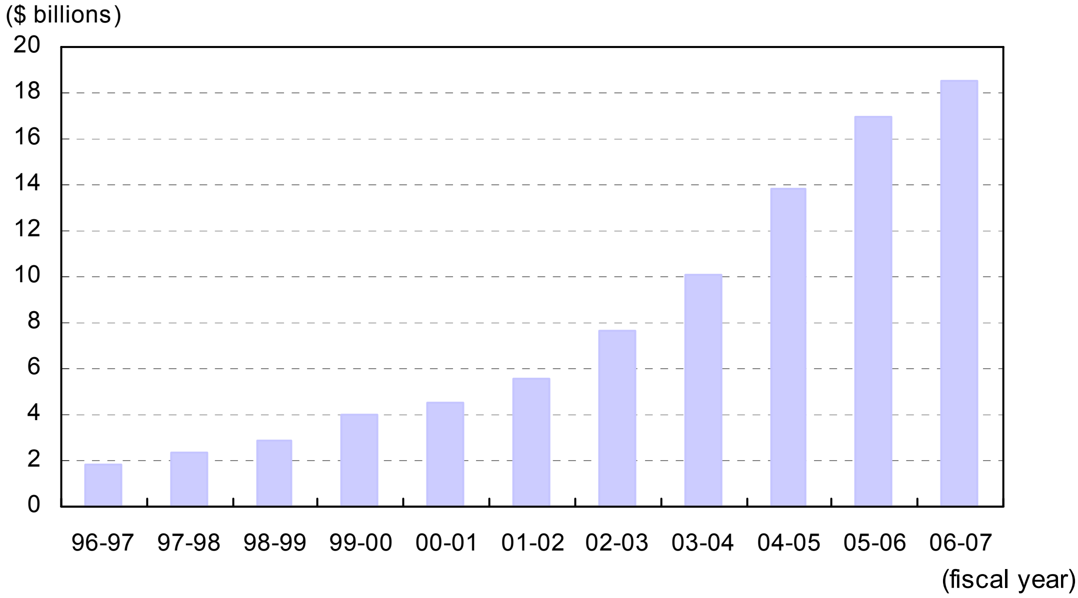
3 For more on academic scholarship programs and private-sector student loans in the US, see Sachiko Miyamoto, *Kyouikuhi o dare ga dou futan suru no ka?* (Who pays for the cost of education?), *Capital Market Quarterly*, Winter 2007 issue (in Japanese).

4 Because this covers students after their high school graduation, in many cases there is no revenue.

5 The Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 may be having an impact on the latter.

Figure 8: Size of the private-sector student loan market in the US



Source: The College Board

Figure 9: Comparison of loan interest rates and default rates at US financial institutions

[Loan interest rates] (year)

Type loan	Company	2001	2002	2003	2004	2005	2006
Student loan	Sallie Mae	6.8%	4.9%	4.3%	4.6%	6.3%	8.1%
General consumer loan	Bank of America	11.3%	11.3%	10.2%	10.7%	11.6%	13.5%

[Default rates] (year)

Type loan	Company	2001	2002	2003	2004	2005	2006
Student loan	Sallie Mae	1.3%	2.2%	1.9%	1.9%	1.9%	1.6%
General consumer loan	AMEX	5.6%	6.0%	5.2%	4.3%	4.1%	2.9%
	Bank of America	4.0%	5.3%	5.4%	5.3%	6.8%	3.9%

Note: 1. Sallie Mae's default rate is for private-sector loans.
2. Although Bank of America also offers student loans, they are not included in the above figures for general consumer loans.

Source: Nomura Institute of Capital Markets Research, based on each company's annual report

VI. A need for tax-advantaged education savings plans

1. The need for assistance with the formation of human capital

The government probably needs to consider offering tax incentives to make education savings plans more attractive to households. The biggest challenge in Japan, where the population has already begun declining, is to enhance human capital. Within the current environment, however, the burden on households that are passionate about education is substantial, while there are limits on the assets that can be invested. Amid rising concern among child-rearing generations over their ability to fund pensions and health care for their senior years, there could be an increase in the number of households that abandon the idea of bearing the costs of educating their children. If that happens, the overwhelmingly large proportion of education costs borne by Japan's households, as noted in the introduction, will probably make it that much more difficult to enhance human capital for the country overall.

Although college tuition in the US is said to be the highest in the world, the US has also recently seen widespread adoption of tax-advantaged 529 education savings plans. Because these plans are relevant to Japan's situation, we introduce them in the next section.

2. What is a 529 plan?

1) Overview

529 plans, which are established by state governments and educational institutions, offer tax benefits on funds set aside to cover college costs, based on Section 529 of the Internal Revenue Code. Normally, the parent or grandparent is the plan participant, the child or grandchild is named the beneficiary, and funds are saved to cover the cost of a college education; there are no restrictions on either the income or age of the plan participant.

There are two basic types of 529 plans, prepaid and savings, and all 50 states and the District of Columbia have at least one of these two types of plans available. When 529 plans were first introduced, the prepaid plans were most common, but now 529 savings plans dominate the market, accounting for 85% of all 529 plan assets.

The prepaid plans are based on a contribution from the plan participant of an amount equal to the current cost of tuition at the chosen university. Even if there is a subsequent increase in tuition, there is a guarantee that no more tuition payments will be required when the future beneficiary matriculates, and if the beneficiary winds up attending a different university, the value of the plan is transferable.

Under the savings plans, which are aimed at saving funds to cover future college costs, the plan participant contributes funds into an account with a designated beneficiary, and those funds are invested. Plan participants choose from a menu of investment vehicles offered by the financial institution. The beneficiary receives the funds that have built up in the account upon matriculation.

2) Tax benefits

529 plans offer tax benefits. Although the amount of contribution cannot be deducted from taxable federal income, it may be deductible from taxable state income, depending on the state. The returns on the invested funds are tax-free, both at the federal and state level. Qualified withdrawals are not subject to federal income taxes, and in many states not subject to state income taxes.

If the funds are withdrawn for an unqualified purpose, the investment returns are subject to federal and state income tax as well as a 10% penalty.

There are also tax benefits in regards to gift and inheritance taxes. The maximum annual exclusion from the gift tax is $12,000 ($24,000 for a married couple), but contributions to a 529 plan of up to $60,000 ($120,000 for a married couple) can be deducted in advance, the equivalent of the maximum gift tax deduction over a 5-year period. For inheritance tax purposes, contributions to 529 plans are deemed already transferred, and thus excluded from the deceased's taxable estate.

3) Reasons for plans' popularity in the US

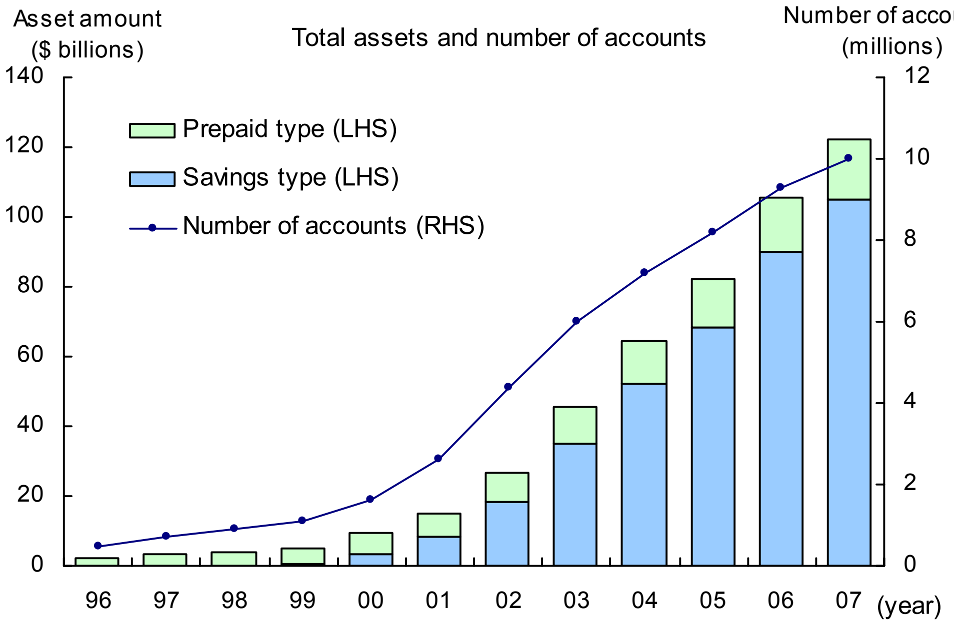
These 529 plans are becoming increasingly popular in the US. Assets held in 529 plans totaled $122 billion, and the average amount of assets in each account $12,257, as of June 2007, representing continued growth in both cases (Figure 10).

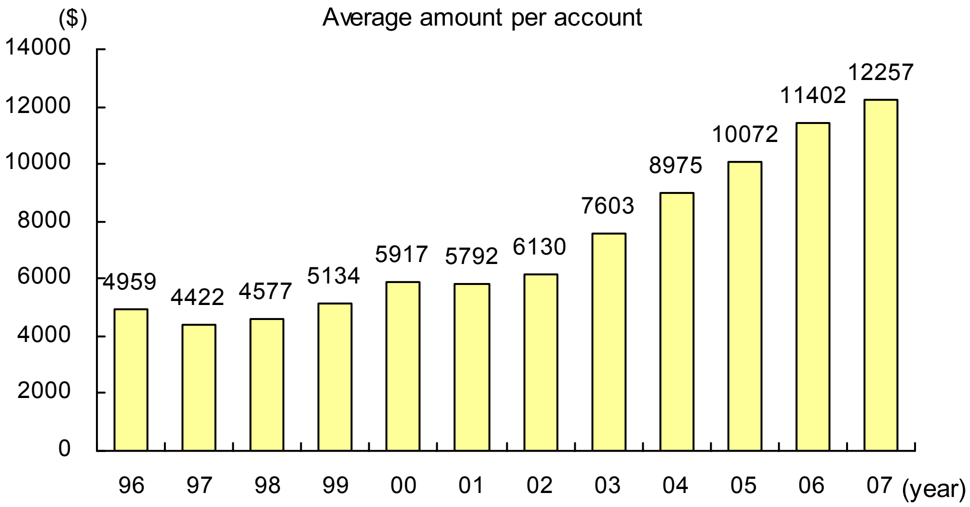
The tax benefits associated with 529 plans are attractive not only for people in their child-rearing years, but also for seniors thinking about asset transfers to the next generation. In addition, because there are no restrictions on the age or income of plan participants, the wealthy are also able to benefit. This makes 529 plans a valuable tool for financial institutions to broaden their customer base.

There were also legislative changes in the US that encouraged wider use of the plans. The Pension Protection Act of 2006 provides a permanent federal income tax exemption on withdrawals for qualified uses[6], which also means that investment returns are permanently exempt from federal income tax. The treatment of 529 plan assets changed in July 2007, and they are now considered the assets of plan participants. Consequently, those plan assets no longer pose a disadvantage to students undergoing means tests for student subsidies from the federal government. As a result of these changes, financial advisers in the US now consider 529 plans the best way to save money for funding a college education[7].

6 Until then, the Federal tax breaks were set to expire in 2010.
7 "529 Accounts go to the head of the class," *U.S. News & World Report*, 10 September 2006

Figure 10: 529 plan assets





Notes: 2007 figures as of end-June 2007. Other years are as of end-December.
Source: Nomura Institute of Capital Markets Research, based on data from the College Savings Plans Network and the National Association of State Treasurers

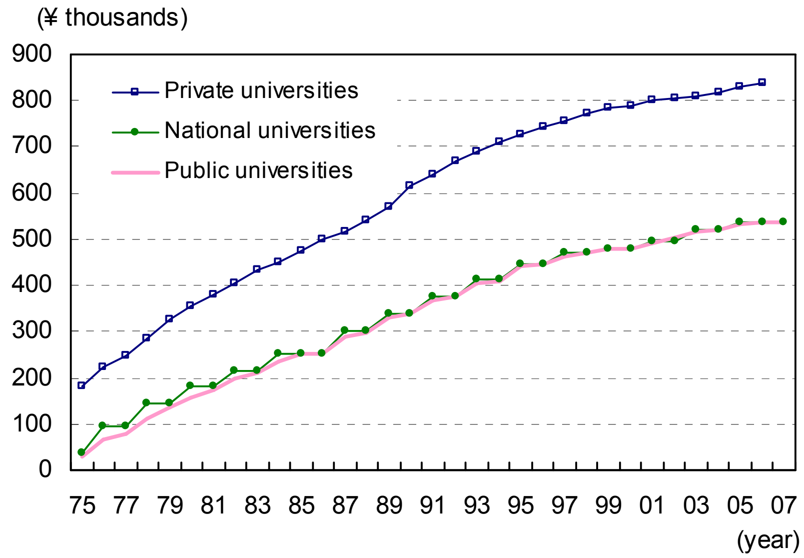
3. Anticipating the introduction of a similar plan in Japan

Although 529 plans are actually established by state governments, they came about as a result of the financial hardships of entering college resulting from the rapid escalation in college tuition over the past 20 years. Data on college tuition costs in Japan show a consistent increase, even during the period of deflation[8] (Figure 11).In a comparison of the costs of attending university in Japan and the US after converting all figures to yen, although the cost of attending a private university is lower in Japan than in the US, the cost of the first year of a public university in Japan exceeds that in the US (Figure 12). Furthermore, because scholarship programs are offered by the

[8] Nevertheless, the average enrollment fee for private universities has been lowered since 2000.

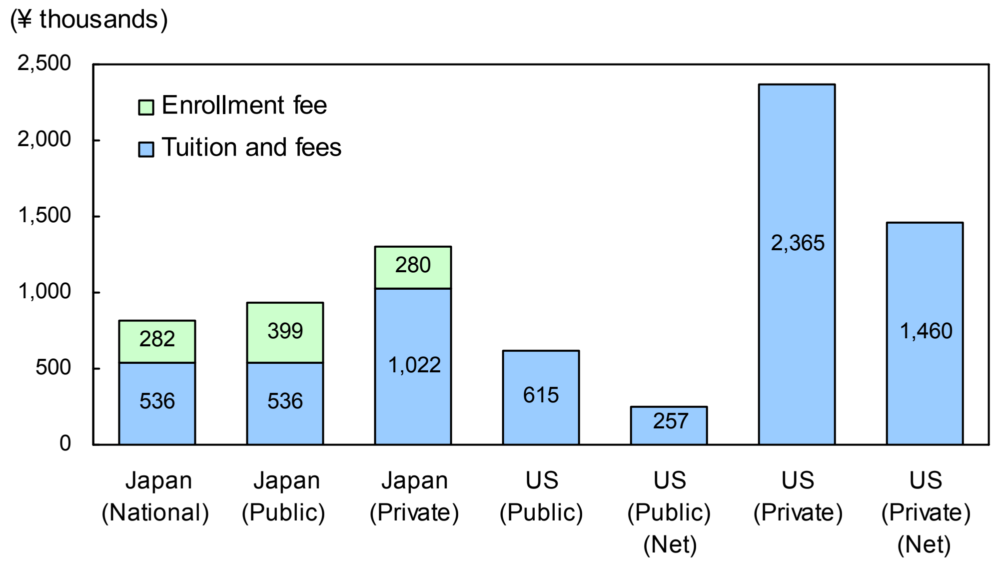
educational institutions as well as by the government in the US, the amount of tuition actually paid by students is usually about 40-60% lower than the nominal tuition fee. In Japan, however, scholarship programs like those in the US are unavailable, and thus when stated in terms of the tuition actually paid by students, the Japan-US difference is shrinking in the case of private universities, and students actually pay considerably more in Japan than in the US at public universities.

Figure 11: College tuition in Japan



Source: Nomura Institute of Capital Markets Research, based on MEXT materials

Figure 12: Japan-US comparison of college tuition for first-year students



Notes: 1. Figures for Japan are based on 2007 data for national and public universities, and on 2006 data for private universities. For the US, figures for tuition and fees in 2006-7 converted at the rate of ¥106=USD1
All figures are for four-year colleges.
2. Tuition and fees for private universities include facilities expenses.
3. Net tuition in US is the average amount actually paid by students after deducting scholarship funds.

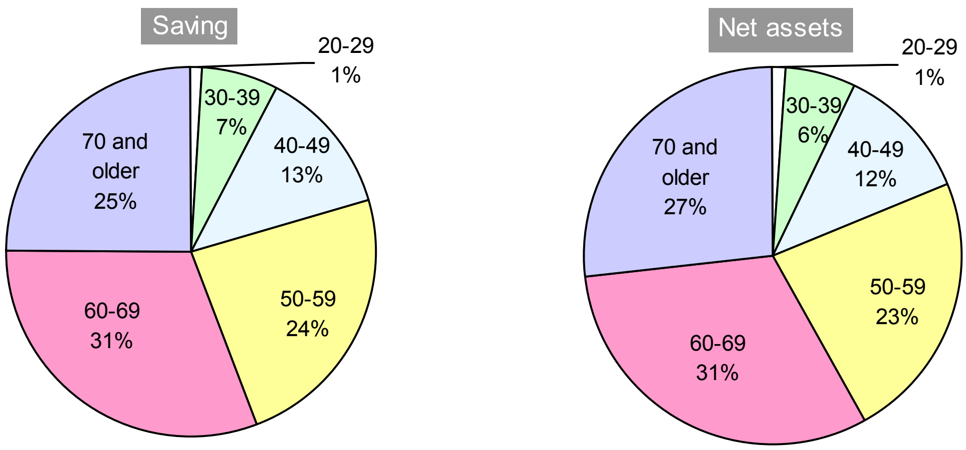
Source: Nomura Institute of Capital Markets Research, based on MEXT materials

We suspect that introducing a tax-advantaged education savings plan, along the lines of a 529 plan, in Japan would have even broader benefits than in the US, in light of Japan's higher savings rate. Considering the costs to the government, it would also probably be fairly easy to implement, compared with running an enhanced public scholarship program.

When actually implemented, we think it would be appropriate to exempt the income and investment returns on plan assets from national taxes, in view of the objective of enhancing human capital. In the future, however, it is conceivable that local governments will also look at implementing their own versions of the plan, from the perspective of differentiating their region to make it more attractive.

We also think it necessary to consider breaks from gift and inheritance taxes, when such transfers are used to fund education. Currently, education expenses paid for legal dependents are exempt from gift taxes, but assistance given to adults or to grandchildren above ¥1.1 million can be subject to gift taxes[9]. Bequests are subject to inheritance tax even if the inheritee uses the funds for education. Nevertheless, the current distribution of household assets in Japan shows that persons aged 60 and over own approximately 60% of all household assets (Figure 13). Providing exemptions from gift and inheritance taxes may also promote the intergenerational transfer of Japan's household assets for the purpose of forming human capital in succeeding generations.

Figure 13: Distribution of household assets by generation



Notes: 1. Figures based on 2004 data. Covers total households/all households.
2. Net assets is savings minus debt plus real assets.

Source: Nomura Institute of Capital Markets Research, based on Ministry of Internal Affairs and Communications data

9 According to the Tokyo office of the National Tax Agency, assistance given to a grandchild is subject to tax, in principal, although consideration is given for special circumstances, such as the parents being unemployed.

VII. Conclusion

Although education costs in Japan are high relative to other industrial countries, Japanese households' have only limited means for securing student loans or setting aside savings for education. Ensuring access to education funding, and keeping financial constraints from becoming a barrier to education, is an urgent issue for Japan. Amid the rising need of households for funding education as well as adults' growing demand for education, financial institutions will probably need to change the way they view student loans. We think it would be worthwhile for Japan to consider the implementation of tax-advantaged education savings plans, along the lines of the 529 plans offered in the US, as a way for the government to provide assistance in funding education. Such tax incentives would be less costly to the government than setting up scholarship programs, and would probably be even more effective in Japan than in the US, in light of Japan's higher savings rate. Households headed by a person 60 years or older own the majority of all household assets in Japan. Including exemptions from gift and inheritance taxes may also promote the intergenerational transfer of Japan's household assets for the purpose of forming human capital in succeeding generations.