

Annuities Markets: Structure, Trends and Innovations in Japan

January 30, 2009

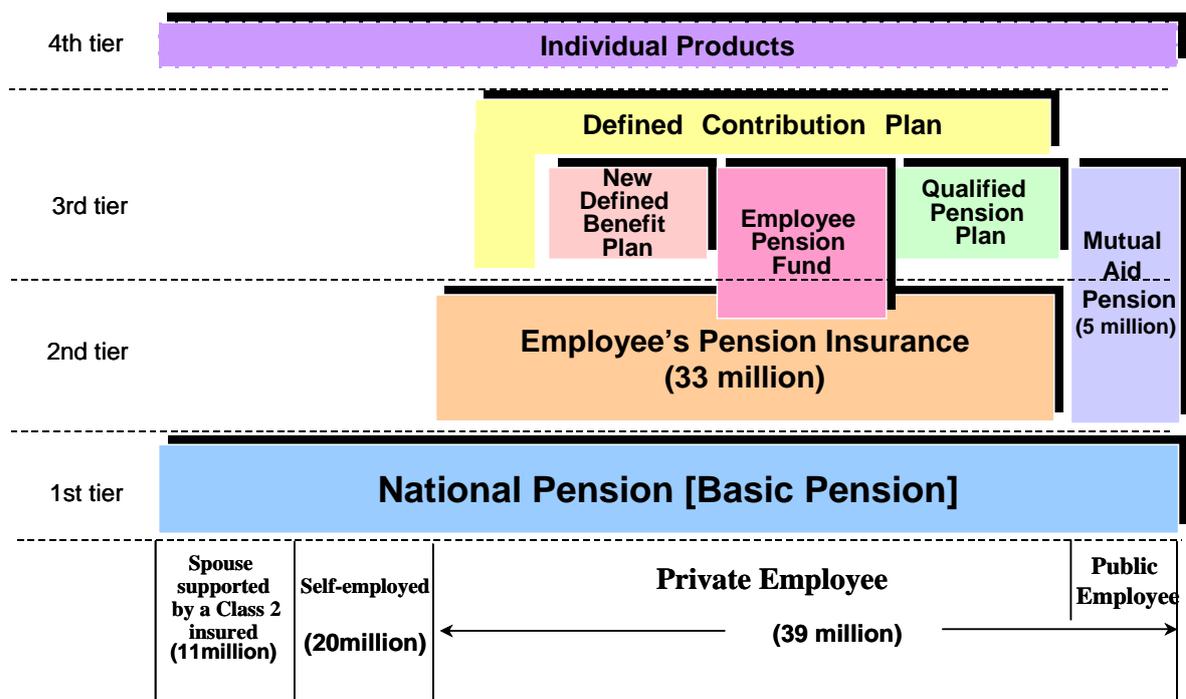
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Overview

Structure of Japanese Pension System

The current Japanese retirement system consists of the four-tier system as is shown in Exhibit 1. The numbers in the parentheses show the approximate number of covered participants in each system. The first and the second tiers are the social security old age pension systems. The first tier, National Pension, provides flat amount of pension per participation period. The second tier, Employees' Pension Insurance, provides earnings-related pension. The third tier is employer-sponsored private retirement system, and the fourth tier is individual products. The focus of this paper is on the third and fourth tiers of Japanese pension system.

(Exhibit 1) Japanese Pension System

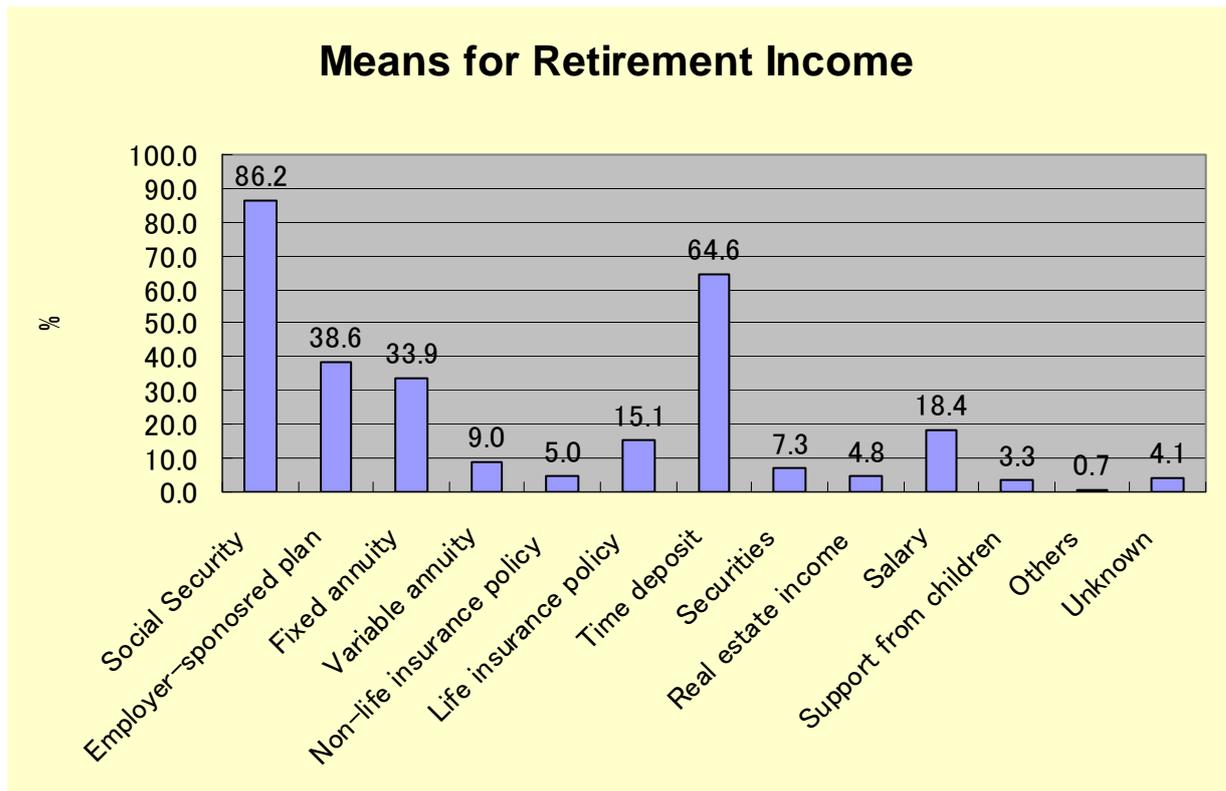


Retirement Income Resources for Japanese

Although there are four tiers in the Japanese pension system, the importance of each system as retirement income varies significantly. The Japanese Institute for Life Insurance conducted a survey asking which system or what kind of financial vehicles

Japanese consider as the main resources for retirement incomes. The result is shown in Exhibit 2. The number of samples is 4059, and the figures in the exhibit show the percentage of people answered “yes” to each item.

(Exhibit 2) Means for Retirement Income



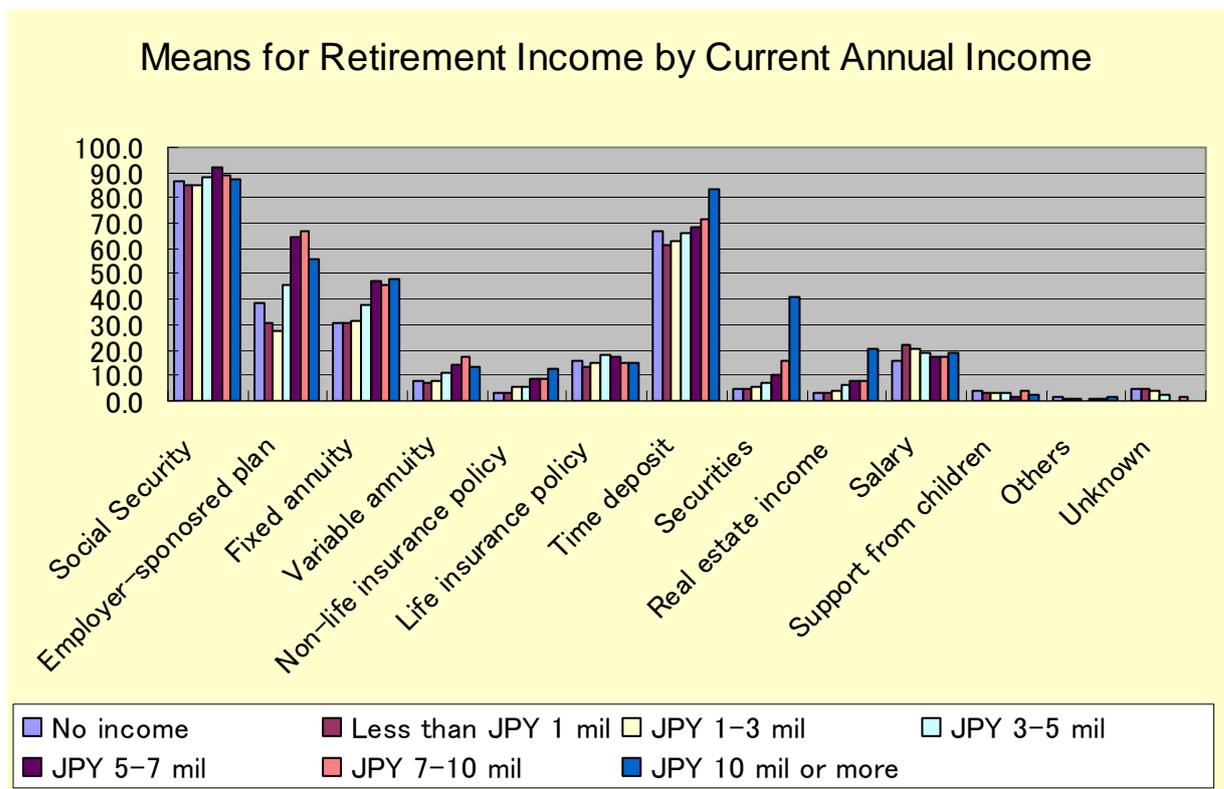
(Data source: The Japanese Institute for Life Insurance)

86.2% of people surveyed chose the social security old age pension system as their retirement income resource. The majority of Japanese people depend on the social security system. Time deposit or bank deposit was ranked second with 64.6% of people surveyed answering “yes” to this item. Employer-sponsored retirement benefit plan and fixed annuity were selected by 38.6% and 33.9% of people surveyed, respectively. Some 18.4% of people continue to work to support their life. Traditional family support (support from children) was very small today with only 3.3% of people surveyed choosing this item. Very few people depend on securities (7.3%) and real estate income (4.8%).

Exhibit 3 is the same but detailed analysis by annual income of people surveyed. It is observed that dependency on financial products such as annuities, time deposit, and

securities increases as annual income increases while dependency on social security system remain the same across all income levels. Dependency on employer-sponsored retirement benefit plans also increases as annual income increases. This is because those who work for larger companies, earning relatively higher salaries, tend to be covered with employer-sponsored retirement benefit plans while those who work for smaller companies, earning relatively lower salaries, tend to be not covered with such plans.

(Exhibit 3) Means for Retirement Income by Current Annual Income



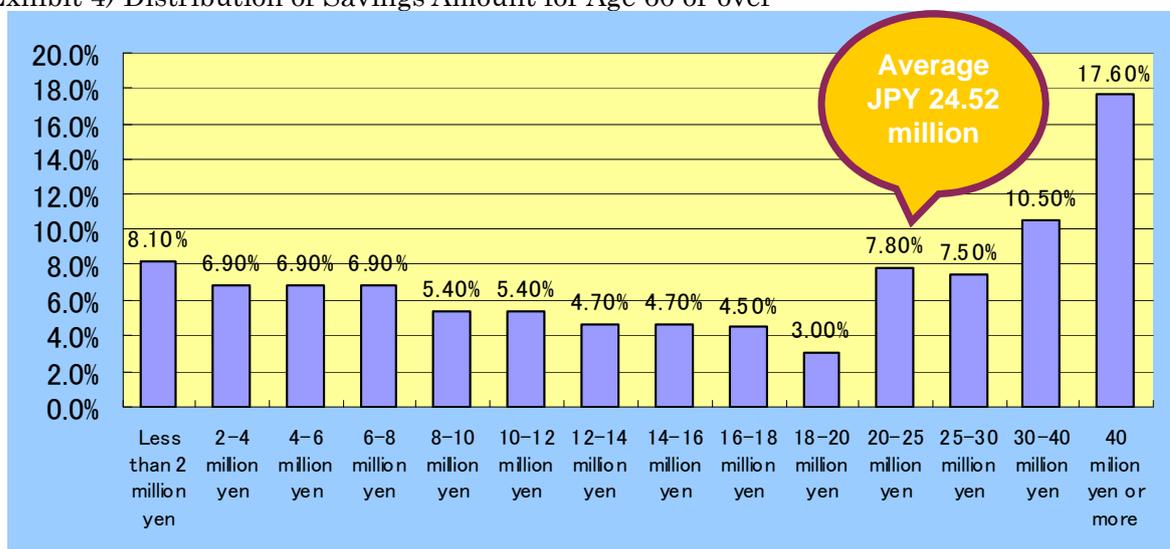
(Data source: The Japanese Institute for Life Insurance)

Among the above data, it is especially conspicuous that Japanese dependency on bank deposits is very high. Statistics provided by the Ministry of Internal Affairs and Communications of Japan in 2007 proves that Japanese people who are age 60 or older have a large amount of personal savings. X-axis of Exhibit 4 is an amount of savings and Y-axis is distribution of each savings amount among the total population. Those who have savings of 25 million yen or more represent 35.6% (about one-third) of the total population whose age is 60 years or more. Average amount of savings for them is 24.52 million yen (US\$ 272,000 with an exchange rate of US\$1=90 yen). The same statistics provides the average savings amount held per household with two or more

persons by age group of household head. The average savings amounts are 2.5 million yen for younger than age 30, 6.5 million yen for those in their 30's, 11.0 million yen for those in their 40's, and 15.6 million yen for those in their 50's, respectively. The figure jumps to 24.7 million yen for those in their 60'. The figure remains almost the same for those in their 70's with 24.3 million yen.

Another statistics provided by the Central Council of Financial Services Information says that almost 60% of savings of Japanese people in their 60's and 70's is bank deposit. These statistics confirm that Japanese people heavily depends not only on the social security old age pension system, but also on personal savings, especially bank deposits.

(Exhibit 4) Distribution of Savings Amount for Age 60 or over



(Data source: The Ministry of Internal Affairs and Communications of Japan)

Heavy dependency on bank deposits, as we have observed, hinders the growth of annuity markets in Japan. We will look into this more in details in the following sections.

Tier 3: Employer-sponsored Retirement Plans

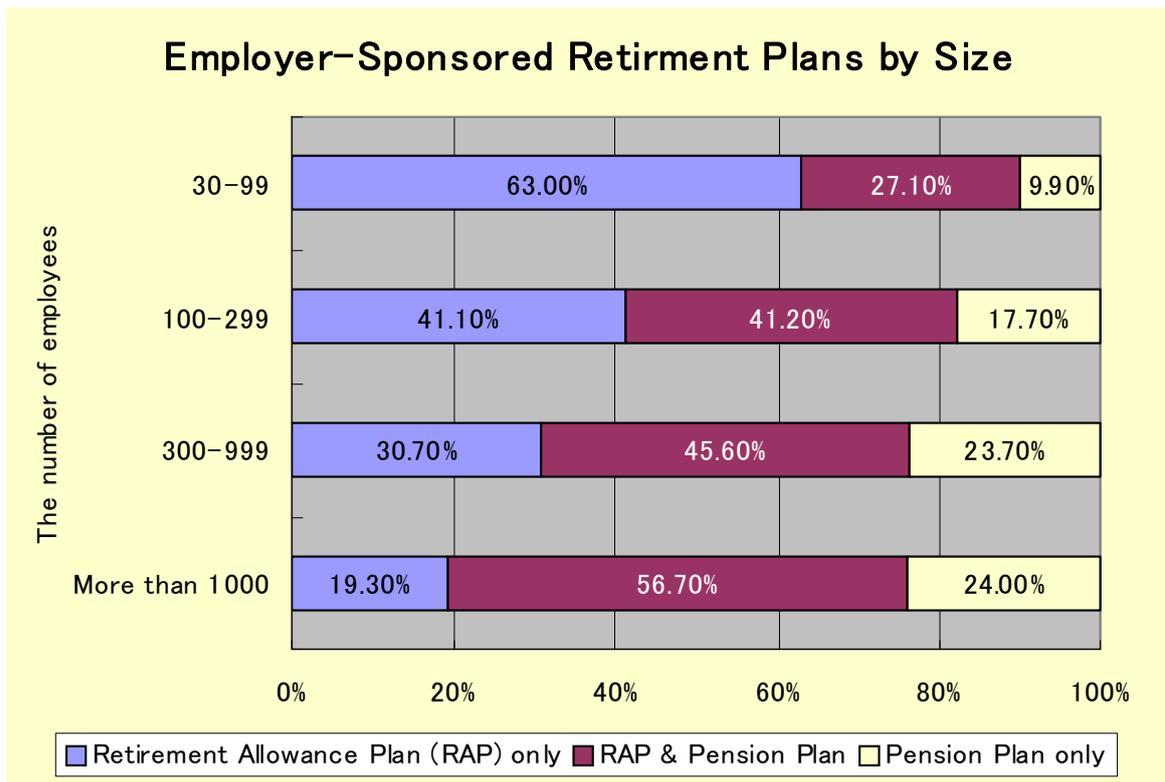
Overview

This section examines employer-sponsored retirement benefit plans and their status of annuitization in Japan. Employer-sponsored retirement benefit plans are provided to employees by their employers at their discretion in Japan. Some employers provide

their employees with lump sum severance payment plans which pay lump sum benefits only. Others provide their employees with funded pension plans which pay lump sum and/or annuities. There are employers who provide their employees with both lump sum severance payment plans and pension plans.

The ratio of employers that provide pension plans increases as the size of employers becomes larger as Exhibit 5 from the Ministry of Health, Labour, and Welfare in Japan illustrates. Note that a lump sum severance pay plan is often referred to as “Retirement Allowance Plan (RAP)”. Approximately 80% of large companies with more than 1000 employees provide their employees with pension plans while approximately 37% of smaller companies with less than 100 employees offer pension plans to their employees.

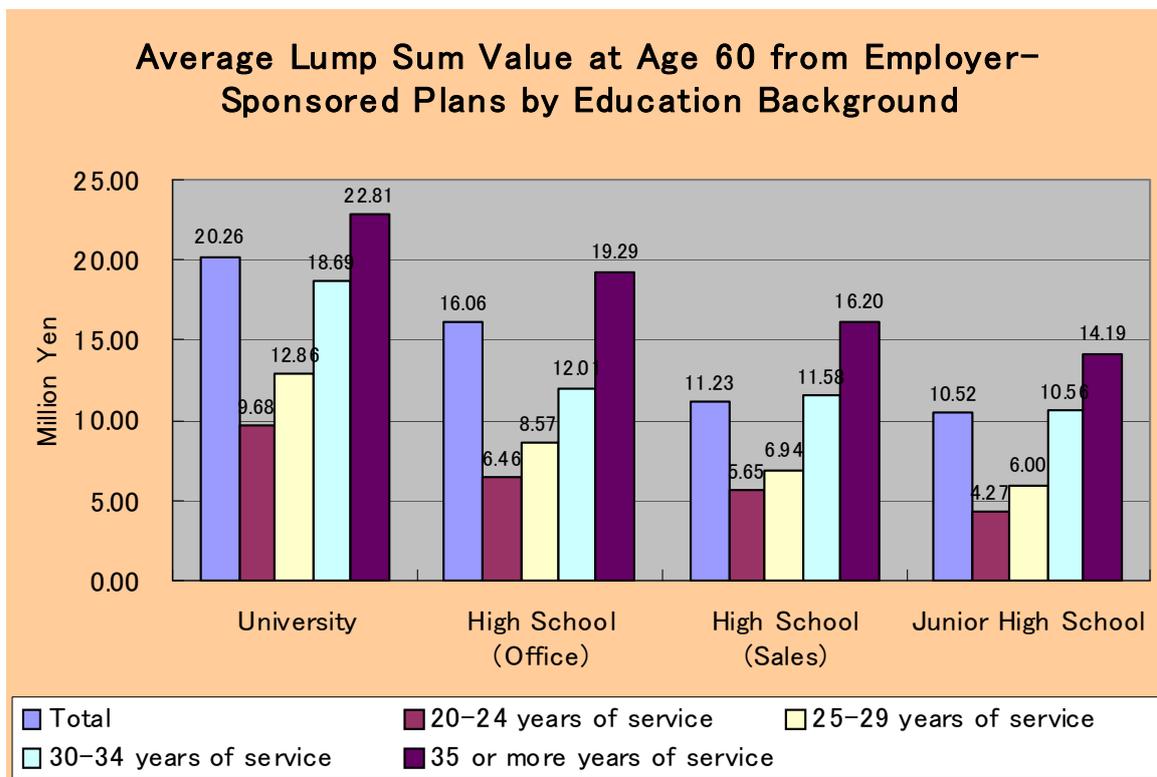
(Exhibit 5) Lump Sum Plan vs. Pension Plan



(Data source: the Ministry of Health, Labor, and Welfare in Japan)

Exhibit 6 (Data source: the Ministry of Health, Labor, and Welfare in Japan) should give readers a sense for amounts of lump sum payments by years of service and educational background. For example, university graduates who have worked for the same company are expected to receive 22.81 million yen (approximately US\$ 253,000).

(Exhibit 6) Average Lump Sum Value at Age 60 from Employer-sponsored Plans



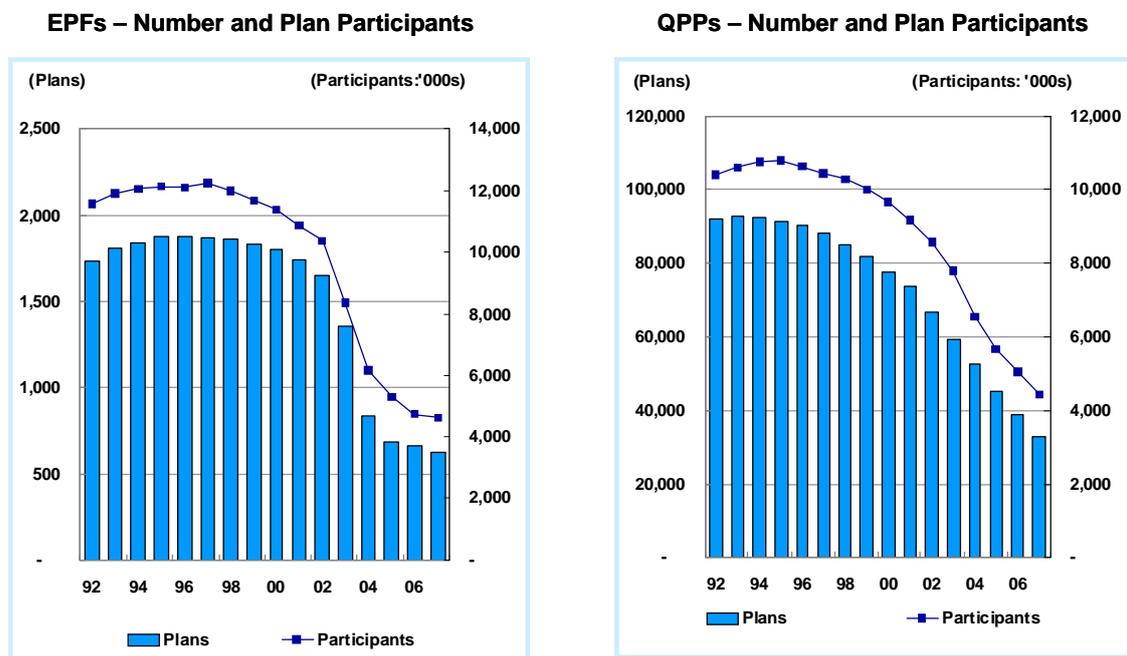
Historically, Japanese companies have paid lump-sum retirement benefits when employees leave companies. This lump-sum retirement plans are book-reserved system. When two kinds of Defined Benefit (DB) plans, Qualified Pension Plan (QPP) and Employee Pension Fund (EPF) were introduced during the mid 1960's in Japan, many companies transferred all or part of the lump-sum retirement benefits into DB plans to take advantage of the tax benefits as well as to smooth out cash flows. In October 2001, Defined Contribution (DC) Plan was introduced in Japan. Soon after that, another kind of DB plan, called New Defined Benefit Corporate Pension Plan (New DB), was introduced in April 2002. They are different in terms of applicable laws, regulatory body, plan management rules, taxation, and so on.

EPFs have a contracted-out portion of the social security old age pension system, but as the New Defined Benefit Corporate Pension Plan Act in 2002 (New DB Act) permitted EPFs to return the contracted-out portion to the government, many EPF sponsors have done so. As a result, about two-thirds of ex-EPFs have been now replaced by New DBs. QPPs have been popular among small-to-medium Japanese companies. However, as there are no mandatory funding tests and no regulations for vested rights, many QPP sponsors reduced or terminated QPP benefits when they were hit by fierce negative investment environments in late 1990's. The government has decided to abolish QPPs

and the New DB Act stipulates that all QPPs must be terminated and replaced by other types of pension plans by March 2012.

As a result of them, two traditional pension plans, EPFs and QPPs are declining in terms of the number of plans as well as the number of participants. Instead, two new types of pension plans, New DB plans and DC plans are gaining popularity. Exhibit 7 and 8 show these market trends in Japan.

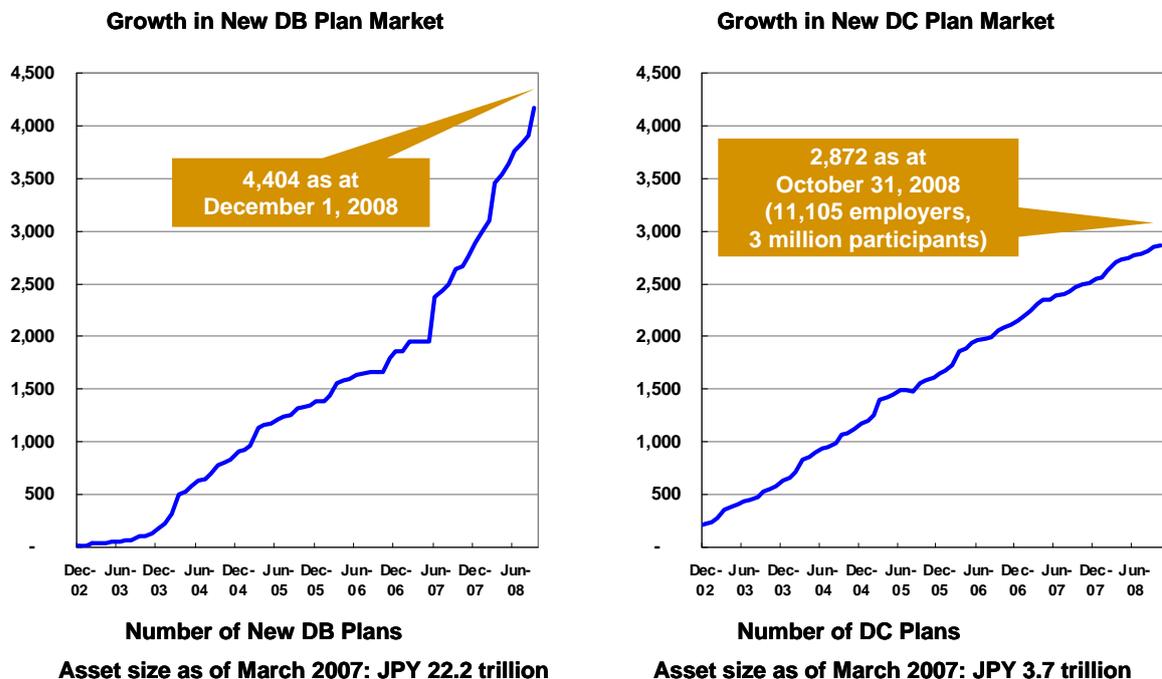
(Exhibit 7) The Decline in the Traditional Pension Plans (data source: Pension Fund Association in Japan)



Asset size as of March 2007: JPY 20.5 trillion

Asset size as of March 2007: JPY 11.7 trillion

(Exhibit 8) The Increase in the New Pension Plans (data source: the Ministry of Health, Labor, and Welfare in Japan)

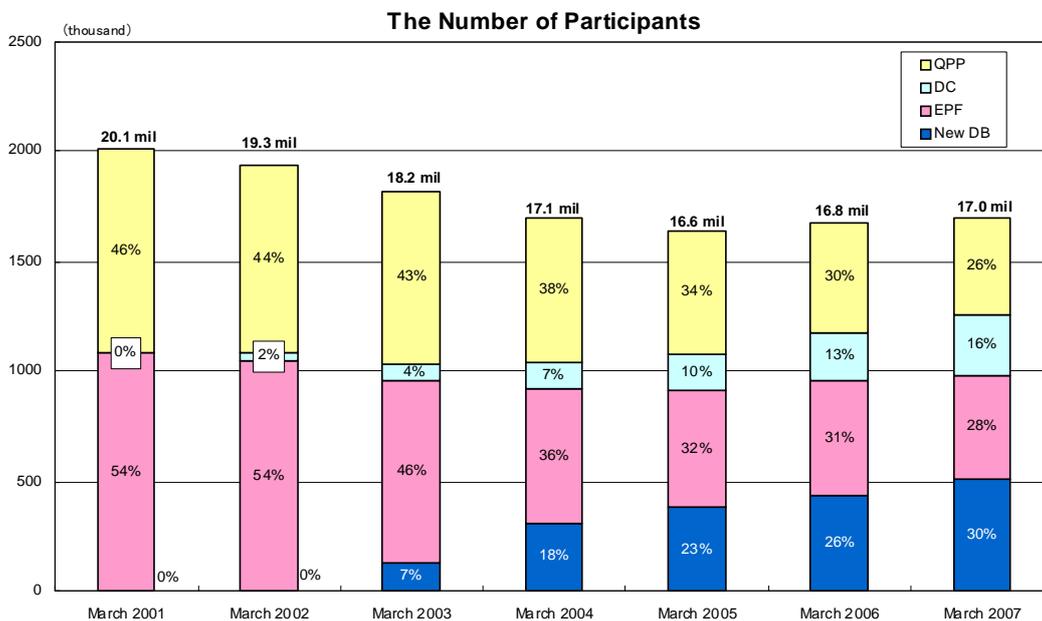


Number of New DB Plans
Asset size as of March 2007: JPY 22.2 trillion

Number of DC Plans
Asset size as of March 2007: JPY 3.7 trillion

What should be noted is that the fact that over the period of changes in the Japanese pension market, the number of participants in employer-sponsored pension plans have been decreasing as is shown in Exhibit 9. This is due to the fact that Japanese employers have shifted a budget for retirement benefit plans to current pays or reduced overall total human resource costs by shutting down retirement benefit plans during the period of adverse economic conditions in the past several years.

(Exhibit 9) The number of Participants in Employer-sponsored Pension Plans (data source: the Ministry of Health, Labor, and Welfare in Japan)



Regulations for Forms of Benefit Payments in Pension Plans

Each pension plan in Japan is subject to a different regulation, and rules for forms of benefit payments differ among pension plans.

■ Qualified Pension Plans (QPPs)

There are no specific regulations on forms of benefit payments under QPPs. Commonly-found eligibility is one to three years of service for lump sum payments and 15 to 20 years of service (and attainment of age 50, 55, or 60) for annuity payments. 10-year certain annuities are often provided in QPPs. Life annuities are not required by regulations, and are actually very rare. Participants who are eligible for annuity payments can choose a lump sum instead of annuities.

■ Employee Pension Funds (EPFs)

EPFs are highly-regulated pension plans in terms of forms of benefit payments. Lump sum payments must be provided for those who have participated in EPFs for at least three years. Annuity payments must be provided for those who have participated in EPFs for at least 20 years, and life annuities must be included as one of the payment options. Participants who are eligible for annuity payments can choose a lump sum instead of annuities.

■ New Defined Benefit Corporate Pension Plans (New DBs)

Lump sum payments must be provided for those who have participated in New DBs for at least three years. Annuity payments must be provided for those who have participated in New DBs for at least 20 years, but life annuities need not be provided. Participants who are eligible for annuity payments can choose a lump sum instead of annuities.

■ Defined Contribution Plans (DC)

Annuities (payment period must be between five years and 20 years, or life) must be provided. Life annuities can be available for beneficiaries only when DC investment options include life insurer's guaranteed investment contracts (GICs). Lump sum payments can be provided as an option, but almost all DC plans in Japan provide a lump sum payment. Benefits can be received only after participants reach age 60 in general.

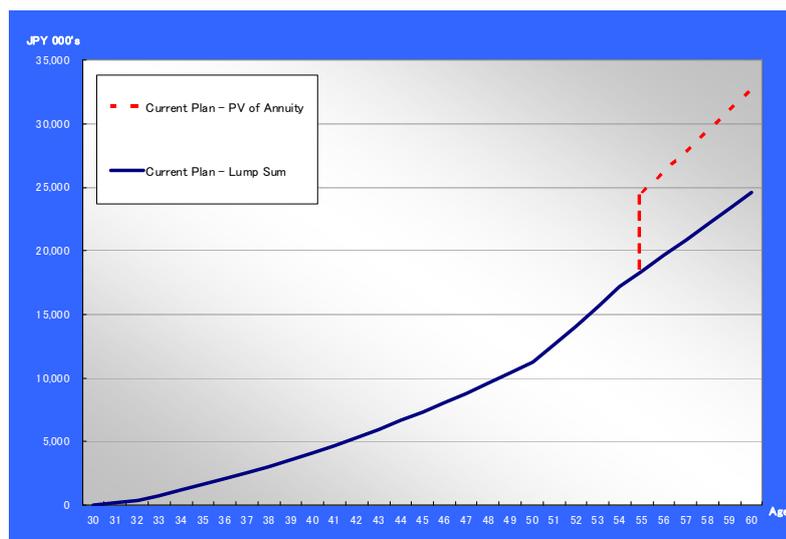
It should be noted that not all pension plan participants are eligible for annuity payments and that life annuities are not necessarily provided under Japanese corporate pension plans. As more and more EPFs have been converted to New DBs, employers have terminated life annuities and switched to certain annuities. In Japanese corporate pension plans, annuities are not indexed, and very few plans are integrated with social security old age pension system in Japan.

Annuity Enhancement

It is observed that annuities have more values than a lump sum in traditional QPPs and EPFs. A lump sum amount is first determined by benefit formulae in Japanese corporate pension plans. Then, an annuity amount is calculated by converting the lump sum amount into annuities, using an annuity conversion factor, which usually adopts 5.5% as interest rate. However, if these future streams of annuity payments

are discounted back into a present value, using the current low market interest rate such as 1.5% or 2.0%, the present value of annuities becomes much larger than the original lump sum value. This phenomenon is illustrated in Exhibit 10. The solid line represents lump sum amounts while the dotted line represents present value of annuities.

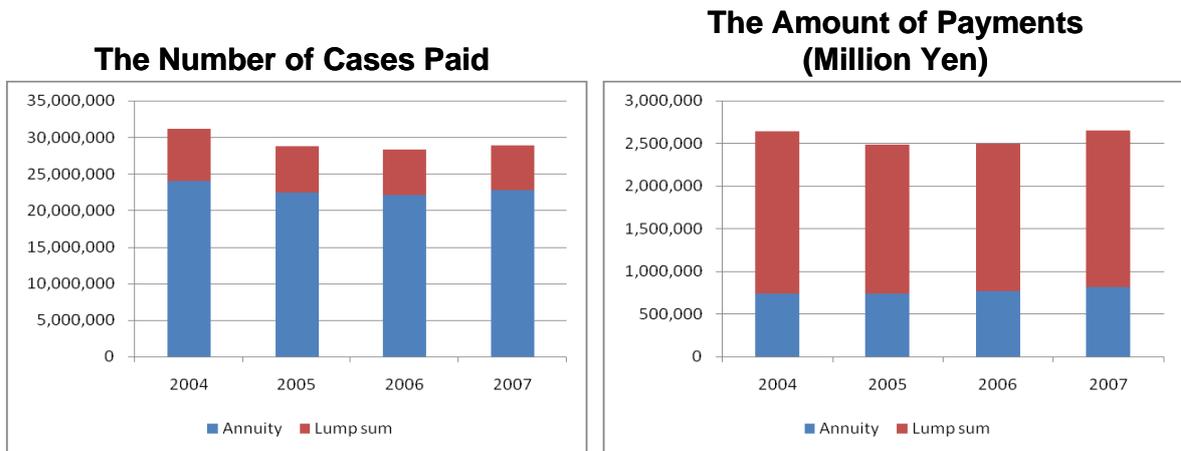
(Exhibit 10) Annuity Enhancement



Preference toward Lump Sum Payment

However, many participants choose to receive a lump sum rather than annuities in Japan. This is probably because employers intentionally do not disclose this annuity enhancement and because most employees are not aware of the fact. Exhibit 11 shows the statistics on the number and the amount of payments for lump sums and annuities, provided by the Life Insurance Association of Japan. As annuities are usually paid every three month (four times a year) or every two month (six times a year), the number of annuity payments should be larger than that of lump sum payments by nature. On the other hand, the amount of lump sums should be larger than the annual amount of annuities by nature. Having said that, it is observed that a relatively large number of people are choosing lump sum payments from employer-sponsored retirement benefit plans.

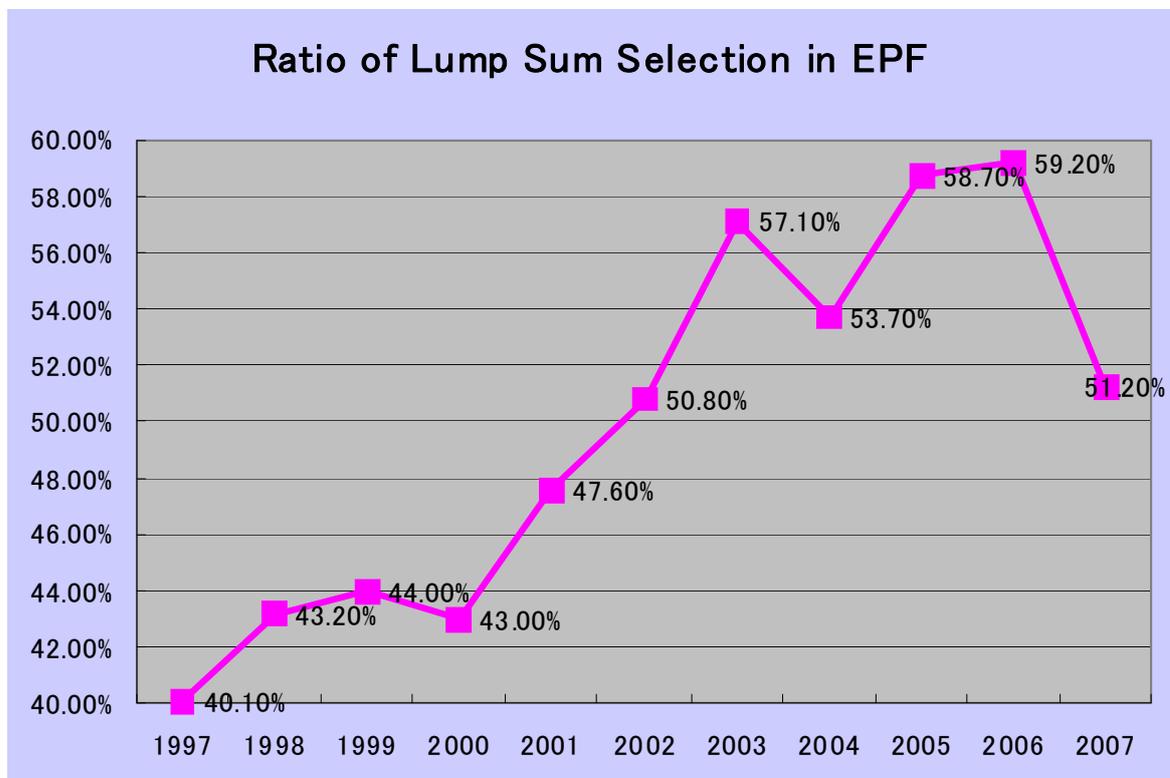
(Exhibit 11) Form of Payments in Employer-sponsored Pension Plans



(Data source: The Life Insurance Association of Japan)

Exhibit 12 shows the ratio of lump sum selection in EPFs provided by the Pension Fund Association in Japan. It was said that the ratio of lump sum selection in EPFs was smaller than that of QPPs (there is no data available for QPPs) because EPFs provide life annuities while QPPs do not. However, as Japanese economy deteriorated and as more and more participants began to doubt the sustainability of their employers and their pension plans in late 1990's and early 2000's, the ratio of lump sum selection increased rapidly. The fact that only industry-wide multi-employer EPFs remain today, which provide a small amount of additional benefits in addition to contracted-out benefits, while single-entity EPFs and group company EPFs, which used to provide larger additional benefits, have now been switched into New DBs must have contributed to this increase of lump sum selection.

(Exhibit 12) Ratio of Lump Sum Selection in EPFs (Data source: The Pension Fund Association in Japan)



Here are figures for average monthly amounts of annuity payments. As more and more larger companies have switched from EPFs to New DBs in the last seven years, an average amount for monthly annuity payments in EPFs has decreased from 51,143 yen in 2002 to 38,229 yen in 2007. New DB's average monthly annuity amount is 64,400 yen in July, 2008, which is rather close to that of EPFs in 2002. QPP's average monthly annuity amount tends to be larger than that of EPF and New DB mainly because only those who reach age 60 (or 50, 55) are eligible for annuity payments in QPPs. The average monthly annuity amount of QPPs is 98,350 yen. There are no statistics for DC plans yet.

Tax Treatment of Pension Plans

In general, Japanese tax rules for pension plans follow EET pattern; exempt when contributing, exempt when investing, and taxed when receiving benefits. However, details are different among pension plans.

■ Tax treatment of New DB Plans and QPPs

Employer contributions are a tax-deductible business expense in New DBs and in QPPs. Employer contributions are not treated as taxable income to employees. Employee contributions are subject to tax deduction, but are coordinated with the deduction for life insurance premiums (Max: ¥50,000 per annum). Plan assets are subject to an annual special corporation tax of 1.173% of plan assets (current moratorium until March 31, 2011 on this tax). Lump sum benefits are favorably taxed as retirement income with a service-related retirement income deduction, while annuity benefits are subject to an annuity deduction (same treatment as for social security benefits).

■ Tax treatment of EPFs

Employer contributions are a tax-deductible business expense in EPFs. Employer contributions are not treated as taxable income to employees. All employee contributions can be deducted from employees' taxable income. No special corporation tax applies unlike New DBs and QPPs. Lump sum benefits are favorably taxed as retirement income with a service-related retirement income deduction, while annuity benefits are subject to an annuity deduction (same treatment as for New DBs, QPPs, and social security benefits).

■ Tax treatment of DC Plans

Contributions up to the limit (46,000 yen per month per individual if no other funded

DB plans exist; 23,000 yen per month per individual if other funded DB plans exist) are a tax-deductible business expense and are not treated as taxable income to employees. (Note that no employee contributions are allowed under Corporate-type DC plans until January 2010). Investment earnings are tax-deferred to employees. Plan assets are subject to an annual special corporation tax of 1.173% of plan assets (current moratorium until March 31, 2011 on this tax). Lump sum benefits are favorably taxed as retirement income with a service-related retirement income deduction (the contribution period is considered as the service period), while annuity benefits are subject to an annuity deduction (same treatment as for QPPs, EPFs, New DBs, and social security benefits).

It is told that lump sum retirement benefits are subject to the most favorable taxation in Japan. Taxable income is calculated as (lump sum amount – service-related retirement income deduction) x 1/2, and this taxable income is separately taxed. The service-related retirement income deduction is 400,000 yen per service year for the first 20 years of service and then becomes 700,000 yen per service year beyond 20 years of service. For example, the deduction for 25 years of service is 11,500,000 yen (= 400,000 yen x 20 + 700,000 yen x 5). Current Japanese income tax rate starts with 5% (see Exhibit 13). As lump sum retirement benefits are taxed separately from other incomes, it is likely that most people are taxed at the minimum rate, if any.

(Exhibit 13) Income Tax Rate in Japan

Taxable income	Income Tax Rate
JPY 1.95 million or less	5%
JPY 1.95 million - JPY 3.3 million	10%
JPY 3.3 million – JPY 6.95 million	20%
JPY 6.95 million – JPY 9 million	23%
JPY 9 million – JPY 18 million	33%
Over JPY 18 million	40%

Annuity benefits are also subject to annuity deduction (see Exhibit 14 and 15), but are taxed aggregately with other incomes unlike a lump sum benefit.

(Exhibit 14) Annuity Deduction for those who are less than age 65

Annual annuity amount including social security old age pension	Annuity deduction
JPY 1.3 million or less	JPY 700,000
JPY 1.3 million - JPY 4.1 million	Annuity amount x 25% + JPY 375,000
JPY 4.1 million - JPY 7.7 million	Annuity amount x 15% + JPY 785,000
Over JPY 7.7 million	Annuity amount x 5% + JPY 1,555,000

(Exhibit 15) Annuity Deduction for those who are age 65 or more

Annual annuity amount including social security old age pension	Annuity deduction
JPY 3.3 million or less	JPY 1,200,000
JPY 3.3 million - JPY 4.1 million	Annuity amount x 25% + JPY 375,000
JPY 4.1 million – JPY 7.7 million	Annuity amount x 15% + JPY 785,000
Over JPY 7.7 million	Annuity amount x 5% + JPY 1,555,000

It depends on several factors whether you gain in receiving retirement benefits in the form of a lump sum or annuities. Generally speaking, total of gross payments of annuities are larger than a gross lump sum payment thanks to assumed interest rates in converting a lump sum into annuities. However, on a disposable income (take-home) basis, it is not necessarily true because income and inhabitant taxes as well as health insurance and nursing-care insurance premiums (social security premiums) are deducted from annuities on an ongoing-basis. Nikkei Newspaper on March 1, 2009 made a simulation to examine this effect using the following three scenarios;

- Scenario A: receiving retirement benefits all in the form of a lump sum (30 million yen)
- Scenario B: receiving retirement benefits half in a lump sum (15 million yen) and half in annuities (10-year certain annuity: an annual annuity amount is 1.8 million yen)
- Scenario C: receiving retirement benefits all in the form of annuities (an annual annuity amount is 3.6 million yen).

The results are summarized in Exhibit 16.

(Exhibit 16) The Difference in Disposable Incomes Among Various Forms of Benefit Payments

(Yen)	Lump sum only	Half lump sum / half annuities	Annuities only
Social security pension	2,400,000	2,400,000	2,400,000
Corporate pension	N/A	1,800,000	3,600,000
Total income (a)	2,400,000	4,200,000	6,000,000
Annuity deduction	980,000	1,415,000	1,685,000
Insurance premiums (b)	240,000	490,000	680,000
Other deductions	430,000	430,000	430,000
Taxable income	750,000	1,865,000	3,205,000
Income tax	37,500	93,250	223,000

Inhabitant tax	75,800	187,300	321,300
Total tax (c)	113,300	280,550	544,300
Disposable income (a-b-c)	2,046,700	3,429,450	4,775,700
Difference in disposable income	-	1,382,750	2,729,000
Total disposable income from corporate pension in ten years	29,064,500	28,827,500	27,290,000

(Data source: Nikkei Newspaper, March 1, 2009)

Social security old age pension benefit is assumed to be 2.4 million yen per annum across the three scenarios. Annual disposable incomes are 2,046,700 yen under Scenario A, 3,429,450 million yen under Scenario B, and 4,775,700 yen under Scenario C, respectively. The difference of 3.6 million yen in gross income between Scenario A and C is squeezed into the difference of 2,729,000 yen in disposable income.

When it comes to total disposable income from a corporate pension in ten years, 29,064,500 yen under Scenario A is the highest, and 27,290,000 yen under Scenario C is the lowest.

In calculating tax amount (both income and inhabitant taxes) under Scenario A, 20.6 million yen of service-related retirement income deduction (assuming 38 years of service: 20 years x 0.4 million yen per year + 18 years x 0.7 million yen per year = 20.6 million yen of retirement income deduction) produces 4.7 million yen of taxable income ((30 million yen – 20.6 million yen) x 1/2 = 4.7 million yen). Income tax and inhabitant tax are 512,500 yen and 423,000 yen, respectively, which make disposable income of 29,064,500 yen (= 30,000,000 – 512,500 – 423,000).

Under Scenario B, a lump sum amount of 15 million yen is less than 20.6 million yen of service-related retirement income deduction. As a result, there is no tax levied on the lump sum portion. The difference of 1,382,750 yen in disposable income between Scenario A and B per annum times 10 years plus 15 million yen of the lump sum produce 28,827,500 yen of the total disposable income from a corporate pension in ten years under Scenario B.

The difference of 2,729,000 yen in disposable income between Scenario A and C per annum times 10 years produces 27,290,000 yen of the total disposable income from a

corporate pension in ten years under Scenario C.

If annuities are paid for life time, the above results would be different. However, considering that corporate pensions usually offer certain annuities, it can be said that total disposable incomes become the largest if you receive benefits in the form of a lump sum only. If you receive more benefits in the form of annuities, this increases your taxes, which in turn increase health insurance and nursing-care insurance premiums. Combined with the generous retirement income taxation, this is one of the drivers which could lead more people to receive retirement benefits from employers in a lump sum rather than annuities.

Problems Related to Employer-sponsored Retirement Plans

At the beginning of this paper, it was shown that only 38.6% of Japanese depend on employer-sponsored retirement benefit plans as retirement income means. The reasons of low dependency on such plans were examined throughout this section.

First of all, employer-sponsored retirement benefit plans are totally discretionary in Japan, and not all employees are covered with employer-sponsored pension plans.

Even if they are covered with employer-sponsored pension plans, many participants receive benefits in the form of lump sum rather than annuities due to:

- The origin of Japanese retirement plans as lump sum severance pay system
- Favorable taxation for lump sum payments
- Concern for financial instability of sponsoring companies: vested annuity payments could be reduced (sometimes become zero) in the events of future business depression
- People want to repay housing loans with a lump sum

Even with annuity options, life annuities are not necessarily the norm in Japanese pension plan design. Instead, 10-year or 15-year certain annuities are often found. In addition, many employers that switch from EPFs to New DBs have abolished life annuities, and only now provide certain annuities.

Under these circumstances people could outlive annuities, and it is very difficult for them to depend too much on employer-sponsored pension plans as retirement income resources.

Tier 4: Individual Products

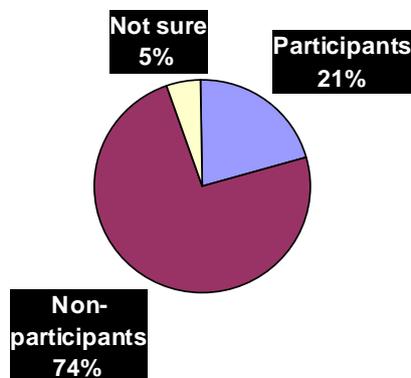
In this section, individual annuity products available in Japan are explained. Most products and schemes act both as capital accumulation vehicles during working years and as annuity payment vehicles during retirement years, except for variable annuities where people pay a single premium near or at retirement and receive annuities after retirement (i.e., variable annuities usually do not work as capital accumulation vehicles in Japan).

Individual annuity products include Fixed Annuity, Variable Annuity, Zaikei Nenkin (Asset-building pension scheme), contributory Pension Plan, National Pension Fund, and Individual-type Defined Contribution (DC) Plan. Some financial institutions and local government provide Reverse Mortgage Scheme where people receive annuities as loans with their houses as collateral, but they are not popular in Japan.

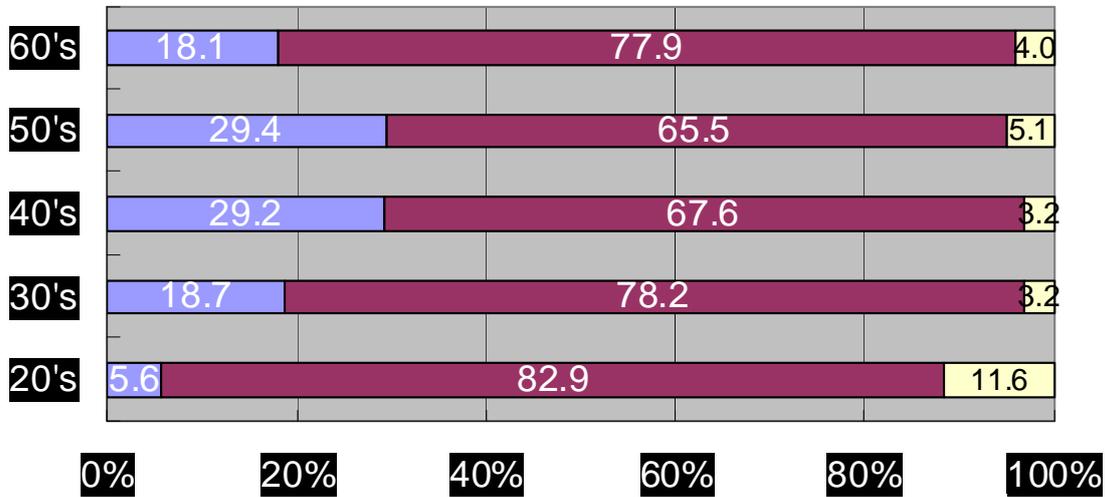
Overview of Individual Annuity

Individual annuities are not necessarily popular in Japan. Exhibit 17 shows the survey result of Japan Institute of Life Insurance, telling that only approximately 20% of people surveyed purchase individual annuities and that people in their 40's and 50's tend to have more individual annuities.

(Exhibit 17) Prevalence of Individual Annuities in Japan



Ratio of Participation in Individual Annuities by Age

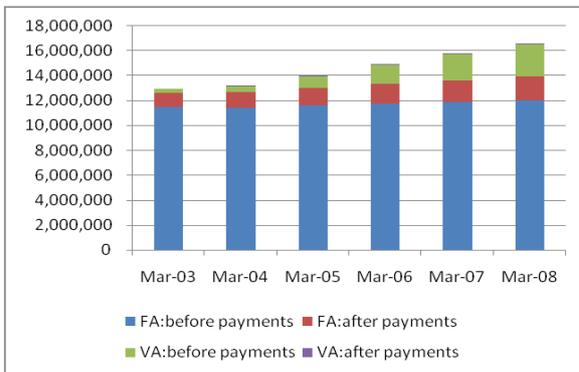


This is a reflection of the fact that Japanese people put much emphasis on the social security old age pension system and bank deposit as means of retirement income. Little tax incentives to individual annuity products are another reason why individual annuities do not become popular in Japan. Maximum 50,000 yen (US\$ 556) per annum can be deductible as individual annuity deduction.

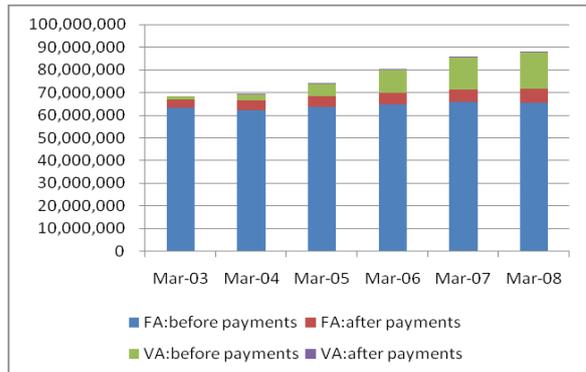
A growing sector in individual annuities is variable annuities. Exhibit 18 shows the data from Life Insurance Association of Japan indicating that fixed annuities are stable in terms of the number of policies and of assets for the last six years while variable annuities have grown steadily since its introduction in 1999 in Japan. You will look at variable annuities more closely later. Fixed annuities are first examined.

(Exhibit 18) Individual Annuity Market

The Number of Policies



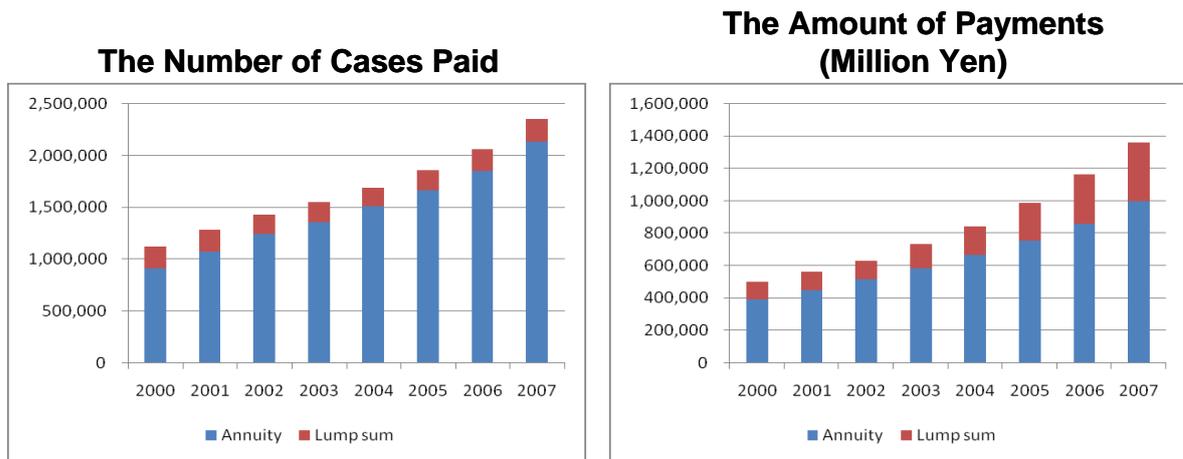
Assets (Million Yen)



FA: Fixed Annuities, VA: Variable Annuities

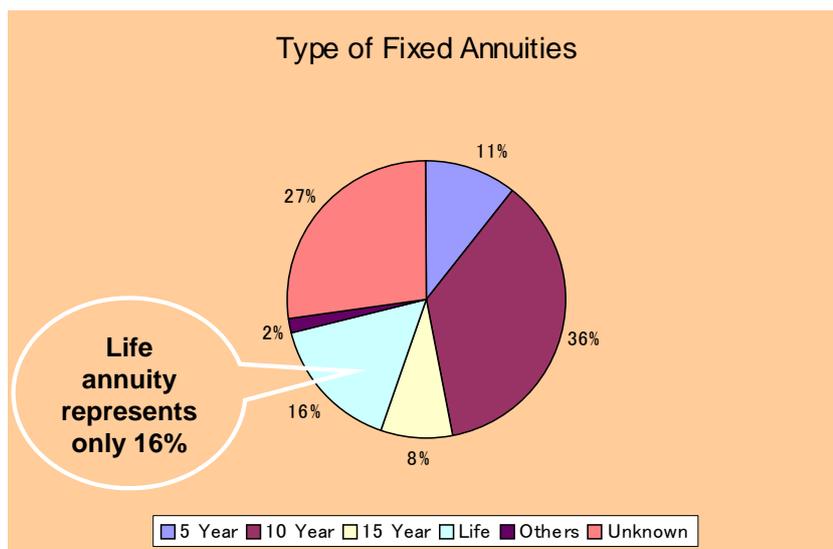
In fixed annuities most policyholders receive payments in the form of annuities, not lump sum, as a matter of course as is shown in Exhibit 19. This is different from employer-sponsored retirement plans. Most insurance companies provide several payment options with different terms. Among them, certain annuities (5-year, 10-year, and 15-year) and life annuities with 10-year guaranteed period are most common.

(Exhibit 19) Forms of Payments in Individual Annuities



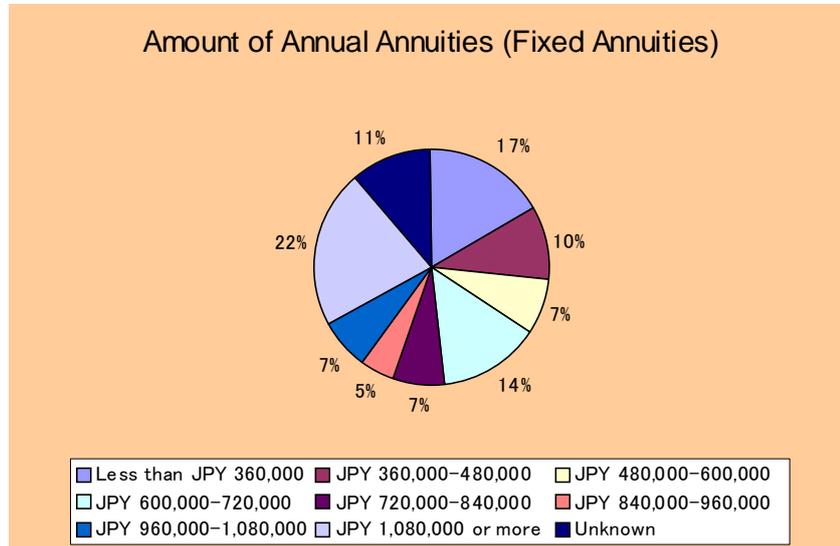
Actual selections of terms of payments are shown in Exhibit 20. 10-year certain annuity is the most popular, and life annuities represent only 16%. It is not sure that policyholders have selected annuity terms with confidence or determination.

(Exhibit 20) Prevalence of Fixed Annuities by Term



Amount of annual annuities are shown in Exhibit 21.

(Exhibit 21) Annual Amount of Fixed Annuities



Variable Annuity

In Japan single premium Variable Annuity (VA) products dominate the VA market. There are very few variable annuities where policyholders pay premiums monthly or annually during working years. This is due to the fact that insurance companies in Japan position variable annuities as an investment vehicle for retirees who receive a lump sum payment upon retirement from employers. Typical single premiums for variable annuities range from 2 million yen (US\$ 22,222) to 300 million yen (US\$ 3 million).

The variable annuity market has grown steadily since its introduction in 1999 with new sales strategy of insurance companies. Due to the low interest rate environment during late 1990's and early 2000's, insurance companies could not offer high assumed interest rates for fixed annuity products (the current assumed interest rates of fixed annuity are around 1.0-1.5%). Still, insurance companies suffered from investment losses in fixed annuity products, and no longer marketed fixed annuity products aggressively.

On the other hand, insurance companies do not have to bear investment risks with variable annuity products, but can earn periodical insurance fee based on the size of accumulated assets in variable annuity products. In addition banks became permitted to sell insurance products as a part of deregulations in late 1990's. Therefore, many

insurance companies made sales agreements with banks to sell variable annuities. As baby-boomers have begun to retire and receive a lump sum payment from employers, banks targeted these people for variable annuity products. These are the backgrounds for the growth of VA market in Japan.

Investment risks are borne by policyholders in variable annuities. Some variable annuities allow policyholders to direct investment among several separate accounts, which eventually invest in mutual funds. Others do not allow policyholders' investment direction and just invest in certain balanced funds comprised of Japanese equities, Japanese bonds, foreign equities, foreign bonds, and cash.

After a deferral (investment) period such as 10 years, variable annuities commence payments of annuities based on the lump sum accumulated value of account balances. The amount of annuities is usually fixed and never changes during a payment period for simplicity in Japan. This feature may be different from the U.S. variable annuity products where annuity amounts fluctuate even during payment periods.

It should be noted that Japanese variable annuities have features of "minimum guarantees" built-in, reflecting the nature of risk-averse Japanese people. Although these guarantee features are against the structure of variable annuity products, they are considered as necessary to sell variable annuity products to risk-averse Japanese. Here are some guarantee features;

- Guarantee Minimum Death Benefits (GMDB): Almost all variable annuity products guarantee minimum death benefits, which are equal to total premiums paid before the commencement of annuity payments.
- Guarantee Minimum Accumulation Benefits (GMAB): Many variable annuity products guarantee minimum lump sum values at the commencement of annuity payments.
- Guarantee Minimum Income Benefits (GMIB): Many variable annuity products guarantee minimum annuity incomes, and/or minimum total annuity values.
- Guarantee Minimum Withdrawal Benefits (GMWB): Some variable annuity products guarantee minimum withdrawal amounts in case of cancellation of policies.

Variable annuities have some tax benefits. Premiums are subject to the deduction for life insurance premiums (Max: 50,000 yen). As most variable annuities are single premium products, policyholders can enjoy this deduction once only when they purchase

variable annuities. In addition, investment earnings are tax-deferred until benefits are actually paid. Benefits are taxed, but depending on who the beneficiaries are, different tax rules apply.

Typical expenses for variable annuities are as follows:

- Initial costs: 3-5% of premiums are paid to insurance companies (but, some variable annuities do not have initial costs)
- Ongoing costs: 3-4% of account balances (1-2% of insurance costs for insurance companies and 0.5-2% of investment management costs to asset managers)
- Annuity maintenance costs: 1% of annuity amounts to insurance companies
- Surrender charge could apply in case of cancellation of policies

Insurance companies are aggressive in introducing new features in variable annuity products these days as follows:

- Extended guarantee
105-120%, not 100%, of premiums paid or accumulated account balances are guaranteed as lump sum values after certain investment periods (say, five or ten years)
- Ratchet feature
Guaranteed minimum death benefits and guaranteed minimum lump sum values step up if accumulated account balances exceed certain thresholds (and never decrease again)
- Target “knocks-out”
If the value of investment reaches a pre-defined target level (110-150% of premiums paid; policyholders can select this level) after certain years, investment vehicle moves to general accounts and annuity value is fixed (some products start payments of annuities immediately). Otherwise, minimum total annuity values are guaranteed.

Zaikei Nenkin (Asset-building pension scheme)

Zaikei Nenkin (Asset-building pension scheme) started in October 1982. Zaikei Nenkin is available only to those employees whose employers have Zaikei Nenkin contracts with financial institutions. The financial institutions include commercial banks, trust banks, savings & loans, agricultural association, securities companies, insurance companies and so on. Employees choose one financial institution and make contributions to Zaikei Nenkin on a post-tax basis. Interests or investment earnings on Zaikei Nenkin asset balances up to 5.5 million yen (in case of insurance policy 3.85

million yen) is tax free. However, considering the current low interest rate environment in Japan, this tax benefit is very small. No investment direction is possible in Zaikei Nenkin. Annuity payments start at age 60 or later, and terms of annuities are five to 20 years. The latest number of participants is 2,248,000 and the asset size is 3,993 billion yen. No financial institutions are actively marketing Zaikei Nenkin these days.

Contributory Pension Plan

Contributory Pension Plans are sold by life insurance companies to employers as one of employee benefit schemes. Employees make contributions from monthly payrolls to the plan on a post-tax basis. Employee contributions are subject to the deduction for life insurance premium of 50,000 yen per annum. All assets are invested in life insurer's general accounts. However, the current guaranteed rate of general accounts is around 1.25%, which makes it difficult for employees to prepare enough money for retirement only with this plan. Employers can contribute to the plan as well. 10,720 employers have provided the Contributory Pension Plan to employees and the assets amount to 13,576 billion yen as of October 31, 2008.

National Pension Fund

National Pension Fund (NPF) started in April 1991 under the National Pension Act to supplement the social security old age pensions for self-employed. Only self-employed and their spouses can participate in NPF. Age of participation and selection of future annuity amounts determine monthly contribution amounts, which are tax-deductible, but contributions cannot exceed 68,000 yen per month. National Pension Fund Association, a government body, invests NPF assets and takes investment risks. Life annuities (and certain annuities) are paid from age 65.

Benefits are taxed when paid, but annuity deduction is applicable. As only self-employed and their spouses can participate in NPF, the number of participants is 648,415 and the asset size is 2,659 billion yen as of March 2007.

Individual-type Defined Contribution (DC) Plan

Individual-type DC plans started in January 2002 under the Defined Contribution Act. Eligibility for participation is very limited. Only self-employed and their spouses as well as employees whose employers do not sponsor any funded Defined Benefit pension plans or Corporate-type DC plan can participate in individual-type DC plans. In addition, there are contribution limits by regulations. Self-employed and their spouses

can contribute up to 68,000 yen per month (816,000 yen per annum) to their DC individual account. However, this limit is a combined limit with contributions for National Pension Fund. For employees without any funded DB plans or Corporate-type DC plans, the limit is only 18,000 yen per month (216,000 yen per annum) although it is expected to be increased to 23,000 yen per month, effective January 2010. All contributions are tax-deductible from taxable income. Participants make investment directions and investment earnings grow tax free. Benefits are paid when participants reach age 60 in general at which time tax is levied. Benefits can be a lump sum, annuities (certain annuities or life annuities) or combination of both. Lump sum deduction is applied for lump sum payments and annuity deduction is applied for annuity payments.

Individual-type DC plans are very tax-favorable. However, due to limited eligibility and low contribution limits, the latest number of participants is only 93,036 as of March 2008.

Problems Related to Individual Products

Despite of the importance of self-supporting efforts for retirement provision, individual products are not popular as a capital accumulation vehicle in Japan. The reasons vary depending on products or schemes;

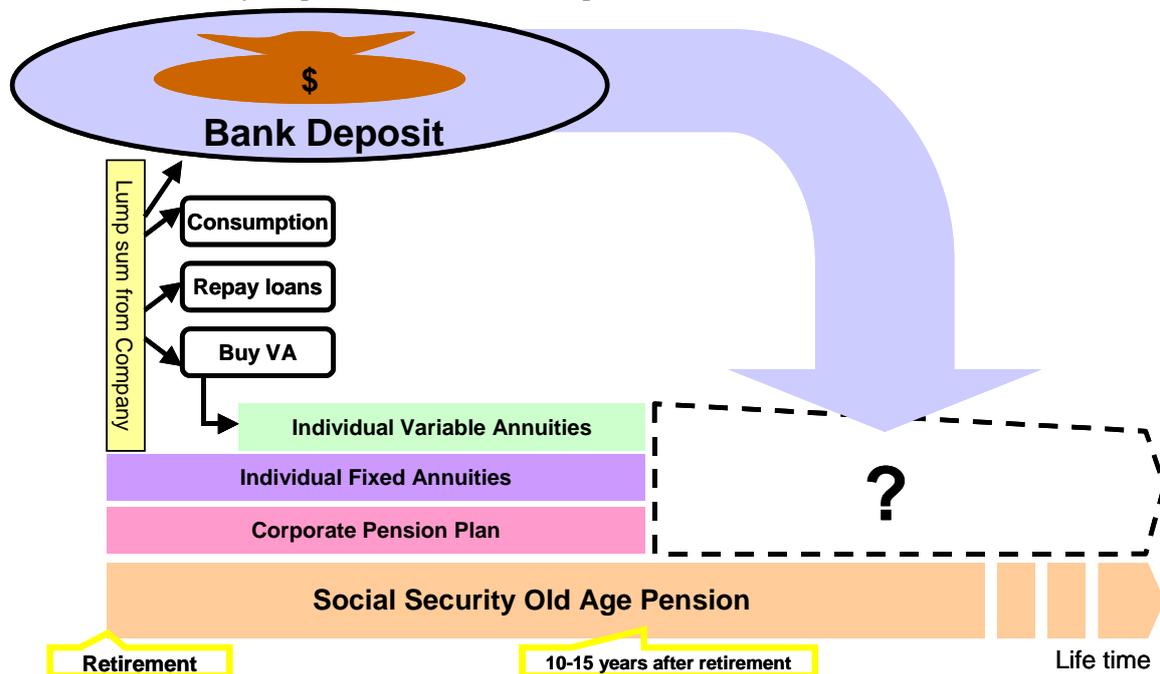
- Fixed annuities have little tax incentive (Max 50,000 yen tax deduction annually). This, combined with low assumed interest rates (1.0-1.5%), makes fixed annuities less attractive for consumers. In addition, insurance companies are not actively marketing fixed annuities because they suffer from investment losses.
- Zaikei Nenkin and Contributory Pension Plans have almost no new participants in the last few years due to poor tax incentives and lower rate of interests.
- National Pension Fund and Individual-type DC plans are most tax-advantageous, but limited eligibility and low contribution limits prevent them from becoming major schemes in Japan.

Individual products in Japan explained in this section are somewhat overlapped to each other and not well streamlined, which makes it difficult for consumers to distinguish among them.

Another problem is that not all fixed and variable annuity products provide life annuities or that not all policyholders choose life annuities, if any, as payment terms. It is possible that people could outlive annuities. People may or may not know this fact.

As was shown at the beginning of this paper, 64.6% of people surveyed answered that they depend on bank deposit as retirement income, the second highest figures next to social security. Much dependence on bank deposits and less dependence on other individual products/schemes are one of the most conspicuous features in self-supporting efforts in Japan. It can be said that the longevity risks are covered by bank deposits in Japan as is illustrated in Exhibit 22.

(Exhibit 22) Heavy Dependence on Bank Deposits



Japanese people accumulate bank deposit balances as they become older. When they retire and receive lump sum payments from employers, they may spend this money for consumption, repayment of housing loans, and/or purchase of variable annuities. But the majority portion of the lump sum money is expected to flow into bank deposits, which grow bank deposit balances even further (Unfortunately, there is no statistics on the cash-flow). As corporate pension plans, individual fixed/variable annuity products tend to provide a certain annuities, Japanese people's annuity incomes are expected to drop at a certain age with the social security old age pension becoming the only retirement income. At that time, bank deposits are presumed to work to compensate for the loss of annuity income.

But the real issue is "is this system really efficient?" Japanese people build up bank

deposit balances to prepare for retirement. However, they do not know how much is necessary for retirement. They just accumulate bank deposits for the fear of longevity. People prefer bequeathing a fortune to outliving a fortune. They do not understand that bank deposits are not necessarily the most economically-efficient products with zero interest rates and no tax benefits.

This may be well-thumbed words, but it can be said that financial education as well as financial planners who provide financial education is needed in Japan. Otherwise, annuity market will not grow in Japan.