

## Recent Changes to Retirement Benefits in Japan, and Relevant Public Policy Issues

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### Abstract

In Japan, employee retirement benefits started as lump-sum severance payments supported by the book reserve internal funds. In the 1970s and 1980s many of them came to rely on outside pension plans for funding. Combined, these dual-type benefit plans function as a substantial source of old-age income for 60-70 percent of all employees working for approximately 90 percent of employers. In addition, they have been important components of Japan's seniority-based labor management and compensation system. They have been used in order to make core employees stay for a long time with a single employer.

As long-term employment and seniority-based compensation practices became not very effective, which can clearly be seen with the rising labor distribution rate, retirement benefits constituting compensation plans had to undergo substantial adjustments. Declining returns on pension assets since the 1990s, and increasing benefit obligations on balance sheets under new accounting rules put into effect in 2001 accelerated the revision of benefit plans.

The goals of this plan revision are to: (a) reduce benefit obligations, (b) maintain consistency with other compensation plan components which are more based on job content and performance rather than seniority, (c) make employees with short tenure eligible for substantial benefits by alleviating backloading and by preparing individual account under Defined Contribution Plans, and (d) lighten the burden of benefit obligations on the balance sheet of plan sponsors and reduce investment risks.

Specifically, such measures as the revision of benefit formula and the introduction of point -based benefits are taken. Further, the numbers of Defined Contribution Plans, Employee Pension Funds returning contract-out portion and Cash Balance Plans, all of which became available under two laws enacted in June 2001, have been increasing.

Public policies on retirement benefits must keep pace with these dynamic changes. Especially, protection of benefit rights –vesting, non-forfeiting and funding requirement, is the area which demands serious attention. Another area to be reformed is taxation. The introduction of EET (exempt- exempt-taxable) taxation uniformly applicable throughout various forms of retirement benefits, which is exemplified by Canadian Registered Retirement Saving Plan, should be taken into serious consideration.

### Introduction

As often pointed out in the literature such as Davis ( 1995 ), retirement benefit plans perform

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several economic functions. First, they are the tools for labor management, and second, they accrue legal and economic obligations. To satisfy these obligations, company pensions hold and manage assets and function as institutional investors.

Government has its own interests in retirement benefits. Public policies in such fields as labor relationship, financial contracts, social securities, and tax privileged savings, are related to retirement benefits.

Corresponding to the inauguration of the Japan Pension Research Council, this paper will explore and comment on current conditions by viewing these aspects. Specifically, after providing an overview of Japan's retirement benefits in section 1, a description of the status of retirement benefits and issues corporate management is facing will be presented in sections 2. Recent reform movements to address these issues will be explained in section 3, with commentary on the significance of such reforms to public policies in Section 4. Section 5 is a summary.

## **1. Overview of Japan's Retirement Benefits**

Employees receive two types of retirement benefits employees upon termination of employment or retirement: one-time severance payments, and company pensions. In this paper, these will be collectively referred to as "retirement benefits." An overview of the current situation is provided below.

### **1.1 History of Retirement Benefits**

Severance payments began to spread between 1910 and 1920. In many large companies, they came to be paid not only to executives, but also to general employees, including factory workers. During the economic boom around 1920 (during the Taisho Era), such payments were used as a tool to induce workers to stay with their employers, but during the recessionary period in the latter half of the 1920s they were more often used as compensation for forced termination benefits. In 1936, the Retirement Allowance Reserve and Retirement Payment Law was enacted, mandating severance payments by companies with 50 or more regular employees, to be paid for involuntary terminations. For the funding provision, it mandated both employer and employee to pay 2% of wages.

During the Second World War, a shortage of labor resulted in the elimination of terminations, making severance payments superfluous. In addition, the establishment of a public pension with the Workers Pension Insurance (1942) and its successor, Employee Pension Insurance (1944), diminished the necessity of employer's retirement benefits. Ultimately, the Retirement Allowance Reserve and Retirement Payment Law was absorbed into the Employee Pension Insurance Law in 1945.

Due to postwar inflation, however, benefits paid under Employee Pension Insurance (EPI) became insignificant, and many companies—including those that were not large—started to pay new retirement benefits. By 1956, according to a study by the Ministry of Health Labor, and Welfare, 97 percent of businesses with 500 employees or more, and 60 to 70 percent of other businesses, had rules for severance payment plans.

Funding for severance payment plans was not supplied from externally accumulated assets, but from book reserves. As severance payments became a general practice, however, an increasing number of large companies began to introduce pension benefits that used externally accumulated assets for funding. As a result, in 1962 Tax Qualified Pension Plans (TQPPs)

were introduced, and contributions to them were recognized as expenses for tax purposes. Meanwhile, one impetus to the introduction of Employee Pension Funds as an “Adjustment Pension” was the increase in the level of EPI from a paltry level to 10,000 yen per month in 1965. This brought about an increase in social security taxes for EPI, and management’s demand for the elimination of the dual burden of severance payments and public pensions became more pronounced.

As a result, a system was introduced in 1966 whereby administration and investment of the income-related portion of Employee Pension Insurance was transferred from the government to company pensions to adjust for double burden (referred to as “contract-out”). The entity established to perform this function was the Employee Pension Fund (EPF). Since that time, the four retirement benefit programs—severance payments, Tax Qualified Pension Plans, Employee Pension Funds, and the Small and Medium Scale Enterprise Mutual Aid Scheme for Retirement Allowance, established in 1959—have been the pillars of retirement benefits.

Another issue that arose in this process in the 1950s and 60s was about the legal status of retirement benefits. Management at the time took the position that such benefits constituted merit-based compensation, while labor unions contended that they were deferred wages.

The merit-based compensation theory states that retirement benefits are payments made at management’s discretion to meritorious employees. The amount of benefits reflects the level of service rendered by the employee. On the other hand, the deferred wage theory contends that retirement benefits are purely the payment of a part of wages not payable during the term of employment, but deferred until the time of retirement and/or job termination.

Ultimately, the concept of retirement benefits as being deferred wages did not take root in Japan. This point plays a significant role in the issues concerning the degree of protection of benefits as well as their treatment under the new accounting standards.

## 1.2 Book Reserve vs. Asset Accumulation

The funding provision for retirement benefits continues to be a combination of severance payments out of book reserves, and pensions paid out of accumulated assets. According to the *Comprehensive Survey on Wages and Labor Hours* (Ministry of Health, Labor and Welfare, (1998)), 47.5 percent of companies use only the book reserve system, 20.3 percent of companies use the pension system only (book reserve severance payments converted entirely to pension plans), while 32.2 percent use a combination of the two systems (a portion of severance payments converted to pension plans).

Usually, in the labor contract, the aggregate amount of severance payments and the present value of pension payments is determined by multiplying base wages at the time of severance by the loading rate, depending on the reason for the severance (whether voluntary or involuntary, or reaching retirement age) and the number of service years as follows:

$$R = W (\text{Wages}) \times L (\text{Loading})$$

Then the labor contract stipulates how much of that aggregate amount is paid from pension plans. In other words, the total amount of retirement benefits is decided first, and then under the pension system a certain portion of this amount is converted into annuity payments using a certain interest rate (the assumed rate of interest for benefit payments). Employers adopt the EPFs or TQPPs as provisions in order to pay proportion of this total amount. Therefore, if accumulated assets are insufficient to meet company pension amount, employees have the right to demand the employer to pay the full amount of retirement benefits and make up for the deficiency in total retirement benefits.

In actuality, there are many cases in which the benefits from the pension plans are paid as a lump sum: 95.9 percent of pensions allow for the receipt of a lump-sum payment, and 58.6 percent of beneficiaries who have long years of service choose to take the whole amount as a lump sum, while 10.2 percent take a portion of the benefits from pension plans as a lump sum. As a result, over 80 percent of total retirement benefits are received as lump sums (see Table 1). In addition, in general, pension plans require a minimum of 20 years of service to qualify for annuity payment, but to employees with short service, benefits are paid out of accumulated assets in a lump sum.

<Please insert Table 1 here. >

Therefore, if we classify retirement benefits by method of payment, lump sum components consist of severance payment and lump sum from pension plans as well, and annuity components come from pension plans. As such, for the purpose of labor management, the function of company pensions in Japan must be looked at together with severance payments.

### 1.3 High Rate of Saturation and the Disparities due to Company Size

According to the *Comprehensive Survey on Wages and Labor Hours*, as of 1998, 88.9 percent of companies with 30 or more employees provided retirement benefits to full-time employees. Of the 44 million (1999 average) employees in the private sector, 31 million are full-time, while the percentage of part-time, temporary, and agency personnel (13 million) eligible for retirement benefits is less than 10 percent.

There is also a disparity by company size. In companies with 1,000 or more employees, 99.5 percent provide retirement benefits, as do 95.9 percent of those with 100 to 299 employees, but the rate declines to 85.7 percent for companies with 30-99 employees, and it is likely that this proportion falls below 80 percent for companies who have less than 30 employees.

At companies with 1,000 or more employees, average retirement benefits actually disbursed (sum of severance payment, and present value of pension payments) to those with 35 or more years of service amounts to 34 million yen for university graduates, and 20 million for high school graduates. In contrast, in companies with 100-299 employees, the retirement benefits received average 20.46 million yen for university graduates, while high school graduates receive 14.28 million.

In the U.S., 79 percent of medium and large companies provide pension plans, compared with only 46 percent of small companies (with 100 or fewer employees). In addition, as seen in Table 2, only 46.8 percent of waged workers, and 60.8 percent of full-time workers, are enrolled in pension plans. Of all private sector full-time employees, 55.8 percent are enrolled in pension plans.<sup>3</sup>

<Please insert Table 2 here. >

With respect to benefit levels, as of 1993, the pension received by workers with 30 years or more of service was equivalent to 21-27 percent of their final salary (Mitchell (1999)). Calculated with a 6 percent yield on a 10-year Treasury bond, and an average 18-year life expectancy after the standard retirement age of 62 (*Life Insurance Fact Book* (1998), American Council of Life Insurers.), an annuity payment equivalent to 25 percent of the final salary would, on a present-value basis, be worth 46 months of final salary (assuming annual payments). In Japan's case, if large companies hire employees upon graduation, according to

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<sup>3</sup> McDonnell (2001).

model retirement statistics,<sup>4</sup> total value of benefits they would receive upon retirement is also equivalent to 45-50 months of final monthly salary. On this particular point, there is no major difference.

#### **1.4 Role of Retirement Benefits in Retirement Income**

The role of retirement benefits in old age income security is discussed as the final topic of this section. Company's benefits supplement basic public pension, and individual pensions and insurance supplement these two. An examination of annual income flows of the elderly shows that the portion of private pension is low. In households with their house- heads of age 65 and older, of 3.29 million yen in total income, public pension accounts for 2.03 million yen (61.8 percent), while "other income" (presumed to include company pension annuities) comprises only 60,000 yen (2 percent).<sup>5</sup> However, this is presumably because employees receive a large proportion of retirement benefits in lump sum.

An examination of the *Saving Trend Survey Yearbook* (2000) (Ministry of Public Management, Home Affairs, Posts and Telecommunications) reveals that the net financial assets (savings less liabilities) of workers household increases from 9.74 million yen for those age 50 to 54, to 21.52 million yen for those age 60 to 64. It can be inferred that severance payments and/or lump-sum receipts from pension funds have been set aside as a reserve to provide for contingencies.

For example, on an average university graduates who have reached retirement age after 20 or more years of service receives 28.71 million yen in retirement benefits, while high school graduates (production workers) receive 13.52 million yen (*Comprehensive Survey on Wages and Working Hours*). Using an average male life expectancy of 20 years after the age of 60 (taken from the *Abridged Life Expectancy Table*, The Life Insurance Association of Japan, (1998)), and converting these amounts into an annuity with a 3.0 percent interest rate, produces an annuity payment of 1.87 million yen and 880,000 yen, respectively. This equals 95 and 37 percent of the average benefit level of the EPI worth 2.4 million yen (for males in 1997). While public pensions comprise 60 percent of income after retirement, converting all retirement benefits into an annuity will produce 40 to 20 percent of total income.

In the U.S., private pensions account for roughly 20 percent of the income of elderly households (McDonnell, 1999). Thus if the lump sum component is added to the annuity, we see that the possible role played by Japan's retirement benefits in old age is not insignificant.

## **2. Reform Trends of Company Retirement Benefits**

This section discusses changes in the circumstances surrounding retirement benefits that have prompted companies to undertake reforms.

### **2.1 Retirement Benefits as a Tool in Labor Management, and their Changing Function**

#### *2.1.1 Function of Retirement Benefits in Labor Management*

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<sup>4</sup> *Comprehensive Statistics on Wage Conditions*, Central Labor Relations Commission (2001)

<sup>5</sup> *Basic Survey of National Life* (Ministry of Health Labor and Welfare). In this survey, total income is divided into employee income, business income, farming and stock raising income, domestic work income, public pension, rent income, interest and dividend income, other social insurance income, transfer income, and other incomes. It is possible that corporate pensions are included in public pension or employee income categories instead of "other incomes" category.

Retirement benefits are one component of a corporation's personnel and compensation system, possessing the objectives of inducing long tenure; encouraging employees' retirement in their 50s; and preventing misconduct. Plotting the average model retirement benefits payable by 290 large corporations for voluntary job termination (sum of severance and the present value of the pension at time of job termination) for university-graduate administrative/technical personnel from the time of entry produces an "S" shaped curve, as shown in Chart 1. The amount shows very little increase until they reach their mid-30s, and increases rapidly through the period of their 40s, then flattening out in their 50s until they reach the retirement age of 60.

**<Please insert Chart 1 here. >**

To measure the effect on tenure however, it is necessary to take into consideration the interests on the amount of benefits. If " $R_t$ " represents the retirement benefits amount at service year " $t$ ," the retirement benefit paid in the following year would be " $R_{t+1}$ ." The differential of the two amounts would include one year of interest, and thus if " $A_{t+1}$ " represents the benefit amount accrued due to one year of service, then

$$A_{t+1} = R_{t+1} - R_t (1 + r), \quad \text{with "r" representing the interest rate.}$$

Table 3 shows the results of computation of accrued benefits " $A$ ", assuming an interest rate of 3 percent and using the same data as Chart 1. Up through the mid-30s the annual accrual amount does not reach 300,000 yen, however, the annual accrual at the peak years—around age of 50—exceeds 1 million yen. Accruals begin to decline after this time, and after the age 55 comes a negative accrual. At this point, after subtracting interests, the longer one continues to work, the lower the retirement benefits.

**<Please insert Table 3 here. >**

Also, looking at the proportion (loading factor " $l_t$ ") of accruals against the monthly wage (" $W$ ") of that age, in Table 3, which is the basis of benefit calculation, while it is 0.2-0.4 at the time of entry, at the peak around age 50 it becomes 1.5-1.8 times, after which it becomes negative.

In other words, until the age of 55 not only is the wage scale based on seniority, so is the loading factor. As a result, accrued benefits are backloaded even more than wages. On the other hand, although the loading increases after 55, as the wages which are the basis of retirement-benefits computation decline, the marginal increase in benefits ( $=R_{t+1} - R_t$ ) is smaller than the interest proportion ( $=R_t (1 + r)$ ), and thus accrued benefit " $A$ " becomes negative.

If retirement benefit amounts show such increases and decreases, a career change before the age of about 50 is clearly disadvantageous. But after the age of 55, when accrued benefit " $A$ " becomes negative, looking only at retirement benefits, the advantage of leaving jobs increase.

It is permitted in Japan to set a mandatory retirement age in labor contracts, while several rigorous conditions must be satisfied for an employer to lay-off employees.<sup>6</sup> That benefit curve indicates employers are not too willing to maintain employees after age 55, although the

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<sup>6</sup> Usually, courts require four conditions to be satisfied: (a) best efforts to avoid lay-off, (b) reasonable criteria in selecting those to be laid off, (c) rational and respectable process, and (d) financial and managerial inevitability.

lowest retirement age allowed by law was raised from 55 to 60 in 1990s. Hence, both the backloaded benefit curve until 50s and Negative accrued benefits between 55 and 60 have function to control the timing of retirement.

The third effect from the labor management point of view is the prevention of misconduct. In Japan, under either the book reserve system or accumulated asset pension system, forfeiture or confiscation of retirement benefits is allowed in cases of disciplinary discharge.

### *2.1.2 Diversification of Employment Practices*

Retirement benefits have played important function in labor management. Due to slumping corporate profitability since the 1990s, however, corporations have begun to review their employment practices.

One factor behind poor profitability has been the rise in the allocation to labor. The share of personnel expenses in value-added of non-manufacturing corporate sector rose from 68 percent in the 1970s (on average), to 71 percent in the 1980s, and 73 percent in the 1990s (*Statistical Yearbook of Corporations*, Ministry of Finance). The manufacturing sector exhibits a higher rise of 6.4 percent compared with 4.3 percent for non-manufacturing. Particularly, in manufacturing companies capitalized at 1 billion yen or more, there has been an even larger rise of 8.6 percent (Table 4).

**<Please insert Table 4 here. >**

The increase in labor's share signifies both the stagnation of added value, the denominator, and the increase in personnel expenses, the numerator. One factor analysis of labor distribution rate shows (Table 5) that the reason for the increase in the share of labor in large companies from late 1980s to early 1990s was a decline in labor productivity. By the latter 1990s, however, as a result of personnel cuts under corporate restructuring, productivity rebounded and began to rise. An increase in per capita personnel expenses and a negative price deflator, however, have offset most of this. As a result, improvements in productivity failed to reduce the high share of labor.

**<Please insert Table 5 here. >**

One factor for the continued increase in per capita personnel expenses has been the aging of the workforce. Under the seniority wage system, as the proportion of older workers increases, personnel expenses (the numerator in the relative share of labor) grow. In reality, looking at the employee composition of companies with 1,000 or more employees, the proportion of university graduates over the age of 50 has increased from 4.3 percent in 1977 to 14.5 percent recently, while that of high school graduates has increased more dramatically from 1.9 to 15.9 percent during the same period. Furthermore, among employees over age 50, 40 percent of university graduates have 30 years or more service, compared to 70 percent for high school graduates (Table 6).

**<Please insert Table 6 here. >**

Employers took measures to alleviate the effect of this rise in cost. For example, seniority based wage profile curve was flattened (Chart 2) especially in case of university graduate employees. In 1987, the average annual wage of employees between the ages of 50 and 55 was 5.4 times that of those between 22 and 24. This multiple fell to 4.4 times in 2001. This decline, however, was not sufficient to compensate for the declining profitability caused by rising costs and shrinkage in business opportunities to capitalize long-term employment explained as follows. This is evidenced by the rise in the allocation to labor. In addition to

modifying wages, employers have been forced to further revise and streamline all components of seniority-based compensation including retirement benefits.

<Please insert Chart 2 here. >

On the other hand, the opportunities to reap the benefits of company-specific expertise garnered through long periods of employment have been diminishing, as the relative position of the manufacturing sector, in which fostering of expertise specific to individual companies (principally among blue-collar workers) could play a role in establishing competitive advantage, has declined. This is a manifestation of the economy moving toward services and/or tertiary industries. Further, with advances in IT, in both manufacturing and non-manufacturing alike, much of white-collar workers' tasks have been mechanized, reducing the usefulness of expertise nurtured in the past. Longer tenure can not raise skill levels accompanied with increased labor productivity (value added). This is an issue of the denominator side.

Faced with such conditions, corporate management has begun to take a second look at their compensation systems, with the first aim being the reduction of direct personnel expenses. First, the number of companies that have taken steps to reduce the level of wages—not merely limited to reductions in bonuses and periodic wage increases in every April—is not small. There are companies that have taken measures to encourage early retirement by employees in their 40s and 50s making use of voluntary retirement programs with additional severance payments

Second is a shift from seniority-based compensation to a new system that reflects job content and performance. Under the “Job Capacity Qualification” system of wages, which many companies adopted in the past, it was supposed that employees are promoted based on their capacity to serve job assignments. However, after serving in one qualification category for a certain period, employees were almost automatically deemed to have capacity for higher job qualification and promoted to that. In actuality, this was very close to the seniority system. In place of this system, there has been a trend toward introducing job or work-based salaries where, without regard to age or seniority, wages are set according to job content and productivity.

The third measure is the hiring of seasonal, part-time, and temporary workers positioned outside the seniority-based wage system. The percentage of part-time workers rose from 11.1 percent in 1990 to 27.7 percent in 2000 (in companies with employees of 1,000 or more, from 6.7 to 15.5 percent). As a result, turnover in the overall workforce has also increased. As in the case of outsourcing engineers for software development, term-defined employment of skilled experts has been increasing.

The review of the compensation system had its beginnings in wages. This then spread to retirement benefits, raising the issues of reducing overall levels, eliminating the seniority factor, and addressing the increased use of term-defined workers.

## **2.2 Changes in the Financial Environment: An Increasing Burden**

Another function of retirement benefits is that of institutional investors, i.e., on the liability side of the balance sheet (credit) there is a retirement benefit liability, and providing funding for this is financial assets on the asset (debit) side. In this aspect also, the environment surrounding retirement benefits has been undergoing changes.

### *2.2.1 Increased Contributions*

Outstanding investment of company pensions, comprised of Employee Pension Funds including contract-out portions and Tax-Qualified Pension Plans equals to 58 trillion yen and 22 trillion yen respectively, totaling 81 trillion yen at the end of March 2002.<sup>7</sup>

At one time, allocation of this investment was subject to numerical legal restriction known as “5.3.3.2<sup>8</sup>.” This was eliminated in the latter half of 1990s, and now allocation is completely liberalized. The current allocation is 29.4 percent for domestic bonds and 23.8 percent for equities, while overseas securities comprise 19.6 percent (Table 7).

**<Please insert Table 7 here. >**

In addition to the liberalization of asset allocation, the responsibilities of plan administrators and financial institutions as fiduciaries are becoming clarified. For example, the Employee Pension Insurance Law and its guidelines make express the requirements under fiduciary responsibility for directors of Employee Pension Funds and investing institutions. Those clauses include the duty of loyalty and exercise of due care. Furthermore, in the Defined Contribution Plan Law and the Defined Benefit Corporate Pension Plan Law (both enacted in 2001), the duty of loyalty, requiring the execution of business for the exclusive benefit of plan participants, are made explicit.

As for actual investment returns, however, due to sluggish equity prices and low interest rate policies, the rate of return of Employee Pension Funds since the 1990s has been depressed, averaging 3.1 percent annually. Looking at 5-year intervals, the 6.5 percent return in the latter half of the 1980s declined to 5.0 percent in the first half of the 1990s, due to unfavorable equity markets and declining interest rates. This further declined to 2.9 percent in the latter half of the 1990s (Chart 3). Looking at real rate of return by deducting the rate of CPI increases, the degree is reduced, but this does not alter the fact that it has declined.

**<Please insert Chart 3 here. >**

Combined with the increase in the number of recipients of severance benefits, this added burden on companies. According to a study of benefit expenses conducted by the Japan Federation of Employers’ Association, the portion accounted for by retirement expenses (sum of severance benefit payments and contributions to pension plans) in total compensation rose from 4 percent in the 1970s to almost 10 percent in the 1990s.

### *2.2.2 Increased Debt Obligation under New Accounting Standards*

Another financial change that has taken place is the introduction of new accounting standards for retirement benefits. In the previous corporate accounting standards, under the company pension system the cash amounts of employer’s contribution was recorded as expenses during the period, when that contribution was made and no pension benefit obligation was recorded as a liability on the balance sheet.

Treatment of severance payment was different from that of pension plan. In the severance payment system, a certain proportion of total benefits payable stipulated as tax-free reserve under the tax law was recognized in reserves for retirement allowances. In this case, expenses during the period are the incremental portions in reserves from the ending balance of the prior period.

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<sup>7</sup>Asset of EPFs includes that of Pension Fund Association.

<sup>8</sup>Allocation to fixed income securities must be at least 50% and allocation to stocks, foreign securities and real estate must be below 30%, 30% and 20%, respectively.

Under the new accounting standards, adopted from the fiscal year ending after March 2000, accrued liability for both pension and severance payments are recorded on companies' balance sheets. For example, assuming on average 30 million yen of benefits are to be paid to an employee with an average service of 30 years at the time of retirement, obligations of 1 million yen—30 million yen divided by 30 years—are deemed to accrue annually. The difference between the present value of this projected benefit obligation accumulated and pension plan's assets is recorded on the liability side of the balance sheet, as a reserve for retirement allowances.

In Japan, the concept of retirement benefits being deferred payment of wages—i.e., employee's claim and company's obligation—has not completely taken root. From an actual legal perspective, the obligation (and claim) for retirement benefits is deemed to come into existence only at job termination of the employee. Until that time the amount of these benefits may be reduced. Under the new corporate accounting standards, however, even before the legal obligation or claim comes into existence, it must be recorded on the balance sheet as a "constructive obligation" which has a high probability of being paid.

Examining the conditions of 1,024 companies listed on the First Section of the Tokyo Stock Exchange<sup>9</sup> (with a total of 8.8 million employees), in the fiscal year ending March 2001 the retirement benefit obligation was 73.9 trillion yen. Against this, the asset value was 39.9 trillion yen, or 54% of the obligation, leaving the differential of 34.0 trillion yen as unfunded liabilities. Of this, 23.2 trillion yen was recorded as accrued benefit costs, recognized as liabilities on the balance sheet. Thus the unrecognized liabilities that must be recorded in coming years were 10.8 trillion yen. On the income statement, periodic benefit costs were recorded as 10.7 trillion yen. This amount corresponded to 122.5% of recurring profits, which means profits would have doubled without benefits costs (see Table 8).

**<Please insert Table 8 here. >**

In the next fiscal year ending March 2002, periodic benefit costs declined by 42% to 6.2 trillion yen, mainly because recognition of transition obligations shrank to 0.9 trillion from 6.7 trillion yen in the previous year. Benefit obligations, however, grew by 7.5%, because of the discount rate decline brought about by lower market rates. On top of that, negative returns on assets exacerbated the funding status, which increased contribution could not compensate. As a result, the net shortage of funds and unrecognized portion of benefit obligations increased by 14.6% (4.9 trillion yen) and 32.8% (3.6 trillion yen) respectively.

The new accounting rules which revealed severe underfunding in 2001 made corporate executives recognize the burden of increasing unfunded liabilities in 2002.

If we compare this with U.S. companies (Table 9), the amount of this burden can be seen. In contrast with Japanese companies, until a few years ago U.S. companies had a surplus of assets over projected benefit obligations and as a result an asset rather than a liability has been recorded on the balance sheet and rather than an expense, a profit (negative expense) has been recorded in income statement.

**<Please insert Table 9 here. >**

### *2.2.3 Reasons for the Funding Shortage*

One reason for such large unfunded liabilities of Japanese corporations is the continued

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<sup>9</sup> We examined 1024 non-financial companies whose information on retirement benefits both at the end of March 2001 and 2002 are available.

existence of the internal book reserve system for retirement benefits. Only about half of large companies retirement benefits have funding in pension plans, and the rest of benefits remain to be in book reserve plans with no funding whatsoever. When the number of retirees increases, the amount of cash expenditures also increase, if there are no funded assets. In addition, the funding deficiencies (i.e., liabilities on the accounting books) increase, and since there is no investment income from the investment of assets, the net retirement benefit expense increases.

Under the tax law, the contributions made for pensions are recognized as expenses for a company, and derived interest is also tax exempt<sup>10</sup>. From the perspective of corporate finance theory, a funded pension system is more favorable than a book reserve system, and in the pension system the faster the rate of funding, the more favorable it should be for valuation of the company stocks.

In spite of this, management has been less than enthusiastic in introducing the pension system and making contributions for funding liabilities. Possible reasons for this include a low level of recognition of the tax effects; a desire to retain the option to decrease payments in the future; and a wish to avoid the investment risks of depressed asset prices. If the second one is verified, it would imply that while retirement benefits are positioned as deferred payment of wages under the new accounting standards, management considers it possible not to pay retirement benefits and extinguish obligations depending upon corporate performance and financial conditions.

The second reason for the burden on Japanese corporations is that even when a transition was made to pension systems, funding did not keep pace. Generally, funding rules were lax. The minimum funding rule for the termination liabilities was not established until the late 1990s. As of March 2001, out of all 1,800 EPFs, 34 percent were underfunded (accumulated assets were short of the required level at the time of plan termination, and 1.3 times the minimum actuarial liabilities for the contract-out portion). In addition, the maximum amount of past service obligations (i.e., underfunding) amortized in one year or the shortest period for such amortization is legally limited, all of which placed limitations on early funding.

### **3. Corporate Efforts to Reform Retirement Benefits**

#### **3.1 Defined Contribution and New Defined Benefit Plans**

To resolve the issues raised in Section 2 above, companies have become active in taking measures to review their retirement benefit systems. This has been accelerated by the enactment of two laws, the Defined Contribution Plan Law and the Defined Benefit Corporate Pension Plan Law, which provide additional options for retirement benefit plans.

##### *3.1.1 Defined Contribution Plans*

The Defined Contribution Plan Law came into effect in October 2001, and the establishment of several DC plans was approved by the Minister of Health, Labor and Welfare in December that year.

In Japan there are two types of defined contribution plans: a company type in which the

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<sup>10</sup> Although suspended until fiscal 2002, in case of Tax Qualified Pension Plans and defined contribution plans a special corporate tax of 1.173 percent is assessed on outstanding assets.

company introduces the system company-wide, and makes contributions for employees; and an individual type, administered by National Pension Fund Association, in which individuals make contributions to the plan from their income. The combination of both is prohibited, and the predominant one is the company type.

Most employers introducing defined contribution plans have selected the company type. These were at first mostly limited to large companies, but have gradually spread to small and medium enterprises. At the end of December 2002, 233 companies had adopted company type DC plans with 274,000 participants<sup>11</sup>.

According to the classification by the Ministry of Health, Labor and Welfare, of the 233 company type plans (Table 10): 60.5% of sponsors (141 plans) had less than 300 employees, 16.7% (39 plans) had between 300 and 1000 employees, and 22.7% (53 plans) had 1,000 or more employees.

**<Please insert Table 10 here. >**

The adoption of the company type plan can take several forms: eliminate a portion of the book reserve severance payment, and adopt the plan in its place; eliminate TQPPs and rollover assets to defined contribution plans; withdraw from or dissolve EPFs, and adopt the plan in its place; or adopt the plan as a new and additional retirement benefit.

At the time of adoption, employers can transfer pension assets to each employee's account in defined contribution plans. With this rollover of assets, benefit obligations in defined benefit plans disappear.<sup>12</sup> Even in cases of book reserve severance payment, an employer can erase benefit obligations by contributing the fair value of that obligation within 3 to 8 years after inception of the defined contribution plan.

Out of 233 plans in Table 10, 52.8% (123 plans) were established as new benefits plans, 27.9% (65 plans) were rolled over from TQPPs, 9.9% (23 plans) replaced book reserve severance payment, 7.3% (17 plans) replaced combined plans of TQPPs and book reserve, and 2.1% (5 plans) replaced EPFs in one way or other.

In these company type plans, the formula to decide the contribution amount is stipulated in plan by-laws. The benefit must be flat amount or be fixed percentage of participant's monthly salary. However, there are also cases where employees have the option to have the employer pay the amount as a pension contribution or cash wage. In a few companies, the plan admits more than two options to employees, as is explained later.

A plan must provide participants with three or more investment options to and at least one of them must be a financial product of which principal is secured such as deposits, bonds and GICs. Plan participants must choose an investment vehicle on their own behalf.

What, then, is the objective of adoption? Among large companies, many adopt the defined contribution pension plan for its financial features: no liabilities (i.e., reserve for retirement allowance) to be recorded on financial reports, and no risk of volatility in the amounts of retirement benefit liabilities or contributions resulting from changes in discount rate or return on pension asset.

In most DC plans, which replaced some other types of retirement benefit plans, the assumed rate of return on contributed money ranges from 2.0% to 3.0% per annum. According to our colleagues in Nippon Life Insurance Company, one of the leading DC providers, these rates

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<sup>11</sup> The number of people enrolled in individual type was only 8 thousand at that time.

<sup>12</sup> To implement rollover, EPFs and TQPPs must be fully funded. This can, however, be achieved by the reduction of benefits as well as by additional contributions.

are based on the past 5 to 10 year experiences of interest rates. Then, an amount of contribution is calculated so that the sum of contributions yielding compounded interests at the assumed rate through the retirement age, reaches the amount of former plan benefits. However, par-yields of government bonds with maturity of 10 and 20 year were 1.33% and 1.95% respectively on average in 2001 and have still been declining. It means an employee is forced to invest in riskier asset and attain risk premium over government bonds, if she wants to acquire the same amount of retirement benefits with plans replaced by DC plans. In that sense, an employer shifted the burden of investment risk to employees.

Of course, there are a few exceptions. In Toyota Motor Corporation's case, severance payments (book reserve system) and the present value of the defined benefit pension (EPF) were designed to account for a 50:50 ratio at the time of retirement. They recently amended this to include one quarter of the severance payments to be converted in defined contribution plans. Total retirement benefits are comprised of 50% defined benefit, 37.5% severance payment and 12.5% defined contribution.

Toyota designed this new plan so that a stream of contributions, if parked and rolled over every year at 1-year bank time deposit, until the retirement age and then added to severance payment, will be the same total benefits as could have been received under the previous 50% severance payment plan. In other words, Toyota will make adjustments to the amount of severance payment depending on the course of interest rate movements. There is virtually no transference of employer's investment risk to an employee.

One reason for adopting a defined contribution plan, from the viewpoint of personnel and compensation management, is to lessen impediments to job changing. In Japan, unlike the U.S., the issue of portability has not been of crucial importance. Those leaving employment can receive severance payments immediately from the book reserve. In addition, even if the number of years of pension plan participation was insufficient to be vested with benefit rights, benefits could be provided with in a lump sum from the pension system.

An obstacle to job changing in Japan has been the backloading described earlier, where the total amount of benefits was limited if the length of service was insufficient. Under the Defined Contribution Plan Law, however, the contribution amount must be defined as a flat amount or as a fixed percentage of the wage, or by some other essentially similar method (Article 4, Clause 3). By this, backloading in severance payments and defined benefit plans was eliminated, ameliorating the disadvantages to those leaving the company after a short length of service.

Another objective, from the viewpoint of labor management policy, is to encourage employees to make their own plans for old age. Under the defined contribution plan, the balance of each person's account is known, and the amount of contributions by the company into that account is known. By knowing the balances of their own accounts, employees can make their own investment decisions, thereby reducing reliance upon the employer's paternalistic income protection.

In particular, in an increasing number of cases, employees are given the choice of receiving a fixed amount as a contribution to the pension plan, or as wages. Such cases are similar to the choice of cash or deferred payments under the 401k plan in the U.S. For example, in an apparel sales company named First Retailing, employees can choose from among eight patterns for receiving a total of 36,000 yen in cash wages and contributions.<sup>13</sup>

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<sup>13</sup> Amount of contribution can be one of eight alternatives: 100, 5,000, 10,000, 15,000, 20,000, 25,000, 30,000 and 36,000 yen and the difference subtracted from 36,000 yen is the amount of the cash wage.

Issues to be addressed in going forward with this defined contribution plan need nonetheless to be raised. First, except for death and disability, funds cannot be withdrawn until the age of 60. This liquidity constraint is most acutely felt by younger employees.

Second, although it is possible to transfer funds between defined contribution plans when an employee changes jobs, it is not possible to transfer funds accepted as severance payment or lump-sum payment from defined benefit plans into defined contribution plans in another company-type or individual-type plan administered by the National Pension Fund Association.

Third, maximum amount of annual contribution is 432,000 yen for employees under no defined benefits plans and 216,000 yen under a defined benefits plans of the same employer. Even if contribution up to this ceiling is made and increased by compound interest rate, it can not reach 20 to 30 million yen the amount of total retirement benefits in large companies.

### *3.1.2 Cash Balance Plan*

With the implementation of the Defined Benefit Corporate Pension Plan Law in April 2002, the establishment of the Cash Balance Plan was approved, drawing much interest from companies. Such companies as Matsushita Electric Industrial have adopted this plan. Under this system, credits accruing from service in each period are added to credits that represent the interest on the credits accumulated through the prior period, to compute the retirement benefit amount.

According to the Defined Benefit Corporate Pension Plan Law Enforcement Decree, similar to the contribution amount in defined contribution plan, the accruing service credits under this system are computed either as a flat amount per annum, a specific percentage point of wages, or some other essentially similar method. If this is the case, it is not possible to design a curve that is more disadvantageous for the person terminating employment with short tenure than is the case for the wage curve. In addition, there is an individual account for each employee, where credits are accumulated, and thus the amount of compensation paid by the company is explicitly revealed. Therefore, from the point of view of labor management, this is similar to defined contribution plans, and is generally more advantageous to people changing careers than the traditional retirement benefit system.

In spite of the above, there is no account in which an employee can transfer benefits received from an account at the time of job termination, and then continue to invest them on a tax free basis. In this respect, in comparison with the defined contribution plan, it is disadvantageous for people changing careers.

On the financial side, this is categorized as a defined benefit plan, but the interest rate risks for employer can be reduced in comparison with the traditional retirement benefit plans. The interest rate used in assigning interest credits—referred to as the “revaluation rate”—must be fixed, or the yield on government bonds, or a combination of the two (such as the government bond yield plus 1 percent). If the government bond yield is used as the basis, the revaluation rate can be amended periodically, reflecting prevailing market conditions. If interest rates decline, the revaluation rate will decline, and if the service credit is fixed, the interest credits will consequently decline, resulting in reduced benefits. After the beginning of annuity payments the assumed interest rate can also be adjusted to increase or decrease annuity amounts. Simply stated, from both an economic and accounting point of view, duration of the benefit liabilities is shortened and the sensitivity of obligation value to interest movements is lessened. It can also be said that the cash balance plan transfers the interest rate risk to employees.

### 3.1.3 New Defined Benefit Plan

Under the Defined Benefit Corporate Pension Plan Law, it is approved for employers to put back obligations and assets in the contract-out portion of Employee Pension Funds. This law added two types of defined benefit plans: contract-type and fund-type. With this addition we now have three types of defined benefit plans—the contract-type and fund-type defined benefit plans, and Employee Pension Funds (Chart 4). Based on this, the former Employee Pension Funds can put back the contract-out portion to the government, and change to the contract-type or fund-type without the contract-out portion. Existing Tax Qualified Pension Plans must convert to one of the three types within a 10-year transition period.

**<Please insert Chart 4 here. >**

As the assumed rate of interest for the rebate premium received from the government to manage the contract-out portion had been set at 5.5 percent per annum which was much lower than the prevailing rate at the market, employers maintaining the contract-out portion came to suffer losses (i.e., interest rate differential loss). In addition, under the new accounting standards, the contract-out portions were included in companies' liabilities. Furthermore, the discount rate used is lower than the 5.5 percent, causing large liabilities to be recorded for an accounting purpose. In addition, because of their semi-public nature, rules for the design, administration and management of EPFs tend to be inflexible.<sup>14</sup> Operating costs incurred, including those for the computation of premiums and benefits, are not small. Citing the foregoing, an increasing number of EPF sponsor companies have voiced their desire to escape from these burdens of contract-out.

In the past, the only way to escape the burdens of the contract-out portion was to dissolve the employee pension plan. If dissolved, the accumulated assets to pay the company's own portion must also be distributed to employees, while asset for the contract-out portion must be paid to the Employee Pension Fund Association. To avoid this disbursement to employees, the put-back of the contract-out portion was recognized by the new law. Put-back relieves the employer of the foregoing burdens. It also enables a plan sponsor to record one-time profits on the income statement under the new accounting rule, since the amount of the reduced benefit obligation for accounting purpose is larger than the amount of assets a sponsor is required to pay back to the government.<sup>15</sup> The plan sponsors' interests in this rule is very high, and within six months after the enforcement, Employee Pension Funds approved of the put-back numbered 154, including blue chips such as Toyota, Hitachi and NEC.

Easy approval of entry and exit from the contract-out system would However, result in employers' morale hazard and reverse selection, making necessary such measures as: (a) at the time of put-back of contract-out as well as the time of creation or amalgamation of Employee Pension Funds, the Minister of Health, Labor and Welfare must check to ensure that another contract-out (including an enrolment in other Employee Pension Funds) is not approved to companies that have exercised their put-back option; or (b) the Minister limits the period for the put-back, and for companies that have elected to continue contract-out no put-back is approved in future.

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<sup>14</sup> In Employee Pension Funds, the company's own design of supplemental benefits must be the same as those in the contract-out portions.

<sup>15</sup> In case of put-back, an asset amount equal to liabilities for the contracted-out portion must be returned to the government, specifically the Government Pension Investment Corporation, instead of to the Employee Pension Fund Association.

## 3.2 Reforms among Old Plans

There have been many examples in which the two issues raised in Section 2 above were addressed by making amendments to existing retirement benefit plans, rather than adopting a new type of plans based on the two laws enacted in 2001.

### *3.2.1 Reducing the Level of Retirement Benefits*

A direct measure to decrease the burden of plans is the reduction of retirement benefits, including pensions. Benefit reduction in pension plans has been approved since 1997, provided that certain conditions are met, including agreement by labor and management and the existence of management difficulties. Since fiscal 1997, the number of Employee Pension Funds whose benefits have been reduced increased each year, from 7 to 16, 52 and 177 in 2000 and 114 in 2001. The most notable pattern has been pension plan's reduction of the annuity amount by lowering the assumed rate of interest for the conversion of lump-sums to annuities, without reducing the present value of benefit payments or the total amount of retirement benefits as provided for in the labor contract.

Recently, there have also been an increasing number of cases where this reduction is not limited only to pension amounts, but where the retirement benefits stipulated in the labor contract are reduced. Practical methods to achieve this include: decreasing the amount of base wage or the loading rate in cases of retirement benefits calculated by applying a loading rate to the final wages; or reviewing the unit price of points or the schedule for granting points in cases of the point-based benefits. Other methods common to the two types of plans include: putting a maximum limit on the amount; or reducing additional benefits based on merits and on age of retirement.

Of course, as it comprises a component of the labor contract, alteration of a contract for retirement benefits requires an agreement between labor and management. In the current labor market in which employers have the upper hand, however, it is difficult for employees to reject benefit reductions.

### *3.2.2 Point-Based Retirement Benefits*

Particularly noteworthy of late has been the introduction of point-based retirement benefits, where the benefit amounts are calculated as the product of point price and accumulated points granted each year for both pensions and severance payments.<sup>16</sup> Roughly 20 percent of large companies have adopted this type of plans.

The design of this type of plans varies in the content of points, and the price per point. Under the most popular design, points are granted both for the length of service (or age), and for qualification (job capacity). In this case, inducements for long-term employment may be achieved by structuring a steeply increasing scale of points to be granted from an employee's late 30s through about age 50, and/or increasing the point price according to age or length of service rather than simply applying a flat price.

In most examples where this system has been adopted, however, the aim is to increase the emphasis on employees' performance and their evaluation, lessening the degree of the seniority basis, and to allocate higher points for job content or performance rather than age or

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<sup>16</sup> In Employee Pension Funds, the rules governing the granting of points must be objective and rational. For example, the largest points granted for the same length of service should be less than tenfold of the smallest points. Under the new Defined Benefit Corporate Pension Plan Law, the conditions similar to this are assessed.

length of service. For example, this could be done by granting points for job qualification only, or setting points each year based on the evaluation of employee's performance. This type of design differs from the traditional system of linking benefits to final wages at the time of job termination. Instead, wages and annual salaries during mid-career, which are dependent on performance and job content, are reflected in the benefit amounts.

### *3.2.3 Advanced Payment Option*

Another alternative to lighten the burden is to give the advanced payment option to employees, in which employees can select between retirement benefits and their annual cash added to wage. The increments to wages are generally calculated so that the sum of the payment amount and the assumed interests on them are equal to retirement benefits. In most cases the increment is a flat amount or a certain proportion of wages.

This system has principally two effects in labor management : if advanced payment is selected there is no deferred portion, making annual compensation explicit and certain; and if the advanced payment option portion is a flat amount or in proportion to wages, it is difficult to backload the payment schedule. Hence, the seniority nature of traditional retirement benefits is to be reduced. .

Also, incremental wages are paid annually during employment, thus facilitating self-planning for old age. Companies with an increasing number of mid-career employees from outside have been adopting this system.

This system is not without its problems: it decreases inducements to continue employment, thereby raising the risk of losing qualified staff. In addition, when a company is forced to apply disciplinary termination, it does not have the ability to reduce or forfeit retirement benefits, and it also loses the ability to differentiate benefits between voluntary and involuntary terminations. Of course, companies have the option of availing only a portion of retirement benefits for advanced payment option, retaining the remainder as a tool to cope with the above mentioned problems.

Another issue is tax payment. As is explained in section 4.2, lump sum payment of retirement benefits falls under the retirement income deduction, and for pensions the pension benefit deduction may apply. If paid in advance and included in wages, however, this will be subject to income and inhabitants taxes, and further will be subject to social security tax calculations. Forcing these negative factors upon employees would effectively reduce benefits.

From a financial aspect, advanced payments have the effect of reducing liabilities—reserves for retirement allowances on balance sheets and alleviate investment risks as well. It, however, burdens the companies with increased and regular cash out flows for advanced payment.

### *3.2.4 Elimination of Retirement Benefits*

There has recently been a gradual increase in cases where retirement benefits have been eliminated entirely. One is the elimination of the company pension system by dissolution or cancellation, which have continued to increase in both Employee Pension Funds and Tax Qualified Pension Plans. The deterioration of investment return has been cited as a principal factor for this. As for Employee Pension Funds, an additional incentive has been escaping the burden of contract-out.

When a company pension is eliminated, there are two options available for dealing with traditional retirement benefits. One is to leave the benefits defined in the labor contract as they are, making and reverting them an in-house book reserve. In this case, amount distributed

to an employee from pension reserve is usually subtracted from the total sum of retirement benefits stipulated in the labor contract.

The other way of dealing with retirement benefits is to eliminate the retirement benefits altogether, not to mention company pension plans. Most companies take the course of distributing accumulated pension assets to employees, with the future service portion added to wages. This is equivalent to giving all employees the advanced payment,<sup>17</sup> since retirement benefits are entirely absorbed into wages. This measure has been consistent with compensation reforms that remove emphasis from seniority and deferred payment and place it on employee's merits and performances. It also has the effect of making the benefits and compensation easily understood and freely used by employees. From a financial perspective, it is possible to get rid of the volatility in benefit obligations recorded on balance sheets and in expenses and cash outflows caused by interest rate movements.

### 3.3 Section Summary

Table 11 summarizes the foregoing explanation. Reforms in retirement benefits are evaluated from three points in labor management: reducing the burden of personnel expenses; reducing the importance of seniority and tending to reward employees for performance and contribution; and coping with changes in employment practices and diversification of employee's career.

<Please insert Table 11 here. >

One measure to reduce the burden of personnel expenses is a direct reduction. Although defined contribution plans, advance payment of benefits, and cash balance plans will cope with the changes in employment practices and career diversification by alleviating backloaded benefit curve and instituting individual accounts, they will not always have bearing on emphasizing performance and contribution. Elimination of benefit plans have effects of both attaching importance to job content and performance and adapting to changes in employment practices. The point-based benefit plans usually reduce the importance of seniority and emphasize performance and contribution, and in some cases also reduce personnel expenses and coincides with new employment practices and career diversification.

If a demarcation of financial burden can be made between cash burden and financial obligations/expenses in accounting reports, a reduction of benefits will reduce both. Defined contribution plans are usually said to reduce obligations and expenses, but that effect actually depends on the amount of employer's contribution. Rather, a measure that will ensure the reduction of financial obligations and expenses is the cash balance plan. Although advance payment or elimination of retirement benefits will also result in this reduction, it may lead to increase the immediate cash burden.

## 4. Policy Issues

While reforms in retirement benefits are progressing quickly, there still have remained some problems to be solved. Among them, issues relating to protecting the benefit rights, and to tax systems, will be discussed below.

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<sup>17</sup> Examples of eliminations that have been reported in the media include Rock Field, Kazokutei, Watami Food Service, Kineya (in the food service industry); Otsuka Furniture, Kyoto Kimono Yuzen (in distribution industry); Hirota Securities, Matsui Securities, Sumida Corporation (in electrical equipment industry), and Seiko.

## 4.1 Protection of Benefit Rights

The first issue is the protection of the right to receive retirement benefits, or benefit rights. In many countries, rules to protect this right have been established, especially in defined benefit plans, including: early vesting of benefits; non-forfeiture of past service benefits; and obligations to secure sufficient funding and establishment of payment insurance systems.

In Japan, as a general law on retirement benefits, including the book reserve system, Article 5 of the Law for Ensuring Payment of Wages recommends such protection measures<sup>18</sup> as obtaining bank guarantees or entering into trust contracts. For Employee Pension Funds, in 1997 minimum funding requirements for plan termination were established.

These measures have in reality been of little use for the protection of benefit rights. First, Article 5 of the Law for Ensuring Payment of Wages is merely a best-effort clause, and only 21 percent of all companies, and 12 percent of companies with 1,000 or more employees, have implemented measures to preserve severance payments required by the law. For example, when a shoe manufacturer named Asahi Corporation went bankrupt and underwent corporate reorganization in 1998, employees who agreed to retire as a way to reduce staff, as well as those who remained with the company, had their respective benefits reduced by 40 and 50 percent respectively.

Furthermore, when an Employee Pension Fund or Tax-Qualified Pension Plan is established, regardless of the funding condition of pension plans, an employer's obligation under Article 5 is deemed to have been satisfied. The average funding ratio of Employee Pension Funds against termination liabilities was, however, only 86 percent as of end of March 2001 and should be much lower in March 2002.

An even more significant issue is that benefit reductions are legally allowed. Whether in pension plans and severance payments, changes can be made to labor contracts for retirement benefits, thereby reducing benefits, as long as certain conditions are fulfilled. Included in those conditions are the employer's financial troubles, rationale for changes, compensation, and adequate explanation to participants. Moreover, with an adequate explanation and employees consent, retroactive reductions of past service benefits are possible.

This point has not been changed by the April 2002 enforcement of the Defined Benefit Corporate Pension Plan Law. Reductions of retirement benefits are recognized under essentially almost the same conditions as in current Employee Pension Funds.

It is true that funding standards for continuation or plan termination have both been established, and employers are obliged to make up for any shortfall within a specified period.<sup>19</sup> Looking at enforcement orders and regulations in comparison with those in the U.S., however, the contribution amount required for recovery in case of any funding shortage is relatively small, while the time required for recovery is somewhat long. For example, if plans are funded to 80 percent of minimum funding requirement for plan termination, in the U.S. 22 percent of the deficiency must be funded annually. Under Japan's Defined Benefit Corporate Pension Law Enforcement Order, only 8 percent of the deficiency must be funded.<sup>20</sup>

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<sup>18</sup> It is provided for to set up bank guarantees, trusts, mortgages, or collateral against 25 percent or more of retirement benefits for voluntary job termination at the term-end, or to establish a retirement allowance protection committee. (Law for Ensuring Payment of Wages, Implementation Rules, Article 5-2).

<sup>19</sup> On the contrary, if the funding level rises above a pre-determined level, there is a contribution holiday where all or part of the contribution is suspended.

<sup>20</sup> In the U.S., the ratio of required contribution to unfunded liabilities is calculated as the result of multiplying the funding ratio in excess of 60 percent of the obligation at termination (current liabilities) by 0.4 and subtracting this product from 30

The root of this problem lies in the thinking that prevailed in Japanese management that retirement benefits constituted merit-based compensation rather than deferred wages. If reduction of past service obligations are allowed under defined benefit plans, however, opportunistic actions or morale hazard by employers may be tolerated, causing deterioration of economic efficiency and welfare. Defined benefit plans should ensure payments of benefits that accrued in the past. A strict application of the funding standards may be a means to achieve this.

If a company wishes to share business risks with its employees, i.e., adjust benefits in accordance with employer performance or financial conditions, it can choose a method of adjusting cash compensation such as bonuses and wages. If individual employees reflect such ups and downs of compensation to the amount they contribute to defined contribution plans, the same effect as the changes in company retirement benefits reflecting business performance can be achieved. As will be discussed below, this response can be made by establishing an individual tax-exempt limit for annual contributions to all types of plans.

#### 4.2 Taxation Suitable for Diversified Employment Practices

The second issue is the tax system. We examine taxation at three points of time, i.e. contributions, investments, and benefit payments.

As is shown in Table 12, taxation rule for Japanese retirement benefits is fragmented and inconsistent and much complicated.

<Please insert Table 12 here. >

In Employee Pension Funds, Tax Qualified Pension Plans, and the new defined benefit company pension plans created under the new law, an employer's contribution can be expensed for tax purposes. Under the book reserve system, 20 percent of required retirement benefit amounts for voluntary retirement at term-end (in the process of being reduced from the historical 40 percent to 20 percent over six years, beginning from 1998) could be provided tax-free, and within this range the provision amount could be expensed for tax purposes. This tax free provision, however, is due to be eliminated over four years from 2003, as a measure to expand the tax basis as a quid pro quo for the decrease in tax revenue that is caused by the introduction of consolidated taxation system. For employee contributions, only Employee Pension Funds are eligible for social insurance premium deductions. Under other systems a life insurance premium deduction is applicable to employee contributions. In the latter case, combined with premiums for other life insurance contracts, annual maximum amount eligible for the deduction is 100,000 yen, being much smaller than EPFs, of which the upper limit is 2.7 times employee's contribution for the contracted-out portion

In Employee Pension Funds, investment income from asset provision to pay company's own supplemental benefits is exempted from taxation, as long as the asset provision is below 1.7 times of asset to pay contract-out portion, and so is the investment income for contract-out portion. The rationale for deduction is that the supplemental as well as contract-out portion falls under the supervision of the Minister of Health, Labor and Welfare, and have a public nature. On the other hand, systems, a special corporation tax<sup>21</sup> of 1.173 percent is assessed in

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percent. Thus, if the funding ratio is 80 percent, the annual contribution will be:  $30\% - 0.4 \times (80\% - 60\%) = 22\%$ . Under Japan's Defined Benefit Corporate Pension Law Enforcement Principles, Article 58: "An amount resulting from adding one 150th of Minimum Funding Standard to one-tenth of the differential between shortfall amount and 10% of the Minimum Funding Standard" should be additionally contributed. Thus, if there is the same 20 percent shortfall,  $((20\% - 10\%) \times 0.1 + 1/150) \div 20\% = 1.67\% \div 20\% = 8.3\%$  of the shortfall is the required annual funding.

<sup>21</sup> While under Tax Qualified Pension Plans premiums are expensed when making contributions, levying income tax on asset

other types of pension plans, although this taxation is suspended until March 2005<sup>22</sup>. As for the book reserve plan, income derived from reserve is naturally taxed as income of an employer.

Finally, with respect to benefits, if received in lump sum, a ¥400,000 severance income deduction is allowed for each year of service for the first 20 years, and a deduction of ¥700,000 for each succeeding year after 20 years is allowed. If an employee works for one company 40 years, and receives 30 million yen as lump sum benefits, she can deduct 22 million (=20 years × ¥400,000 + 20 years × ¥700,000 ) from 30 million yen as taxable income. Then 50% of that 8 million yen (=30million - 22million)is taxed separately from other taxable incomes.

If received as pension, the pension benefit deduction is applied. The amount of this deduction is the total of a flat amount and a fixed percentage of benefit portion exceeding that amount. If combined with other deductions applicable to the aged people, and if both members of a household are over the age of 65, up to 3.49 million yen, including public pension benefits will be free from annual taxes.

As a result, in Employee Pension Funds, there are no or little taxes on employer and employee contributions, or investment incomes. Benefits are applicable to pension benefit deduction. This situation, where none of contributions, investment incomes or benefits is fully taxed can be abbreviated as “EEE,” standing for “exempt, exempt, exempt.”

Also, at the core of these taxation issues lies the fact that although all retirement benefits are paid as one component of compensation and the function of being the preparation for the old age is the same, tax treatment differs depending on the form of payment and type of plans.

For instance, regardless of contribution amounts, employer contributions to a defined benefit plan can be fully expensed, and are not included employees taxable income. In a company type defined contribution plan, however, an upper limit of 432,000 yen per year is assessed. In case individuals make contributions to an individual-type defined contribution plan from their wages, the upper limit is now 180,000 yen. Employees to whom an employer’s retirement benefit system is not applied—such as part-time workers—are subject to this 180,000 yen tax deduction; employees who have selected advanced payment of retirement benefits (in companies that have adopted it) as wages are also subject to this limit.

There are also inequities in benefits received when changing jobs at mid-career. Currently, since the special corporation tax is suspended, investment income in all company pensions is non-taxable. However, it is only when funds are paid from and transferred between defined contribution plans that investment income on lump sum benefits received on leaving an employer continues to maintain tax-exempt status. Investment income is taxable if benefits are received from all other types of plans. If a severance payment from a book reserve system or lump-sum payment of a defined benefit plan is received, even if saved as retirement income, benefits in excess of the retirement income deduction is taxable, as is the investment income.

To resolve this problem, one of two specific rules should be applied universally to all plans irrespective of forms of payment: one is to make contributions and investment income tax-exempt, but make benefits received taxable (EET); the other one is to make contributions and investments taxable, but make benefits tax-exempt (TTE). The choice would then be an issue.

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distribution to each member must be deferred until the time of benefit distribution. This is a tax to adjust for this timing lag (of this, 0.173 percent is the special inhabitant tax).

<sup>22</sup> Government has suspended this tax since April 1998, rolling over every two years.

Considering the aging population and declining birth rate are straining the financial status of the public pension system, there will be demands that company and individual pension plans supplement old age income security. The appropriate option is therefore to give incentives to private preparation by deferred taxation through EET— tax-free contribution and investment income, with taxable benefits .

One desirable way to achieve this is to establish an individual tax-exemption limit for annual contributions to all plans, in preparation for retirement until the age of 65. Whether the fund source is wages, other form of compensation, or pension contributions, or whether an employer or an individual makes contributions , the amounts within this limit will be recognized as an income deduction or as taxable expenses. In addition, in either defined benefit or contribution plans the contribution to company pensions by companies will be allowed within this limit. If the annual contribution limit is 500,000 yen, and the company makes a 300,000 yen contribution to a defined contribution plan, employees as individuals can make tax-exempt contributions up to a maximum of the remaining 200,000 yen.

Using this system, employees of small and medium scale companies which do not have company pension plans, or part-time or temporary workers who are not eligible for company pensions even if such plans exist, or younger workers or frequent job hoppers who cannot expect much from retirement benefits, are able to have opportunities to take advantage of tax-exempt retirement plans.

Further, if there is an unused limit in any year, deferment should be allowed. If the limit is not used at all until retirement, 30 or 40 years worth of contributions can be made out of severance payment . Thus, elimination of the current retirement income deduction will not act unfavorably, even for those facing imminent retirement. There are also some who request the raising of the existing annual contribution limit of 432,000 yen in defined contribution plans. If such deferment is allowed, however, even current annual limit would be substantially sufficient to cover both current severance payments and pension contributions. At the same time, as a course of EET principle, annuity payments which has been eligible for pension benefit deduction will come to be taxed. One of the models for this type of taxation is Canada's Registered Retirement Savings Plan (RRSP).

An issue for the introduction of this system will be the conditions to approve EET, which is a favored treatment not applicable to other ordinary types of savings. One of those requirements in defined benefit plans is to maintain funding level sufficient to ensure benefits. With respect to the content of benefits, annuities would be ideal to hedge against the risk of longevity. Considering the possibility of adverse selection, however, annuity payments should not be mandated. For inflation indexation, it would be prudent to await the issuance of inflation-indexed government bonds.

One technical issue is identification to record and control tax-exempt contribution limits. This can be resolved by using a basic pension number in the same way as currently used for administering the contribution limit in defined contribution plans. Another issue is the allocation of employer's contributions in defined benefit plans to individual participants tax-exempt limit. It is inevitable to adopt a relatively simple calculation method using average accrual benefits similar to that used for RRSP so that each individual can compute and control her own contribution amounts with ease.

### **4.3 Other Issues**

Among other policy issues regarding retirement benefits, an important one is their relationship to public pensions. Amidst concerns being voiced about the financial uncertainties

surrounding public pensions, the wide use of company and individual pensions for old age income security is becoming widespread, from such Latin American countries as Chile, to Europe, including the UK, Sweden, and Germany. Following their lead, discussions have been intensifying on Japan's use of a private sector retirement benefit plans to supplement public pensions.

Depending upon the degree of such necessity, the range of applicability of preferential tax treatment, and the amount or conditions of the preference, will vary. If individually separate pensions are used, as in Sweden or Germany, improvement in disclosures or education about investment products and inherent risks are necessary. Also, the level of fees charged for asset investment or management will need to be kept at reasonable levels.

Another issue is to administer and manage plans in a fair and efficient manner. In Japan, the concept of fiduciary responsibility is beginning to make inroads into retirement benefit plans, particularly in company pensions. The obligation to exercise due care and obligation for loyalty, and the obligation to disclose information, will likely play an important role in maintaining fairness between employers and employees, as well as between investment managers and pension plans.

Retirement benefit plans must, as a matter of course, be operated efficiently. Although it may not be according to the original intent, fiduciary responsibility has also been playing a role in contributing to that efficiency. For example, fiduciary responsibility set an obligation for disclosure or explanation of tasks that have been entrusted. This works to prevent fiduciary's morale hazards and opportunism arising from the asymmetry of information between fiduciary and its counterpart.<sup>23</sup>

Rules regarding fiduciary responsibility will not of themselves ensure the retirement plan's complete efficiency. This is similar to that a director's fiduciary responsibility alone will not achieve efficient management of a stock corporation. In order to achieve efficiency, governance over company pensions, particularly over their management, will be recognized as a major issue. Just as in the selection of corporate executives, an important issue would be how plan executive managers will be selected and dismissed if necessary, how they will be evaluated, and what sort of incentives should be provided to them.

## 5. Summary

This paper has discussed the functions of and changes in retirement benefits in Japanese labor management. With the caveat that the applicability of the retirement benefits system covers less than half of the overall workforce, the benefits amount of full-time employees of large corporations, which forms an S-shaped curve as the length of service increases, had been used as a tool to control the tenure and termination of employment. In addition, since benefits were originally a one-time payment from internal book reserves, in many cases benefit payments have been made in a lump sum, even when pension plans with externally accumulated assets had been established.

With the recent increase in term-defined and part-time employees, and with increased job changing, resulting from causes that include corporate restructurings, labor management that

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<sup>23</sup> In this sense, fiduciary responsibility has the effect of supplementing the private contract. Legal experts in England and the United States disagree, with some saying that fiduciary responsibility differs from a contractual relationship, while others argue that fiduciary responsibility should be regarded as a legal system that operates under an entirely different set of circumstances than contract law. The explanation here is closer to the former interpretation.

falls outside the realm of the long-term employment model has increased. Further, with the introduction of the new accounting standards for treatment of retirement benefits from fiscal 2000, liabilities and costs arising from benefit plans have also placed pressures on companies.

Facing such circumstances, companies have begun to take measures, which include the reduction of retirement benefits amount and the adjustment of benefit formula. In the latter case, companies try to reflect individual employee's performance and job contents instead of the length of service in the benefit formula. Some companies have also begun to introduce defined contribution plans or cash balance plans (under the Defined Contribution Pension Law and Defined Benefit Corporate Pension Plan Law, both enacted in 2001). Others decided to exercise the "put-back" of contract-out portions. There are also companies that provide employees with the option to of whether to receive retirement benefits, or to receive the same amount in their wages. There are even companies that have eliminated retirement benefits in themselves.

Amidst the companies' probing not only retirement benefits, but also the personnel and employment strategy, retirement benefits will in the future become diversified, depending on the differences in companies' personnel policies or characteristics of its business models and nature of jobs.

In the public policies to address these trends, issues such as protection of the benefit rights and the funding of defined benefit plans, and the introduction of tax rule that is neutral with respect to the selection of plan and compensation type, will need to be addressed.

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**Table 1: Portion of Retirement Benefits Paid in Lump Sum (1997, %)**

① Percentage by plan type

Book reserve	Funded pension	Combination
47.5	20.3	32.2

② Portion in funding

40%\* of total funds is paid from pension plans' funding when in combination

Benefits paid from book reserve =  $47.5\% + 32.2\% \times 60\% = 67\%$   
 Benefits paid from funded pension =  $20.3\% + 32.2\% \times 40\% = 33\%$

③ Lump-sum benefits paid from pension plans

Percentage of pensions allowing lump-sum payment                      89.8%  
 Percentage of beneficiaries selecting lump-sum payment  
     All-in lump sum                      58.6%  
     Partial lump sum                      10.2%

Percentage of lump-sum benefits in pension plans =  $89.8\% \times (58.6\% + 10.2\% \times 0.5) = 57.2\%^{**}$

④ Percentage of lump-sums in total retirement benefits  
 **$67.0\% + 33\% \times 57.2\% = 85.9\%$**

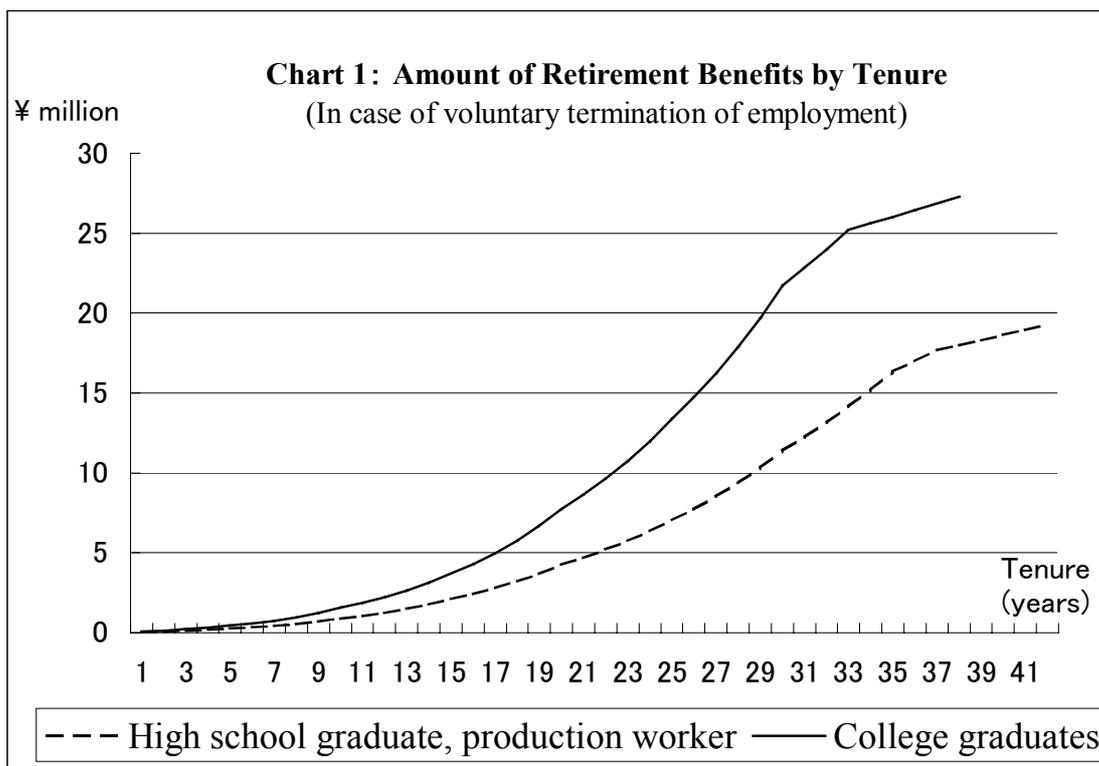
\* Arithmetic average of college, high-school, and junior high-school graduates.  
 \*\* Assumption is that 50 percent of benefits are paid in lump sum when beneficiaries select partial lump sum.

(Source) For percentage by plan type and lump-sum payment, *General Survey on Wages and Working Hours System*, Ministry of Health, Labor and Welfare, 1998.  
 For portion of lump-sum in combination plans, *Comprehensive Survey of Wages and Retirement Benefits*, Central Labor Commission, 1999.

**Table 2: Coverage by Employer-Sponsored Pension Plans in the U.S. (%)**

All wage workers	Full-time workers
46.8	Average 60.8
	Public sector 86.0
	Private sector 55.8
	Employer with 1,000+ employees 71.7

(Source) "Retirement Plan Participation," *EBRI Notes*, January 2001, Vol. 22, number 1. Employee Benefit Research Institute



(Source) Central Labor Relations Commission, "Comprehensive Statistics on Wage Conditions," 2001

**Table 3: Retirement Benefits, Accruing Benefits, Wage, and Loading (College Graduates)**

Age	Amount (thousand yen)			Loading L(=R/W)	A/W
	Total retirement benefits R	Accruing benefits in that year A	Base wage for benefit calculation W		
23	73	73.0	243.3	0.3	0.30
25	213	66.8	236.7	0.9	0.28
27	455	112.8	267.6	1.7	0.42
32	1,562	194.9	347.1	4.5	0.56
37	3,715	358.7	427.0	8.7	0.84
42	7,735	645.7	515.7	15.0	1.25
47	13,380	831.2	586.8	22.8	1.42
52	21,725	1170.4	662.3	32.8	1.77
55	25,224	480.3	685.4	36.8	0.70
60	27,295	-366.6	583.2	46.8	-0.63

(Source) Same as Chart 1.

Note: Amounts of benefits only for ages in the left (age) column are revealed in statistics by the Central Labor Committee.

When numbers at age "t" and "t+5" are revealed, amounts at "t+1" through "t+4" are calculated, so that equations

$R=Wt \times Lt$ ,  $R_{t+1}=R_t(1+r)+A_{t+1}$ , and  $A_{t+1}=A_{t+2}=A_{t+3}=A_{t+4}=A_{t+5}$  hold true.

**Table 4: Changes in Labor Distribution Rates** (%)

	All corporations			Corporations with capital exceeding 1 billion yen		
	All industries	Manufacturing	Non-manufacturing	All industries	Manufacturing	Non-manufacturing
1970s ①	67.5	67.8	67.2	56.0	60.0	50.1
1980s ②	70.6	71.0	70.3	57.7	62.8	51.2
1990s ③	72.5	74.3	71.5	62.5	68.6	56.6
Year 2000 ④	73.2	73.7	73.0	60.7	65.7	55.9
③-①	5.0	6.4	4.3	6.4	8.6	6.5

(Source)

*Statistical Yearbook of Corporations* (Ministry of Finance)**Table 5: Factor Contributions to Growth in Labor Distribution Rates** (%)

Samples	Periods	Change labor productivity	Change in labor cost per person	Change in unit labor cost	GDP deflator	Increase in labor distribution rate per annum	<Ref.> Total number of employees
		A	B	$C \doteq B-A$	D	$E \doteq C-D$	
All scales							
	① to ②	4.87	10.82	6.26	5.04	1.23	3.18
	② to ③	2.93	3.93	1.06	1.59	-0.53	2.44
	③ to ④	0.19	2.91	2.73	1.29	1.44	1.96
	④ to ⑤	0.86	0.66	-0.20	-0.57	0.37	0.07
Corporations with paid-in capital over 1 billion yen							
	① to ②	4.79	10.83	6.30	5.04	1.26	2.05
	② to ③	2.67	4.19	1.56	1.59	-0.03	3.07
	③ to ④	-1.33	1.98	3.36	1.29	2.08	3.20
	④ to ⑤	2.59	1.57	-0.98	-0.57	-0.41	-0.28
Manufacturing corporations with paid-in capital over 1 billion yen							
	① to ②	5.59	11.06	5.74	3.94	1.80	1.55
	② to ③	3.93	4.50	0.61	0.69	-0.08	1.43
	③ to ④	-0.52	1.99	2.54	-0.13	2.67	2.19
	④ to ⑤	6.42	2.74	-3.45	-2.43	-1.02	-1.76
Non-manufacturing corporations with paid-in capital over 1 billion yen							
	① to ②	3.89	10.33	6.68	6.19	0.49	3.04
	② to ③	1.20	3.68	2.51	2.15	0.37	5.61
	③ to ④	-1.34	1.95	3.36	1.69	1.67	4.45
	④ to ⑤	0.00	0.37	0.37	0.10	0.27	1.35

Contribution is calculated based on the differential between the following periods:

- |             |  |             |                                 |
|-------------|--|-------------|---------------------------------|
| ① 1960-74   | (Rapid economic growth)                    | ④ 1992-1994 | (Depression after bubble-burst) |
| ② 1975-1986 | (Low-growth period after first oil crisis) | ⑤ 1995-2000 | (Deflationary period)           |
| ③ 1987-1991 | (Bubble period)                            |             |                                 |

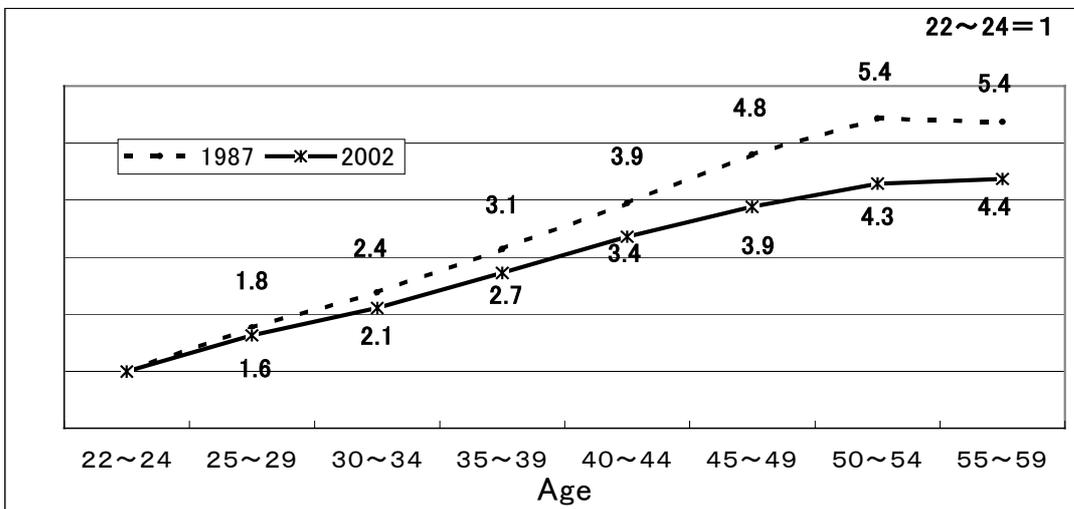
(Source) Labor allocation and number of employees, *Annual Statistics on Corporations* (Ministry of Finance); value-added deflator, *National Income Statistics* (Cabinet Ministry).

**Table 6: Portion of Employees Age 50+ in Corporations with Over 1,000 Employees (%)**

	Age 50-59	And tenure of over 30 years	
	A	B	B/A
College graduates (all industries)			
1977	4.3	0.8	17.5
1987	8.5	2.4	28.5
1997	11.7	5.1	43.1
2000	14.5	5.7	39.3
High school graduate production workers (manufacturing)			
1977	1.6	0.3	17.8
1987	7.0	2.5	36.3
1997	13.1	8.3	63.4
2000	15.9	11.4	72.0

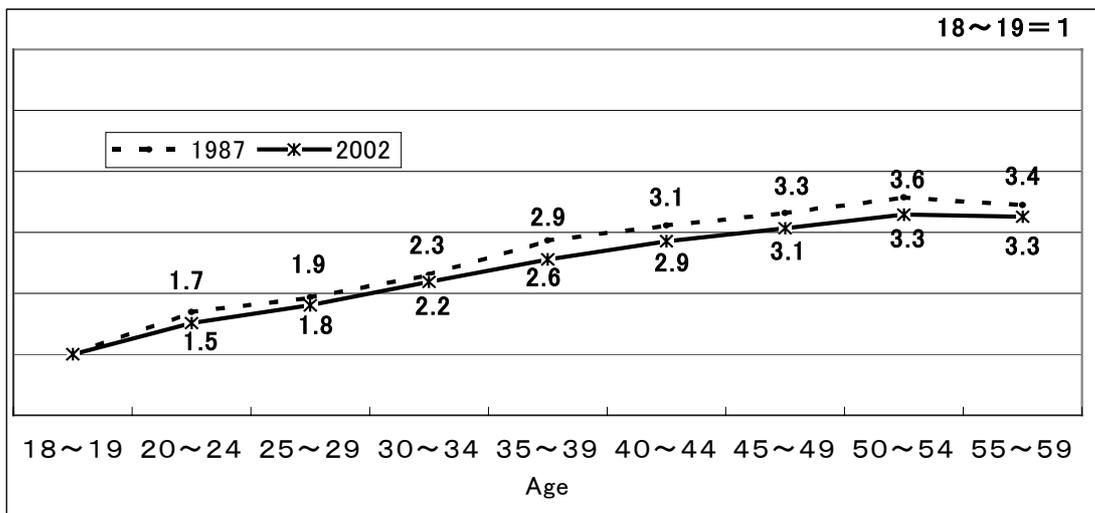
(Source) Ministry of Health, Labor and Welfare, *Basic Survey of Wage Structure*.

**Chart 2-1: Total Wage Profile by Age (College graduates)\***



\* Indexing total of fixed salary and bonus received by those working at a single employer after graduation.  
 (Source) *Basic Survey of Wage Structure 2001, 1988*  
 Ministry of Health, Labor and Welfare

**Chart 2-2: Total Wage Profile by Age (High school graduate production workers)\***



\* Indexing total of fixed salary and bonus received by those working in manufacturing industry at a single employer after graduation.  
 (Source) Same as Chart 2-1.

**Table7: Asset Composition of Private Pension Funds (March 2002)**  
(Unit: trillion yen)

	Pension funds for private sector		Corporate pensions	
	* (%)	(%)	(%)	(%)
Cash & deposits	3.7	3.9	3.4	4.2
Funds entrusted with Trust Fund Bureau	0.8	0.9	0.0	0.0
Loans	2.8	3.0	2.4	3.0
Securities other than stocks	37.1	39.6	29.4	36.5
Stocks and equity	25.9	27.7	23.8	29.6
Derivatives	0.2	0.2	0.2	0.2
Foreign investment	21.4	22.9	19.6	24.4
<b>Total (including others)</b>	<b>93.7</b>	<b>100.0</b>	<b>80.6</b>	<b>100.0</b>

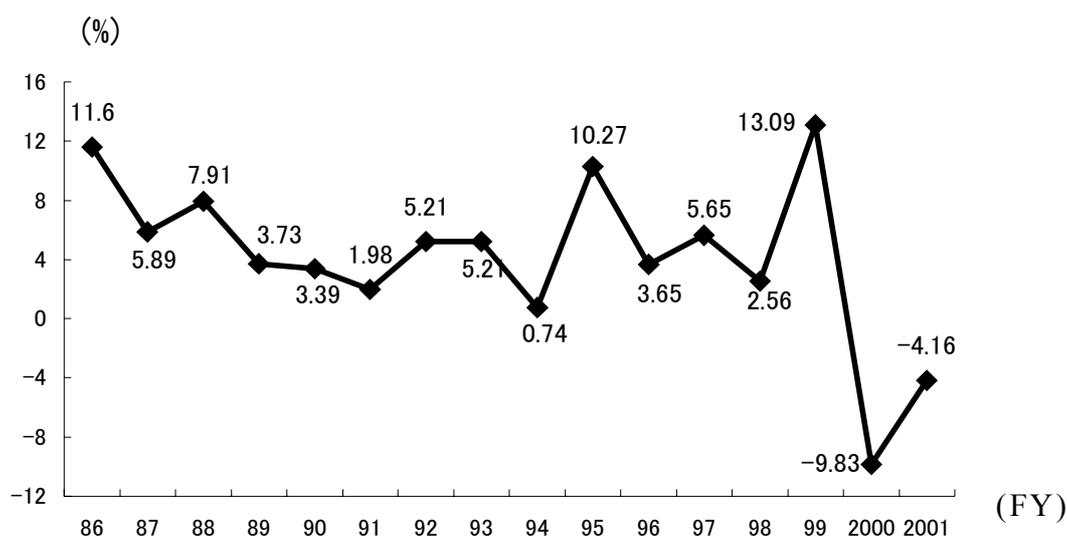
Corporate pensions consist of EPFs and TQPs.

\*Additionally included here are national pension funds, and employees retirement allowance mutual aid and smaller enterprises retirement allowance.

(Source) *Flow of Funds Account* (Bank of Japan)

**Chart 3: Return of Assets Managed by EPFs** (%)

Fiscal Year	Average A	CPI Growth Rate B	Real Rate of Return =A-B
1986 to 90	6.5	1.3	5.2
1991 to 95	5.0	0.8	4.2
1996 to 2000	1.5	0.2	1.2
1991 to 2001	3.1	0.4	2.8



(Source) *Asset Management in EPFs (2001)*,  
Pension Fund Association.

**Table 8 : Effect of New Accounting Rules in Corporate Financial Statements**

	(Trillion yen)							④ to share- holders' equity	④ to recurring profits	⑤ to share- holders' equity	⑤ to recurring profits
	Total employees (1000)	Projected benefit obligation ①	Plan assets ②	Net shortage of funds (①-②)	Accrued benefit costs recognized ③	Unrecognized portion of projected benefit oblig. ④ (=①-②-③)	Periodic benefit costs ⑤				
Fiscal year ending March 2001											
Total N=1024 (per employee, million yen)	8,761	73.9 (8.4)	39.9 (4.6)	34.0 (3.9)	23.2 (2.6)	10.8 (1.2)	10.7 (1.2)	7.5%	57.2%	7.4%	56.6%
Manufacturing industry N=653 (per employee, million yen)	6,308	49.7 (7.9)	28.6 (4.5)	21.1 (3.4)	13.7 (2.2)	7.4 (1.2)	7.0 (1.1)	8.2%	66.2%	7.7%	61.9%
Non-manufacturing industry N=371 (per employee, million yen)	2,453	24.2 (9.9)	11.4 (4.6)	12.8 (5.2)	9.5 (3.9)	3.4 (1.4)	3.8 (1.5)	6.2%	44.0%	7.0%	49.0%
Fiscal year ending March 2002											
Total N=1024 (per employee, million yen)	8,618	78.2 (9.1)	39.2 (4.6)	38.9 (4.5)	24.6 (2.9)	14.4 (1.7)	6.2 (0.7)	10.0%	122.6%	4.3%	52.9%
Manufacturing industry N=653 (per employee, million yen)	6,141	52.4 (8.5)	27.7 (4.5)	24.7 (4.0)	14.7 (2.4)	10.0 (1.6)	3.7 (0.6)	11.1%	214.3%	4.1%	79.2%
Non-manufacturing industry N=371 (per employee, million yen)	2,477	25.8 (10.4)	11.5 (4.7)	14.3 (5.8)	9.9 (4.0)	4.4 (1.8)	2.5 (1.0)	8.1%	62.3%	4.6%	35.6%
Year to Year Comparison		Year to Year Change						Year to Year Change			
Total N=1024 (per employee, million yen)	-1.6%	5.7% (7.5%)	-1.8% (-0.2%)	14.6% (16.5%)	6.1% (7.9%)	32.8% (35.0%)	-42.2% (-41.2%)	2.5%	65.5%	-3.1%	-3.7%
Manufacturing industry N=653 (per employee, million yen)	-2.6%	5.4% (8.3%)	-3.1% (-0.4%)	16.8% (20.0%)	7.5% (10.4%)	34.0% (37.7%)	-47.0% (-45.6%)	2.9%	148.1%	-3.6%	17.3%
Non-manufacturing industry N=371 (per employee, million yen)	1.0%	6.4% (5.4%)	1.3% (0.3%)	11.0% (9.9%)	4.2% (3.2%)	30.0% (28.8%)	-33.2% (-33.9%)	1.9%	18.3%	-2.3%	-13.3%

(Source) NLI Research

**Table 9 : Comparison of U.S. and Japanese Firms' Financial Statements under Financial Accounting Standard 87**

	GM (one hundred million dollars)	Honda (ten billion yen)	GE (one hundred million dollars)	Toshiba (ten billion yen)	IBM (one hundred million dollars)	NEC (ten billion yen)	19 manufacturing corporations (Average) (10 billion yen)
Projected benefit obligation (PBO) ①	830	134	255	175	562	116	51
Fair value of plan assets ②	875	87	502	99	734	79	31
Net shortage of funds	(45)	46	(247)	76	(172)	37	20
PBO recognized on balance sheet (Accrued Pension Costs)	(136)	22	(94)	35	(69)	26	NA
Service cost	12	6	7	5	10	5	2
Interest cost	53	4	18	6	37	4	2
Expected return on plan asset	73	3	34	3	56	3	1
Net pension and severance cost ③	(16)	9	(14)	10	(8)	9	4
Total asset * 1,2 ④	2,747	490	4,052	570	875	461	225
Equity capital ⑤	206	193	426	98	194	98	78
Net Income ⑥	60	26	107	(3)	77	1	5
Number of employees (ten thousand)	38.8	11.2	34.0	19.1	29.1	15.5	6.7
②/①	105%	65%	197%	56%	131%	68%	61%
①/④	30%	27%	6%	31%	64%	25%	23%
①/⑤	402%	69%	60%	178%	289%	118%	66%
PBO per employee (\$10,000: ¥ 1mil.)	\$214,000	11.9¥ million	\$75,000	9.2¥ million	\$193,000	7.5¥ million	7.6¥ million
(\$10,000: ¥ 1mil.)	(\$4,000)	0.8¥ million	(\$4,000)	0.5¥ million	(\$3,000)	0.6¥ million	0.6¥ million
③/⑤	(8%)	5%	(3%)	10%	(4%)	9%	5%
③/⑥	(27%)	35%	(13%)	(361%)	(10%)	850%	82%*

\*77% if we exclude companies with losses

(Source) Financial statements of companies: US corporations, December 1999; Japanese corporations, March 2000

19 manufacturing corporations: Nippon Meat Packers, Wacoal, Fujifilm, Komatsu, Kubota, Toshiba, Mitsubishi Electric, Makita, Omron, NEC, Sony, T D K, Sanyo Electric, Pioneer, Kyocera, Murata, Honda Motor, Canon, Ricoh

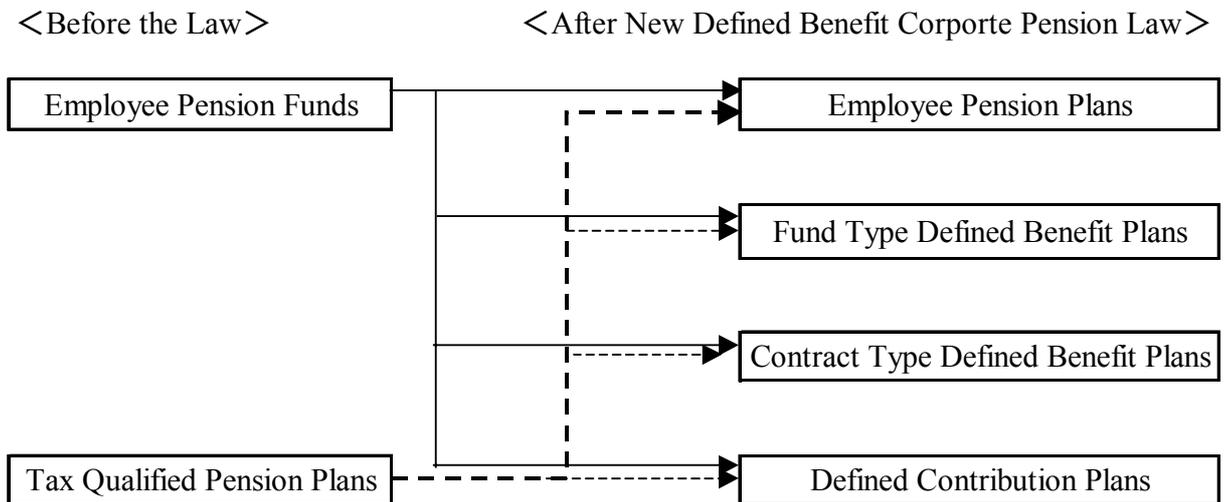
\*1 \$ 149.2 billion of total assets, \$ 11.3 billion of shareholders equity, and \$1.5 billion of net income in GM are related to financial and insurance businesses.

\*2 \$ 303.3 billion of total assets, \$ 19.8 billion of shareholders equity, and \$4.4 billion of net income in GE are related to GE Capital.

**Table 10: Breakdown of Company Type DC Plans Introduced by December 2002**

	Total	(%)		
<b>Number of Plans</b>	<b>233</b>	<b>100.0</b>		
Employees Less than 100	80	34.3		
100~299	61	26.2		
<b>Sum of the above two</b>	<b>141</b>	<b>60.5</b>		
300~999	39	16.7		
1,000 and over	53	22.7		
<b>Rollover from Other Benefit Plans</b>	Total (%)		Number of employees	
			over 300	300 or less
	<b>233</b>	<b>100.0</b>	92	141
No Rollover	123	52.8	35	88
Rollover from	110	47.2	57	53
TQPP	65	27.9	28	37
Book reserve lump sum	23	9.9	14	9
Combination of the above two	17	7.3	10	7
EPFs	3	1.3	3	0
Combination of TQPP and EPF	1	0.4	1	0
Combination of three	1	0.4	1	0

**Chart 4: Change in Company Pension Structure under the New Defined Benefit Corporate Pension Plan Law**



**Table 11: General Characteristics of Each Type of Retirement Benefit Plan Reforms, and Their Effects on Management**

Types of Reforms	Effects on human resource management				Effects on financial management	
	Cost Reduction	From seniority to performance and job content	Adoption to changes in employment practices		Improvement in cash flow	Reduction in liabilities and expenses in financial statements
			Changes in backloaeded benefit curve	Establishment of each member's individual account		
Defined contribution plans	—	△	○	○	—	△
Defined benefit plans	—	—	—	—	—	—
Cash balance plan	—	△	○	○	—	(Contract-out Portion) ○
Reduction of benefits	○	—	—	—	○	○
Advance payment (including employee's choice)	—	△	○	○	×	○
Elimination (termination) of benefit plans	—	○	○	○	×	○
Point-based benefit plans	△	△	△	—	—	—

Meaning of each sign

- Strong effect
- △ Effect with exceptions
- No effect

**Table 12: Current Tax Provision for Retirement Benefits**

Lump sum	Company pension (EPF, TQP, new DP plan, company DC plan)	Individual Pension (life insurance, individual DC plan)
<ul style="list-style-type: none"> <li>▪ Retirement income deduction applies at time of payment</li> <li>▪ Amount of deduction is ¥400,000/year for first 20 years of service, ¥700,000/year thereafter</li> <li>→ Tax is levied on one-half of gross income less deduction</li> </ul>	<p style="text-align: center;"><b>Contributions</b></p> <ul style="list-style-type: none"> <li>▪ Corporate contribution is treated as expense *</li> <li>▪ Social insurance premium exemption applies to personal contributions to EPF; life insurance premium exemption applies to other DB plans</li> </ul>	<ul style="list-style-type: none"> <li>▪ For life insurance annuities, income deduction applies to contributions up to ¥100,000/year</li> <li>▪ For individual DC plan, income deduction applies to contributions up to ¥180,000/year</li> </ul>
	<p style="text-align: center;"><b>Investment gains</b></p> <ul style="list-style-type: none"> <li>▪ Employees' Pension Fund is non-taxable **</li> <li>▪ Other corporate pensions are subject to special corporate tax (that remains frozen through March 2004)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Life Insurance is subject to ordinary income tax, while individual DC plan is subject to special corporate tax (that remains frozen through</li> </ul>
	<p style="text-align: center;"><b>Withdrawal (Payment)***</b></p> <ul style="list-style-type: none"> <li>▪ Treated as misc. income; pension benefit deduction applies</li> <li>▪ Retirement income deduction applies to lump sum</li> </ul>	<ul style="list-style-type: none"> <li>▪ For individual DC plan, retirement income deduction and/or pension benefit deduction applies.</li> </ul>

- Notes: \*
- \* No maximum for defined benefit plan. Maximum for corporate DC plan is ¥216,000 if another DB plan exists, and ¥432,000 if not.
  - \*\* However, the tax exemption applies only to gains generated from assets up to 2.7 times the assets necessary to pay contract-out benefit.
  - \*\*\* For the National Pension Fund, individual contributions and investment gains are nontaxable, and the pension deduction applies to benefits.