Will Defined Contribution Pension Plans Really Encourage Labor Mobility?

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Introduction

The introduction of a defined-contribution scheme similar to 401(k) plans in the U.S. could occur as early as fiscal 2000. One of most discussed aspects of the scheme is its likely effect on labor mobility. For example, a report issued by the LDP last December ("On the Introduction of Defined Contribution Pensions") asserts that one problem with defined benefit plans is their lack of portability at a time when labor mobility is accelerating due to changes in the industrial structure, employment structure and work attitudes.

However, doubt exists as to whether these common assumptions — that labor mobility is actually growing, and that defined-contribution plans will enhance this trend — have been adequately examined (Figure 1). In this paper, we examine whether defined contribution plans will actually contribute to greater labor mobility.

Figure 1 Comparison of Defined Benefit and Defined Contribution Plans (Generally Perceived Characteristics)

	Defined benefit plan	Defined contribution plan
Account management	Company level	Individual level
Benefit amount	Fixed	Variable
Fund management risk	Assumed by employer	Assumed by employee
Death rate, withdrawal rate risks	Assumed by employer	Assumed by employee
Fund management decsions	By employer	Often by employee
Time until payout	Long	Short
Portability (effect on job mobility)	Low	High
Seniority treatment	Compatible	Not compatible

1. Obstacles to Labor Mobility

(1) Vague Definition of “Portability”

Conventional lump-sum benefit and defined-benefit plans are often described as lacking portability, while defined contribution plans are said to have portability.

However, the term “portability” is extremely vague, and has no clear definition even in the U.S.[1] From the perspective of labor mobility, let us relate portability to the disadvantages that arise when changing jobs.

In this respect, three factors appear: (1) pension benefits and qualifications, or a lump-sum benefit, may be tied to length of service; (2) continuous service at one company may entail tax benefits upon retirement; and (3) lack of information on accrued retirement benefits may discourage job changing.

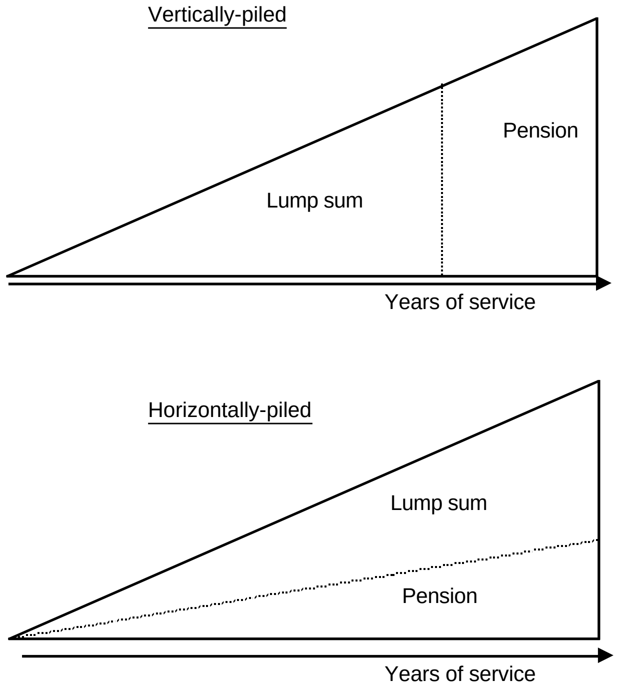
(2) Seniority Bias of Retirement Benefits

With regard to the first point, corporate pensions in Japan have a very long vesting period. Tax qualified pensions (TQPs) require at least 20 years of service, and some companies only provide benefits for mandatory retirement.[2] In employee pension plans (EPPs) for corporate employees, the portion funded by corporate contributions can require up to five years of service to participate, and up to 20 more years for vesting. In practice, vesting often requires relatively long periods of service, and an interruption can result in forfeiting one’s rights.

However, this situation in itself does not necessarily create a disadvantage when changing jobs because even when there are no pension benefits, a lump-sum benefit is paid. Thus based on length of service, plans that distinguish lump-sum benefits (company specific) from pension benefits (accumulated outside the company) are called vertically-piled plans (Figure 2).

On the other hand, even at companies where employees are vested at a relatively young age, 100% of lump-sum benefits are rarely paid out as pension installment benefits; on average, 60% of retirement benefits remain as a lump-sum benefit. Plans that pay out both lump-sum and pension retirement benefits are called horizontally-piled plans.

Figure 2 Horizontally and Vertically-Piled Plans



In addition, both vertical and horizontal type plans allow some or all of the pension portion to be received in a lump sum. In practice, 60% of people choose to receive the lump sum.

Thus Japan’s corporate "pension" system in effect functions as a provision for the lump sum benefit. To judge whether long service is rewarded and job changing penalized, we need to consider the total of lump sum and pension benefits.

In Figure 3, the upward sloping curve (A) depicts the lump sum and pension retirement benefits by length of service at large companies (Labor Standards Bureau, model retirement benefit schedule for college graduates at large companies in 1997). The practice of deferring benefits to the end of the service period is called back loading. Since it penalizes employees who leave the company in mid career, it is also known as the “gold handcuffs.”

However, the fact that benefits increase with years of service does not necessarily imply back loading. When interest rates are considered, it is normal for benefits to increase with length of service.

For example, consider a person who works for two years and earns ¥1 million every year, all of which goes toward retirement benefits regardless of whether he stays with his present employer or leaves.

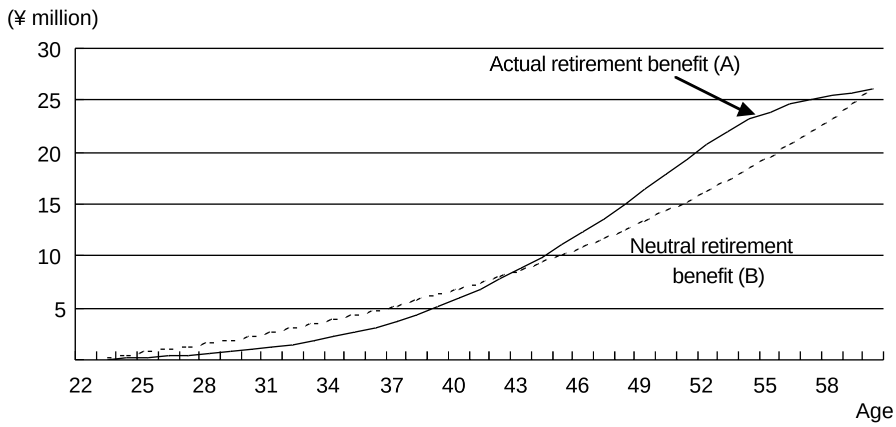
If the person leaves after one year, he can invest the ¥1 million retirement benefit he receives. Assuming an interest rate of 5%, the value increases to ¥1.05 million after one year. If he changes jobs after two years, he has assets of ¥2.05 million. Thus to be neutral with respect to length of service, the retirement benefit must also increase to ¥2.05 million after two years of service.

In Figure 3, line (A) is the actual retirement benefit, and line (B) is the neutral retirement benefit calculated at the real long-term interest rate in 1997 of 3%.[3] Note that the retirement benefit here is the total of the pension's present value and lump sum.

As the graph shows, while the neutral retirement benefit is a simple upward sloping curve, the actual retirement benefit rises moderately at first, and more steeply from year 15 to 30. Thus the actual benefit catches up with and passes the neutral benefit in the 20th year. Until then, the back loading effect tends to discourage job changing.

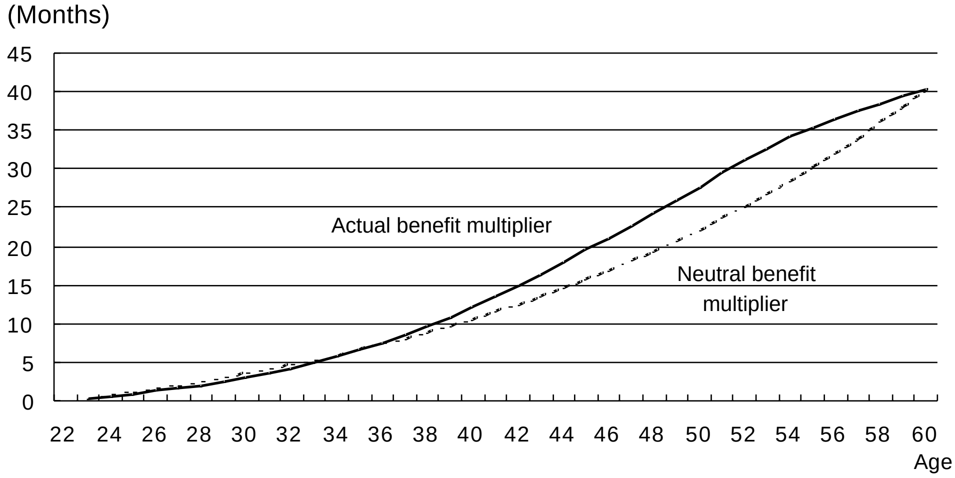
Normally, retirement benefits in Japan are calculated by multiplying the monthly income at retirement with a benefit multiplier (the proportion of retirement benefit to monthly income). We made the same calculations for the benefit multiplier (see Figure 4). The actual benefit multiplier at first almost matches the neutral benefit multiplier, but is higher from year 12 or 13. Thus much of the reason that retirement benefits favor length of service is not so much related to the benefit multiplier, but the seniority wage curve.[4]

Figure 3 Length of Service and Retirement Benefits



Source: Actual data is from Labor Standards Bureau, *FY 1997 Survey of Retirement Benefits and Age.*

Figure 4 Length of Service and Benefit Multiplier



Source: Actual data is from Labor Standards Bureau, *FY 1997 Survey of Retirement Benefits and Age.*

(3) Tax Deferment

Turning next to tax matters, we first note that investment earnings of defined benefit plans are accumulated outside the company and not taxed.

However, people who leave their company before serving 20 years lose their pension benefits and often receive a lump sum benefit instead.

The investment earnings portion of this lump sum is taxed. When this is considered, the discount rate on the neutral retirement benefit (B) in Figure 3 declines, resulting in a straighter line than the neutral benefit line (B), and increasing the gap between (A) and (B). The back loading effect thus intensifies and further discourages quitting.

Another tax rule that works against job changing is the tax exemption of benefits. The reason 60% of people choose to take a lump sum benefit despite having a corporate pension plan is to take advantage of the tax exemption. The exemption is ¥400,000 per year for the first 20 years, and ¥700,000 thereafter, for a total exemption of¥22 million for 40 years of service.

However, this fact by itself does not necessarily imply a bias toward length of service. Taking our earlier example, suppose a worker earns ¥1 million for his retirement fund in both the first and second year. Suppose further that the return on investment from the first to second year (after tax) is 5% for both worker and company.

As in the earlier case, after the second year, the job changer has retirement benefits totaling ¥2.05 million after tax (100 x 1.05 + 10). On the other hand, after two years of employment, the company will pay out ¥2.05 million in retirement benefits. In this case, unless the tax exemption bracket for the second year is ¥2.05 million, the after-tax amounts will not match.

People frequently argue that the present exemption rules (¥400,000 for the first 20 years and ¥700,000 thereafter) favors continuous service. However, this is not necessarily the case if we consider that the ¥700,000 earned in the 21st year is equivalent to ¥400,000 with 20 years of interest.

Whether the growth rate of 1.75 times over 20 years (70 ÷ 40) is disadvantageous to job changers depends on the interest rate and shape of the retirement benefits curve.

(4) Transparency of Retirement Benefits

A third factor that influences job changing is the transparency of retirement benefits. Of course, pension benefits are clear for defined benefit plans. However, what is not clear is what the pension is worth when converted into a lump sum benefit, that is, its present value.[5] One reason is that since pension finances are calculated using group mortality and severance rates for all employees, only an actuarial would know how to calculate the retirement benefits for each individual. Conventional defined benefit plans were criticized even in the U.S. because companies did not explain how pension amounts were calculated.

Japan’s defined benefit plans provide an option for lump sum benefits, and this amount is clear. But the retirement benefit rules are not easy to understand. For this reason, employees must inquire about the amount from the company. Furthermore, other factors affecting the amount such as the employee's appraised merits and achievements are often unclear, and difficult to obtain from the company without raising suspicions.

To summarize, conventional retirement benefits tend to discourage job changing in three ways: (1) the retirement benefits curve reflects a seniority-based wage structure, (2) investment earnings after receiving a lump sum benefit are taxed, and (3) retirement benefits are not known. However, because lump sum benefits are frequently chosen, the third problem is not as severe as in the U.S.

2. Are Defined Contribution Plans the Solution?

(1) The Government's Proposal

To see whether the introduction of defined contribution plans will solve these problems, below we study the proposal submitted last July by the ministries of health and welfare, labor, finance, and trade and industry.

The first problem — the seniority bias of the benefits curve — is caused, as mentioned earlier, not by the benefit multiplier of the retirement plan, but by the seniority pay structure itself. Thus under the present wage structure, back loading will not be alleviated by defined contribution plans because companies will still make contributions based on the wage structure.

In the government proposal, employees are vested for the corporate contributions portion after three years of service, which is said to facilitate job changing. However, the company can still impede job changing by back loading contributions. In an extreme case, the company might contribute one yen per year for the first five years, and ¥200,000 per year from the sixth year. This would obviously encourage employees to stay at least six years.

As for the second problem of taxation of investment earnings, when an employee changes companies, the accumulated plan assets of both corporate and personal contribution plans are transferred either to the new employer or to the Pension Fund Association without being taxed. As a result, investment earnings are tax deferred until the employee receives benefits at age 60 or later. This eliminates the tax disadvantage under the present system when benefits are received as a lump sum.

Moreover, job changing would not be impeded by present lump sum benefit and defined benefit plans if assets received as a lump sum could be rolled over into an individual account. In fact, recently in the U.S., a growing number of people who withdraw from defined contribution plans choose to receive a lump sum benefit and roll it over into a rollover IRA.

Regarding the third problem of transparency, defined contribution plans provide clear information regarding retirement benefits. In addition, corporate contributions can reflect the employee's performance and input. Since employees can see their evaluation, they have a better basis for deciding to change jobs.

Moreover, for existing current lump sum and defined benefit plans, companies can inform employees each year regarding their current benefit status.

Alternatively, it is possible to increase the transparency of defined benefit plans by implementing a point-based corporate pension plan called the cash balance plan. Points are awarded for each year of service, and interest is added to the accumulated points at the start of each year. Retirement benefits at the end of each year can easily be calculated by converting the accumulated points into a cash amount. The ease of communicating the cash balance is one reason these plans are spreading in the U.S.

(2) Effect on Job Mobility Depends on Actual Plan Design and Operation

Proponents of the defined contribution plan have argued simply that job mobility will increase as a result. Indeed, when operation and all other aspects of present retirement plans are compared to the U.S. 401(k) plan, the latter plan appears to be more conducive to job changing.

However, as mentioned earlier, present lump sum and defined benefit plans can be made no less attractive than the 401(k) plan by: (1) vesting earlier, and reducing benefit disparities caused by length of service, (2) deferring taxes on investment earnings when a person changes jobs and receives a lump sum benefit, and (3) updating employees on benefit amounts every year.

On the other hand, defined contribution plans can also impede job changing if: (1) contributions are based on the present wage curve, and (2) if tax deferment is disallowed on the lump sum received when changing jobs and on the investment earnings.

As shown in Figure 5, whether a plan has a positive or negative effect on job mobility depends not so much on the plan itself as on its overall design and operation, including compatibility with the wage structure and other factors. In other words, if the reform of retirement plans is intended to encourage job mobility, defined contribution plans are not necessarily the best or complete solution.

Figure 5 Comparison of Plans With Regard to Facilitating Job Changes

Item	Lump sum benefit and corporate pension (existing)	Defined contribution plan (proposed)
Back loading	Back loading effect: wage curve restrains job changing	None--but back loading occurs if wage curve is applied.
Tax treatment	Investment earnings are tax deferred for qualified pension and welfare pension funds, but taxable for lump sum benefit.	Plan assets are tax-deferred.
Individual account statement	None (but partially explicit if company issues annual statement). Can also be made explicit in cash balance plan.	Statement provided

3. Extending Merits Beyond Regular Employees

Recently, even some large companies that formerly championed lifetime employment are calling for defined contribution plans to spur job mobility. Their motivation may come from a desire to shed high cost, redundant older employees.

However, efforts to increase job mobility in any meaningful way must go beyond the problem of shedding older employees and even retirement plan reform. Retirement benefits are merely one aspect of employment practices that will need to be overhauled, including the seniority wage structure.

Job mobility among older employees is impeded by the fact that their skills are company specific and not marketable. Thus they have great difficulty finding jobs with acceptable pay and other conditions.

The spread of defined contribution plans will cause changes in employment practices. However, the changes will relate not to job mobility among regular employees, but to the enhancement of retirement life among employees who previously did not have adequate pensions and lump sum benefits.

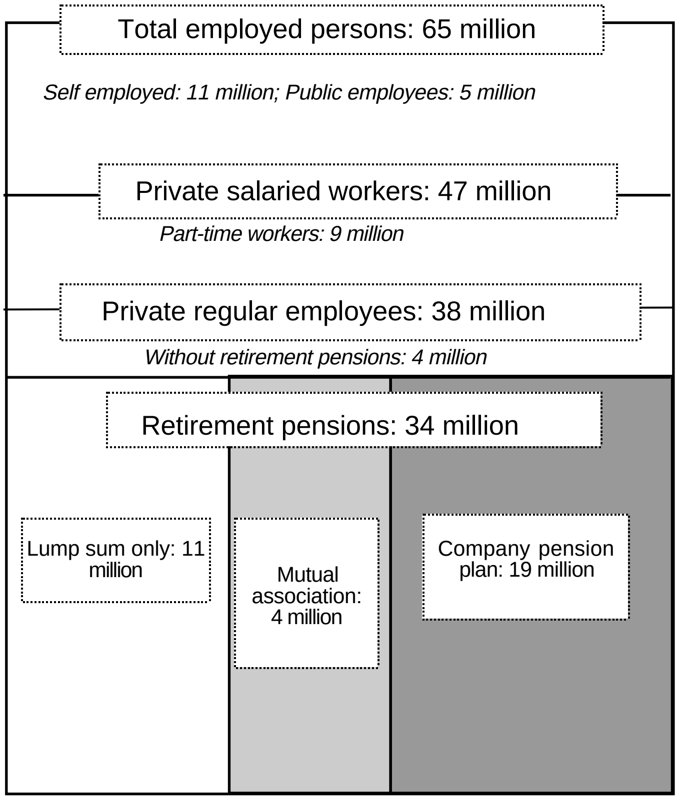
Employed persons consist of: (1) unskilled workers such as part-time and non-regular workers, (2) self-employed persons and persons with specialized skills who can change jobs (accountants, lawyers, etc.), and (3) regular employees of large companies.

The first type of worker are not regular employees, and enjoy no retirement benefits or other fringe benefits.[6]

The second type of worker, due to job changes, does not participate in an adequate retirement plan. In addition, any retirement savings the first two types of persons may have are not eligible for tax benefits. In Figure 6, of Japan's 65 million employed persons, 24 million are part-time workers, self-employed persons, or company employees who do not participate in retirement plans.

If the defined contribution plan — and in particular personal defined contribution plan — is introduced, these 24 million persons will enjoy greater financial security in retirement. As a result, more people will choose non-conventional careers regardless of age, while regular employees will also begin to consider alternative careers. Thus what defined contribution plans will really be doing is to secure retirement for part-time workers, self-employed and professional persons who already belong to the mobile work force.

Figure 6



Notes

1. In *The Promise of Private Pensions* (Harvard University Press, 1997), which traces the history of corporate pensions in the U.S. up to ERISA, S.A. Sass says that portability was “a broad slippery term” at the time ERISA was enacted.

2. Voluntary inspection outline no. 8 regarding qualified retirement pensions.

3. The 3% real interest rate was obtained by subtracting the expectation inflation rate of 1% from the nominal long-term interest rate of 4%. The real interest rate was used due to the assumption that retirement benefits are adjusted for inflation.

4. Additions at retirement age are also a practice that favors length of service.

5. More accurately, the increase in present value of generated benefits.

6. According to the fiscal 1998 white paper on labor, only 9% of part-time workers receive retirement benefits.