Challenge of Japanese small and mid-sized companies' pension plans

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Contents

Abstract

・In Japan, recent sharp economic deterioration that the collapse of sub-prime loan market triggered is inflicting serious damage on DB pension plans.

・Japanese pension plans , as well as those of the United States, experienced asset drop 3 years in a row 2000 through 2002.

・In 2003 and 2004, Japanese government enacted two important pension acts (DB Corporate Pension Act and DC Pension Act). These acts allowed companies to switch their retirement benefit into a new plan that had some resistance to the change of economic environment. Coupled with sound asset growth, DB plans could get back their energies again. However, since 2007 they have been facing a nightmarish asset drop again.

・DB Corporate Pension Act of 2001 requires plan sponsors (companies) to disuse their Tax Qualified Pension Plan (TQPP) because of its lack of indispensable privilege for participants and beneficiaries. Companies have to change it to other plan by the end of March 2012. But now, in the face of bear market some companies are hesitant to change their plans.

・Hence, in order to support such sponsors, especially small and mid-sized, some Japanese financial institutions (life insurers) started to offer ready-made plans. Their features are as follows.

－ Simple design that even small companies are able to handle their plans, and

－ Not easily influenced from the change of economic environment

・Also, some experts say multi-employer DB plans will be the key to solving the problem.

・However, in my view, it depends on sponsors' effort whether these new plans succeed or fail. Not to mention plan sponsors' carefulness, plan participants' concern and financial institutions' (plan suppliers') prudence can lead the plan to success.

In this paper, I would like to find some issues above-mentioned parties concerned should heed.

1. The present DB pensions of Japanese small and mid-sized businesses

1.1 Unstable three legs that are essentially expected to secure income after retirement

Social security pension schemes, corporate pension plans, and personal annuities are often compared to three legs that support a living after retirement.

As for the first leg, social security pension schemes, benefits levels are steeply decreasing by rapid declining birth rate and an aging society (decrease of working population to support the pension scheme). (Figure 1)

Then as for the second leg, corporate pension plans, many small and mid-sized businesses (that account for approximately 70% of the number of Japanese employees; Figure 2) are facing difficulty in running their plans. In particular, in recent years, the number of participants that Defined Benefit (DB) type pension plans cover is dramatically decreasing, though people are expecting the secured payment from these plans. (Figure 3)

Figure 1: Projections for Japanese social security pension scheme benefits levels

FY	2009	2025	2050
Replacement rate	62.3%	55.2%	50.1%

Notes: The replacement rate is the ratio of the total annual amount of the old-age benefits the following couple is to receive at age 65 to the amount of average annual disposable income of active workers at the time the couple receives the benefits.

— the husband has been covered by the Employees' Pension Insurance scheme for 40 years, and earned average wages.

— the wife, who is the same age as her husband, has been a dependent spouse.

Source: The Ministry of Health, Labour and Welfare 05.2009

Figure 2: Japanese small and mid-sized enterprises (SMEs) at a glance

Enterprises size	Small and mid-sized	Large	Non-primary industry Total
# of enterprises	4,197,719	12,351	4,210,070
	99.7%	0.3%	100.0%
# of employees and workers	27,835,550	12,291,430	40,126,980
	69.4%	30.6%	100.0%

Notes: 1. Number of enterprises = Number of companies + Business establishments of sole proprietors.

2. Enterprises with 300 or fewer regular employees (100 or fewer in wholesaling and services, and 50 or fewer in retailing and eating and drinking places) or capital stock of ¥300 million or less (¥100 million or less in wholesaling, and ¥50 million or less in retailing, eating and drinking places, and services) are treated as SMEs.

3. The number of employees and workers shown indicate the combined sum of regular employees of companies and the total number of workers of sole proprietors.

Source: 2008 White Paper on Small and Medium Enterprises in Japan

Figure 3: Number of participants of DB type pension plans in Japan

(thousand of people)

FY		2001	2002	2003	2004	2005	2006	2007	2008
Total		20,038	19,002	17,480	15,838	14,837	14,106	14,119	13,860
	EPFs	10,871	10,386	8,351	6,152	5,310	4,737	4,625	4,660
	DBCPPs	—	30	1,350	3,140	3,840	4,300	5,060	5,700
	TQPPs	9,167	8,586	7,779	6,546	5,687	5,069	4,434	3,480

Notes: EPFs: Employees' Pension Funds
DBCPPs: Defined Benefit Corporate Pension Plans
TQPPs: Tax Qualified Pension Plans

Source: Pension Fund Association, [2008] "Kigyou Nenkin ni kansuru Kisoshiryou" (in Japanese)
The Life Insurance Association of Japan

1.2 Three types of DB corporate pension of Japanese small and mid-sized businesses – TQPPs, DBCPPs, and EPFs –

DB type pension plans that Japanese companies adopt are classified into three types, 1) Tax Qualified Pension Plans (TQPPs), 2) Defined Benefit Corporate Pension Plans (DBCPPs), and 3) Employees' Pension Funds (EPFs).

As for TQPPs and DBCPPs, DBCPPs can be said to be the new type, and TQPPs can be said to be the old one. Both of them are usually made up of partly or wholly conversion of plan sponsors' lump-sum severance benefits that Japanese companies traditionally offer to their employees. On the other hand, some companies offer DB type pension benefits to them besides the lump-sum benefits. But the ratio of such companies is small.

The TQPPs scheme was introduced in 1962. One major purpose of its introduction was to give employees an option of receiving pension payment after retirement, with favorable tax treatment to their employers.

On the other hand, the DBCPPs scheme was introduced in 2002. In Japan, companies must change their DB type pension plans from the old types (TQPPs) to new ones (e.g.; DBCPPs) by the end of March, 2012. TQPPs will be expired in the end of March, 2012. The reason for the expiration will be mentioned in Chapter1.3.

Existing TQPPs must be converted to other types of pension plans not limited to DBCPPs. Companies can convert their TQPPs to Defined Contribution Pension Plans (DCPPs) and lump-sum scheme that the government supports.(The Smaller Enterprise Retirement Allowance Mutual Aid scheme)

The difference between TQPPs and DBCPPs is shown below. (Figure 4-1, 4-2)

The EPFs scheme was introduced in 1965. There are three types of EPFs; 1) Single-Employer Funds established by a single employer, 2) Allied-Employer Funds established by affiliated employers within a group of businesses, and 3) Multi-Employer Funds established by an association of many small and mid- sized companies joined together under certain conditions (e.g.; a particular

type of trade or region) as plan sponsors. As of 09.2009, most of the EPFs are Multi-Employer types. They represent 80% of all EPFs. (As for number of plans. Source: Pension Fund Association) Most popular benefit structure type of EPF scheme is called "Additional Type", which has a basic benefit part (Its structure is almost same as public old-age Employees' Pension Insurance benefits and it forms a part of the public pension. So this is called "Substitutional portion".) and an additional benefit part, "Supplementary portion". The benefit structure and design of the additional part are similar to those of TQPPs and DBCPPs. (Figure 5)
Because of its historical background, most of the Japanese DB pensions are conversion of plan sponsors' lump-sum "severance" benefits. Therefore retirees, even though they are not usually regarded as pension recipients (e.g.; 45 years old, they can find other new job), can receive an annuity benefit through Japanese TQPPs. This may not be familiar to those from outside Japan.

Figure 4-1: Differences between TQPPs and DBCPPs

– from the viewpoint of employees –

Scheme	TQPPs（1962）	DBCPPs（2002）
Character	Alternative option of receiving lump-sum benefits	Income security after retirement
Pension receipt	Employees can receive annuity option even if they are still young (e.g.; 45 years old)	After retirement (usually 60years old and over)
Lump-sum option as a substitute for pension receipt	○	○
Protection of pension rights	×	○
Portability of pension rights when job change (transfer pension rights and assets)	△ (Usually transfer between particular companies only)	○

Figure 4-2: Differences between TQPPs and DBCPPs

– from the viewpoint of employers –

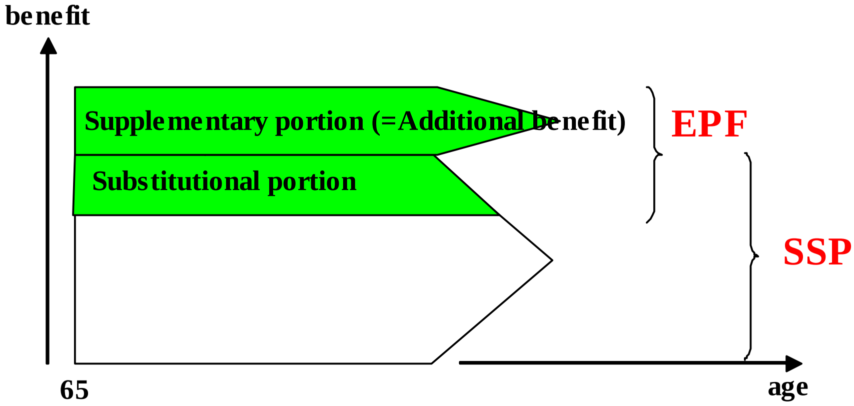
Scheme	TQPPs（1962）	DBCPPs（2002）
Main purpose of adopting pension plans	#1. Favorable tax treatment #2. Employee welfare	#1. Employee welfare #2. Favorable tax treatment
Favorable tax treatment	○	○
Funding requirements(*1)	―	○
Reporting and disclosure	―	○
Adopting Cash Balance Plans (CBPs)	×	○
Review of actuarial assumptions	△ Every 5 (or 3) years as a rule（*2）	○ Every 5 (or 3) years and at any other necessary time

Notes:

(*1) Financial situation check conducted by actuaries. Employers must increase their contribution when plan actuary judges the plan unfunded.

(*2) e.g.; TQPP sponsors are allowed to review the discount rate, with which they evaluate their plan liability and calculate their plan contribution, “only” every 5 (or 3) years as a rule.

Figure 5: The benefit design of EPFs



Notes: SSP: Social Security Pension

Paid by EPFs

(*)The benefit design of supplementary portion is similar to those of TQPPs and DBCPPs. That is, TQPPs and DBCPPs don’t have “Substitutional portion”.

1.3 The defect of the TQPP scheme to exposure → Expiration of the TQPPs

The mission that TQPP scheme shouldered, popularization of corporate pension scheme, was accomplished with favorable tax treatment to plan sponsor companies. DB pension scheme had been spread among many companies including small and mid-sized in steady economic growth.

However, as the speed of the economic growth got slow down, rate of investment return of TQPPs sank. The guaranteed interest rate of life-insurance general accounts that many small and mid-sized TQPPs adopted was reduced from 5.5% to 2.5% in 1996. Currently it is just 0.75～1.25%. As a result, many TQPPs became unfunded. But because the asset valuation methods used in TQPP financial management was based on the “book value” standard, employers didn’t care about the unfunded seriously.

However the revision of corporate accounting standard in 2000 changed many TQPP sponsors’ behavior dramatically. Conventionally, corporate pensions were held “off-balance sheet” rather than reflect directly on financial statements, but since the fiscal year starting April 1, 2000, the difference between the Projected Benefit Obligation (PBO) and the pension asset reserve amount must be described in the sponsors’ financial statements. Since the reserve status of corporate pensions is reflected on the corporate financial statements, the results on asset management directly affect the corporate profits. As a result, employers became very interested in corporate pension asset management and some of them were forced to terminate or close their TQPPs. Many of these plans were terminated with unfunded liabilities. Employees' pension rights that should have been originally protected could be easily stolen. While many people feel anxious about the future of government-sponsored public pension, the termination of corporate pension is a serious threat to employees' income security after retirement.

That's why TQPP scheme will be abolished in the end of March, 2012. The important act, DB corporate Pension Act was enacted with the aim of protecting employees' pension rights. The DBCPP scheme, one of the succeeding schemes of TQPPs, was designed to resolve such fault of TQPP scheme.

2. Enactment of DB Corporate Pension Act 2001

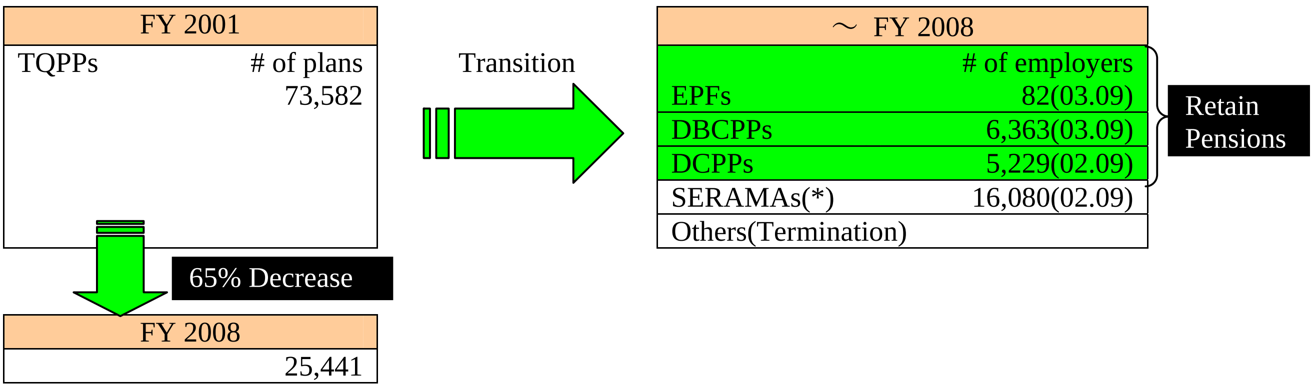
– The dawn of transition from TQPP scheme –

2.1 The introduction of the DBCPP scheme

In order to resolve the fault of TQPP scheme, DBCPP scheme was provided with following three frameworks to protect employees' benefit rights. 1) funding requirements, 2) fiduciary responsibility, 3) reporting & disclosure. As for plan design, companies must focus on annuity payment after retirement. (e.g.; 60 years old and over)
The Japanese legislation was modeled after the U.S. legislation.
In fact, these frameworks have been applying to Japanese EPFs since 1997. Enactment of DB Corporate Pension Act 2001 let all Japanese DB type pension plans except TQPPs have these frameworks.

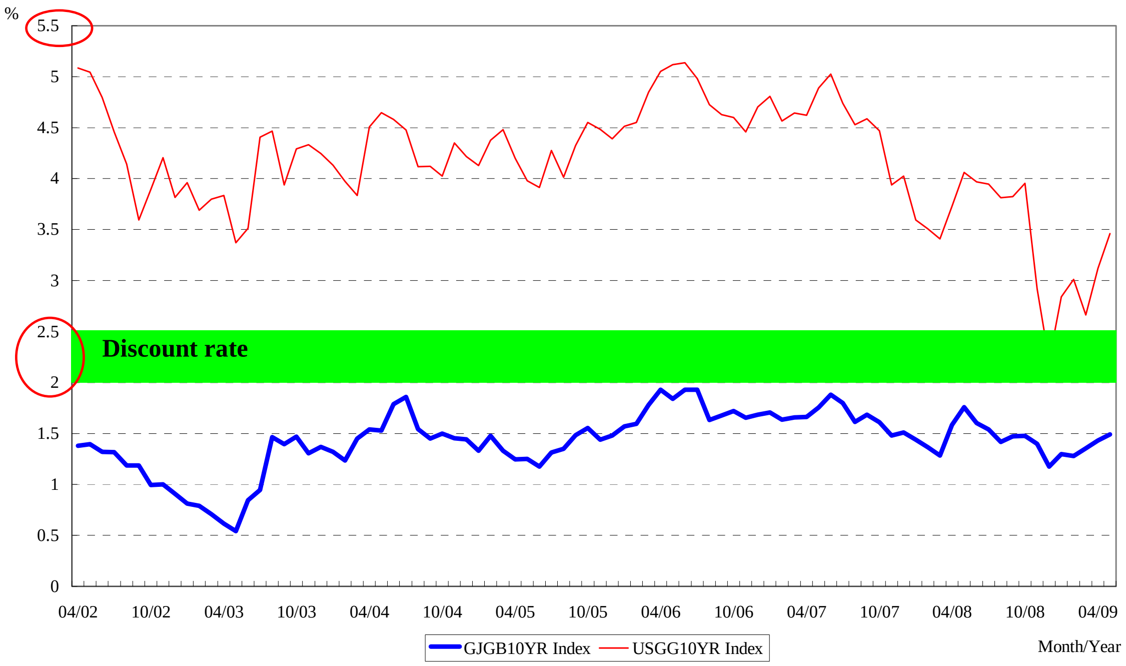
Approximately 7 years have passed since this act was enacted, that is, DBCPPs were introduced.
About 65% of TQPPs have been discontinued. (Figure 6)
When companies decided not to continue their TQPPs, some of them deliver employees' benefit rights to newly introduced DBCPPs. There are many cases where plan designs, such as eligibility for benefit, withdrawal lump sum, level of benefit, and period of benefit payment are not changed but the actuarial assumptions are changed. Companies adopt lower discount rate (2.0～2.5%) than ever (5.5%) in order to match with current low interest rate (Figure 7) and let their DBCPPs have resistance to the change of economic environment.
And changes are also seen in companies' attitude toward pension plan asset management. As companies adopt lower discount rate, they can change their plan asset allocation into more conservative one. With the progress of financial technology, new investment solutions, such as alternative investment and Liability-driven Investment (LDI), have been brought to DBCPPs. But these new investment options have not been popular among small and mid-sized DBCPPs.

Figure 6: Transition of TQPPs since FY 2001



(*) The Smaller Enterprise Retirement Allowance Mutual Aid scheme
Source: The Ministry of Health, Labour and Welfare, The Life Insurance Association of Japan

Figure 7: The recent experience of long-term interest rate



Source: Bloomberg

2.2 Transition of small and mid-sized companies' TQPPs

－Solutions provided by Life Insurers－

In Japan, there seems to be many companies that want to continue their DB type pensions, because Japanese DB pension scheme was derived from lump-sum benefits and almost all Japanese companies have the lump-sum benefits. (This is completely different from other countries' DB pension scheme.)

But for plan sponsor companies, converting the whole of lump-sum to pension scheme seems to be difficult. Because in this volatile financial situation, the more part of lump-sum benefits companies transfer to pension, the more risk they could have. For example, asset management risk. Therefore "partly conversion" seems to be more suitable for sponsor companies. In addition, some companies want to offer pension benefit and lump-sum benefit as a set.

On the other hand, benefit formula of Japanese lump-sum are full of variety. For example, company A has fixed amounts type, company B has final salary related, company C has average salary related, and company D has Cash Balance type. These varieties are very common.
From the viewpoint of financial institutions that offer DB pension administration services, if they try to prepare for receiving every type of benefit formulas, the service fee level will be so high.

That is, converting the whole of lump-sum benefits to DB pension scheme seems to be too much for both companies and financial institutions. Companies seem to have desire for a mix of “DB pension and lump-sum”, and for financial institutions, to match such desire, “desire for partly conversion” seems to be reasonable.

In order to help small and mid-sized companies that want to change their TQPPs to DBCPPs, some Japanese financial institutions (life insurance companies) that have competitive advantage of offering DB plan administration services are providing ready-made plans for them.
The ready-made plans are simply designed, the benefit formula, in general, is simple. And just a few actuarial assumptions are needed. In addition to its simple design comprehensible to both employers and employees, the ready-made plans have a valuable feature, reasonable administration service fees.

In the next chapter, I introduce a couple of ready-made DBCPPs. In particular, the first plan, “Simple CBP” is conveniently designed. When a TQPP is taken over to this CBP, the TQPP assets are divided up among the plan participants and the asset of each person will be his/her beginning notional account balance of the CBP. Companies that adopt this CBP have only to pay comparatively a small amount of contribution (“normal cost” only), because the plan is completely full-funded when it starts.

$$\text{Plan assets} = \Sigma\,\text{Notional account balances} = \text{Actuarial accrued liability}$$

“Special supplementary contribution (that amortizes unfunded actuarial accrued liability)” is not required.

3. Examples of DBCPP design solutions to small and mid-sized companies

3.1 Simple plan design that Japanese Life Insurers offer

As mentioned above, some Japanese life insurers started to offer ready-made plans to small and mid-sized TQPP sponsors. The benefit formulas of these plans are very simple. On the other hand, as for plan asset management, companies have every option of investing. For example, even a small company that adopts the ready-made DB plan can invest in Private Equities (PE) Funds like a sophisticated pension funds do. Some companies invest in Life Insurers' general accounts only; others adopt an asset mix of Life Insurers' general accounts and Trust Banks' contracts specifying exclusive individual management. Plan sponsors can adopt more than one investment product by taking their expected return and investment risk into consideration. There are few data for the moment, but there seem to be many companies that invest in the general accounts only, or adopt the asset mix of the general accounts and commingled separate accounts both of them offered by life Insurers. Some companies invest most of their assets in the separate accounts from their pleasant experience in bull market since 2003. However, the nightmarish asset drop since 2007 has giving a significant impact on their asset management. They are faced with a difficult problem, mandatory contribution increase through DBCPP Act's funding requirement. (see 3.3 Figure11)

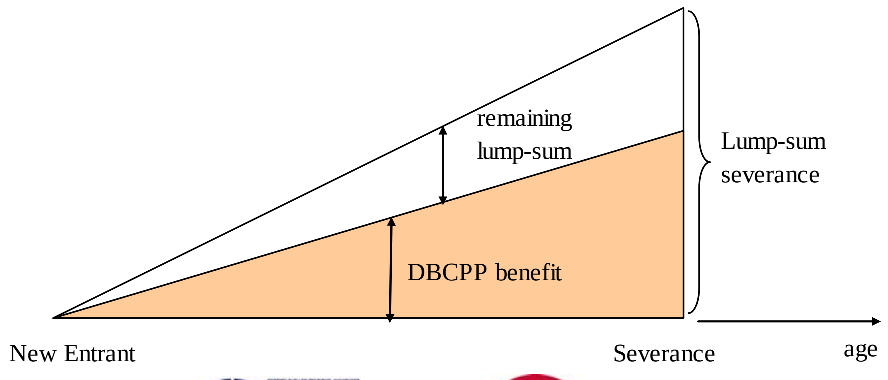
As for funding methods, "simplified standard" is applied. This standard is prepared by DBCPP Act for companies whose DBCPP has fewer participants than 300 people so as to reduce their labor for pension funding. Specifically, companies can use simple actuarial assumptions for cost valuation of their DBCPPs. For example, withdrawal rates can be assumed to be 0% over every age. This means no one withdraws from the DBCPP until his/her retirement age. Companies can save themselves computing their withdrawal rates based on actual recent experience of relevant plan participants.

Regarding plan design, partly conversions of lump-sum severance benefits are often seen. Employees receive both pension benefit and lump-sum severance benefit.

Lump-sum severance benefit = DBCPP benefit + remaining lump-sum benefit

↑

Partly conversion



3.1.1 Example (1) Simple Cash Balance Plan

Cash Balance Plans (CBPs) usually have three important interest rates; 1) "Interest credit rate" (that calculate the periodic notional fixed and/or variable interest credit during active plan participation), 2) "Interest rate" (that calculate the fixed and/or variable interest during waiting period between withdrawal and retirement age), 3) "Conversion rate" (that converts a lump-sum benefit to a pension benefit).

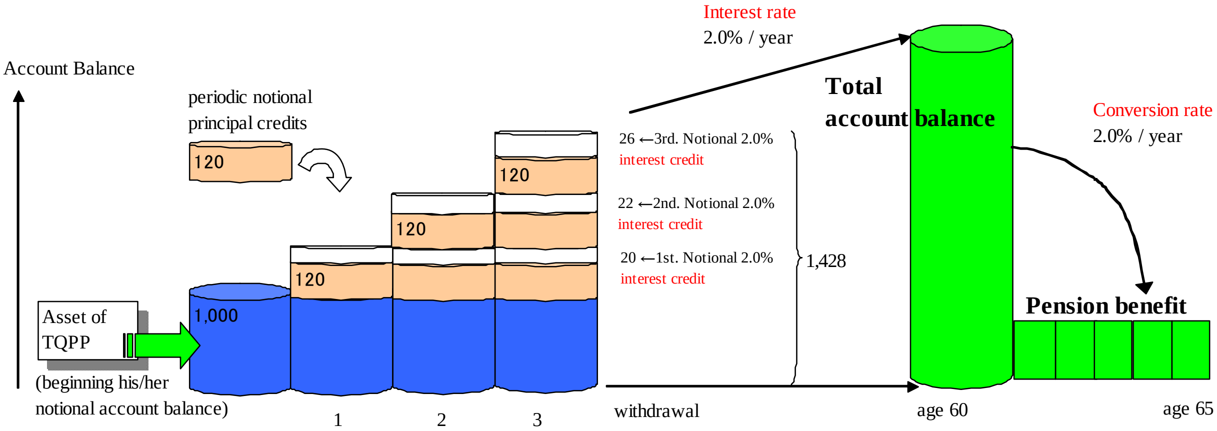
The feature of this "Simple CBP" is that all these interest rates are the same percentage. (e.g.; 2.0%, 2.5%, or 3.0%) With this feature and adopting the following simple design, the contribution per person will be the same amounts of periodic notional principal credits to him/her.

－The discount rate (that calculate the contribution) and above-mentioned three interest rates are the same percentage.

－"Simplified standard" is applied. The withdrawal rates are 0%.

－The pension benefits will be paid for pre-determined (e.g.;10) years. (If the pension recipient dies in less than 10 years from the first payment, survivor will receive the remaining present value of pension. That is, the pension is equivalent to 10 years certain.)

Figure 8: The image of Simple CBP benefit formula



As I mentioned in Chapter2.2, when companies start this plan, plan's funding status is completely full. Therefore companies can estimate and prepare the present and future cash (contribution) easily.

When companies start this plan, they must decide the percentage of their plan's interest and discount rate, they seem to take the recent experience of long-term interest rate into consideration. (Figure 7) Hence, many companies seem to adopt 2.0% as their rates now.

As for asset management, if companies adopt the low-risk investment (long-term interest rate matching investment) companies will be able to avoid the possible asset management slump.

3.1.2 Example (2) Fixed amount benefits Plan

The design of this plan is the simplest. Employees will receive service related pension benefits.
As for the benefit design, the plan providers (life Insurers) usually prepare a variety of benefit tables. (Figure9) Companies can select the design that will fit their retirement benefit plan.

Figure 9: Sample Plans

(Lump-sum benefit, Yen)

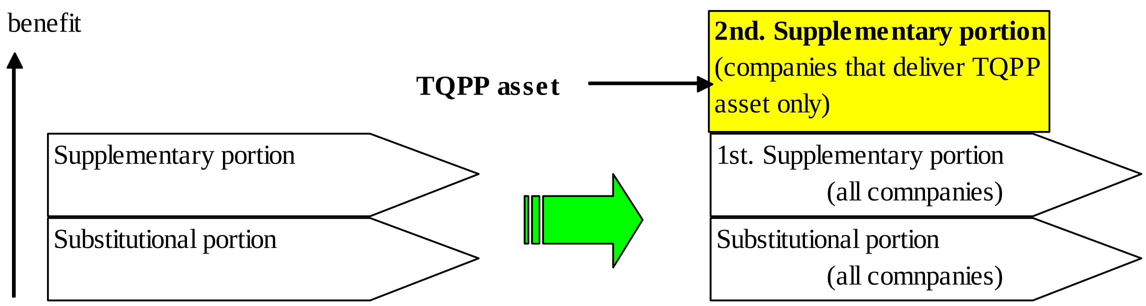
Years of service	Reason for severance			
	Retirement	Withdrawal by personal reason		
		design A	design B	design C
3～ 9	1.0M	0.3M	0.4M	0.5M
10～19	5.0M	2.5M	3.0M	3.5M
20～29	10.0M	8.0M	8.0M	10.0M
30～	15.0M	15.0M	15.0M	15.0M

For example, if a company adopts design A, an employee with 20 service years will receive 10 million yen when he/she retire at age 60.
But if he/she withdraw at age 50 by personal reason, he/she will receive 8 million yen only.
In Japan, benefit reduction like this is often seen. This seems to be quite different from other countries' DB pension system. The root of this difference seems to be in conventional thought toward retirement benefit.

3.2 Transfer of TQPP assets to Multi-employer EPFs

I introduce the recent trend where existing EPFs are becoming the successors of discontinued TQPPs.
While the time limit of TQPP abolition is approaching, some experts say multi-employer EPFs will be the key to relieve the following anxiety that small and mid-sized company employers have. That is, some TQPP sponsors of such companies seem to be anxious about managing their DB type pension plans "by themselves".

Example (1) Addition of second supplementary benefit portion to EPFs
Participants whose employers deliver their TQPPs to this second portion will be receive pension benefit corresponding to "substitutional portion + supplementary portion + second supplementary portion". (Figure 10)
Figure 10: Addition of 2nd. Supplementary portion



Example (2) Establishment of another DBCP fund by existing DB type pension fund
This is a case that existing DB type pension fund (e.g.; EPF/DBCP fund) establishes another DBCP fund in order to take over small and mid-sized TQPPs. This is quite new challenge to solve “TQPP abolition problem”.

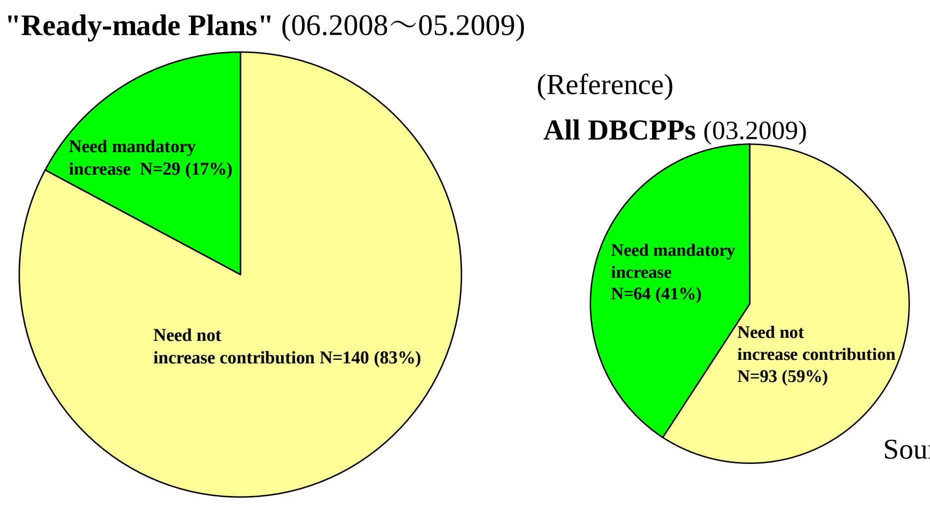
However, neither “example 1” nor “example 2” has grown significantly.

Recent sharp economic deterioration is inflicting serious damage on EPF financial management. It seems that many sponsor companies of multi-employer EPFs cannot afford to consider accepting TQPP assets, it is as much as they can do to manage current finances. The EPFs themselves are facing with a difficult problem too.

3.3 Financial status of ready-made DBCPPs after bankruptcy of Lehman Brothers

In the “freefall” capital market after bankruptcy of Lehman Brothers, even some of the ready-made DBCPPs got into unfunded, and they are facing mandatory contribution increase.
It’s true the “Ready-made Plans” are simple “package” plans, but they are DB pensions too. Companies have every option in their plan asset management. So it is difficult to control the asset management risk.

Figure 11: Financial Status of “Ready-made” DBCPPs



Source: Dai-ichi Life

Because the scale of companies that manage ready-made DBCPPs is small, the impact caused by aggravation of the economic environment can be big. Some companies cannot afford to increase annual pension contribution. Some of them have to spread the special supplementary contribution payment period because the amount of unfunded liability is too much, and others start to consider the transition from DBCPP to DCPP.

4. Concluding remarks

It is often said that DB type pension plans of Japanese small and mid-sized businesses are facing with some difficulties now.

While the circumstances in which those companies find themselves are very severe, companies that are still managing TQPPs must conclude what type of retirement benefit plan they will adopt after abolition of their TQPPs. Then again, some of the companies that have already delivered their TQPPs to DBCPPs are getting into difficulties with plan financial management.

In addition, the unfunding of DB type pension plans affects sponsor companies' corporate accounting as well as increase of cash flow (increase of pension contribution). In Japan, current accounting standard for post-retirement benefits allows small and mid-sized companies whose employees are fewer than 300 people to use "Simplified method". Companies using this method can adopt following liabilities unaffected by the float of interest rates instead of using Projected Benefit Obligation (PBO). These liabilities are called "Jiko-tsugo-you-shikyuu-gaku" and "Suuri-saimu" in Japanese. The former represents the total amount of severance benefits of every active employee that is calculated at the end of the company's fiscal year, and the latter is Actuarial accrued liability. This "Simplified method" is peculiar to Japanese accounting standard. The Accounting Standards Board of Japan (ASBJ) is now working toward international convergence of accounting standard. According to the discussion paper that ASBJ released in January 2009, using of this "Simplified method" may not be accepted in the future. The revision of accounting standard has to be watched carefully.

In order to develop DB type pension scheme of Japanese small and mid-sized companies, I think cooperation of the related parties including both employers and employees, financial institutions (Plan suppliers), and plan actuaries is indispensable. I believe that employers' everlasting effort to maintain their DB plan is the key to success. Not to mention employers' efforts, I think

1) plan participants' concern about their own post-retirement life and the plan their employers' provide,
2) financial institutions' (plan suppliers') prudence and involvement,

are also important factors that lead the DB plan to success.

Opportunities that plan actuaries involvement is required are also increasing.

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