Retirement Systems of Higher Educational Institutions in Japan, the United States and the United Kingdom

Satoshi P. WATANABE
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Introduction

As Japan’s modern society faces declining birth rates and extended longevity with rising divorce rates, improvement of post-retirement financial security is becoming a growing concern for the ageing population with a conventional pay-as-you-go (PAYG) state pension system. Apprehension about a quickly depleting reserve in corporate pension funds also poses a serious challenge for many employers, particularly as the first wave of baby-boomers begins to leave the active workforce with hefty retirement lump-sum payments and annuities. Moreover, the fact that the Japanese government has announced the termination of Tekikaku Taishoku Nenkin, one of the most popular privately-managed defined benefit pension programs as of March 2012, also raises the issue of securing post-retirement income sources as an important policy agenda in the domain of social debates. In addition, as the Japanese workforce increases its mobility owing to rising unemployment rates and job turnover, the mobility risk associated with the loss of pension benefits has become a non-negligible issue in planning a long term career for all employed individuals in the country.

In order to respond to the emerging social needs in providing new retirement savings vehicles, the Japanese government passed pension laws permitting employers to shift from a conventional defined benefit (DB) pension scheme to defined contribution (DC) and cash balance plans. However, not only did the recent financial crisis that originated in the market crash of Fall 2008 shake harder than ever DB-providing employers’ anxiety in regaining the financial health of their retirement funds, it also highlighted the potential investment risks embedded in the DC pension scheme, which is solely borne by individual DC account holders. Higher educational institutions are not immune to this potential issue of vulnerable retirement benefits and insolvent pension systems in today’s highly intermingling organizational structures which depend heavily on external financial institutions. The aftermath of the most recent global financial crisis has awakened the ivory towers of even the world’s leading institutions to the potential danger of the current institutional investment strategy.

This study, as the first attempt in the field, at least in the academic community of higher education research in Japan, attempts to shed light on this critical aspect of higher educational institutions and questions the robustness of the current retirement and pensions systems. The study illustrates alternative schemes currently implemented in Japan as well as the U.S. and U.K. and examines the strengths and weaknesses of these alternatives. The aim of this study, which is part of an ongoing research project, is to provide a means

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for all institutions of higher education to reconsider the importance of establishing sustainable retirement benefit systems.

**Literature Review**

An important academic contribution on the interpretation of the mandatory retirement system in DB-sponsoring organizations dates back to Lazear’s (1979) seminal work. According to Lazear’s model, the design of the “back-loaded” DB feature along with a tilted compensation profile over one’s career enhances employee morale and commitment in the form of reduced shirking, increased effort, and long tenure with the organization (Lazear, 1979, 1982, 1990). Despite its advantageous features, however, the conventional DB pension scheme has imposed tremendous financial liabilities on the benefit-sponsoring employers, particularly since the fiscal collapse attributed to the “Lehman Shock” of Fall 2008. For many Japanese employers, the prolonging economic slump has also posed an enormous financial challenge since the country’s infamous bubble economy ended in the early 1990s. Muto and Ishizuka (2002) report that Kosei Nenkin Kikin and Tekikaku Taishoku Nenkin, Japan’s two most popular privately-managed DB pension programs, have experienced insufficient reserves due to the weak performance of faltering financial markets since the burst of the bubble economy.

The higher education industry is not immune to this financial vulnerability as its retirement systems typically depend on private annuity and investment markets. As a result, many colleges and universities are facing unprecedentedly challenging financial situations in maintaining the health of their retirement funds. Based on the published data, obtained from the annual reports of the Retirement Allowance Foundation of Private Colleges and Universities (Zaidan Höjin Shiritsu Daigaku Taishokukin Zaidan), the largest retirement fund for Japan’s private colleges and universities, Watanabe (2010a) warns of the unsustainability of the retirement system for academic and administrative staff in the private higher educational institutions.

In order to supplement the deteriorating DB retirement benefits as well as to rescue the underfunded DB-providing employers in serious deficit, the Japanese government passed pension laws in 2002, permitting employers to offer DC pension programs in addition to the traditional DB benefits. The new DC scheme provides notably advantageous features for individual account holders. Firstly, portability of an individual-based DC retirement account offers remarkable benefits to the Japanese workforce with increasing mobility. In the conventional DB pension programs, workers with higher job turnovers are likely to suffer disadvantageously lower receipts of final retirement allowances due to the back-loaded feature of the DB scheme, relative to their colleagues who spend the career with the same employer (Pesand, 1992). Secondly, a DC plan is typically characterized by front-loaded tax incentives; that is, the contributions are deductible from income, and the accrued investment return generates no tax liability until withdrawn. Under the DC pension scheme, however, investment risk is passed onto individual account holders from benefit-sponsoring employers, leaving the workers with uncertain final receipts of cumulative retirement benefits.
Since the passage of the related DC laws in Japan, the choice between the conventional DB pensions and a portable DC plan has drawn serious attention from individual workers as well as employers in Japan (Kubo, 2001). According to the model by Ippolito (1997), the preferred type of pension coverage would depend on whether one finds the “indenture premium” associated with DB pensions sufficient to overcome the inherent cost of less mobility. This implies that a women facing a smaller prospect of finding an equivalently well-compensated job outside the current firm than a man would not choose a DC plan despite the portability merit. Watanabe (2009), using a sample of Japanese full-time employees, obtains a result which supports this argument. His finding shows that corporate-pension covered female employees are significantly less likely than their male counterparts to choose a DC plan in response to the portability benefit. Watanabe (2010b) also provides evidence that Japanese female full-time workers are less likely than their male counterparts to choose a DC plan over a DB pension due to the associated investment risk and uncertainty. The non-popularity of the new DC scheme among Japanese female workers is reflected in a survey result which reports that only 32% of corporate DC pension eligible female workers were enrolled in a DC plan in 2004 while 75% of DC eligible men were in the same year (Ministry of Health, Labour and Welfare, 2005). The unpopularity of the scheme in Japan’s higher education industry is also reflected in the fact that as of November 2010 only 3 institutional bodies (Gakkō Hōjin) have participated in this portable and individual risk-bearing new scheme.

Although Ippolito and Thompson (2000) found that the termination in favor of DC pension plans was a rare event and that the vast majority of these plans might survive in the U.S., Butrica et al. (2009) report that the US retirement market has seen a significant shift away from the traditional DB pension programs to DC plans in recent years. Butrica et al. also predict that the shift may even accelerate as an increasing number of financially solvent companies cease to provide their conventional DB benefits by replacing them with new DC pension plans. In the U.K., compared to the U.S., although the DC scheme remains a small segment of the market (Clark, 2006), there has been a gradual trend away from DB plans with employers setting up new retirement programs tending to opt for DC schemes (Mayhew, 2001).

Pension Systems for HEIs in Japan, U.S. and U.K.

In this section, primary retirement and pension programs implemented by higher educational institutions in Japan, the United States and the United Kingdom are briefly described. The descriptions, despite their brevity, also intend to help us understand the historical background and environmental conditions in each country as well as the strengths and weaknesses of the alternative models.

a. Japan

The Japanese government passed pension laws in 2002 which permitted financially struggling employers to shift from a burdensome DB pension scheme to new DC savings vehicles and cash balance plans. However, retirement benefits available for employees in public services or of private organizations in the country are
predominantly based on the traditional final-pay DB scheme. Under the typical DB pension scheme, employers offer a guaranteed payout to retirees in the form of a lump-sum and/or annuity, calculating the final amount of receipts based on a pre-determined formula which normally takes into account a worker’s number of service years in an organization and the highest salary during his or her services.

The potential issue with the pension programs for Japan’s higher educational institutions lies with the highly segmented coverage of the employees in the academic market, depending on the type of institution. For example, teaching and administrative staff of the national university corporations have been covered by the National Public Service Mutual Aid Association (Kokka Kōmuin Kyōsai Kumiai), which is designed “to issue a pension and/or other allowances to any public employee or their surviving family on the basis of the national government’s special relationship with that public employee when that employee retires, after having served faithfully for a specified number of years, or when they have retired due to an injury or illness stemming from their service, or when they have died due to their service.” 2) (Ministry of International Affairs and Communications 2010). Similar pension programs are also provided to employees of public institutions established by the local governments, i.e., prefectural and city universities, through the Local Public Employees’ Mutual Aid Association (Chihō Kōmuin Kyōsai Kumiai). Thus, professors and administrators in these two types of public institutions have been covered by the pension programs, which have been independently administered by separate public authorities.

Parallel to these pension programs for employees in the public sector, the retirement benefits coverage of the majority of academic and administrative staff members in private colleges and universities are supported by the Promotion and Mutual Aid Corporation for Private Schools of Japan (Shigaku Kyōsai Jigyō) for long-term pension benefits and by the Retirement Allowance Foundation of Private Colleges and Universities (Zaidan Hōjin Shiritsu Daigaku Taishokukin Zaidan) for lump-sum retirement payments. In particular, the Foundation which was established and began its functions in the early 1980s holds 605 institutional members in 2010, covering over 90% of the overall private institutions of higher education in the country. As of March 2008, an annual average of more than 137,000 full-time faculty and staff personnel of private colleges and universities are covered by the Foundation’s premise.

Owing to this highly segmented administration of the pension benefits, individuals in the Japanese academic labor market have been suffering the disadvantage of mobility risk when they changed their institutions. Accordingly, portability of the pension benefits has emerged as an important policy agenda as today’s academic workforce in Japan increases its job mobility.

b. United States

Teaching and administrative staff members of US higher educational institutions are typically covered by 401(k) or 403(b)-type tax sheltered DC plans, provided by Teachers Insurance and Annuity Association-College Retirement Equities Fund (TIAA-CREF). The organization, which has served the academic, research, medical, cultural and nonprofit fields for over 90 years, is a leading provider of retirement services for the
community and one of the largest institutions in the financial services industry in the U.S. with $402 billion in total assets under management as of September 30, 2009. TIAA-CREF currently supports and meets the financial needs of approximately 3.6 million individuals and 15,000 institutions in accumulating their post-retirement savings. 3)

Conley (2007), using a sample of 567 public and private institutions of higher education in the U.S., finds that 42% offered DC pension plans such as TIAA-CREF. An additional 41% of institutions allowed faculty members to choose either a DC plan or a DB pension option such as a state plan which calculates final receipts of benefits based on the standard DB formula that might include years of service, final average salary, and age. Conley’s findings also show that, where faculty members were given such a choice, the majority (72%) of institutions required participation in the DB system as the default plan. Only 12% of responding institutions reported offering only a DB option, and 5% offered a combined plan that includes features of both types of pension programs.

In contrast to the guaranteed employer-sponsored DB scheme with certain final benefits, DC-providing employers and workers make a deposit of a proportion of their monthly salaries into a tax-deferred retirement account. Individual workers are responsible for the management of their own account, and the amount of final receipts depends on the performance of the investment market as well as individual portfolios during their active careers. Some US institutions provide a combination of these two types of plans, permitting faculty members to choose between them, or to allow them to participate in both types (Conley, 2007). Unlike the Japanese pension system for the higher education community, benefit-sponsoring colleges and universities may participate in TIAA-CREF’s services regardless of the institution type, i.e., public or private. Moreover, the participating institutions are not restricted to tertiary education, but include primary and secondary schools, and research and nonprofit organizations. As a result, portability of the pension benefits is guaranteed as a vested employee changes from a public university position to, say, a private university or a non-profit think-tank, or vice versa.

c. United Kingdom

The Universities Superannuation Scheme Limited (USS), established collectively by U.K. universities in 1975, is the principal pension scheme for more than 400 universities and other higher education and research institutions. It is one of the largest U.K. pension schemes with more than 250,000 individual members, mainly academics and senior administrators with total assets worth about £30 billion as of March 2010. 4) It is financed by contributions from both employees and employers: 6.35% of salary paid by member employees and 16% of salary paid by institutions.

Although the USS provides final-pay DB pension benefits to the plan participants, covered employees are endowed with the flexible merit of portable benefits since the majority of UK colleges and universities participate in the USS services. Thus, employees of participating institutions are allowed to carry over their DB pension benefits as they change jobs among the member institutions, and individuals do not need to cash
out the cumulative benefits at the time of retirement or separation from their previous employer. The USS programs also permit individuals to increase their benefits by paying Additional Voluntary Contributions (AVCs). The scheme critically differs from Japanese DB pension plans in that part-time employees may be eligible for the USS pension benefits. The scheme is also characterized by the flexible and continuous coverage of individuals during their maternity and paternity leaves. However, coverage by the USS benefits are restricted to only academic and higher-ranked senior administrative staff, and non-teaching non-professional staff members are normally covered by locally sponsored plans, typically provided by their employers or local governments. As with the Japanese DB pension schemes, the USS faces a serious challenge in its long-term sustainability as investment risk is solely borne by the benefit-sponsoring employers and their liabilities have been growing more quickly than assets in recent years.

Pension schemes implemented for higher educational institutions in the above three countries and the associated conditions are summarized in Table 1.

### Table 1. Pension Schemes of Higher Educational Institutions in Japan, U.S. and U.K.

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>U.S.</th>
<th>U.K.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary fund</strong></td>
<td>NPSMAA</td>
<td>PMACPS/RAFPCU</td>
<td>TIAA-CREF</td>
</tr>
<tr>
<td><strong>Member institutions</strong></td>
<td>Public (national)</td>
<td>Public (local)</td>
<td>USS</td>
</tr>
<tr>
<td><strong>Primary scheme</strong></td>
<td>Defined benefit</td>
<td>Defined contribution</td>
<td>Local plans</td>
</tr>
<tr>
<td><strong>Staff coverage</strong></td>
<td>Teaching &amp; administrative</td>
<td>Teaching &amp; administrative</td>
<td>Teaching &amp; senior administrative</td>
</tr>
<tr>
<td>Part-time coverage</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Portability</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Risk/liability</td>
<td>Employer</td>
<td>Individual</td>
<td>Employer</td>
</tr>
</tbody>
</table>

Note: NPSMAA: National Public Service Mutual Aid Association (Kokka Kömuin Kyōsai Kumiai); LPEMAA: Local Public Employees’ Mutual Aid Association (Chihō Kömuin Kyōsai Kumiai); PMACPS: Promotion and Mutual Aid Corporation for Private Schools of Japan (Shigaku Kyōsai Jigyō); RAFPCU: Retirement Allowance Foundation of Private Colleges and Universities (Zaidan Hōjin Shiritsu Daigaku Tsushokuin Zaidan); TIAA-CREF: Teachers Insurance and Annuity Association-College Retirement Equities Fund; USS: Universities Superannuation Scheme Limited.

### Some Thoughts and Implications

Numerous academic studies have been accumulated, particularly in the U.S., on faculty preferences for pension types as well as the associated retirement behaviors of university employees. In this section, implications are drawn from these previous studies on (1) the effects of financial volatility, (2) individual preferences, and (3) faculty productivity and retirement incentives, through comparisons between the schemes in Japan, U.S. and U.K.
d. On the effects of financial volatility

The financial health of institutional pension funds has been severely damaged at the global level due to the recent financial crisis. The impact of a market crash could be particularly ruthless for DC account holders who are approaching retirement age as significant losses caused in their retirement accounts are not likely be replenished in the remaining years of their active careers. Based on a simulated result, Butrica et al. (2009) project that 26% of last-wave boomers who were born between 1961 and 1965 in the U.S. would have lower family incomes at age 67 and 10% of them would experience at least a 5% decline.

The damage of the economic turmoil in the global financial markets has affected some of the leading institutions of higher education in the world. For example, Harvard University, which holds the largest endowment of the US institutions, suffered investment losses of approximately 22% between July 1 and October 31, 2008. The pre-crisis value of the University’s endowment was $36.9 billion as of June 2008, and the value lost due to the market crash is estimated by Harvard Management Company as equivalent of $8 billion.5) Most leading universities in the U.K. have also suffered significant losses. According to the Chronicle of Higher Education issued on December 12, 2008, “the endowments of Britain’s top universities have suffered losses of at least £250-million ($373-million) in the current economic crisis,” and “the Universities of Cambridge and Oxford, whose endowments were valued at £907-million ($1.4-billion) and £680-million ($1-billion), respectively, in July, are understood to be the biggest losers.”

Although the potential danger of financial volatility is widely recognized by the institutions and their employees, investment risk and liabilities cannot be completely swept away. Financial liabilities of the DB scheme could be burdensome for benefit-sponsoring employers in Japan and the U.K., but DC plans offered by US institutions shift investment risk from employer to individuals, which creates uncertain environments for employees of higher educational institutions in planning for their golden years. Thus, examining whether a balanced mix of shared risk and liabilities between the two parties can be reached through a hybrid or cash balance plan as an alternative scheme is a critical area for future research.

e. On individual preferences

Accurate understanding of the factors affecting individual preferences for different pension options, i.e., for DB or DC schemes, is also imperative for devising a new pension scheme which equally provides a post-retirement savings opportunity for all employed individuals. Although a portable retirement account is considered a critical feature as Japan’s workforce becomes increasingly dynamic, DC plans typically entail investment risk and uncertain outcomes due to the volatile nature of the financial markets.

Clark and Pitts (1999), using a sample of faculty members at North Carolina State University, show that workers in the academic labor market tend to strongly prefer DC plans over DB pensions. Clark and Pitts attribute their finding to the faculty members reducing the mobility risk associated with the loss of pension benefits that is inherent in the traditional DB plans. However, their findings indicate that older new hires are more likely to choose the DB plan and that there is a strong trend over time toward greater enrollment in the
DC options although various factors such as mobility expectations, college of appointment, and faculty rank also influence individual choice of the plan type.

Similar studies on individual preferences for different pension options are nearly nonexistent in Japan. Watanabe (2010b), using a dataset with a sample of full-time workers employed in small- to medium-sized private firms, examines the preferences for DC pension plans and finds that both male and female workers prefer a DC plan to the DB alternative in response to its portability benefit. However, Watanabe’s finding also provides evidence that Japanese female full-time workers are less likely than their male counterparts to choose a DC plan over DB pensions due to the associated investment risk and uncertainty.

Although further investigation on individual preferences is required for the employees of Japan’s higher educational institutions, reduction in mobility risk is an important policy aspect as Japan’s academic labor market becomes increasingly dynamic with more terminal or non-tenure track appointments, particularly among the younger cohorts. Unification of the currently segmented DB pension programs for public and private institutions would certainly add the portability feature, while the financial liabilities may be shared by the sponsoring-employers and employees through implementation of a hybrid plans with combined features of DB and DC schemes.

f. On faculty productivity and retirement incentives

Retirement systems in Japan and the U.K. critically differ from that of the U.S. as they still have mandatory retirement ages, while setting such an age is prohibited by law in the U.S. In this short subsection, faculty efforts on improving productivity towards the closing stage of the academic career and the incentive to retire are considered.

In the United States, a special exemption from the 1986 Age Discrimination Act enabled colleges and universities to enforce mandatory retirement of faculty members at age 70 until 1994. Ashenfelter and Card (2002), using a survey that permitted comparison of faculty turnover rates before and after the law enforcement at a sample of DC-providing institutions, find that the retirement rates of 70- and 71-year-olds fell by two-thirds after the elimination of compulsory retirement. Based on this result, Ashenfelter and Card conclude with a projection of a rise over the coming years in the number of older faculty members in US colleges and universities. Clark and Ghent (2008) also obtained a similar result using a dataset from the University of North Carolina system.

As an interesting and contrasting case, the University of California offered its older and longer-service employees financial incentives to leave the institution in response to budgetary shortfalls experienced in the early 1990s. Pencavel (2000) used a dataset from this period and estimated that an individual presented with 10% higher severance benefits has a 7-8% higher probability of quitting, although he admittedly discusses that quit probabilities are very difficult to forecast with accuracy. Similarly, Kim (2003) used samples of several hundred faculty members at the University of California and examined whether professors’ research productivity was related to the acceptance of early retirement incentives. His finding shows that professors
who slowed down on research later in their careers were more likely to retire early, although their overall research productivity was not related to early retirement.

These studies indicate that the extended mandatory retirement ages implemented by many Japanese institutions in recent years may increase the number of older faculty cohorts who produce a high quality of research output.

Conclusions

The accumulating process of retirement savings, as Butrica et al. (2009) discuss, requires deliberation of complex factors which may vary with labor market experience as represented by the level of earnings and job changes over time, as well as market fluctuations in housing and stock prices and simple individual preferences, among other factors. The impact of reforms in pension provisions on retirement well-being of future retirees could be significant, particularly in today’s economic turmoil, and mechanisms to reduce financial risk and liabilities in retirement assets are strongly called for in order to build a sustainable pension system.

Considering that the complete termination of DB plans in favor of the newly implemented DC scheme is a rare event for US organizations (Ippolito & Thompson, 2000), a drastic switch of the offered plan types by Japanese colleges and universities may not be a realistic scenario. The Committee on Retirement of the American Association of University Professors initiated its first retirement policies survey in 2000 to address a lack of reliable and systematically collected information on retirement policies and practices across U.S. institutions of higher education. Similar efforts in accurately understanding institutional policies on pension provisions and individual preferences for asset magnifying vehicles must be made in order to design a sustainable scheme that meets the needs of Japan’s colleges and universities as well as their employees. In order to address this future research agenda, the author is currently constructing a survey questionnaire which is to be conducted in the year 2011. Success in this attempt would certainly fill a deficiency in the knowledge of optimal pension systems for the community of higher education in Japan.

Notes

1) More precisely, the Defined Benefit Corporate Annuity Law and the Defined Contribution Corporate Annuity Law were enacted and became effective in October 2001 and April 2002, respectively.
2) This pension program for public servants was founded in 1875 and is the oldest pension program in the country. For further information, refer to the website of the Ministry of Internal Affairs and Communications of Japan (http://www.soumu.go.jp/english/ppb/index.html).
3) Please refer to the TIAA-CREF website (www.tiaa-cref.org) for detailed information.
4) Please refer to the USS Report and Accounts 2010, which is downloadable from the website, http://www.uss.co.uk/Annual%20Reports/Report%20and%20Accounts%202010.pdf.


6) In many other developed countries including Germany and France, mandatory retirement is allowed for most workers including university faculty. In Canada, mandatory retirement of university faculty was found constitutional in a 1990 Supreme Court decision. Australia and New Zealand have abolished compulsory retirement for most workers including university faculty.

References


日米英高等教育機関における退職給付制度の比較考察

渡邊 聡*

わが国では急速な少子高齢化が進展するに伴い、若年就労世代が高齢退職者の公的年金を賄う社会保障システムに対して制度上の限界が指摘されている。年金制度改革はわが国の国内政策における重要かつ緊急の検討課題であるが、企業年金・退職給付制度といった社会保障制度はまた、わが国の高等教育機関や教職員にも共通する極めて深刻な問題といえる。特に私立大学・短期大学の経営母体である学校法人の年金問題は極めて厳しい状況にあり、現在各機関・法人に課せられている年金掛金率は1990年代前半より既に二倍にまで引き上げられている。また法人化以降の国立大学法人においては、文部科学省共済組合長期給付事業を継続しており、教職員給与から掛金が天引きされているものの、依然として不十分な引当金の問題が解決しておらず将来的な年金不安は免れいない。

これらの背景を踏まえ、流動的な雇用形態を特徴とするわが国の大学・短期大学教員にとって、新たに導入された確定拠出型年金がもつポータビリティのメリットは享受されうるのか、また税制上の優遇措置や年金資産運用に係る投資リスクに対する教職員の個人選好について考察すると同時に、わが国の高等教育機関にとって適切かつ持続可能な年金・退職給付制度の在り方について検討する。また本稿では、従来の確定給付型年金構造を基盤とする日英高等教育機関における年金制度と米国教育研究機関が導入する確定拠出型年金システムの制度比較をとおして、各国の高等教育機関における運用実態と問題点を把握し、わが国の新たな退職給付システム構築に向けた制度設計について考察する。

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