

Accountability of Public Pension Management in Taiwan*

Yu-Ying Kuo

Professor, Department of Public Policy and Management

Dean, Academic Affairs

Shih Hsin University

111 Mu-Cha Rd. Sec. 1

Taipei, Taiwan

yykuo@mail.shu.edu.tw

Abstract

Almost each developed country has faced the aging issue, and great efforts have been placed on establishing appropriate pension system. In Taiwan, the pension reform has been dramatically moved due to fiscal difficulty and foreseeable shortage if no action was taken. The pension reform has been endeavoring since the civil service pension, military pension, teacher pension and labor pension are all engaged, not to say many stakeholders made the issue more complicated. In order to shed light on a country's global competitiveness and reasonable economic safety for the aged, the accountability of pension management and the sustainability of pension funds have become urgent issues. The accountability and openness of pension management, including contribution, payment, and fund investment, need to be carefully examined.

Callahan (2007) pointed out that good governance should embrace the practice of performance and accountability. Pension reform in Taiwan circulated with the concepts in terms of ensuring fiscal performance, to enhance performance and accountability. The study analyzes government documents, public opinions, and secondary data to understand pros and cons of current pension system, by examining the contribution rate, payment scheme, and financial investment of public pension funds. Moreover, intergenerational equity and inter-professionals equity will be explored to assure responsiveness to various target groups. It is expected that the openness of relevant information enhances accountability of public pension management.

Key Words: Accountability, Openness, Performance, Fiscal Sustainability, Pension Management

* This study was funded by National Science Council (NSC 101-2410-H-128-027-MY2) and Office of Research and Development, Shih Hsin University (P10006).

I. Introduction

Almost each developed country has faced the aging issue, and great efforts have been placed on establishing appropriate pension system. In Taiwan, the pension reform has been dramatically moved due to fiscal difficulty and foreseeable shortage if no action was taken. The pension reform has been endeavoring since the civil service pension, military pension, teacher pension and labor pension are all engaged, not to say many stakeholders made the issue more complicated. In order to shed light on a country's global competitiveness and reasonable economic safety for the aged, the accountability of pension management and the sustainability of pension funds have become urgent issues. The accountability and openness of pension management, including contribution, payment, and fund investment, need to be carefully examined. Callahan (2007) pointed out that good governance should embrace the practice of performance and accountability. Pension reform in Taiwan circulated with the concepts in terms of ensuring fiscal performance, to enhance performance and accountability. The study analyzes government documents, public opinions, and secondary data to understand pros and cons of current pension system, by examining the contribution rate, payment scheme, and financial investment of public pension funds. Moreover, intergenerational equity and inter-professionals equity will be explored to assure responsiveness to various target groups. It is expected that the openness of relevant information enhances accountability of public pension management.

II. Policy Indicator and Accountability

The policy indicators of subjective well-being, net economic benefit and equity, proposed by MacRae (1986), have been frequently used for different policy areas, such as health ranking (Oliver, 2010) and child care (Clare, 2007). MacRae (1986) stresses the importance of selecting indicators that are not susceptible to bias from entities that produce data to be used. He argues that researchers and others interested in establishing new indicator systems must recognize certain key features of the process. First, the process is both political and technical; indicators cannot be developed or sustained without input from interested

groups as well as experts. Second, indicators may prove to be less intelligible and less relevant to policy than initially thought, and widespread adoption and use are likely to require advance testing of reliability and relevance. Finally, different political communities have different goals and means of action and, therefore, different information needs. For all these reasons, he argues that we "must be skeptical of rapid development of practical information systems, and of design by experts without continuing participation of users." An interactive dialogue among key stakeholders has the potential to foster both shared values and stronger commitment to performance.

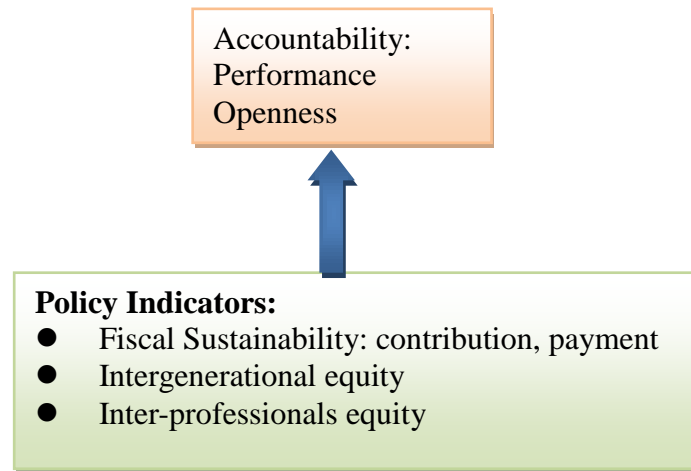
Generally speaking, the civil service pension system has three types: defined benefit plans, defined contribution plans, and hybrid plans. According to Clark and Pitts (1999), "Defined benefit (DB) plans promise a specific benefit at retirement... (p. 18)." Grande and Grande (2004) expand this definition by stating that: "Often referred to as the traditional pension plan, a defined benefit plan provides a guaranteed retirement benefit for each participant. This retirement benefit is generally designed to replace up to 100% of the participants pre-retirement income when combined with social security benefits the participant will receive in retirement. The retirement benefit is stated in terms of specific dollar amount or percentage of pay to be paid annually during retirement (p. 14)."

Defined contribution (DC) plans, by contrast, "are based on contributions into individual accounts with benefits being determined by the value of the fund at the end of retirement (Clark and Pitts , 1999, p. 18)." Seidner (2002) further indicates that defined contribution plans mandate that the employee place so much money per month, or year, in a retirement account. The employer is then obligated to invest the contribution for the individual employee, with the intent that the end result will be more money than the initial contribution made by the employee. Although this benefit type carries with it the potential to reap the financial rewards of successful investment, it carries with it a high risk for inventors.

The myriad of hybrid plans that have been developed in recent years has highlighted the most notable advantage of offering considerable cost savings to the organization (Korn, 2002). However, Korn stated that, "the shift toward hybrid plans in the marketplace is less about cutting costs and more about redistributing retirement dollars from long-term to

short-term workers (p. 52).” The two most popular hybrid plans are the cash balance plan and the pension equity plan. “In a cash balance plan, an employee might receive an allocation (the pay credit) equal to 4% of pay each year; the employee's account also will be credited with interest at, say, 5%, compounded annually. The interest credit might be variable, perhaps tied to yields on long-term Treasury bonds.... Each year, an employee's account balance grows, with all contributions made by the employer in most situations. After the employee is vested in the plan (often after five years), the amount becomes portable (Korn, 2002, p. 54).” The pension equity plan “pays a benefit based on an employee’s final pay, often the five last years. Each year, a participant is credited with a percentage that will be applied against final average earnings. Generally, the percentage increases with age or service (p. 54).”

Taiwan adopt the hybrid plans by asking employees’ to contribute some percentage of the retirement benefit and calculating the benefit with years of service and final pay for a period of working years. Even though hybrid programs attempt to offer the best of both defined benefit and defined contribution programs, there is no substantial evidence to suggest that these plans work more efficient or effective. The research, therefore, focuses on fiscal sustainability to examine the contribution rate, payment schemes, income replacement rates of civil service pension. Additionally, intergenerational equity and inter-professionals equity will be investigated as well. Intergenerational equity has a close relationship with fiscal sustainability, that is, the more fiscally sustainable the pension fund, the more equal the generations' burden. In terms of inter-professionals equity, employees in public sectors and private sectors are suitable for different systems, and the issues of inequity sometimes aroused hostility between professionals, i.e, civil servant, public school teachers, military, private school teachers, and labors. The theoretical framework is displayed. Performance of pension operation and openness of pension information are elements of accountability, and the policy indicators of fiscal sustainability, intergenerational equity, and inter-professionals equity are carefully examined in order to achieve of performance and openness.



III. Civil Service Pension Management

1. Overview of Pension System

As shown in Table 1, Taiwan Public Service Pension, together with Military and Public School Teacher Pension, has been operated and funded by the public sector. Private school teachers and labors have their own pension systems. Those who not covered in any occupation are applicable to national pension system.

Table 1. Overview of Pension System in Taiwan

Public Sector			Private School Teacher Pension	Labor Pension	National Pension
Public Service Pension	Military Pension	Public School Teacher Pension			

Source: edited by the author.

The public service pension system was changed as of July 1 of 1995 from the totally government-financed system to the contributory plan that is to be contributed by the government as well as the participants. The Management Board of Public Service Pension Fund was set up to be in charge of the collection/payment, management and investment of the

Public Service Pension Fund. With the Fund size continuously grows, its investment has become increasingly important.

Public Service Pension Fund (PSPF)

The public service pension system was established in 1943. Initially, upon the institution of the Republic of China's civil service retirement pension system in 1943, funding was derived from budgeted pension contributions and the general tax revenue pool. In line with the changing times, in 1973 a task force was assembled to look into ways to ease the government's financial burden and conduct reasonable improvements to the retirement system. After many years in the making, the new retirement pension program was unveiled first for civil servants on 1 July 1995. Under the new structure, seniority pension funding was discarded in favor of the Public Service Pension Fund (the Pension Fund, PSPF), which draws upon funds contributed monthly by both the government and civil servants. Education staff and military personnel also joined the new pension system on 1 February 1996 and 1 January 1997, respectively.

Despite four adjustments over the course of well over half a century since that time, the framework and principles that define it as a government-financed superannuation system remain unchanged. Over time, dramatic changes in politics, economics, and the social environment have rendered unprecedented challenges to the system. One of these challenges was the growing financial burden of the government, which pushed the government to organize a task force in 1973 to review the system. After years of study, the public service pension system was changed as of July 1, 1995 from a totally government-financed system to a "Contributory Pension Fund" that is supported by funds jointly contributed by the government and the participants. Upon the adoption of the new system, the Public Service Pension Fund (PSPF) began paying pension benefits based on years of service. Under the direction of the Examination Yuan, the Public Service Pension Fund Supervisory Board (PSPFSB) and the Public Service Pension Fund Management Board (PSPFMB) were set up to oversee the supervision and management, respectively, of the Pension Fund. Pursuant to the laws currently in effect, Pension Fund participants comprise civil servants, education workers, and military personnel (political appointees withdrew from the Pension Fund by law

since 2004), totaling more than 620,000 persons.

According to the government authority, the objectives of PSPF are: first, consolidate the financial structure and ensure sustainable operation. As the Pension Fund is jointly contributed by the government and the civil servants, its financial sources are inexhaustible. With respect to the management of the Pension Fund, equal importance is placed on its security and profitability so that the financial structure of the system can be solid and the system be carried on forever. Second, ensure pension income and take care of the aged and their dependents. The aim is to secure and steady the income for the retirees so as to facilitate the recruitment of human forces for public service, boost its morale, take care of the aged and their dependents, and establish a sound and solid retirement system. Third, take good care of retirees, and pay attention to the welfare of the on-service participants. Based on the principle of “taking from the civil servants and giving to the civil servants,” efforts will be made to take care of the retirees as well as to pay equal attention to the welfare of the incumbent civil servants.¹

Public Service Pension Fund Management Board (PSPFMB)

In the effort to stabilize retirement pension financial revenue and expenditure and appropriately utilize accumulated funds, the Public Service Pension Fund Management Board (PSPFMB) was established under the Ministry of Civil Service of the Examination Yuan. The PSPFMB is tasked with the management and deployment of Pension Fund revenue and expenditures in order to raise Pension Fund income, revenue from which retirement payments are derived, through effective operation. The Public Service Pension Fund Supervisory Board (hereinafter also to be known as “the PSPFSB”) was also established to review, oversee, and evaluate Pension Fund contributions and payments, management, and utilization.²

Public Service Pension Fund Supervisory Board (PSPFSB)

¹ <http://www.fund.gov.tw/ct.asp?xItem=3194&CtNode=505&mp=2>

² <http://www.fund.gov.tw/ct.asp?xItem=3212&CtNode=512&mp=2>

PSPFSB was inaugurated on May 1, 1995, under Examination Yuan to review, supervise, and evaluate the operations of the Public Service Pension Fund. Specifically, the board is in charge of reviewing plans for collection, management and use of the fund; screening the annual plans for designated operations; reviewing annual budgets and final accounts prepared by Public Service Pension Fund Management Board; evaluating the overall performance of the pension fund; reviewing contribution rates and their adjustment plans; solving payment disputes; handling other affairs related to supervision on the pension fund.

PSPFSB is characterized by representatives of agencies at all government levels to deliberate and decide affairs related to the supervision of Public Service Pension Fund. The chairman served concurrently by the Examination Yuan Vice President. Under the chairman, there is an executive secretary and a deputy executive secretary in charge of executing the board's resolutions and handling its day-to-day business under the chairman's direction. The board has two departments in charge of general affairs and audit respectively. Such businesses as personnel, accounting, statistics and ethics are conducted by the Examination Yuan. The board has a staff of 25 to 35, which is composed of secretary generals of the Executive Yuan, the Judicial Yuan, and the Examination Yuan and heads of the Ministry of Civil Service, the Ministry of National Defense, the Ministry of Finance, the Ministry of Education, Directorate General of Budget, Accounting and Statistics of the Executive Yuan, Central Personnel Administration of the Executive Yuan, Taiwan and Fuchien provincial governments, and Taipei and Kaohsiung municipal governments. In addition to these thirteen government leaders, there are nine board members representing civil servants, military personnel and education workers. To meet the operational needs of the board, the chairman may recruit five to seven legal and financial advisors. The chairman may also solicit opinions of academics and other experts through advisory meetings to be held at any time.³

Similar experience was seen in South Korea, and the Government Employees Pension System (GEPS) in the Republic of Korea was implemented in 1960, as a personnel vehicle to recruit, retain, motivate and ensure a competitive and vigorous working force. The Civil Service Pension Scheme provided its coverage to employees of the central and local

³ <http://www.fund.gov.tw/ct.asp?xItem=3230&CtNode=514&mp=2>

governments, public school teachers and employees, members of the judiciary branch and the Office of the Public Prosecutors, and police officers. As shown in Table 2, three occupational pension systems, public employees (including public school teachers), military members and private school teachers, have their own occupational pension systems (Military Pension System, Private School Teachers Pension System, respectively), while the general public participate in the National Pension System (NPS). The former ones have almost the same benefit structure, which are more generous than the National Pension.

At the end of 2009, the GEPS is comprised of 1,047,897 active participants and 289,996 pensioners, and, therefore, total expenditure paid was 6.75 trillion won and total income received was 4.84 trillion won. Consequently, the annual deficit was 1.90 trillion won. A deficit (or subsidy) rate, expressed as the ratio of pension deficit relative to payroll, is projected to rise from 6.3 percent in 2011 to 36.0 percent in 2070. The long-term GEPS actuarial deficit implies that the government should eventually subsidize more than one third of the payroll for the pension cost in addition to the regular contribution. The 2009 reform of GEPS shifted income base from a standardized basic salary to a taxable gross wage, raised the contribution rate from 5.525 percent of taxable gross wage to 7.0 percent and reduced the annual rate from 2.1 percent of career average gross wage to 1.9 percent. As the most important element, the minimum retirement age was set at dual basis; for the incumbent the previous term (age 60 or at the time of normal retirement) was maintained while for the newly appointed it was set at age 65. The major elements of the 2009 reform consist of:

- changing the income base from a standardized basic salary to a taxable gross wage
- extending pensionable wage from final 3 years average to career average
- raising contribution rate from 5.525% of taxable gross wage to 7%
- shifting pension indexation into price index
- applying the ceiling of pension benefits and income base for contribution as the 1.8 times of average wage for all members
- applying the minimum eligibility age to 65 (for the newly ensured only)
- reducing the level of the Survivors' Pension Benefits from 70% of the Retirement Pension Benefits to 60% (for the newly ensured only)

Japan is experiencing an unprecedented move toward aging society with more than 20

percent of its population aged 65 or older now, and the percentage to be 25% around the year 2014. In order for the rapidly aging nation to maintain its vitality, it is necessary to realize a “life-long working society,” where those elderly people who are willing and able to work can continue working to their full potential as long as possible (Seike, 2008). The Japanese pension system is 3rd-tier (Figure 1). The first tier, the National Pension system, covers all residents, aged between 20 and 59, in Japan and provides flat-rate benefits. This coverage is also compulsory. The second tier is composed of four employees’ pension plans. The largest scheme in the second tier is the Employees’ Pension Insurance plan, which covers most employees in the private sector and provides earnings-related pension benefits. If an employee works in the public sector like the national government or the local governments, he/she is compulsorily covered by one of the mutual aid associations (MAA’s). There are three MAA’s: MAA for government employees, MAA for local government employees, and MAA for private school employees. These pension schemes in the first two tiers are usually referred to as public pensions. The third tier is called corporate pensions, which can be voluntarily set up at a company or a group of companies.

Figure 1. The “Three-Tier” Pension System in Japan

Corporate Pensions	Occupational Addition		
Employees’ Pension Insurance (EPI) Scheme Participants: 34.44 million	MAAGE (since 1959) Participants: 1 million Amount: 836 billion yen	MAALGE (since 1962) Participants: 3 million Amount: 3,770 billion yen	MAAPSE (since 1954) Participants: 0.47 million
Nation Pension (NP) Scheme Participants: 69.36 million Amount: 12,830 billion yen			

MAAGE: Mutual Aid Associations for Government Employees.

MAALEG: Mutual Aid Associations for Local Government Employees.

MAAPSE: Mutual Aid Associations for Private School Government Employees.

Source: Sakamoto (2011); Morito (2005). Numbers of participants are as of the end of March 2009. Amount is as of the end of November 2010.

2. Taiwan Civil Service Pension

Civil servants became immediate participants of the Pension Fund since the adoption of the new system on July 1, 1995, requiring joint contributions by the governments and participants. Soon afterwards, education workers and military personnel began taking part in the pension fund in February 1996 and January 1997, respectively. Political appointees joined the Fund in May 1996 but no longer participated after the Statute Governing Political Appointees Pension Fund came into effect January 1, 2004. As a result, contribution from political appointees has ended, but payments to them remain ongoing. All relevant matters are handled by the PSPF Management Board. Since January 1, 2011, the retirement eligibility was changed from so call 75-system to 85-system, which means years of service plus the age of retirement equals or more than 85. According to the Civil Servant Retirement Act, Civil servant under any of the following conditions may apply for retirement:

1. who has served for at least 5 years and has reached the age of 60.
2. who has served for over 25 years.

Civil servant under any of the following conditions shall retire:

1. who has reached the age of 65.
2. who is mentally incapacitated or physically disabled to the extent not capable of delivering services

One who has served for over 15 years may collect his/her pension in any of the following fashions:

- (1) Lump sum payment;
- (2) Monthly installments;
- (3) One half in lump sum payment and the other half in monthly installments;

The unit of radix of pension in lump sum payment shall account for double of the base salary of employee of the same level on the day of retirement. One service year accounts for

one and a half units of radix, the maximum of units of radix is fifty three (53) for thirty five (35) years of service. The interval of less than six months shall account for one unit of radix; the interval of more than six months shall be deemed one year of service.

The unit of radix of pension in monthly installments shall account for double of the base salary of the employee of the same level. One service year accounts for two percent of the radix unit; the maximum of radix unit is limited to seventy percent for thirty five years of service. The interval of less than six months shall account for additional one percent; the interval of more than six months but less than a year shall be deemed one year of service.

The pension for civil servant retirement shall be paid by the pension and consolation fund that is jointly contributed by the government and the civil servants. The pension payment shall be guaranteed by the government. Sixty five percent of the joint contribution of the fund shall be paid by the government and thirty five percent by the civil servant at the rate of twelve to fifteen percent (currently 12%) of double of the civil servants' base salary. Both parties shall be exempt from the joint contributing obligation after thirty five years of payment.

As of the end of 2015, the Fund had 629,000 participants, of whom about 288,000 were civil servants (45.8%), 189,000 were education workers (30.0%), and 152,000 were military personnel (24.2%). The Fund had 28,600 regular benefit recipients, of whom 127,000 (44.6%) were civil servants(including political appointees), 104,000 (36.3%) were education workers, and 55,000 (19.1%) were military personnel. As shown in Table 2, Figure 1 and Figure 2, the Pension Fund received NT\$59.7 billion in contributions in 2015 from three categories of participants while paying out NT\$70.0 billion in benefits, with payments accounting for 117.3 percent of total contributions. The net contribution/payment amount was down NT\$7.0 billion from the year-earlier level. Since the Fund's inception, accumulated contributions from the three categories of participants amounted to NT\$921.3 billion and accumulated payouts totaled NT\$513.8 billion or 55.8 percent of overall contributions.

The Fund collected NT\$27.9 billion in contributions from civil servants (including political appointees) in 2015 while paying out NT\$30.6 billion in benefits, for a

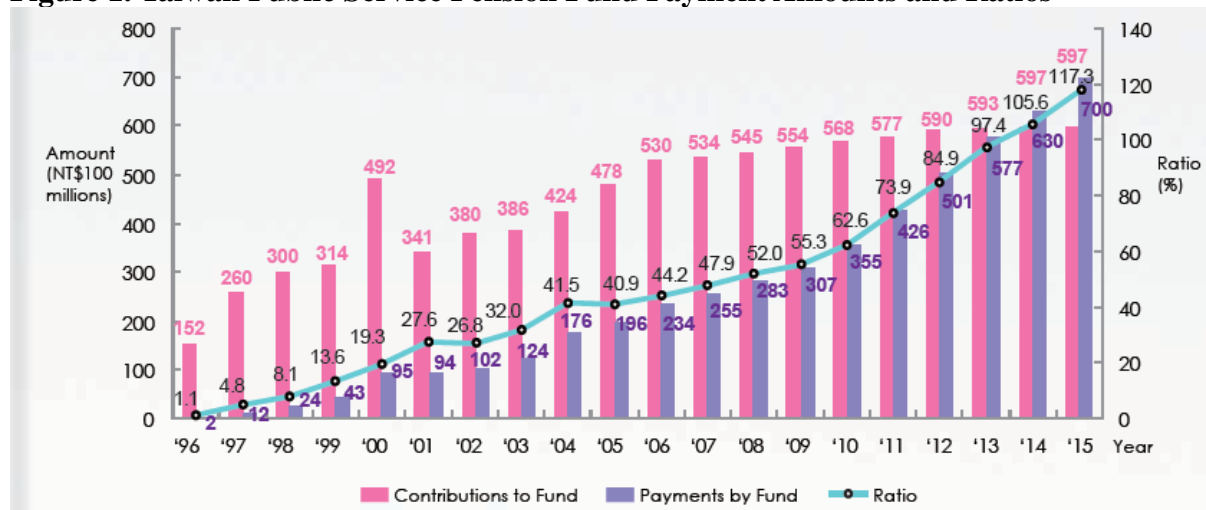
payment-to-contribution ratio of 109.8%; from education workers in 2015 while paying out NT\$24.9 billion in benefits, for a payment-to-contribution ratio of 113.2%; from military personnel in 2015 while paying out NT\$14.5 billion in benefits, for a payment-to-contribution ratio of 147.4%.

Table 2. Taiwan Public Service Pension Fund Contributions and Payments

Units NT\$100 Million					
Period	Contributions/ Payments	Civil Servants	Education Workers	Military Personnel	Total
Fiscal 2015	Contribution Amount	279	220	98	597
	Payout Amount	306	249	145	700
	Payout/ Contribution Ratio	109.8%	113.2%	147.4%	117.3%
As of the end of 2015	Contribution Amount	4,401	3,406	1,406	9,213
	Payout Amount	1,953	1,947	1,238	5,138
	Payout/ Contribution Ratio	44.4%	57.2%	88.0%	55.8%

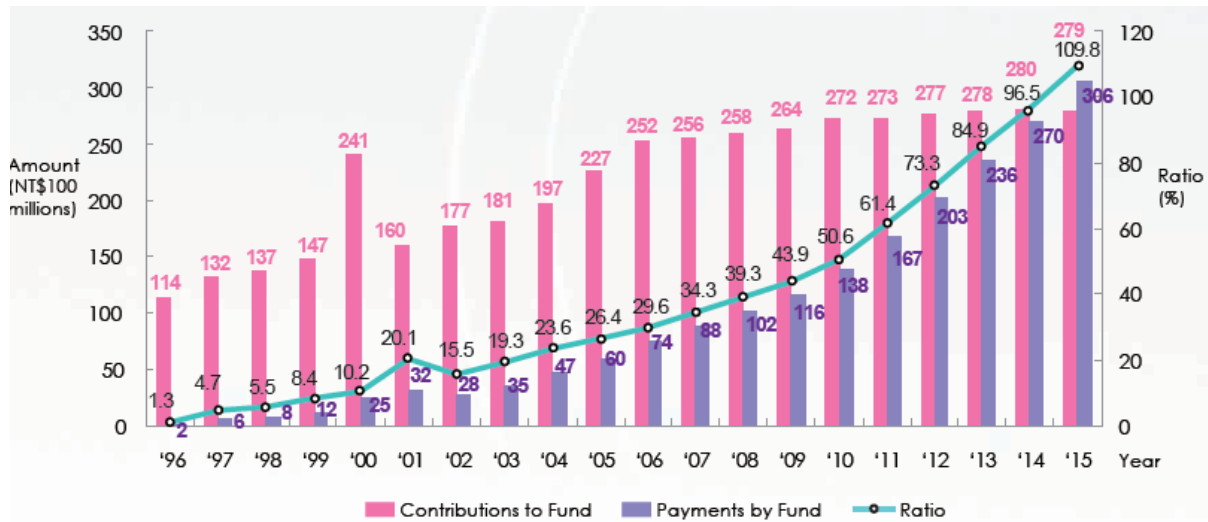
Source: 2015 Pension Fund Annual Report,
<http://www.fund.gov.tw/public/data/672915132371.pdf>

Figure 1. Taiwan Public Service Pension Fund Payment Amounts and Ratios



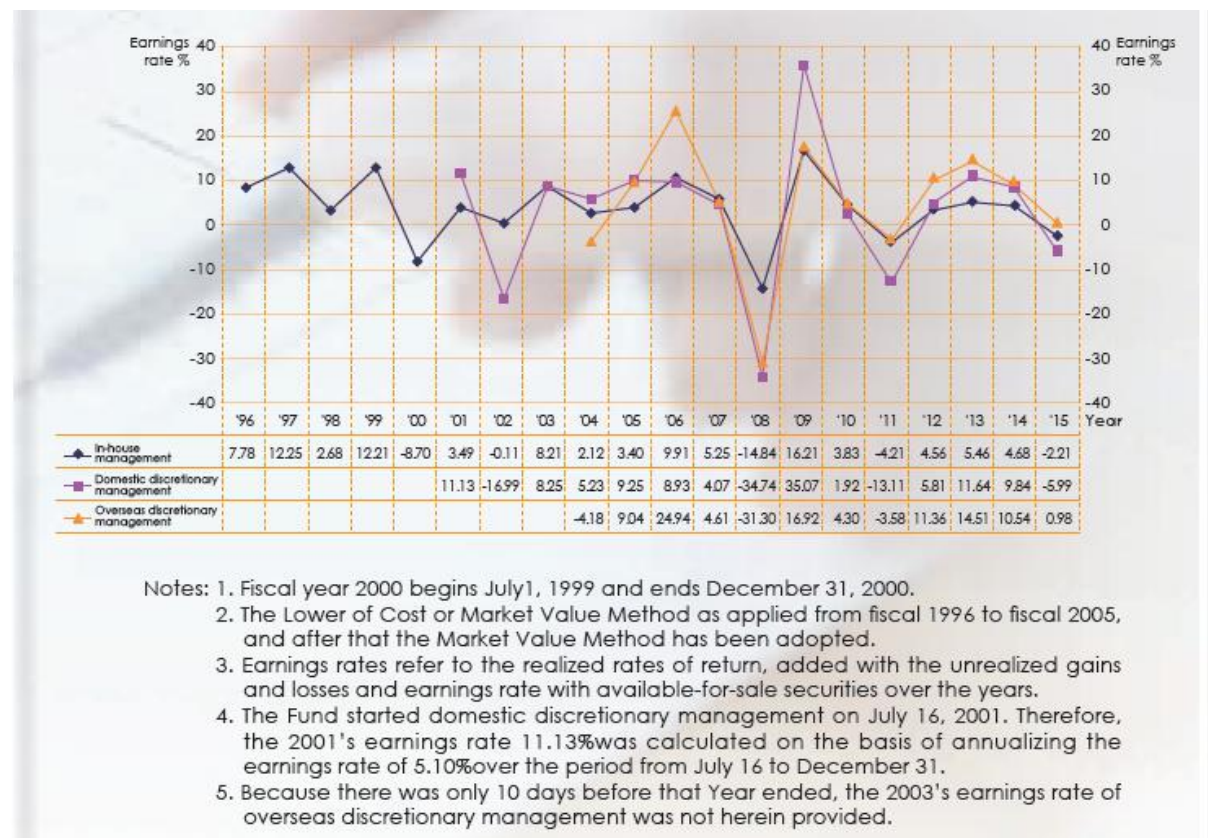
Source: 2015 Pension Fund Annual Report,
<http://www.fund.gov.tw/public/data/672915132371.pdf>

Figure 2. Taiwan Public Service Pension Fund Recipients and Amounts



Source: 2015 Pension Fund Annual Report,
<http://www.fund.gov.tw/public/data/672915132371.pdf>

Figure3. Taiwan Public Service Pension Fund Earnings



Source: 2015 Pension Fund Annual Report,
<http://www.fund.gov.tw/public/data/672915132371.pdf>

Figure 3 shows the Public Service Pension Fund recorded a realized earnings rate of 2.34 percent in fiscal 2015, which was 0.96 percentage points higher than Bank of Taiwan's two-year time deposit interest rate. It would be translated into an earnings rate of -1.94 percent if added with the unrealized gains and losses and rate of return with available-for-sale securities over the year – 6.07 percentage points lower than the year's targeted earnings rate of 4.13 percent.

IV. Analysis and Discussion

It is evident that the purpose of social security arrangement is to prevent those who have encountered risks in economic life such as old-age, disability and survivorship from being impoverished by providing them with benefits. In the era of an aging population, securing the nation's retirement income is one of important policy goals. No one can deny the importance and necessity of retirement care. Facing aging society, growing life expectancy and large-scale layoffs during the economic crisis, the number of retirees is likely to increase as the system matures. The pension coverage periods will be lengthened continuously as the average lifespan increases. This would result in a sharp rise in the pension expenditure, which would be a considerable burden on the future government. Although "defined contribution" pensions have been prevalent around the world, Taiwan, Korea and Japan's civil pension fund still take the form of "defined benefit," though adopt the mechanism of defined contribution by asking participants to contribute a certain percentage.

Policy Indicators

1. Fiscal Sustainability: Contribution and Payment

With respect to the fiscal sustainability of the pension fund, as of the end of December 2016, Pension Fund participation included 7,265 institutions and schools, and 634,666 individuals in the military, civil service and education categories. Among these, civil servants numbered 289,257 (45.57%), education staff 185,810(29.28%), and military personnel

159,599 (25.15%), respectively. Pursuant to the law, contribution rates to the Pension Fund by civil servants, military personnel and education staff range from 8% to 12% of double the amount of their basic pay. The current contribution rate has reached the maximum 12% allowable by law (the Examination Yuan submitted the draft of the amended Civil Service Retirement Act to the Legislative Yuan on 3 April 2009, under which the maximum contribution rate would be raised from 12 to 18%). Of the total contributions paid into the Pension Fund each month, the government bears 65% and individuals contribute the remaining 35%.

Table 3. 2010-2016 Pension Fund Contributions, by Participant Category

Units: NT\$100 million

Fiscal Year	Military Personnel	Civil Servants	Education Staff	Political Appointees	Total
2010	89.04	271.19	207.34	0.48	568.05
2011	92.01	272.46	211.88	0.40	576.75
2012	98.05	276.28	215.67	0.46	590.46
2013	96.55	277.85	217.69	0.42	592.51
2014	97.17	279.22	219.76	0.44	596.59
2015	98.33	278.34	220.18	0.45	597.3
2016	98.88	277.39	219.35	0.45	596.07

Source: <http://www.fund.gov.tw/ct.asp?xItem=1857&CtNode=482&mp=2>

The payment of pensions includes:

(1) Lump-sum Pension: the base amount is double the basic pay for the employee level at time of retirement. For every full year of employment 1.5 base amounts are awarded, to a maximum of 53 and 35 years of service.

(2) Monthly Pension: for every full year of employment at the same employee grade, 2% of the base amount of double the basic pay is paid per month, to a maximum of 35 years of service and a limit of 70%. Payments are made every six months, on January 16 and July 16,

respectively.

(3) Combined Pension: consists of equal parts of lump-sum and monthly pension payments; or one-third lump-sum pension and two-thirds monthly pension; or one-quarter lump-sum pension and three-quarters monthly pension. Payments are made in accordance with the calculation methods for lump-sum and monthly pensions, multiplied by the proportion of combined payment.

(4) Survivor Relief: for retired persons drawing a monthly or combined monthly pension at time of death, surviving kin shall receive additional compensation as a lump-sum payment. Surviving parents, spouses, or minor children are eligible to receive monthly relief compensation of one-half the sum of the monthly retirement pension drawn at time of death.

Table 4. Pension Fund Payments, by Participant Category

Units: NT\$100 million

Fiscal Year	Military Personnel	Civil Servants	Education Staff	Political Appointees	Total
2010	77.33	137.12	140.54	0.45	355.44
2011	98.71	166.99	159.85	0.47	426.02
2012	115.66	202.26	183.11	0.45	501.48
2013	136.22	235.73	204.87	0.46	577.28
2014	135.9	269.4	224.45	0.47	630.22
2015	144.92	305.62	249.32	0.49	700.35
2016	159.74	346.52	279.10	0.48	785.84

Source: <http://www.fund.gov.tw/ct.asp?xItem=1857&CtNode=482&mp=2>

2. Intergenerational equity and Inter-professionals equity

As mentioned above, intergenerational equity has a close relationship with fiscal sustainability. If the public service pension fund is fiscally sustainable, there will not be debt for future generations. From July 1995 through May 2016, Pension Fund has NT\$192.22 billion of accumulated realized earnings at 3.13% rate of average realized return,

outperforming the income earned on interest in two-year fixed-rate deposit at the Bank of Taiwan of 1.89% by 1.24 %. In addition, the total amount of realized earnings and unrealized earnings has 169.910 billion with 2.77% rate of the average earnings. In order to keep its fiscal sustainability, several actions have been considered: contribute more, take less, and retire later, shown as Table 5-7.

Table 5-7 identify the possible policy changes: first, the contribution rate will be increased from 12% to 18%; second, the base pay for pension calculation will be the average of the highest 15, 20 or 25-year pay; third, the pensionable age will be delayed to 65. Although the reform is ongoing, and related issues are changeable according to target groups' arguments, the basic principles remain: contribute more, take less, and retire later.

Table 5. Policy Change: Contribute more.

	Contribution rate	By law	Possible change
Public Officials	12%	12%-15%	12%-18%
Public School Teacher	12%	8%-12%	12%-18%

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Table 6. Policy Change: Take less.

	Current	Possible change
Public Officials	Base pay before retirement*2	1. Average of the highest 15-year pay 2. Average of the highest 20-year pay 3. Average of the highest 25-year pay
Public School Teacher	Base pay before retirement*2	

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Table 7. Policy Change: Retire later.

	Current	Possible change
Public Officials	85-system (30 working years, age of 55)	University and College: Raising age from 50-55 till 2021, adding 2 years each year to 65 in 2026. Middle and elementary: 80-system in 2018, and 85-system in 2023. Raising pensionable age to 60 in 2028.
Public School Teacher	75-system (25 working years, age of 50)	

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

In order to understand possible impacts, young, middle age and retired public officials and public school teachers' contribution and payment are simulated, shown at table 8-13.⁴

Simulation 1. Contribution and payment for retired public officials

Assume:

1. A retires on 2016.07.01 at the age of 65, ranking at 9, 15 working years before 1995, 20 working years after 1995.
2. Monthly base pay is NT\$47,080.
3. Income replacement rate is 70%.

Table 8. Contribution and payment for retired public officials

	Contribution/Cost	Payment/Benefit
Current	None	Pension before 1995: base pay*5%*15+930 Pension after 1995: base pay*2*2%*20 (47080*5%*15+930)+(47080*2*2%*20)=73904 Beneficial deposit saving: 75697-73904=1793 Monthly pension: 73904+1793=75697
Possible change	None	Average of the highest 15-year pay: 63108 Average of the highest 20-year pay: 59197 Average of the highest 25-year pay: 54117
Total	None	Life expectancy of 80, 15 years' pension Average of the highest 15-year pay: -12589/month, -151073/year Average of the highest 20-year pay: -16500/month, -198001/year Average of the highest 25-year pay: -21580/month, -258958/year

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Simulation 2. Contribution and payment for middle age public officials

Assume:

B served since 1996, is 51years old, and is currently ranking at 9, and will retire in 2026.

Table 9. Contribution and payment for middle age public officials

	Contribution/Cost	Payment/Benefit
--	-------------------	-----------------

⁴ Public officials and public school teachers are analyzed only as the paper discusses public pension fund. The military, part of the public pension fund, keeps the current system. The labor pension fund is not included in the paper.

Current	12% Contribution: 447723(10 years)	Base pay*2*2%*30 (47080*2*2%*30)=56496
Possible change	18% Contribution: 598044(10 years)	Average of the highest 15-year pay: 49838 Average of the highest 20-year pay: 46292 Average of the highest 25-year pay: 42869
Total	150321	Life expectancy of 80 Average of the highest 15-year pay: -6658/month, -79901/year Average of the highest 20-year pay: -10205/month, -122454/year Average of the highest 25-year pay: -13627/month, -163526/year

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Simulation 3. Contribution and payment for young public officials

Assume:

C served the civil service since 2017, ranking at 6 with the base pay of 25435, and expects to retire at 65 with the base pay of 47080.

Table 10. Contribution and payment for young public officials

	Contribution/Cost	Payment/Benefit
Current	12% 1437463 (35 years)	Base pay*2*2%*30 (47080*2*2%*35)=65912
Possible change	2108388 (35 years)	Average of the highest 15-year pay: 65912 Average of the highest 20-year pay: 65353 Average of the highest 25-year pay: 63097
Total	670925	Life expectancy of 80, 15 years' pension Average of the highest 15-year pay: no change Average of the highest 20-year pay: -559/month, -6707/year Average of the highest 25-year pay: -2815/month, -33781/year

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Simulation 4. Contribution and payment for retired public school teachers

Assume:

D retired in 2016 after 35 working years with the base pay of 47080. After pension reform, the income replacement rate is set at 70%.

Table 11. Contribution and payment for retired public school teachers

	Contribution/Cost	Payment/Benefit
Current	None	Pension before 1995: base pay*5%*15+930 Pension after 1995: base pay*2*2%*20 (47080*5%*15+930)+(47080*2*2%*20)=73904 Beneficial deposit saving: 74287-73904=383 Monthly pension: 73904+383=74287
Possible change	None	Average of the highest 15-year pay: 63108 Average of the highest 20-year pay: 59197 Average of the highest 25-year pay: 54117
Total	None	Life expectancy of 80, 15 years' pension Average of the highest 15-year pay: -11179/month, -134148/year Average of the highest 20-year pay: -15090/month, -181080/year Average of the highest 25-year pay: -20170/month, -242040/year

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Simulation 5. Contribution and payment for middle age public school teachers

Assume:

E is 50 years old now with 20 working years and will retire at 60 with the base pay of 48415.

Table 12. Contribution and payment for middle age public school teachers

	Contribution/Cost	Payment/Benefit
Current	12% 488023 (10 years)	Base pay*2*2%*30 (48415*2*2%*30)=58098
Possible change	18% (1% increase every year since 2017) 646631 (10 years)	Average of the highest 15-year pay: 56499 Average of the highest 20-year pay: 53259 Average of the highest 25-year pay: 49799
Total	158608	Life expectancy of 80, 20 years' pension Average of the highest 15-year pay: -1599/month, -19188/year Average of the highest 20-year pay: -4839/month, -58068/year Average of the highest 25-year pay: -8299/month, -99588/year

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Simulation 6. Contribution and payment for young public school teachers

Assume:

E gets the master degree and works at the middle school with the base pay of 25435, and will retire in 2052 (35 working years) with the base pay of 48415.

Table 13. Contribution and payment for young public school teachers

	Contribution/Cost	Payment/Benefit
Current	Base pay *2*12% *35% 3474/month 1458994 (35 years)	Base pay*2*2%*30 (48415*2*2%*35)=67781
Possible change	18% (1% increase every year since 2017) 5097/month 2140685 (35 years)	Average of the highest 15-year pay: 67781 Average of the highest 20-year pay: 66848 Average of the highest 25-year pay: 64293
Total	681690	Life expectancy of 80, 15 years' pension Average of the highest 15-year pay: no change Average of the highest 20-year pay: -933/month, -11193/year Average of the highest 25-year pay: -3488/month, -41856/year

Source: Business today (2017). What's your pension? 2017.01.23-29. 64-82.

Through above simulations, young public officials and public school teachers undertake higher loss than that of middle age or retired ones. Public school teachers will be affected heavier than that of public officials. Nonetheless, public officials has already gone through the reform of 85-system, while public school teachers are currently suitable for 75-system.

The government's pension system is a critical part of the overall reform of the public employees. The results of operating the Public Service Pension Fund have a direct bearing on the benefits of all participants, serving as an indicator to tell whether the new pension system works well or not. According to the management board, the Fund will continue to carry out its tasks based on its legal mandate, taking into account the needs both to maintain the security of the Fund and to increase its investment returns.

In the future, the Fund will enhance asset allocation to achieve a stable long-term performance In pursuit of long-term stable income, risk-tolerating limits and regulations are set for investment objects regarding the market, credit, liquidity, and legal risks. "The

pension system is an important link in the reform of the civil service system. The quality of management of the Fund is closely associated with the rights and interests of retirees from the military, civil service and public schools. The staff members of the PSPFMB and the PSPFSB have the obligation to make active efforts and devote themselves to maximize their functions as good managers. Apart from responding to global economic developments and making timely adjustments to investment strategies, they must also enhance the performance of discretionary management to pursue long-term stable investment performance to achieve the goal of sustainable management (PSPF Annual Report, 2015).”

It is obvious that the fiscal sustainability of civil service pension fund has been the primary concern, and the correspondent schemes, raising the contribution rate, decreasing the payment and delaying pensionable age, gain the attention to pension reform. Accordingly, pension reform aims at improving performance of pension operation. The openness of information is confirmed as the contribution, payment, and investment of public service pension fund are disclosed online. The accountability of public service pension fund, in terms of performance and openness, is achieved to some degree, but still has room for improvement, especially to meet target groups’ needs and to set the forum for discourse.

References

- Business today (2017). What's your pension? 2017.01.23-29. 64-82.
- Callahan, Kathe, 2007, *Elements of Effective Governance: Measurement, Accountability and Participation*, Taylor & Francis.
- Clare, Tilbury (2007) "Shaping Child Welfare Policy via Performance Measurement," *Child Care*, 86 (6), 115-135.
- Clark, R.L., & Pitts, M.M. (1999). "Faculty choice of a pension plan: Defined benefit versus defined contribution." *Industrial Relations*, 38(1), 18-45.
- Grande, J.J., & Grande, T.F. (2004). "Defined benefit plans popular for 45+ crowd." *Ophthalmology Times*, 29(23), 14-15.
- Jung, Jae-yoon (2010). "South Korea's Pensions to Boost Equity Stake," Joong Ang Daily, [http://www.favstocks.com/south-koreas-pensions-to-boost-equity-stake/1522778/\(Aug.15\)](http://www.favstocks.com/south-koreas-pensions-to-boost-equity-stake/1522778/(Aug.15))
- Kim, Jae-Kyeong and Hyung-Pyo Moon (2011). "Pension Systems for Public Sector Employees in the Republic of Korea," Pension Workshop, January 21-22, 2011, Tokyo, Japan.
- Kim, Sang Kyun (2003), "What can Korea Learn from Canadian Pension Reform Attempts?", Department of Social Welfare, Seoul National University.
- Local Public Service Personnel System in Japan (2011), <http://www.soumu.go.jp/english/pdf/lpspsij.pdf>
- MacRae, Duncan Jr. (1986). *Policy Indicator: Links between Social Science and Public Debate*. Chapel Hill, N.C.: University Press of North Carolina.
- Moon, Hyungpyo (2002), "The Korean Pension System: Current State and Tasks Ahead", OECD/INPRS/Korea Conference, Seoul.
- Morito, Hideyuki (2005). "International Society for Labour and Social Security Law." 8th Asian Regional Congress, October 31~ November 3, 2005 - Taipei, Taiwan.
- Lee, Namchol (2002), Experiences of Pension Reform in Korea and Five Other Countries, Master of Philosophy Thesis, University of York, United Kingdom, 2002.
- Oliver, Thomas R. (2010). "Population Health Rankings as Policy Indicators and Performance Measures." *Preventing Chronic Disease*. September; 7(5): A101. http://www.cdc.gov/pcd/issues/2010/sep/10_0040.htm. 12/19/2011.
- Phang and Shin(2002), "A Reform Proposal for Korean Pension System: Coordinated Development of the Public-Private Pensions", OECD/INPRS/Korea Conference, Seoul.
- Sakamoto, Junichi (2011). "Civil Service Pension Arrangements in Japan," International Workshop on Civil Service and Military Pension Arrangements in Selected Countries of the Asia-Pacific. Hitotsubashi Collaboration Center, Tokyo, Japan on January 20-21, 2011.
- Seidner, A.G. (2002). "Evaluating a defined contribution employee pension plan." *Journal of the Healthcare Financial Management Association*, 56(2), 84, 86.
- Seike, Atsushi (2008). "Reexamination of Mandatory Retirement System in Japan." http://www.glocom.org/opinions/essays/20080922_seike_reexamine/
- Song, In-Bo (2010), *The Political Economy of Civil Service Pension Reforms in Korea*, Ph D Dissertation, The University of Sheffield, Sheffield.
- Sufficiency of Teaching Staff and Provision of School Facilities (2011), Welfare Services for Teachers, http://www.mext.go.jp/b_menu/hakusho/html/hpae197101/hpae197101_2_068.html

- Waldo, Dwight (1992). *The Enterprise of Public Administration*. Chandler & Sharp Publishers, Inc.
- Yang, Jae-jin (2008). "Pension Reform Issues in South Korea and NDC-Based Solution." The 5th International Conference of East Asian Social Policy, Welfare Reform in East Asia, National Taiwan University, Taipei, Nov. 3~4, 2008.
- Yonhap News Agency, 2016. "State pension fund to log high return on stock investment." <http://english.yonhapnews.co.kr/news/2016/12/28/0200000000AEN20161228002200320.html?did=2106m>
- Yun, Sukmyung (2000), "Generational Accounting for Korea - With Special Reference to Public Pension Schemes ", The World Bank.
- Yun, Sukmyung (2004), "Financing challenges facing social security schemes - The experience of the National Pension Scheme of Korea", Thirteenth Regional Conference for Asia and the Pacific, Kuwait, International Social Security Association, 2004.
- Yun, Sukmyung (2005). "International Society for Labor and Social Security Law." 8th Asian Regional Congress, October 31~ November 3, 2005 - Taipei, Taiwan.

Website:

Taiwan Public Service Pension Fund, *2015 Pension Fund Annual Report*,
<http://www.fund.gov.tw/public/data/672915132371.pdf>