Public and Private Pension Plans: A Combined Income Replacement Approach to Policy Options for Old-Age Income Security

Hyeyoun Baek
Associate Research Fellow, KIHASA

1. Introduction

Korea's retirement pension was introduced in 2005 with the intention to protect workers' rights to their accumulated pension benefits and to shift away from the traditional severance pay scheme to annuity-based retirement programs. A decade on, the mandatory retirement pension is a success in that now a worker's accumulated retirement benefits have become an actual asset set aside in an external fund, not just a number in an account book. Yet, it remains a failed attempt when it comes to annuitization: an estimated over 95 percent of those in retirement pension still choose a lump sum distribution.

Of all retirement pension reserves as of the 3rd quarter of 2014, defined benefit plans accounted for 68 percent, of which 98 percent were invested in principal-protected, deposit-based products, leaving little room for market returns. Moreover, over 80 percent of the investment made in principal-protected products were concentrated in short-term products with a maturity of less than one year. This to a great extent is because Korean employers need to ensure sufficient liquidity to meet the demand of their retiring employees for lump sum payouts.

<Table 1> Retirement pension reserve funds (in million Korean won), by type

	DB		DC		Corporate IRP		Individual IRP		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Principal-protected	595,222	98.2	162,152	79.3	6,336	90.6	59,196	81.8	822,905	92.4
Investment-type	8,964	1.5	39,507	19.3	632	9.0	7,587	10.5	56,690	6.4
Others	2,151	0.3	2,964	1.4	29	0.4	5,598	7.7	10,743	1.2
Total	606,338	100	204,622	100	6,997	100	72,381	100	890,338	100

Source: Retirement Pension Statistics (3rd quarter, 2014), Ministry of Employment and Labor

<Table 2> % of retirement pension funds invested in principal-protected products of various maturity periods

	Bank	Life insurance	Property insurance	Securities	Korea Worker's Compensation and Welfare Service	Total
Less than 1 year	4.0	1.8	0.3	4.9	1.0	3.3
1 year	80.9	67.1	86.7	73.2	98.0	77.0
1~3 years	4.5	3.2	0.5	6.0	0.4	4.1
3 years	6.4	11.5	3.1	12.7	0.6	8.3
3 years or longer	4.2	5.1	0.0	3.0	0.0	3.9
Floating-rate products1)	0.0	11.2	9.4	0.1	0.0	3.4

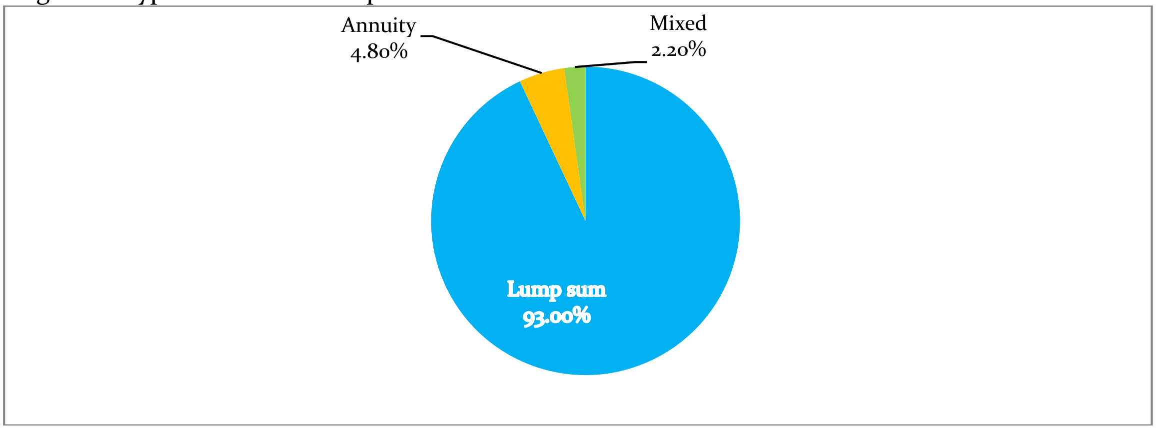
Note: Floating-rate products are without a definite maturity date
Source: Retirement Pension Statistics (3rd quarter, 2014), Ministry of Employment and Labor

However, if, as likely, the rate of wage growth, to which retirement pension annuities are indexed, continues to outstrip interest rates, Korean employers will have to take it on themselves to make up for the loss. To minimize the loss would require moving away from short-term products to portfolio management strategies.

2. Survey findings on retirement pension receipt

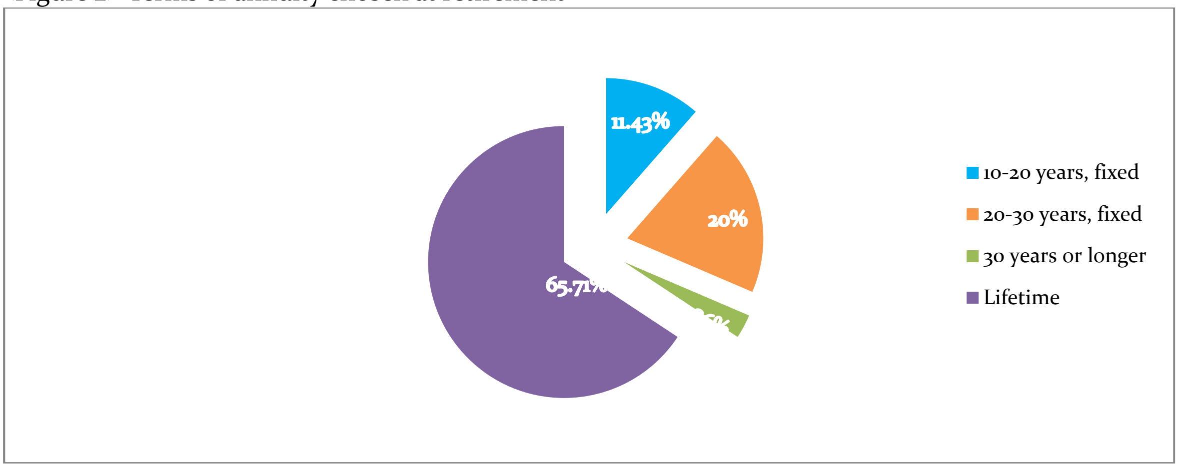
In a 2014 survey of 500 Koreans in their 50's and 60's who had retired after at least 10 years on the job, 93 percent reported to have received their retirement pay in a lump sum, 4.8 percent in annuities, and 2.2 percent in a combination of both. As evident from the survey, many firms in Korea still retain a retirement allowance (severance pay) program, and most of those retiring from firms that have shifted to retirement pension (from severance pay) prefer to have their retirement pay paid in a lump-sum. Those who opted for annuities accounted for as little as 7 percent, of which 70 percent chose to have their retirement pension paid in lifetime installments. This is a period of over 30 years, assuming a life expectancy at 55 of 30 years.

<Figure 1> Types of benefit receipt chosen at retirement



Source: *Changes in the Korean Population and the Management Prospect of Public and Private Pension Assets* (2014), Korea Institute for Health and Social Affairs

<Figure 2> Terms of annuity chosen at retirement



Source: *Changes in the Korean Population and the Management Prospect of Public and Private Pension Assets* (2014), Korea Institute for Health and Social Affairs

Those who received their retirement pension in a lump sum reported that they have put their payouts into various uses including debt repayments (17.15 percent), savings (16.54 percent), current spending (16.01 percent). Unexpectedly, the amount invested in IRP and savings-type insurance products accounted for as little as 1.12 percent and 2.21 percent, respectively.

The findings of the survey indicate that the lump sum distributions were more spent for consumption purposes than preserved or reinvested for old-age income.

<Table 3> Uses of lump sum retirement pension distributions, as reported in a KIHASA survey

Uses	Consumption						Real investment		Financial investment					Others
	Current spending	Repaying debt	Put into housing	Transfer to children and other family members	Children's education and wedding expenses	Health care	Put into business	Real estate	Savings	Stock and fund	IRP	Savings-type insurance products	Insurance products	Tour, donation, etc.
Average amount spent	16.01	17.15	11.44	1.53	6.44	2.05	12.52	6.48	16.54	5.03	1.12	2.21	1.13	0.35

Source: *Changes in the Korean Population and the Management Prospect of Public and Private Pension Assets* (2014), Korea Institute for Health and Social Affairs

3. Mandatory annuitization and default annuitization

Korea's retirement pension plans have grown in the past decade in terms of both fund reserves and the number of people participating in them. As suggested, many Korean retirees who choose lump sum distributions over annuities tend to leave little in the way of post-retirement income security.

Many countries around the world have faced similar problems and dealt with them with policy measures, which boil down to two types: mandatory annuitization and default annuitization. Instituted mostly in Western European countries including the UK, mandatory annuitization proved the more effective of the two. Mandating full annuitization of retirement pension wealth means providing retirees with protection against longevity and investment risks and guaranteeing a stable stream of income for life.

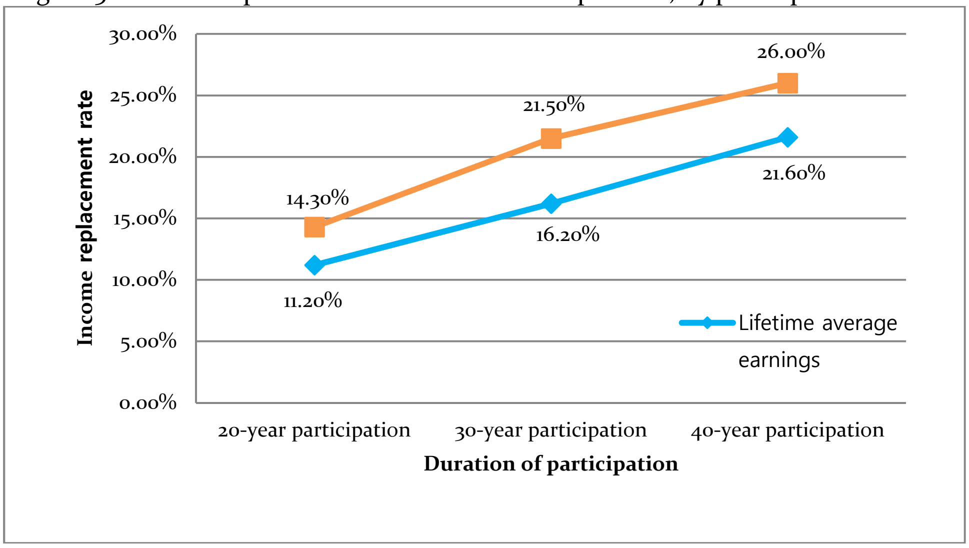
One obvious drawback of mandatory annuitization is that it leaves little discretion to individuals over their retirement pension wealth. Another outstanding concern is with the possibility of the insurer's financial insolvency. Default annuitization, widely considered especially in the US as an alternative to mandatory annuitization, is designed to both promote the annuitization of pension benefits (annuity is default unless one expressly opts against it at retirement) and preserve individual choice.

4. An outlook for combined income replacement rates

The income replacement rate of the National Pension for an average wage earner with 40 years of contribution was scaled back from 70 percent to 60 percent in 1999 and to 50 percent in 2008. With its income replacement level being scaled back by a half-percentage point every year until reaching 40 percent by 2028, the National Pension alone can hardly be insufficient source of post-retirement income. This analysis looks at income replacement levels achievable by the combination of the National Pension, basic pension, and retirement pension.

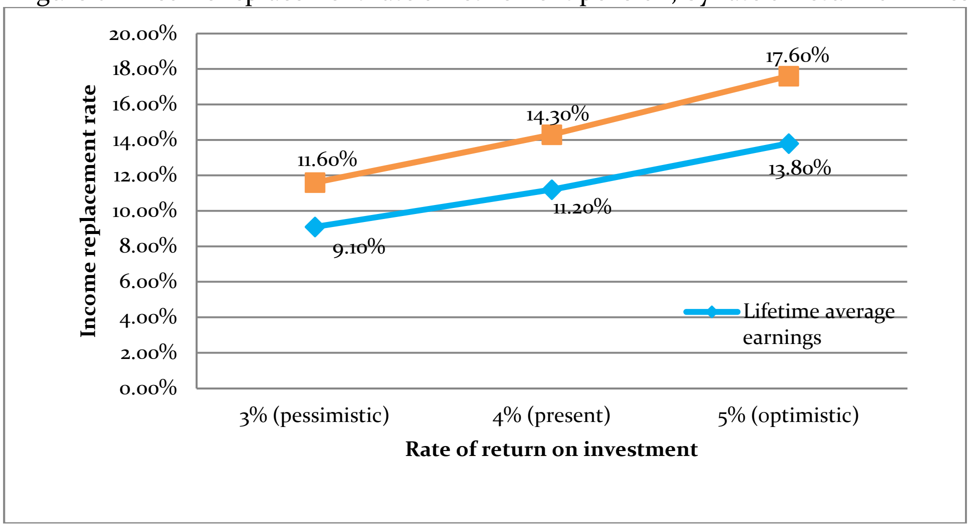
An annuitized version of the current retirement pension can produce a pre-retirement income replacement rate of 11~14 percent (as a percentage of either lifetime average earnings or the final earnings) for a worker with a 20-year coverage. Under the assumption of an pessimistic rate of return on investment (3 percent), the same worker can expect an income replacement rate of 9~11 percent.

<Figure 5> Income replacement rate of retirement pension, by participation duration



Note: 4-percent rate of wage growth and 4-percent rate of return on investment assumed
Source: *Changes in the Korean Population and the Management Prospect of Public and Private Pension Assets* (2014), Korea Institute for Health and Social Affairs

<Figure 6> Income replacement rate of retirement pension, by rate of return on investment



Note: 4-percent rate of wage growth and 20-year participation assumed
Source: *Changes in the Korean Population and the Management Prospect of Public and Private Pension Assets* (2014), Korea Institute for Health and Social Affairs

Median earners with a 2-year college degree or higher who were born in 1955 on average are estimated to have participated in both the National Pension and retirement plan plans for 18 years and their younger counterparts are assumed to spend more years under both schemes (25 years for those born in 1964 and 29 years for those born in 1974). Their income replace rates are, respectively, 38 percent, 46 percent, and 51 percent. A low-income earner who were born in 1970 is expected to have an combined income replacement rate of 67 percent.

<Table 4> Combined income replacement rate (National Pension and private retirement pension) for Koreans with 2-year college diploma or higher, by birth-year cohort (%)

Birth year	Income level								
	Low			Middle			High		
	1[1]	2	3	1	2	3	1	2	3
1955	33.80 (18.33 yrs)[2]	41.32	51.20	24.45 (18.75 yrs)	28.39	38.50	22.49 (19.66 yrs)	25.36	35.96
1959	37.18 (21.07 yrs)	43.08	54.44	27.31 (21.55 yrs)	30.47	42.09	25.06 (22.66 yrs)	27.35	39.54
1964	41.32 (24.49 yrs)	45.92	59.12	30.78 (25.05 yrs)	33.30	46.81	28.12 (26.28 yrs)	29.92	44.09
1969	46.86 (27.91 yrs)	50.59	65.64	35.07 (28.55 yrs)	37.16	52.55	31.25 (29.94 yrs)	32.67	48.81
1974	45.70 (28.64 yrs)	49.07	64.51	34.29 (29.30 yrs)	36.19	51.98	30.60 (30.72 yrs)	31.89	48.45
1979	42.31 (28.61 yrs)	45.35	60.77	31.95 (29.27 yrs)	33.65	49.43	28.63 (30.70 yrs)	29.79	46.34
1984	39.77 (28.65 yrs)	42.51	57.95	30.11 (29.31 yrs)	31.65	47.45	27.04 (30.73 yrs)	28.09	44.65
1989	37.72 (28.67 yrs)	40.21	55.67	28.57 (29.33 yrs)	29.97	45.78	25.65 (30.76 yrs)	26.60	43.19

Note: 1) 1 stands for National Pension; 2 for National Pension + Basic Pension; 3 for National Pension + Basic Pension + retirement pension

2) Figures in the brackets are estimated years of participation in the National Pension by birth year; each cohort is assumed to have participated in retirement pension plans for the same number of years they participated in the National Pension

Source: *Changes in the Korean Population and the Management Prospect of Public and Private Pension Assets* (2014), Korea Institute for Health and Social Affairs

5. Conclusion

This study finds that the National Pension and retirement pension, taken together, produce an income replacement rate of 40~60 percent, a level still far below what international standards recommend. The government's policy in this regard will have to focus on the annuitization of retirement pension and the provision of favorable tax treatments in ways that help workers increase their contribution to their retirement pension plans. As the retirement pension as it stands—where the benefits are mostly paid out in lump sum distributions—does not square with its original intent, the period for which the participant can choose to be paid in installments has to increase from the current 5 years to 15 years or longer, preferably to lifetime. The findings of this study suggest that Korea adopt the default annuitization option, which is considered highly effective in annuitizing pension wealth while still allowing for individual discretion.