Open Group Analysis of Accrued Pension Rights

Eurostat published on April 2021 new statistics on accrued-to-date pension entitlements as a part of the European System of National and Regional Accounts. The Finnish data was published by Statistics Finland on 29th of April 2021, based on projections made by the Finnish Centre for Pensions.

The value of accrued pensions can be evaluated with the closed group analysis in which pension rights and pension assets accumulated up to a certain point in time are examined. This projection is significant particularly in the case of the Finnish earnings-related pension system since, according to standard interpretation, the accumulated pension rights are property that is subject to constitutional protection.

An open group analysis considers not only the pension rights and pension assets that have accrued up to a certain point in time but also pension rights to be accrued in the future and future contribution income. The open group analysis expands the closed group analysis into a funding balance analysis of the pension system. In this memo, we present the results of this open group analysis. The discount rate assumption is the same as the main discount rate assumption in the closed group analysis: two per cent.

When assessing future pension accruals, the future pension expenditure and the contribution income are discounted to present values. Three factors are central for the result: determining the future pension expenditure, determining the future contribution income and the used discount rate assumption. The pension expenditure is in line with the baseline projection in the 2021 projections of the Working Group on Ageing Populations and Sustainability (AWG) that will be published later this year.

Assumptions

The contribution income is assumed to remain at the 2018 level. Both the Employment Fund contribution (TR contribution) and the State contributions are considered in the contribution income. The State's share of the contributions is assumed to remain at its present level relative to the sum of earned income throughout the projection period. The TR contribution develops as presented in the baseline projection. The reported contribution levels exclude the TR contribution component. The contribution level of all earnings-related pension schemes, excluding the TR contribution component, is 29.1 per cent of the sum of earned income. The present employee's contribution rate under the Employees Pensions Act (TyEL) is 24.4 per cent of the wage sum.

The baseline projection has been extended to the year 2100. In this analysis, we have assumed that the expenditure and contribution relative to the sum of earned income remain unchanged after that. The sum of earned income is projected to

grow at a constant rate as of 2100. The constant real growth rate is 1.5 per cent, which is the same as the assumed long-term earnings growth rate.

Results

Assuming a discount rate of two per cent, the present value of the pension expenditure of the whole earnings-related pension system at year-end 2018 amounted to 5,782 billion euros, of which 801 billion euros were accrued before 31 December 2018 and 4982 billion euros will accrue after that date. The combined present value of contributions and assets at year-end 2018 was 5,086 billion euros, which means that the ratio of the present value of contributions and assets to the present value of pension expenditure is around 86 per cent. In the private scheme this balance ratio is 78 per cent and in the public sector 108 per cent. This means that, in the future, there is a pressure to raise the private sector contribution rate while, in the long run, the contribution rates for public sector pensions can be sustainably reduced. (Table 1).

Table 1. *Results of open group analysis for 2018 when the real discount rate is 2% (billion euros at present prices).*

	Private sector	Public sector	All earnings realated pensions
Accrued pension per 31 Dec. 2018	542	259	801
Pensions accrued after 1 Jan, 2019	3695	1287	4982
Present value of pension expenditure per 31 Dec. 2018	4237	1546	5782
Assets per 31 Dec. 2018	126	70	196
Present value of pension contributions per 31 Dec. 2018	3216	1655	4890
Contributions and assets per 31 Dec. 2018	3342	1725	5086
Contribution rate as of 2019	25,6	38,9	29,1
Balance ratio 31 Dec. 2018, %	78	108	86