

Structure

Title Pension Contribution Rate: three different frameworks for setting the actuarial assumptions

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Abstract The Pension Scheme of European Officials (PSE0) provides pension coverage to the members of around sixty entities of the European Union. At end 2018, the PSEO populations consisted of more than 88k members with almost 66k contributing members. The PSEO is a Defined Benefit Scheme with a "notional" fund. The PSEO is not a "Pay-As-You-Go" scheme: pension contributions match accruals not payments! The estimation of the yearly PCR requires the computation of a ratio between the Service Cost (SC) and the total of the annual Basic Salaries (BS). Estimating the SC means setting a full range of actuarial assumptions for injection in the model. The determination of the values for each assumption represents a challenge to the actuary who has to face the intrinsic technical complexity of the task, and additionally "rank" in a way the different sources of reference for the assumptions. Three main sources of information, reference, legal provisions co-exist in relation to the computation of the PSEO PCR: (1.) Legal framework: the Staff Regulations of Officials and Conditions of Employment of Other Servants of the European Union; (2.) Accounting framework: IPSAS 39 "Employee Benefits" and the EU Accounting Rule n. 12; (3.) Actuarial framework: best actuarial practices. Three main sources of information coexist and are all equally necessary to permit an estimation of the PSEO PCR satisfying all the involved stakeholders: members of the scheme, political authorities, accountants, auditors, actuaries.

Keywords Remuneration, Pension Contribution, Actuarial Assumption, Ipsas39

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The Pension Scheme of European Officials (PSEO) provides pension coverage to the members of around sixty entities of the European Union (Institutions, Agencies, other services). At end 2018, the PSEO populations consisted of more than 88k members with almost 66k contributing members.

The PSEO is a Defined Benefit Scheme with a "notional" fund meaning that even if a "real" fund does not exist, a yearly assessment of the Pension Contribution Rate (PCR) required for matching the pension rights accrued (Service Cost) in the same period.

The PSEO is not a "Pay-As-You-Go scheme: pension contributions match accruals not payments! The estimation of the yearly PCR requires the computation of a ratio between the Service Cost (SC) and the total of the annual Basic Salaries (BS). While the BS does not pose any particular issue of computation, different is the case for the SC. Estimating the SC means setting a full range of actuarial assumptions for injection in the model. Actuarial assumptions are traditionally split into demographic (which look to "when" a benefit will be paid) and financial (which look to "how much" benefit will be paid).

The determination of the values for each assumption represents a challenge to the actuary who has to face the intrinsic technical complexity of the task, and additionally "rank" in a way the different sources of reference for the assumptions. Three main sources of information, reference, legal provisions co-exist in relation to the computation of the PSEO PCR:

- 1. Legal framework: the Staff Regulations of Officials and Conditions of Employment of Other Servants of the European Union,
- 2. Accounting framework: IPSAS 39 "Employee Benefits" and the EU Accounting Rule n. 12,
- 3. Actuarial framework: best actuarial practices.

The legal framework offers detailed but not exhaustive provisions to allow the actuary being able to get to a final value for the concerned assumption. Even when the legislator has explicitly introduced a dedicated specific legal provision for an assumption, it can be necessary to watch at the accounting and actuarial framework to complement the information. However, the legal framework undoubtedly represents a huge benefit: it was designed and conceived specifically for the PSEO scheme. A good example of an actuarial assumption specifically and detailed foreseen by the legislator is the General Salary Growth (GSG) which demands for the use of a moving average of a specific length for the net Specific Indicators (SI)¹

The accounting framework, compared to the legal one, has a "global" target and is not specifically designed for the PSEO: however it offers a more "quantitative" approach and fills some gaps in terms of coverage of the full sets of assumptions required for the determination of the PSEO PCR. A good example of an actuarial assumption benefitting from the accounting provisions, are the discount rates whose requirements are presented in a very detailed way in a number of accounting provisions (time value for money, single weighted average, deepness of the market for financial instruments and other).

The actuarial framework represents to the actuaries a fundamental "compass for its navigation". When (unfortunately it happens relatively often) a single assumption is neglected both by the legislator and the accounting standards, the actuarial applicable practices offer support and a "lifeline". Additionally the quantitative focus is here maximised and the concrete possibility of proceeding to the determination of an accurate PSEO PCR becomes possible. Duration perfectly represents an example of assumption modelled by means of actuarial practices, which otherwise would be unable to be estimated appropriately.

In conclusion, three main sources of information co-exist and are all equally necessary to permit an estimation of the PSEO PCR satisfying all the involved stakeholders: members of the scheme, political authorities, accountants, auditors, actuaries.

¹ The Specific Indicators capture the changes in the purchasing power of salaries of national civil servants in central government