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# Accounting for Liabilities of Social Security Systems

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*This paper reviews proposals from the International Public Sector Accounting Standards Board (IPSAS-B), the International Monetary Fund (IMF) and Eurostat in relation to the reporting of pension liabilities in national accounts. This is sometimes referred to as the implicit pension debt. A discussion took place at the Annual Geneva Forum of the International Actuarial Association (IAA), the International Labor Organization (ILO) and the International Social Security Association (ISSA) in Budapest on Sept. 14, 2015. This article summarizes these discussions in relation to public pension funding strategies other than full-funding approaches (e.g., defined contribution plans).*

The expectation is that the new valuation methods proposed will exclude directly government-financed national health services, plus long-term care, and workers' compensation, but this is not perfectly clear at this time.

The IAA would prefer to see a clear distinction made between social security on the one hand and "employer-sponsored benefits" on the other, the latter referring to benefit programs where the government is acting as employer for public-sector workers. Provision of pension and other benefits where a government is acting as the employer and providing benefit programs solely for government employees similar to those provided by private-sector employers for their employees should **not** be included under this social benefit standard.

The term "social security" would then be confined to public benefit systems that apply to the whole population or significant subsections of the population.

Implicit debt is the result of a summation of expected future deficits in the system. Implicit social security pension debt would, under the proposals, equal the present value of all future benefits to present pensioners and all accrued rights of current contributors/taxpayers, minus the amount of the initial reserve of the pension system. This definition follows a strict private insurance concept and may, therefore, be inappropriate.

This amount thus also equals the resources that would be required to close down a social security system (in order to start

a new one) while honoring all past commitments. No major social security system around the world has a termination level of reserves. For social security systems, which are not secured by amounts of invested financial resources, but, rather, by societal commitments and contracts between generations, this level of funding is unnecessary. This notion of debt has little relevance as an indicator for the overall financial status of a social security pension system or its sustainability.

The application of the guidelines is likely to affect the value of national debt figures and increase the focus on social security systems. It is, therefore, important that any indicator of pension liabilities produced is presented in such a way as to minimize the risk of misinterpretation by the media and other users, and to avoid being incorrectly used as an indicator of financial non-sustainability of the pension system.

The methodologies should enable accurately assessing the long-term financial sustainability of social security systems without a bias for or against a particular funding approach.

There are two approaches that are currently being discussed:

- (i) "The Obligating Event Approach"; and
- (ii) "The Insurance Approach."

(i) "The Obligating Event Approach." This approach would be most appropriate for non-contributory social security programs, including means-tested and citizenship-based basic pensions, but also flat-rate pension programs such as Old Age Security (OAS) and the Guaranteed Income Supplement (GIS) in Canada and Supplementary Security Income (SSI) in the U.S., where there are no specific social security contributions and financing is through general revenues.

The IAA hopes that this would include a requirement that disclosures based on the "obligating event approach" be accompanied by a discussion of the program's long-term sustainability.



(ii) **“The Insurance Approach.”** This approach is relevant for social insurance systems financed by designated contributions, including situations where contributions are made by employers and employees. These systems are akin to private insurance in that benefits are paid for by contributions over a period. However, there is likely to be intergenerational and intragenerational solidarity and financing will usually be on an open-group basis, taking into account contributions and benefits for many generations.

Therefore, full sustainability information should include the expected benefit payments and also contribution income in respect of future participants (i.e., an open group).

It would be more informative for decision-makers if the accounting treatment were aligned with the funding methodology, especially when programs are financed using pay-as-you-go or partial funding. For many contributory programs this would involve presenting financial information on an open-group basis. To ignore this will lead to information that is unhelpful and, quite possibly, misleading for decision-making. An open-group approach to financing requires contributions of both existing and future contributors to be considered as assets, with liabilities recognizing future benefits in respect of current pensioners, existing contributors and future contributors.

Treating future benefit payments as liabilities without taking into account future contributions as assets would be particularly erroneous. Even to take into account only certain generations of contributors could be quite misleading. Such approaches fail to recognize the fact that under pay-as-you-go and partially funded systems, in any given year current contributors allow the use of their contributions to pay current beneficiaries' benefits. Thus, there is a claim for current and past contributors to contributions of future contributors. It should be noted that for stand-alone programs financed solely by contributions (without any government subsidy) these claims are not a government debt.

Unlike employer-sponsored plans, accrual of benefits is not always very closely linked to payment of contributions, since not all years necessarily count for additional accrual and some accrual may be deemed rather than actual, in order to allow for periods of sickness, maternity or care-giving. Therefore, the link between benefits and contributions is not considered sufficiently strong to give rise to a financial claim on the part of contributors. Also, because social security benefits can be changed at will by the government as part of its overall economic policy, there is uncertainty about the eventual payment or level of payment of these social benefits.

It is unrealistic to assume that a national pension system could suddenly cease, resulting in a cessation of contributions, as is

assumed for occupational private pension plans. Implicit pension debt calculated on a closed group basis may be useful for occupational private plans since companies can go bankrupt at any moment, but it has little relevance as an indicator of the national debt of a jurisdiction. Social security financing is adequate if projections indicate that in each period revenue plus reserves are sufficient to meet benefit payments.

In general, the size of a closed-group implicit pension debt is very large, especially in the Euro area, as suggested by a recent study undertaken by the European Commission (Eurostat)/ECB Task Force on Pensions. According to the results of that study, it is estimated that the closed-group implicit pension debt of social security in the Euro area is 278 percent of GDP, which is approximately four times higher than the government debt. In particular, the social security pension debt for Germany is estimated at the level of 275 percent of GDP, while for France and Italy it is 292 and 322 percent of GDP, respectively. The extremely large magnitude of this theoretical liability raises concerns about the interpretation that the media might make and where this might lead the course of public opinion.

The proposed methodology, which is based on a closed-group accrued approach, is inadequate to fully assess the financial impact of social insurance pension reforms. Any change in the

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value of the accrued-to-date pension liabilities resulting from a pension reform would only incorporate the impact on current pensions in payment and future pension payments which correspond to the accrued-to-date benefit entitlements of existing, active contributors. However, typically, the largest financial impact of pension reforms is with respect to future pension payments that correspond to the future-service benefit entitlements of existing active contributors and the pension benefits of new workers. This means that under the proposed methodology, the financial impact of pension reforms could potentially be underestimated.

We want to show that benefit costs and administrative expenditures are met in full by contributions of employers and



employees, together with investment income. If they are fulfilling this requirement, it would be strange to force them to present financial statements which appear to show something different.

Also, no debt should arise for programs that possess so-called self-adjustment mechanisms.

## REMAINING ISSUES

### Discount Rate

The IPSAS proposal points towards use of government bond yields for discounting the benefit payments and future contributions, since this would be consistent with what is done for employee benefits. The IAA considers that market-based spot bond yields are not appropriate for unfunded social security liabilities which are to be financed out of future contributions and tax revenues. Moreover, there is an inverse relationship between the yield on government bonds and credit rating of sovereign debt. For countries in a precarious economic position, the cost of borrowing by the government will be high, resulting in smaller social security liabilities. On the other hand, countries with good economic prospects may end up showing larger future liabilities.

The economic basis for discounting would point to using the real growth of GDP or the real growth of the wage mass (or the contributions base for a contributory system) or growth in the real tax base.

For programs that are financed in part by investment income, the discount rate might be based on the future expected real return on the assets, adjusted for risk.

### Length of the Projection Period

In the last year of the projection period, the latest cohorts of participants included in the projection will have paid contributions for some time but the benefits to which they will eventually be entitled are not yet paid. Hence, if the projection period is too short, part of the scheme's expenditures for cohorts that will enter the labor force during the projection period are excluded from the liabilities. On the other hand, after a certain number of years, the effect of adding additional projection years has a negligible effect because of the discounting effect. The Office of the Chief Actuary of Canada uses a projection period of 150 years. They have shown that adding more years to the projection has only a marginal impact. It should be noted that, although increasing the length of the projection period enhances the results, it also increases the uncertainty of these results.

## CONCLUSION

To conclude, social security systems are secured by intergenerational societal commitments, and they should not be considered as large private occupational pension plans for reporting their assets and liabilities in national accounts. It is suggested to use the open group basis (taking into account future new entrants to the system).

The IAA has replied to the IPSAS-B proposal. This article borrows heavily from that response paper. ■



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