

Abstract for “Bringing Actuarial Measures of Defined Benefit Pensions into the U.S. National Accounts”

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One of the more important and challenging innovations of the 2008 SNA was a change in measurement approach for defined benefit (DB) pension plans from cash accounting to accrual accounting based on actuarial methods. Under former the cash approach, actual employer contributions to the DB plans were used to measure households’ pension-related compensation income, but in the 2008 SNA employer contributions include a component that reflects the actuarial value of the benefit entitlements that employees accrue through service to the employer.

This paper first discusses the experience of the US in implementing the actuarial approach in its national accounts in 2013. Tax returns with actuarial measures of benefit entitlements on an ABO basis are available for the DB plans of private employers, so the estimates for these plans come from tabulations of tax returns with adjustments for differences in interest rate assumptions. State and local governments use several PBO approaches and high interest rate assumptions in the actuarial reports for their pension plans. BEA adjusted the information in these reports to an ABO basis embodying the similar interest rate assumptions to those used for the private plans, then estimated national totals based on a large sample of these plans. Actuarial reports on the main DB plans of the federal government provide PBO estimates of benefit entitlements and of the value of benefits accrued through service to the employer, and simulations were used to derive the profile over time of benefit entitlements and of interest on these entitlements.

Conceptual questions also arose in implementing the new actuarial approach. In the SNA, pension plans receive property income from the assets that they hold but pay property income to households equal to the interest accruing on the households’ benefit entitlements. This often makes the saving of the pension plans negative, as their assets are frequently smaller than the benefit entitlements and the investment returns from the these assets come partly from holding gains. Negative saving by pension plans is paradoxical and distorts the picture of the financial corporation sector, so the US national accounts make the property income that pension plans distribute to households equal to the property income that they receive. For underfunded pension plans, however, property income receipts are greater than the property income from the plan assets because these plans are treated as having a claim on the employer that brings the net worth up to zero and interest is accrued on this claim.

The paper next discusses how the picture of households’ income, saving and wealth and of employers’ saving and net worth changes when actuarial measures of DB pension plans are adopted. Estimates of saving in recent years are substantially higher for households and substantially lower for government. Also, household net worth is higher when pension wealth is measured by the actuarial value of benefit entitlements rather than actual plan assets.

The final section of the paper discusses research results on possible future improvements. These include measures of benefit entitlements from the Pension Benefit Guarantee Corporation, and a supplemental table on pension plans and other sources of retirement wealth, such as social security and annuities from life insurance companies. In recent years, large amounts of benefit entitlements in private pension plans have been converted into group annuities, so a complete picture of the transactions of these pension plans would include information on these conversions.