The supplementary table on pension schemes in social insurance

Explanatory note to be presented to the Advisory Expert Group during its meeting 19 to 23 March 2007 in New York

The attached supplementary table on pension schemes in social insurance is a standard table which is proposed, under the compromise agreed by the UN Statistical Commission of February 2007, to be included in the new System of National Accounts (1993 SNA, Rev. 1) and compiled by countries in addition to standard tables of the "core accounts". It was prepared by the Eurostat/ECB Task Force on the statistical measurement of the assets and liabilities of pension schemes in general government ("the Task Force") during its meeting of 8 to 9 March 2007 and, as such, has not yet been the subject of discussion by all relevant statisticians within the European Union.

The overall logic of the table is to present the opening and closing stocks of pension entitlements <u>for all pension schemes</u> in social insurance (including social security), and the transactions and other economic flows during the period which account for the difference between the opening and the closing positions, thus showing systematically *pension liabilities* for all these schemes. This will allow better international comparability. It is not intended to include social assistance schemes, though the Task Force was concerned that the current definition of social assistance may not be adequate to deal satisfactorily with all observed cases.

The ***columns*** of the table are, first, split by pension schemes classified either in the core national accounts or not in the core national accounts. Under the compromise, the pension entitlements of all pension schemes sponsored by the private sector are recorded in the core accounts and only government sponsored schemes (i.e. either schemes for government employees or social security) may or may not be recorded as such in the core accounts, and thus appear as separate categories in this supplementary table. Secondly, the pension schemes classified within the core national accounts are either "sponsored" by a non-general government unit or by a general government unit. Thirdly, the employer pension schemes are further split into defined benefit schemes and defined contribution schemes.

Column C is usually intended to include the total of columns A and B; however it may also contain hybrid pension schemes which have both a defined benefit and defined contribution element, and which cannot be split into columns A and B.

Columns F and G are intended for those pension schemes whose pension entitlements are not included in the core national accounts. These two columns are the focus of this supplementary table: by adding pension liabilities of this column to those of the core accounts, it will be possible to better compare countries. Criteria to decide which pensions schemes should be entered in these columns in a European context are currently being discussed by the Task Force.

In most cases, but not all, the institutional sector of the sponsor will be the same as the institutional sector where the pension scheme is classified in the core national accounts. The exceptions would be those autonomous general government pension schemes which are classified in the core national accounts in a non-general government sector, usually as financial corporations. To allow a reconciliation between the classification by sector of sponsor and by sector of pension scheme an “of which” column is included to show all pension schemes recorded in the general government sector.

A split of counterpart sectors as indicated by the columns J and K of the table are mainly intended for those countries where resident pension schemes have significant numbers of non-resident participants. The Task Force felt that this would not be the case for many countries in Europe and that the data sources for such columns may be weak.

The ***rows*** of the table relate to positions, transactions and other economic flows associated with pension entitlements of schemes included in the table. Where applicable, the SNA codes are preceded by an “S” to denote their supplementary status. Social contributions of both actual and imputed nature are recorded, following SNA93 methodology. Row 2.4 relates to the property income earned, or imputed, on the schemes which is routed via the household or the rest of the world sector. An explanatory numerical example of the appropriate recording of pension-related transactions in the SNA developed by Francois Lequiller (OECD) is attached (Annex 1).

Row 3 is solely associated with imputed transactions of social security pension schemes. This cell replaces, for social security, the cell for imputed employer social contributions. Indeed, as the relationship between social security and employers is usually loose, it was considered better to use an alternative name.

Row 5 is intended to present the changes in pension entitlements due to contributions and benefits. It is equal to row 2 + row 3 – row 4. This balancing item measured from the non-financial side is conceptually equivalent to that measured from the financial side (hence the row is coded as both SD8 and SF612). Row 6 will show possible transfers of pension entitlements <u>between</u> schemes, both domestic and in the rest if the world.

Rows 7 and 8 (and their sub-positions) account for the other economic flows associated with pension schemes in social insurance. The Task Force felt that the detail in these rows may not be possible to compile for columns A to E, and therefore agreed the principle that the full detail must only be shown for columns F and G.

Row 7.1.2 is intended only for those countries which decide to use a “Projected Benefit Obligation” (PBO) approach to measuring pension entitlements. Row 7.2 is intended for defined contribution schemes, where revaluations of the scheme’s assets have a direct impact on pension entitlements. It mainly concerns funded defined contribution schemes. Row 8.2.1 refers to changes in demographic assumptions during modelling; there were differing views in the Task Force, to be further discussed, as to whether this should be recorded as an other change in volume or a revaluation flow.

One of the main functions of the supplementary table is to provide users with comprehensive information which allows the compilation of various alternative key macroeconomic variables for a country but also for comparison purposes. The Task Force believes that this will be possible for pension entitlements, household saving rates and general government deficit figures for all pension schemes or only pension schemes recorded in the core national accounts.

The Eurostat/ECB Task Force would appreciate the considered views of the AEG on this draft table.

Members of the Eurostat/ECB Task Force on the statistical measurement of the assets and liabilities of pension schemes in general government

Luxembourg, 15 March 2007

ANNEX 1

Actuarial recording of defined benefit pension schemes in the SNA

François Lequiller, OECD, 14/3/07

Version 5[1]

The objective of this short memo is to clarify the recording of actuarial flows regarding an underfunded DB scheme in the SNA, based on an illustrative example. To simplify the example, I have not included pension benefits, which are easy to deal with (they are essentially cash flows).

Let us start from a "cash situation" (see table 1). We have a DB scheme sponsored by an employer. The employer pays 10 in actual social contributions to the pension scheme. At the same time, the employee also contributes, by an amount of 1.5, in cash. Also the pension scheme has its own reserve, which receives property income of 2 from other agents (financial corporations). Thus, overall, the pension scheme receives 13.5 in cash.

In the financial accounts of the scheme, the increase in the actuarially calculated pension entitlements is quite different: they increase by 19, of which 4 because of the passing of one year of the pension entitlements that were due at the end of the previous year (now discounted by one year because retirement is one year nearer), and 15 because of the accrued promises due to employment during the year. The difference between the 13.5 (actual social contributions received plus property income) received by the pension scheme and 19 (increase in pension liabilities) illustrates a situation whereby the pension scheme is "underfunded", and builds therefore an implicit asset towards the sponsor of the scheme (the employer). This asset appears in the financial accounts of the scheme.

[1] This version supersedes prior versions which contained mistakes, which have been progressively corrected thanks to Anne Harrison, John Walton, and Jacques Magniez.

Table 1: "Cash situation"

Employer		Employee		Pension scheme	
Uses	Resources	Uses	Resources	Uses	Resources
Social contributions 10		Social contributions 1.5			Social contributions 11.5 Property income 2
Cash -10		Cash -1.5		Cash + 13.5 Increase in asset towards the sponsor +5.5 (19 – 13.5)	Increase in pension entitlements +19 *Of which: +4 (passing of one year of old pension entitlements)* *Of which: +15, employment during current year.*

Now let us illustrate the SNA 93 rev 1 recording of these flows in the table 2[2].

The employer

1/ The employer is deemed to have a social contribution (actuarially calculated) of 13.5, which is part of the compensation of employees (D1). This social contribution is coded D12. The value of 13.5 is obtained as 15 (the part of the increase of pension entitlements due to employment during the period) minus the contribution of 1.5 paid in cash by the employee. This 1.5 appears as part of the compensation paid to the employee, but in D11 (wages and salary). Note that this amount of 13.5 includes 10 of actual social contributions and 3.5 of imputed social contributions.

2/ The employer is deemed to pay an imputed property income (in red in the table) of 2 to the pension scheme, corresponding to the part of the increase in previously accrued pension entitlements that remains unfunded: 2 = 4 (the effect of passing of one year) – 2 (the property income received by the pension scheme from other agents on the pension scheme reserve).

3/ In its financial accounts, the employer records an increase of 5.5 in pension liabilities (F6) towards the pension scheme, which is equal to what he has committed to pay but has not paid:

[2] Note that the same recording would have applied in the 1993 SNA if the pension scheme would have been considered funded.

3.5 of imputed employer social contributions plus 2 of property income due to the pension scheme.

The employee (household)

4/ He receives all the compensation of employees (D1) from the employer: 15.

5/ He is deemed to receive a property income (D44, in blue) of 4, corresponding to the imputed property income payable by the pension scheme on pension entitlements due at the end of the previous period.

6/ He pays all the social contributions (D61) to the pension scheme, an amount of 19, of which 1.5 of actual employee social contributions, 4 of imputed employee contribution supplements (corresponding to the property income in blue), 10 of actual employer social contributions, and 3.5 of imputed employer social contributions. Note that this amount of social contribution corresponds exactly to the increase in pension entitlements.

7/ The SNA recommends to record an imputed transaction D8 of +19, because, in fact, the previous D6 should not, in all rigor, be recorded as negative income but as part of saving. This is what is sometimes called "dual recording".

8/ In his financial accounts, he records an increase of 19 of pension entitlements (F6).

The pension scheme.

9/ The pension scheme has the counterpart recordings of the ones described above.[3]

Interesting notes:

First, note that everything starts for the calculation of the actuarial increase in pension entitlements: +19. The part of it which is attributable to the passing of one year of previous entitlements (+4) is attributed as property income to employees, and is returned as imputed social contributions of employees (flows in blue). The part of it which is attributable to the increases of the pension due to the employment during the year (+15) is recorded as compensation of employees, and is rerouted either as actual or imputed social contributions of employers, or as actual contributions of employees. The actuarially calculated social contributions of employers are obtained as 15 minus what is effectively paid by the employees (1.5).

Second, there are two imputed flows of property income (in color in the accounts).

- One from the employer to the pension scheme (in red), corresponding to property income due on unfunded part of the pension scheme. This happens because we consider in SNA 93 rev 1 that funds have a net worth of zero, and thus have an asset towards their sponsor when they are unfunded. Note that this property income in red will disappear if we presented the accounts as if the pension scheme was not autonomous (i.e. if the pension scheme was consolidated with the sponsor/employer). Note that this property income would be equal to 4, if the pension scheme had no reserves.

[3] Readers may find strange that the total of savings is not equal to zero. This is because we have not shown the other agents (financial institutions) who pay to the pension scheme the property income of 2 on its reserves. They have thus an implicit saving of -2.

- The other one (in blue) is the property income attributed by the pension scheme to the policy holders on the pension entitlements. This is returned as imputed employee social contributions.

Third, there is no output shown here. Indeed, the calculation of output is completely independent of all these flows. If the pension scheme is autonomous and has staff it will have to raise specific fees, in addition to the social contributions. This is why no output has been shown in these accounts. If such a service charge was billed either to the employees or to the employer by the pension scheme, it would be recorded either as final consumption of households, or as intermediate consumption of employers.

Fourth, note that this recording could be applied to social security, even if this is not applicable to SNA 93 rev 1 (but will be applicable in the supplementary table). However, this is a case where the sponsor is different from the employer, and thus necessitates some changes in the presentation.

Fifth, I have recorded the liability of the sponsor/employee towards the pension scheme as F6, which I think is preferable to “other accounts receivable/payable”. In particular, this choice makes it easier to consolidate the sponsor and the employer.

Table 2: SNA 93 rev 1 recording (autonomous underfunded DB scheme)

Employer		Employee		Pension scheme	
Uses	Resources	Uses	Resources	Uses	Resources
D1 Compensation of employees: +15 Of which D11 Wages and salaries : 1.5 D12 Employer social contributions 13.5			D1 Compensation of employees: +15		
D44 (imputed) Property income 2					D44 (imputed) Property income 2
					D44 Property income 2
			D44 (imputed) Property income 4	D44 (imputed) Property income 4	
		D61 Social contributions 19 Of which: Employer actual: 10 Employer imputed: 3.5 Employee actual: 1.5 Employee imputed: 4			D61 Social contributions 19
			D8 +19	D8 +19	
	Saving - 17		*Saving +19*		*Saving 0*
Cash -11.5		Cash 0 (+1.5-1.5)		Cash+13.5	
	F6 Increase in liabilities linked to pensions towards the autonomous pension scheme : +5.5	F6 Increase in pension entitlements +19		F6 Increase in asset towards the sponsor +5.5 (19 – 13.5)	F6 Increase in pension entitlements +19 *Of which: +4 (passing of one year of old pension entitlements)* *Oh which: +15, employment during current year.*