EUROPEAN COMMISSION

Statistical Office of the European Communities

EUROPEAN CENTRAL BANK

DIRECTORATE GENERAL STATISTICS

Unfunded employer and social security pension schemes

The Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) agreed with the recommended recording of unfunded employer and social security pension schemes in a separate set of supplementary accounts as described in the attached paper.[1]

In this set of supplementary accounts the same rules are applied as for funded schemes, but the model assumptions are made explicit. This approach has the advantage that users are provided with a broad set of statistical information that helps to better assess the sustainability of government finance.

Eurostat and the ECB's Directorate General Statistics have put forward this solution as the common European position at the September 2005 meeting of the IMF task force on pensions. The task force majority did not fully support this proposal. Two major arguments against the proposal were: First, sufficient detail of the flows and stocks relating to unfunded schemes would not be provided if only the compilation of supplementary accounts would be recommended. Second, unfunded employer pension schemes and social security schemes are not seen as close substitutes. Moreover, unfunded schemes may be closer substitutes for funded schemes.

Concerning the first argument, supplementary accounts can also be subject to legal requirements addressed to the Member States of the European Union. Concerning the second argument, the criteria chosen to distinguish between unfunded employer schemes and social security schemes do not allow rectifying in many European countries a different treatment in the accounts.

Eurostat and the ECB Directorate General Statistics recommend submitting the CMFB document attached to the AEG meeting in January 2006.

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1 The CMFB was established by a Council Decision in 1991. It is the forum for co-ordination of statisticians from the National Statistical Institutes and Eurostat on the one hand, and the National Central Banks and the European Central Bank on the other. See http://www.cmfb.org.

Annex

CMFB

COMMITTEE ON MONETARY, FINANCIAL AND BALANCE OF PAYMENTS STATISTICS

Unfunded employer and social security pension schemes

Executive Summary

Employer pension schemes are schemes organised by employers for their own employees, which may be either funded or unfunded. A funded employer retirement pension scheme belongs to the sector holding the funds, either the sector of the employer if it concerns a non-autonomous pension fund or the sector insurance corporations and pension funds if it concerns an autonomous pension fund. Unfunded schemes may be organised for civil servants, for instance, and belong to the employer's sector - often general government. As liabilities for unfunded pension schemes are not recorded in the 1993 SNA, the impact on the sector's net lending/net borrowing is determined by the size of the payment of pensions to retired employees minus current employee contributions, while no financial asset or liability is recorded in the financial account. However, to increase comparability between such funded and unfunded schemes, the 1993 SNA proposes to show, as memorandum items, the net present value of such obligations in the form of assets of households and liabilities of the employer sector. The GFSM 2001 even recommends to explicitly recording the liabilities of unfunded government employer pension schemes in the government accounts.

*The **recommended solution in the new SNA** for recording of stocks and flows related to unfunded pension schemes operated by governments or other sectors for their employees and to social security pension schemes is to show them in a set of supplementary estimates. In this context, the same rules are applied as for funded schemes, but the model assumptions should be made explicit. Preferably, a sensitivity analysis should be conducted. As a result, the current treatment of unfunded schemes in the core accounts does not change, while all supplementary model estimates are recorded in a separate set of flow accounts and balance sheets.*

*The recommended solution set out in the note has already been presented at the recent **Financial Accounts Working Group** meeting from 9 to 11 May 2005 in Luxembourg and at the ECB's **Statistics Committee** meeting from 18 to 20 May 2005 in Paphos. **In both meetings, the recommended solution was unanimously considered as the preferred one**. In the same vein, the Statistics Committee stressed that a common European approach on this issue in the context of the SNA update would be greatly appreciated.*

1. Introduction

1. Employer retirement pension schemes are schemes organised by employers for their own employees, which may be either funded or unfunded. A funded employer retirement pension scheme belongs to the sector holding the funds, either the sector of the employer if it concerns a non-autonomous pension fund or the sector insurance corporations and pension funds if it

concerns an autonomous pension fund. Unfunded schemes may be organised for civil servants, for instance, and belong to the employer's sector - often general government. As liabilities for unfunded pension schemes are not recorded in the 1993 SNA, the impact on the sector's net lending/net borrowing is determined by the size of the payment of pensions to retired employees minus current employee contributions, while no financial asset or liability is recorded in the financial account. However, to increase comparability between such funded and unfunded schemes, the 1993 SNA proposes to show, as memorandum items, the net present value of such obligations in the form of assets of households and liabilities of the employer sector. The GFSM 2001 even recommends to explicitly recording the liabilities of unfunded government employer pension schemes in the government accounts.

2. The note presents first the current position in the 1993 SNA and the related manuals like the 1993 ESA and the GFSM 2001 (Section 2). It also discusses the reasons why to change the 1993 SNA in relation to the treatment of unfunded employer pension schemes (Section 3). After having evaluated on the proposed alternative solutions (Section 4), the note describes the preferred recommended solution (Section 5) and the implications for the system (Section 6).

2. Current position in the 1993 SNA and in related manuals

3. The 1993 SNA recognises unfunded pension obligations neither as liabilities of unfunded employer retirement pension schemes, operated by governments or corporations, nor as financial assets of the beneficiaries. This is done so because unfunded pension obligations are not seen as liabilities in a strict sense, because they can be altered unilaterally at any time. Furthermore, their estimation is highly dependent on a series of assumptions subject to major revisions such as the projection of future interest rates.

4. Further, the current SNA distinguishes between social security schemes and employer insurance schemes, and among the latter between funded and unfunded schemes. Concerning net equity in unfunded pension schemes, the SNA93 proposes "*that the present value to households of promises by these schemes to pay future pension benefits be shown as memorandum items in the balance sheets as assets of households. Liabilities of equivalent amount may also be shown as memorandum items for the employer sectors liable to pay these benefits.*"[2]

5. Contrary to the SNA93, the IMF's Government Finance Statistics Manual 2001 (GFSM 2001) recommends, that "transactions in unfunded government employer retirement schemes are considered in this manual to involve a contractual liability for a government to its employees. As a

[2] See SNA93, paragraph 13.89.

result, the receipt of contributions to such schemes is considered to be an incurrence of a liability, and the payment of retirement benefits is considered to be a reduction of the same liability."[3] Consequently, the stocks of government liabilities for all employer schemes, both funded and unfunded, are recognised as insurance technical reserves.

6. The *European System of Accounts (1995 ESA)* is, like the 1993 SNA, quite clear on the treatment of such unfunded schemes. The 1995 ESA defines social insurance schemes as schemes organised for certain groups who are obliged to participate.[4] Different cases can be distinguished for social insurance schemes. In particular, if these schemes are organised by employers for their own employees they should be classified in the sector of the employer. As such schemes do not form separate units from the employers operating them, all transactions are between the employer's sector and the household sector. Schemes organised for other groups, either funded or unfunded, and controlled by government, should be classified in the government sector (Annex 1).

7. The 1995 ESA also states that "provisions or similar funds constituted by employers to provide employees with pensions (non-autonomous pension funds) are only included in the category insurance technical reserves if they are calculated according to actuarial criteria similar to those used by insurance corporations and autonomous pension funds." Furthermore, provisions are excluded "established by institutional units classified in the sub-sector social security funds (S.1314). In the system, these provisions are not liabilities of the social security funds sub-sector."[5]

3. Reasons for changing the 1993 SNA

8. There are mainly three reasons for changing the treatment of unfunded employer retirement pension schemes in the 1993 SNA. First, the different accounting for funded and unfunded schemes leads to different 'effects' on key variables like income, net lending/net borrowing, financial assets or liabilities. Accordingly, sub-optimal decision making in terms of economic efficiency might be a result as policy makers and economic agents plan, monitor and judge their activities based on data from national accounts. Second, unfunded employer pension schemes are particularly significant for the general government and the public sector. In the light of demographic developments and the foreseeable fiscal burden from ageing populations in almost all developed economies, there is a well-founded interest in having available more comprehensive

3 See GFSM, paragraph 4.35.

4 See ESA95, paragraphs 4.87 and 4.86(a).

5 See ESA95, paragraphs 5.101 and 5.102.

statistical information on future commitments of governments.[6] This also refers to the impacts of pension reforms being undertaken and/or being at the political agenda in many countries. Third, the convergence of the international statistical standards and the international accounting standards (IAS) is aimed at, and the treatment of unfunded employer retirement pension schemes in the 1993 SNA deviates from the IAS and from the International Public Sector Accounting Standards (IPSAS). These accounting standards recognise unfunded employer retirement pension obligations as liabilities.[7]

9. Accordingly, the current treatment of unfunded employer retirement pension schemes in the 1993 SNA is criticised. It is argued that, for reasons of comparison, such obligations, that seem to be liabilities, should be reflected in the core accounts of the 1993 SNA. Furthermore, the reporting of unfunded pension liabilities as memorandum items, as recommended by the 1993 SNA, has not yet been applied in practice. Therefore, the new SNA should inform on the financial assets and liabilities of such schemes.

10. There are essentially two views on how to integrate such statistical information into the new SNA. First, it is proposed to treat unfunded employer pension schemes similar to funded schemes, despite their quite different legal status. This means that employer unfunded pension obligations are recognised as if they are normal liabilities, which implies the recording of corresponding financial assets and liabilities in the core accounts. Second, taking into account the various reasons why funded and unfunded schemes are different in an economic sense, it is recommended to record unfunded pension obligations in a set of supplementary accounts.[8]

4. Evaluation of the proposed alternative solutions

11. Based on the work of the IMF's Electronic Discussion Group (EDG) on pensions and of the Eurostat Task Force on SNA it can be considered that viewpoints how to record unfunded pension obligations in the SNA have been maturing and converging, and that the basis for a common orientation exists encompassing the two options as shortly described above.

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[6] In line with the conclusions of the October 2003 Economic Policy Committee (EPC) report on the impact of ageing populations on public finances, the EPC discussion in September 2004 and the recent conclusions by the ECOFIN Council, further work on how to take into account implicit/contingent liabilities in the budgetary surveillance exercise will be required by the end of 2006. See Report of the ECOFIN Council to the European Council, Improving the implementation of the Stability and Growth Pact, 21 March 2005.

[7] The IAS 37 and the IPSAS 19 deal with provisions, contingent assets and contingent liabilities.

[8] The Advisory Expert Group (AEG) thought, at its meeting in December 2004, that there are three options on recording, either (i) in the core accounts; or (ii) in a satellite account or as memorandum items; or (iii) by extension of the existing two parallel accounts for income and consumption. After careful consideration of these three options, the implications of extending the existing accounts for income and consumption seem to be rather cumbersome and less straightforward.

4.1 Recording of unfunded pension obligations as liabilities in the core accounts

12. If this option was chosen, the recording of unfunded pension schemes operated by governments or other sectors for their employees would have to be recorded as if they were funded schemes. It would mean that a liability of general government or of other sectors has to be recorded equal to the net present value of the accrued "moral" pension rights of its employees in unfunded pension schemes. As this may not be derived on the basis of standard actuarial valuation techniques as applied for private sector funded pension schemes, some difficult measurement issues are bound to arise. One refers to the question of which discount rate to use for the calculation of the net present value of the expected future payments. Other actuarial assumptions needed are the average life expectancy of the scheme members and their final salaries. Particularly the latter can hardly be estimated with some degree of reliability.

13. Changes in the assets and liabilities for pensions are due to various kinds of financial transactions such as increases in accrued pension rights from employees' current work or bought by actual employees' contributions. Furthermore, there are also increases in the net present value of accrued pension rights arising from the passage of time (unwinding of the discount). Increases or decreases in the accrued pension rights may emerge from changing the benefits associated with the scheme, which can be done at any time as no legally binding obligations are involved, or when individual employees, or groups of employees, join or leave the scheme. Finally, payments of pensions reduce the liabilities. Actual social contributions to the scheme and paid pensions (social benefits) would have to be recorded as non-financial transactions in the employers' and in employees' accounts, in parallel to the financial transactions (quadruple entry system). Corresponding adjustments have to be made for the change in net equity of households on pension funds (rerouting). The accrual of pension rights or the passage of time would have to be recorded as the receipt of imputed social contributions.

14. Changes in the assets and liabilities for pensions are also due to revisions of the actuarial assumptions. They would then be recorded as other volume changes because they are not the result of the employer's actions. Recording them as other volume changes would mean that such changes, which could be very large, would not affect the transaction figures or the balancing items like net lending/net borrowing. By contrast, changes in the scheme benefits as a result of government decisions should be recorded as transactions and should have an impact on the financial assets and liabilities in the period in which the changes take place.

4.2 *Recording of unfunded pension obligations in a set of supplementary accounts*

15. The recording of unfunded pension schemes operated by governments or other sectors for their employees in a set of supplementary accounts and not in the core accounts is recommended because of various reasons.

16. First, the choice to treat only obligations of unfunded employer pension schemes as liabilities is quite arbitrary. This is especially valid for economies in which a large proportion of the pensions is organised and financed on a pay-as-you-go basis. These pensions are thus organised in general like social security schemes, which are imposed, controlled and financed by the government. They usually cover the entire population, or large sections of it. Their receipts mainly consist of social contributions paid by individuals and by employers on behalf of their employees, but they may also be partly financed out of taxes or other government revenue. Participation in social security schemes is usually compulsory. The social benefits paid to individuals are not necessarily determined by the amounts they previously paid as contributions. A small amount of financial assets might be held as a liquidity reserve. Normally, it is not possible to clearly distinguish those two types of pension arrangements, unfunded employer pension schemes and social security schemes. Besides, individuals who are not eligible for the old-age pension may be entitled to other forms of social assistance, for which the government anyway pays.

17. Second, intractable measurement issues arise if no stock and flow data are available that are calculated according to the actuarial criteria used by insurance corporations and autonomous pension funds. For instance, an appropriate discount rate must then be chosen, which is not self-evident and could lead to widely varying outcomes. It could be based on the long-term government bond rate as an indicator of the actual cost of borrowing, on the average yield of an investment portfolio of a typical autonomous pension fund or on a social time preference rate. While population forecasts may to some extent be reliable, it is extremely difficult to make appropriate employment and income forecasts by institutional sector over a (very) long time horizon. The compilation of future entitlements based on such assumptions may have to be revised continuously and substantially. As a consequence, fiscal variables such as government deficit and debt would be surrounded by a high degree of uncertainty and be prone to manipulation.[9]

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[9] In this context, the ongoing work of the EPC and of its Working Group on Ageing Populations (AWG) reveals the significant differences in outcomes that result from using different model assumptions. Related to the comparability and transparency of the future assessments between Member States it is said that a reliance on data produced by national institutions hampered comparability due to different definitions and measurement techniques. See European Commission (DG ECFIN), 13 April 2005.

18. Third, from an analytical perspective there are no good reasons to impute funds for a pension scheme that is unfunded. Following the quadruple-entry principle in national accounts, financial assets would then be recorded in the household accounts and liabilities in the accounts of the employer's sector implying the same economic behaviour as if a funded pension scheme existed. However, it is questionable whether households paying unfunded pension contributions and governments that maintain a pay-as-you-go system behave similarly to households and governments in an environment of a funded pension scheme. In fact, if this were the case, the rationale for advocating reforms of pension systems in countries with substantial unfunded schemes would completely disappear.

19. Fourth, funded schemes carry out financial investments depending on their financial conditions and the legal framework. It would be nearly impossible to reflect such a scenario also for unfunded schemes and it would in any case not describe economic reality. Moreover, the current recording of unfunded schemes organised on a pay-as-you-go basis describes rather accurately the economic behaviour of both sides as well as the associated risks and rewards related to such a system.

20. To conclude, there is a well-founded interest in showing comprehensive model simulations of future commitments of governments derived from unfunded pension schemes. Because of the similarity of unfunded employer pension schemes and social security pension schemes, a set of supplementary estimates is recommended, in which stocks and flows are modeled for unfunded employer schemes and for social security schemes, but not for social assistance.

5. Preferred recommended solution

21. The preferred recommended solution for recording of stocks and flows related to unfunded pension schemes operated by governments or other sectors for their employees and to social security pension schemes is to show them in a set of supplementary accounts. In this context, the same rules are applied as for funded schemes, but the assumptions should be made explicit. Preferably, a sensitivity analysis should be conducted. As a result, the current treatment of unfunded schemes in the core accounts does not change, while all supplementary model estimates are recorded in a separate set of (implicit) transaction accounts, other flow accounts, and balance sheets.

22. The recording of various economic events is described in Annex 2, such as (1) the accrual of pension rights from employees' current work; (2) the actual employees' contributions to the scheme; (3) the receipts from employees entering the scheme or payments to employees leaving the scheme; (4) the pensions paid to retired employees; (5) the increase in the net present value of

accrued pension rights from the passage of time (unwinding the discount on future liabilities); (6) the revision of actuarial assumptions (changes of the discount rate, the average life expectancy or the final salaries of the scheme members); and (7) the changes of scheme benefits in respect of rights already accrued. Finally, the accounting treatment of a lump sum payment from a funded scheme to an unfunded scheme is described in the extended system.[10]

23. The proposed recording requires no new transactions categories to be created either for the core accounts or for the supplementary accounts.

6. Implications for the System

24. By assessing the appropriate treatment of unfunded employer pension schemes in the new SNA it has to be taken into consideration that unfunded employer pension schemes and social security schemes are often close substitutes to each other. As a consequence, it seems to be more appropriate to treat both of them in the same way in the core accounts, i.e., as pay-as-you-go systems. This better reflects economic reality than would be the case if unfunded schemes are treated like funded schemes in the accounts.
25. Actuarial calculations are often not available for such schemes. Accordingly, rather complicated model calculations would have to be carried out by statistical offices based on incomplete data sets leading to large modifications and revisions of the data.
26. The supplementary set of accounts may also incorporate the recording of all kinds of other implicit assets and liabilities, like loan provisions or one-off guarantees. A more general approach how to break down such implicit assets and liabilities has been proposed by the second AEG meeting in December 2004, distinguishing between provisions to cover events likely to happen but of an uncertain timing, provisions to cover events certain to happen but of an uncertain timing, contingencies, and impairment.
27. The compilation of such a supplementary set of flow and stock models has the advantage that users are provided with a broad set of statistical information that may help to assess, for instance, the corporate risks as they are impacted by loan provisioning, securitisation and other specific

[10] See the decision by Eurostat of 25 February 2004 on "Payments to government by corporations in the context of the transfer to government of their pension obligations." Eurostat has decided that the payments received by a government from a corporation in the context of a transfer of obligations under funded schemes that the corporation operates for its own employees should be recorded as government revenue and should therefore have a positive impact on government surplus or deficit (EDPB9). As a consequence, the payments connected to the transfer to government of pension obligations have the same impact on government deficit in the cases of both funded and unfunded schemes organised by a corporation. In both cases, funded and unfunded, the counterpart of the cash received by government is an unrequited transaction, classified as a capital transfer (codified D99 in ESA95) and the pension obligations taken over by government are not recorded in the form of an ESA95 liability. According to the accrual principle, the capital transfer should be recorded at the time the pension obligations are effectively transferred and not at the time of the payment(s). In the future, the improvement in government surplus or deficit due to this capital transfer will be offset by the payment of benefits that government has to pay and that will be recorded as government expenditure and thus will have a negative impact on government surplus or deficit in the coming years. Therefore, the Eurostat decision ensures that, in all cases, the transfer of pension obligations is neutral (or very close to neutrality) over time.

financing arrangements. This would also be in line with the increasing focus on issues related to financial stability analysis. Considering government risks, they are partly covered by pension schemes and uncertainties arising from future pension reforms and demographic developments.

References

Council of the European Union (ECOFIN) (2005), Report of the ECOFIN Council to the European Council, Improving the implementation of the Stability and Growth Pact, Brussels, 21 March 2005.

European Commission (DG ECFIN) (2005), The sustainability of public finances based on the 2004 updates of stability and convergence programmes, note for the attention of the Economic Policy Committee, Brussels, 13 April 2005

Annex 1

Sector classification of insurance

For insurance, the ESA95 distinguishes between **social insurance** and **insurance for individuals** like life insurance contracts (see Table 1, column 1).

Table 1
Sector classification of insurance

<table>
<tr><th colspan="4">Scheme attributes</th><th rowspan="2">Sector classification</th><th rowspan="2">Example</th></tr>
<tr><th>Collective or individual insurance?</th><th>Who for?</th><th colspan="2">Funding and control?</th></tr>
<tr><td rowspan="7">Collective: Social insurance scheme organised for certain groups who are obliged to participate[11]</td><td rowspan="3">Organised by employers for own employees</td><td rowspan="2">Funded</td><td>Funds held by employers[12]</td><td>Employer’s sector</td><td>Autonomous or non-autonomous pension fund</td></tr>
<tr><td>Funds held by other units[13]</td><td>Pension funds’ sector</td><td>Autonomous pension fund</td></tr>
<tr><td colspan="2">Unfunded</td><td>Employer’s sector</td><td>Scheme organised for civil servants</td></tr>
<tr><td rowspan="4">Other groups</td><td rowspan="2">Funded</td><td>Controlled by government[14]</td><td>Government sector</td><td>Defined benefit funded pension scheme</td></tr>
<tr><td>Controlled by other units</td><td>Pension funds’ sector</td><td>Defined contribution funded pension scheme</td></tr>
<tr><td rowspan="2">Unfunded</td><td>Controlled by government</td><td>Government sector</td><td>Social security scheme</td></tr>
<tr><td>Controlled by other units[15]</td><td>Sector of controlling units</td><td>Unlikely</td></tr>
<tr><td>Individual insurance[16]</td><td>Individuals</td><td colspan="2">Funded</td><td>Pension funds’ sector</td><td>Life insurance contract</td></tr>
</table>

Different types of social insurance schemes are considered: There are **schemes organised by employers for their own employees**, which may be funded or unfunded. A funded employer pension scheme belongs to the sector holding the funds, either the employer in form of a non-autonomous pension fund or an autonomous pension fund. Unfunded schemes may be organised, for instance, for civil servants, which belong to the employer’s sector **-** often units within general government.

Schemes organised for other groups, either funded or unfunded, and controlled by government, are part of the government sector and grouped into the sub-sector social security systems.[17]

The **reasoning behind the different institutional classification and accounting treatment** of social insurance schemes is essentially based on specific functional criteria as outlined in Table 1: First, is the scheme organised by employers for their own employees or for the entire community or large part of it? Second, is the scheme funded or unfunded? Third, who controls the scheme?

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[11] See 1995 ESA, paragraph 4.87.

[12] Referred to in 1995 ESA as non-autonomous pension schemes. They are relatively common in some countries for non-government employers; rare for government employers.

[13] Annex III of 1995 ESA, paragraph 5 says this is where contributions are paid to insurance corporations and autonomous pension funds that are separate institutional units.

[14] See 1995 ESA, paragraph 2.74 says: “General government is responsible for the management of the institution in respect of the settlement or approval of the contributions and benefits independently from its role as a supervisor.”

[15] An unlikely arrangement.

[16] See 1995 ESA paragraph 4.86(a).

[17] In the 1995 ESA or 1995 SNA, a government controls a corporation if it has the ability to determine the general corporate policy. Discussions are ongoing to extend the definition of control taking into account the International Public Sector Accounting Standards (IPSAS).

Combining the three criteria leads to several 'clear-cut' cases: For instance, all **PAYG or social security schemes** as unfunded schemes are organised for the entire community or large parts of the community.

Furthermore, **funded schemes organised by employers for their own employees** are usually privately organised. They are determined by mutual agreement between the individual employers and their employees and the benefits are linked to the contributions. Compared to social security schemes the pension scheme members are now exposed to the risks of the pension fund's performance. As they are funded schemes, the pension fund reserves are held by the funds usually established by employers to provide pensions for employees after retirement. Assets are accumulated for households in the form of net equity in pension fund reserves to whom the corresponding income is also attributed. Such accumulations are determined by the actual contributions into the pension fund payable by employees, employers or others less the amounts payable to retired persons. The income earned from the investment of reserves of pension funds has to be added, while the service charges have to be excluded necessary to manage the funds.

Borderline cases are to be distinguished. Their sector classification is mainly determined by the fact who controls and bears the risks of the scheme. In this respect, the risk of **unfunded employer schemes** organised for civil servants is mainly with government units. Otherwise, **funded schemes with defined contributions** are usually controlled by units outside government, while **funded schemes with defined benefits** are controlled by government. Accordingly, the risks of defined contribution schemes are beared by the pension scheme members, while the risks of defined benefits schemes are mainly with government units.

Annex 2

Accounting treatment of specific economic events of an unfunded pension scheme

a. Accrual of pension rights from employees' current work

The ESA95 regards an employer operating an unfunded scheme as making an imputed contribution to the scheme on behalf of his employees. The imputed social contribution (D.122) is part of compensation to employees and is shown as payable by the employer in the generation of income account and receivable by households in the allocation of primary income account as parts of the *core accounts*. The employer's imputed contribution is shown again in the secondary distribution of income account as item D.612, payable by households and receivable by the employer. The amount of this contribution should be determined by reference to the employer's future obligations to provide benefits. In practice, however, the contribution is usually set equal to benefits payable in the current period (less employees' social contributions).[18]

Corresponding entries are made in the *supplementary accounts* as an adjustment for the change in net equity of households in pension funds reserves (D.8) in the use of disposable income account and in the financial account (F.612). Table 1 describes the accounting treatment of the accrual of pension rights.

Table 1: Accrual of pension rights from employees'current work

Employee		Employer	
Core accounts			
Uses	Resources	Uses	Resources
Imputed social contribution (D.612 +)	*Imputed compensation of employee (D.122+)*	*Imputed compensation of employee (D.122 +)*	*Imputed social contribution (D.612 +)*
Supplementary accounts			
Uses	Resources	Uses	Resources
	Implicit pension funds reserves (D.8 +)	*Implicit pension funds reserves (D.8 +)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
Implicit pension funds reserves (F.612 +)			*Implicit pension funds reserves (F.612 +)*

b. Actual employees' contributions to the scheme

Actual contributions by employees, if any, are shown as part of D.6112, payable by households and receivable by the employer's sector – with corresponding entries in the financial account. The corresponding (implicit) entries made in the *supplementary accounts* are the same as in the case of the accrual of pension rights from employees' current work. The detailed accounting treatment is shown in Table 2.

[18] See Annex III of the ESA95 on insurance, paragraph 24. In some countries, data on accruing pension rights are used since the information is already collected for public finance control purposes.

Table 2: Actual employees' contributions to the scheme

Employee		Employer	
Core accounts			
Uses	Resources	Uses	Resources
Actual social contributions (D.6112 +)			*Actual social contributions (D.6112 +)*
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
Currency and deposits (F.2-)		*Currency and deposits (F.2+)*	
Supplementary accounts			
Uses	Resources	Uses	Resources
	(Implicit) pension funds reserves (D.8 +)	*(Implicit) pension funds reserves (D.8 +)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
(Implicit) pension funds reserves (F.612 +)			*(Implicit) pension funds reserves (F.612 +)*

c. *Receipts from employees entering the scheme or payments to employees leaving the scheme*

Similar accounting entries have to be recorded as described in 4.2 if receipts from employees entering the scheme or payments to employees leaving the scheme have been made (Tables 3a and 3b).

Table 3a: Receipts from employees entering the scheme

Employee		Employer	
Core accounts			
Uses	Resources	Uses	Resources
Lump sum payments (D.9 +)			*Lump sum payments (D.9 +)*
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
Currency and deposits (F.2-)		*Currency and deposits (F.2+)*	
Supplementary accounts			
Uses	Resources	Uses	Resources
	Pension reserves (D.8+)	*Pension reserves (D.8+)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
(Implicit) pension funds reserves (F.612+)			*(Implicit) pension funds reserves (F.612+)*

Table 3b: Payments to employees leaving the scheme

Employee		Employer	
Core accounts			
Uses	Resources	Uses	Resources
	Lump sum payments (D.9+)	*Lump sum payments (D.9+)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
Currency and deposits (F.2+)		*Currency and deposits (F.2-)*	
Supplementary accounts			
Uses	Resources	Uses	Resources
	(Implicit) pension funds reserves (D.8-)	*(Implicit) pension funds reserves (D.8-)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
(Implicit) pension funds reserves (F.612-)			*(Implicit) pension funds reserves (F.612-)*

d. *Pensions paid to retired employees*

The secondary distribution of income account as part of the *core accounts* also shows pensions and other benefits as part of D.62 (D.623 as unfunded employee social benefits), receivable by households and payable by the employer. Corresponding entries have to be made in the *supplementary accounts* as a negative adjustment for the change in net equity of households in pension funds reserves in the use of disposable income account and in the financial account. Table 4 describes the accounting treatment of the pensions paid to retired employees.

Table 4: Pensions paid to retired employees

Employee		Employer	
Core accounts			
Uses	Resources	Uses	Resources
	Actual social benefits (D.623+)	*Actual social benefits (D.623+)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
Currency and deposits		*Currency and deposits (F.2-)*	
Supplementary accounts			
Uses	Resources	Uses	Resources
	(Implicit) pension funds reserves (D.8-)	*(Implicit) pension funds reserves (D.8-)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
(Implicit) pension funds reserves (F.612-)			*(Implicit) pension funds reserves (F.612-)*

e. *Increase in the net present value of accrued pension rights from the passage of time (unwinding the discount on future liabilities)*

The increase of the net present value of accrued pension rights, as a result of the unwinding of the discount, should (theoretically) be recorded in the *core accounts* as the employer operating an unfunded scheme as making an imputed contribution to the scheme on behalf of his employees. The imputed social contribution (D.122) is part of compensation to employees and is shown as property income (D.44) payable by the employer in the generation of income account and receivable by households in the allocation of primary income account. Corresponding (implicit) entries are made in the *supplementary accounts* as an adjustment for the change in net equity of households in pension funds reserves (D.8) in the use of disposable income account and in the financial account (F.612). Table 5 describes the accounting treatment of the increase in the net present value of accrued pension rights.

Entries should all be in the supplementary accounts.

Table 5: Increase in the net present value of accrued pension rights from the passage of time

Employee		Employer	
Supplementary accounts			
Uses	Resources	Uses	Resources
Imputed social contributions (D.612+)	*Property income payable to employee (D.44+)*	*Property income payable to employee (D.44+)*	*Imputed social contributions (D.612+)*
Uses	Resources	Uses	Resources
	(Implicit) pension funds reserves (D.8+)	*(Implicit) pension funds reserves (D.8+)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
(Implicit) pension funds reserves (F.612+)			*(Implicit) pension funds reserves (F.612+)*

f. Revision of actuarial assumptions (changes of the discount rate, the average life expectancy and the final salaries of the scheme members)

Revisions of actuarial assumptions like changes of the discount rate, the average life expectancy and the final salaries of the scheme members are recorded in the *supplementary accounts* as other flows. These changes are not the result of the employers' actions. Or, since the supplementary accounts would not be constrained by the "no holding gains above the line" rule in SNA, transactions could be recorded in D.8 and F.6. instead of other flows like Table 7.

Table 6: Revision of actuarial assumptions

Employee		Employer	
Supplementary accounts			
Other flows in financial assets	Other flows in liabilities	Other flows in financial assets	Other flows in liabilities
(Implicit) pension funds reserves (+)			*(Implicit) pension funds reserves (+)*

g. Changes of scheme benefits in respect of rights already accrued

Otherwise, changes of scheme benefits in respect of rights already accrued are only recorded in the supplementary accounts as implicit transactions, i.e., as an adjustment for the change in net equity of households in pension funds reserves (D.8) in the use of disposable income account and in the financial account (F.612). Table 7 describes the corresponding accounting treatment.

Table 7: Changes of scheme benefits in respect of rights already accrued

Employee		Employer	
Supplementary accounts			
Uses	Resources	Uses	Resources
	(Implicit) pension funds reserves (D.8+)	*(Implicit) pension funds reserves (D.8+)*	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
(Implicit) pension funds reserves (F.612+)			*(Implicit) pension funds reserves (F.612+)*

h. Transfer of pension reserves from a funded to an unfunded employer scheme

The recording of a lump sum payment from a funded employer pension scheme to an unfunded scheme is shown in Table 8. To appropriately reflect such a payment the accounting entries have to be shown for the three parties involved, the funded scheme, the unfunded scheme (the employer in previous examples) and the employee. For the funded scheme, the payment is shown in the core accounts a financial transaction reducing cash and pension liabilities. The unfunded scheme records the cash as a resource in the income account and as an acquisition of a financial asset also in the core accounts improving its (core) net lending. In contrast, the lump sum payment is a use for the employee reducing its pension reserves (in the core accounts) and therefore its (core) net lending. In parallel, its (implicit) pension reserves increase by the same amount as the (implicit) pension liabilities of the unfunded scheme do. The corresponding entries are made in the *supplementary accounts* as an adjustment for the change in net equity of households in pension funds reserves (D.8) in the use of disposable income account and in the financial account (F.612).

Table 8: Transfer of pension reserves

Funded scheme		Unfunded scheme		Employee	
Core accounts					
Uses	Resources	Uses	Resources	Uses	Resources
			Lump sum payment (D.9+)	***Lump sum payment (D.9+)***	
Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
Currency and deposits (F.2-)	*Pension reserves (F.612-)*	*Currency and deposits (F.2+)*		*Pension reserves (F.612-)*	
Supplementary accounts					
		Uses	Resources	Uses	Resources
		(Implicit) pension funds reserves			*(Implicit) pension funds reserves*
		Net acquisition of financial assets	Net incurrence of liabilities	Net acquisition of financial assets	Net incurrence of liabilities
			(Implicit) pension funds reserves	*(Implicit) pension funds reserves*	