

Pension schemes: towards an efficient compromise proposal for the new SNA

Contribution to the EDG on pension schemes

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Introduction

The moderators of the EDG have presented a paper for information to the December 2004 AEG meeting, summarizing their views on the findings of the EDG. At the same time, Eurostat has presented a paper to the AEG, also for information, requesting the EDG to cover other options than the ones included in the moderators' paper. Eurostat opens six possible options, which have been presented, for information, to the recent AEG.

The Eurostat paper has been posted on the EDG under the heading "December 3: Eurostat communication to the advisory group" and an annex to that paper has also been very recently posted on the EDG under "January 11: Annex on the accounting sequences describing the main options".

The present paper has been prepared in this context.

Its objective is to support option 5 as spelt out in Eurostat's paper, which is, in my view, a constructive proposal which has the advantages of the proposal of the EDG moderators (option 3), without having its disadvantages. This option includes also the proposal to recognise pension liabilities of multi-employer schemes organized by the general government or "public multi-employer schemes" (which are often called "social security" –see box further down on the difference between these terms). It is important to note however, that this is a sub-option of option 5. In other words, option 5 can function without this extension.

Other options have more disadvantages than advantages...

The six Eurostat options are the following:

- Option 1: Leave the SNA unchanged
- Option 2: Leave the core SNA unchanged, but add the relevant information in a satellite account (or a memo item) inclusive of social security pension obligations
- Option 3: Recognize employer unfunded pension obligations as liabilities (this is the current EDG proposal)
- Option 4: Recognize all unfunded pension obligations as liabilities (i.e. extend the EDG current proposal to public multi-employer schemes")
- Option 5: Create a new accumulation account for all unfunded pension obligations (to be recorded as liabilities)
- Option 6: Create a new other economic flow to capture the increase/decrease in all unfunded pension obligations (to be recorded as liabilities)

I discard immediately **Option 1**. It would be unrealistic not to take into account the movement that is occurring in the business and public finance world towards the recognition of liabilities, even if unfunded. We would be placed in a position where national accounts would not recognise pension liabilities that are recognised by sponsors in their own accounts¹.

I discard also **Option 2**. Unfortunately, the experience is that satellite accounts and memorandum items are either not compiled at all by national accountants or are considered very low priority, which makes these accounts, when they exist, unusable for a professional user of national accounts². Also, to exclude unfunded pension liabilities from the core accounts entails the persistence of a problem when transactions occur on these liabilities. For example, the problem of accounting rationality posed by “France-Télécom” type cases will not be resolved if unfunded pension liabilities are excluded from the core accounts.

Option 3 proposes, on the contrary, to fully recognise unfunded pension liabilities in the core accounts, but with a limitation to those sponsored directly by employers. It has therefore the advantage of better convergence with new business and public finance accounting. It allows a correct measurement of government labor costs and cost of capital, as well as government net worth. It recognises the pension obligation based on the employment contract. In compliance with the accrual system it records an expense when the obligation arises (based on deferred compensation) and not the latter settled. It has however two important disadvantages: (1) the restriction to employer schemes (thus the exclusion of public multi-employer schemes sometimes called “social security”), (2) the inclusion in the core accounts of imputed flows with risk in terms of quality of data and without distinguishing them from observed funded schemes flows.

(1) Option 3 implicitly excludes anything which is not pure employer schemes from the scope of the recognition of liabilities. This excludes in particular all multi-employer schemes organized by the general government, which are schemes that are called “social security” in many countries. This exclusion is unfortunate because, in some cases, and in particular for the general government, it is a matter of marginal institutional change for the sponsor to organize its own scheme as an employer scheme or as part of the general multi-employer social security scheme. For example, there are countries where civil servants from local

¹ Eurostat drew my attention to the fact that ESA 95 seems to be interpreted as allowing recording a liability when the unit recognizes a provision and the estimates accepted actuarial practices. ESA 95 5.101: “Provisions or similar funds constituted by employers to provide employees with pensions (non autonomous pension funds) are only included in category AF6 if they are calculated according to actuarial criteria similar to those used by insurance corporations and autonomous pension funds. Otherwise, these provisions are covered by the shares or other equity issued by the institutional unit that set up the provisions”. This paragraph can be construed to suggest that ESA 95 recognises a liability for social insurance employer pension schemes when a provision is expressly recognised and valued on the liability side by this unit, when standard actuarial techniques is used.

² Option 2 is not very different than option 1, because, in fact, the current SNA already recommends to compile those memorandum items. But nobody does it !

government are part of the “social security scheme” while civil servants from the central government are part of the “employer scheme” of the central government. Both civil servants have exactly the same type of retirement asset, but, under Option 3, it would not be recognised in the former (local civil servants) and recognised in the latter (central civil servants). Moreover, in this situation, a minor institutional change (transforming the central government scheme to become, like the local government scheme, attached to the general social security system) would wipe out the liabilities of the central government (changing the pattern of net lending/net borrowing after the change). This risk rendering headline aggregates like the net lending borrowing or the debt of the general government useless for policy-makers. Finally, the exclusion of social security could leave unresolved issues when a transaction occurs between an employer scheme and a social security scheme (this happens in some countries).

(2) The recognition of liabilities for unfunded schemes in the national accounts implies heavy calculations: one must first estimate the future demographics (over 100 years), compile the future expected benefits corresponding to these demographics, and finally calculate the present value of these future benefits, based on the use of a discount rate which, whatever one may say, is quite arbitrary (the EDG has not proposed yet a clear recommendation concerning the discount rate to use).

- Choice of discount rate: a difference of 0.5% of the discount rate used in the calculations of large schemes such as government employer’ schemes will have large impacts on government net worth. While the impact on net lending borrowing will be mitigated by some compensation between labor costs and property income that tend to change in reverse, it may well be very noticeable. The EDG has yet to appropriately document this issue, in concert with the accounting profession.
- Source data issues: the situation will be more comfortable for national accountants when sponsors of unfunded schemes already recognise these liabilities in their own accounts and have an established practice of compiling the corresponding flows and stocks. But the situation will be less comfortable for the national accountants than when they will have to make their own estimates. One question is what would be the guidance when no source data exists.
- The strongest message coming from the workshop organized by the OECD in June 2004 (which was attended by more than fifty economists/statisticians from many OECD countries) was to request national accountants to clearly distinguish in the sequence of accounts these large imputed flows from the rest and to allow for the calculation of balancing items that exclude these flows. Whereas the SNA is an accrual system and as such records events not on a cash basis but, at another time, when the obligation is created, pensions are specific in the sense that the time lag between the expense and the cash flows may be extremely long and for very large amounts. This may warrant a specific presentation. On the contrary, by taking the position of treating employer unfunded

schemes completely as if they were funded schemes, without any distinction, option 3 can be considered as extremist in its presentation.

Option 4 is a variant of Option 3 where the recognition of liability is extended to social security. It therefore avoids the first disadvantage of Option 3, but multiplies by a significant amount the second disadvantage of Option 3. Indeed, if one extends the recognition of liabilities to all funds including social security, the amount of imputation may become frightening (public debt including social security liabilities may reach 400% of GDP in some countries), and it would be completely imprudent to embed such estimates in the accounts without distinguishing them from other flows.

Option 6 is a technical variant of Option 5 in which the flows relative to unfunded schemes intervene in the other change in volume accounts rather than in the financial accounts. It has the same advantages as option 5 but with the drawback that these flows are not directly included in the financial accounts, and thus it would be less easy to “add up” all flows related to pensions. The presentation of Option 6 will be less understandable to users than the one of Option 5.

...this leaves us with Option 5

Readers and participants in the EDG should avoid pre-conceived ideas on Option 5 and fully understand its implications. In this respect, they should look carefully at the very instructive “Annex on the accounting sequence describing the main options identified in the Eurostat contribution” that Eurostat has recently posted on the EDG. In this annex, Table 3 (“New recording- New accumulation account option”) illustrates Option 5, in a situation with an unfunded general government employee scheme and a social security scheme organized by the general government. As such the example covers employer schemes and social security schemes.

I have exactly replicated this table at the end of the present document but, in order to make it even more illustrative, I have added the accounts of the counterparts of the general government (households and corporations). Before going into the details, it is useful to highlight the main advantages of this option:

- (1) the proposal includes, as part of the **core** accounts, an estimation of the actuarial change in the liabilities of unfunded schemes, which appear in the financial accounts and in the balance sheet. As such, it fully fulfils the objectives of Option 3.
- (2) at the same time, the new accounts distinguish clearly unfunded schemes from the rest of the accounts (in particular funded schemes), allowing users to separate observed flows from imputed flows.
- (3) it treats similarly unfunded employer schemes and public multi-employer schemes (called sometimes “social security”), avoiding the problem of the thin institutional difference between them in some countries. However, it is important to note that the extension to social security is an option in this option. In other words, Option 5 could

technically function without this extension. Also, it is possible that Option 5 does not imply the extension to all social security systems (see box).

(4) as shown by the attached table, the system functions and accounting identities are respected. The current fundamental accounting identity: $B9A = B9B$ (net lending / net borrowing of the capital account *is equal to* net financial transactions) is replaced by a similar fundamental identity: $B9X = B9X.B$ (net lending / net borrowing adjusted for unfunded pension schemes *is equal to* net financial transactions extended to unfunded pension liabilities).

(5) the sequence of account is not more complicated than the current SNA. It simply corresponds to a change of the nature and location of the D8 adjustment for the change in net equity of households in pension funds reserves.

(6) finally, it gives users the information on unfunded liabilities at the same time that it allows them to use aggregates excluding them. I call this a “win-win” situation.

Let us now illustrate the proposal in detail.

Does Option 5 imply the extension to all “social security” systems?

The answer is doubly “no”. First, as explained in the main text, one of the main characteristic of Option 5, which is to recognise the pension liability of unfunded schemes in the core accounts but in a separate table, could be applied only to unfunded employer schemes (including government employees). Thus Option 5, without any extension to social security, is a possibility. Even with this restriction, it has an advantage compared to Option 3: the fact that large imputed amounts (i.e. for general government employees) would be separated from the rest, and that two balancing items “net lending / net borrowing” would be available for users.

Second, the objective of the coverage extension of Option 5 is to treat similarly systems that are based on contributory mechanisms based on compensation and earnings, whether the system are organized directly by employers or indirectly through a public system. The treatment of liabilities should not differ on the basis of it being organized privately or collectively. This is why the present paper prefers to refer to the extension to “multi-employer schemes organized by the general government” or “public multi-employer schemes” rather than to “social security”. Indeed, the problem with the terms “social security” is that it means different things in different countries. In some countries, the main pillar for compensation (or earnings) based pensions is a public system, which is called “social security”. In other countries, what is called “social security” is more comparable to a minimum pension, akin to social assistance, which is generally financed by general tax. The real objective of Option 5 is to recognise the liabilities of the former, which in my view, are similar to those of employer schemes. On the contrary, it is possible that the latter should remain excluded from this recognition.

As the Eurostat paper has used the term “social security” this term has been left in the numerical example. But the reader could substitute “public multi employer scheme”.

Numerical example (corresponding exactly to Eurostat's Table 3 "New recording – New accumulation account option (Option 5)).

It is assumed that two government pension schemes exist: an unfunded employer schemes for civil servants and a social security scheme (or "public multi employer scheme").

General Government Employer scheme for civil servants. The employer contribution is 9.5 (though the actuarially calculated cost of labour is 12). The employee contribution is 1.5. Pensions paid are 11. The actuarial valuation of stocks of pension obligations is 80 in the opening balance sheet. The property income on those is 4 (5% rate).

Social security scheme. The cash contributions are 14.5: 11 paid by (private) employers, 3.5 paid by employees (although actuarially of 5.5). Pensions paid are 13. The actuarial valuation of stocks of pension obligations is 120 in the opening balance sheet. The property income on those is 6.

Government assets start at 50. Liabilities other than pensions are at 150. No other changes in pension obligations arises other than due to contributions, property income and pension payments.

Here are, line by line starting from the top, the explanations of the system of recording:

D122: government pays imputed contributions to households of 12 (actuarial value of contribution) as part of cost of labour of government employees³. Corporations pay 11 of contribution to social security to households as part of their cost of labour.

D44: an imputed property income flow from government to households is recorded, corresponding to the imputed interest cost of the unfunded liabilities of the government (4 for GG employer scheme, 6 for social security). It captures the increase of pension debt over time due to the sole effect of time passing.

D6112: these two flows correspond to the actuarial contributions paid by households to the organizer of the schemes. It includes cash payments (1.5 for GG employer scheme, 3.5 for social security) *plus* property income (10, counterpart of D44) *plus* an actuarial supplement of 2 for social security (balanced with line D7X, see below).

D62: these flows correspond to the (cash) flows of benefits to retirees.

D7X: this new transaction covers the implicit transfer made by government to households corresponding to the difference between the cash contributions of households and the actuarial contribution that ought to be recorded in the social security system. This implicit transfer of 2 is returned to the general government through line D6112 (see above). This

³ One can here verify that Option 5 allows for the compilation of labour costs on an actuarial value. Thus the impact on GDP is the same as in Option 3 (EDG proposals).

entry allows reconciling changes in stocks and transactions, and reports in a transparent manner actuarial imbalances of schemes.

At this point the reader should have understood that, under Option 5, all flows linked to unfunded schemes are recorded as they would appear in an actuarial system.

However, as shown in the next line, “B8 Saving” remains equal to the net *cash flows* of these systems. Indeed, for example, cash flows for the government are: +1.5 (D6112) + 3.5 (D6112) +11 (D612 social security) – 11 (pensions GG employees) – 13 (pensions social security) = -8.

This is because all imputed flows above B8 have counterparts: D44 property income is recorded in the use column of general government but also in the resource column as part of imputed contributions, D7X is recorded in the use column of the general government but also in the resource column under D6112, etc...

Similarly in this proposed system, “B9A net lending borrowing” (i.e. the balancing item of the capital account) remains equal to the net *cash flows* of unfunded schemes. This presentation **therefore satisfies those who prefer to use this approach.**

The real innovation of the proposal occurs after the line “B9A”, with the creation of a special account devoted to unfunded schemes, called “Accumulation Account for Unfunded Pension Schemes” (shaded in grey). This account simply contains two lines “D8X Adjustment for the change in net equity of households in unfunded schemes”, one for each system. These lines correspond mechanically to the adjustment which is necessary to introduce to obtain a new net lending borrowing corresponding to a situation where unfunded pension schemes are treated as if they were funded. It is equal, for each scheme, to actuarial contributions minus benefits.

At this point the reader should have understood that the proposal is not a revolution in the SNA. This adjustment D8X already exists in the current SNA 93 under the name D8. In fact, the proposal could be summarized as consisting simply in changing the location of the D8 adjustment⁴.

This new accumulation account for unfunded scheme is closed by a new balancing item, called “B9X Net lending borrowing adjusted”. This new balancing item corresponds to the net lending/borrowing where all pension schemes are treated as if they were saving schemes. **It satisfies users that prefer this approach.**

⁴ This is not completely true. In the current SNA, the adjustment D8 has the objective of recording in the non financial accounts contributions and benefits of funded schemes. In Option 5, D8 has the objective of recording contributions and benefits of unfunded schemes as financial flows. Despite this difference, the essence of this “transaction” is the same. An additional possibility, envisaged in paragraph 26 of Eurostat’s paper, would be to move the adjustment existing for funded schemes into the new accumulation accounts proposed in Option 5. The advantage would be to treat identically funded and unfunded schemes.

Regarding the financial accounts, they are extended, under Option 5, to include the changes in unfunded pension liabilities, with the creation of two new financial instruments: F6X (unfunded employer pension liabilities) and F6Y (unfunded social security pension liabilities). This inclusion (shaded in grey) allows users to dispose of all pension liabilities, whether funded or unfunded, in the same account.

One consequence of this presentation is that the traditional identity between B9A (net lending borrowing of the capital account) and B9B (net lending borrowing of the financial accounts) is broken. However it is immediately to be replaced by a similar identity, but extended to unfunded pension liabilities: under Option 5, the identity becomes: $B9X = B9B$.

With this presentation users have a full view of the pension liabilities, whether they are funded or unfunded. At the same time, it is possible for them to separate those liabilities that are more “imputed” or less stringent than others. It is also important to note that, with this accounting system, transactions occurring on unfunded pension liabilities (such as the famous France-Télécom case) will impact none of the balancing items B9A, B9X and B9B, because the cash exchanged will have a counterpart (in form of F6X or F6Y) in the financial accounts.

The rest of the accounts (other change in volume/balance sheet) follows logically.

Conclusion

This system functions, as shown by the example.

It allows including unfunded pension liabilities in the core system of national accounts, while treating those large amounts where the accrual adjustment is very large and involves extensive actuarial estimations separately from the rest of the accounts, with the possibility for users to make a difference between the funded systems and the unfunded ones. This difference exists in the real world, it is not a luxury that it appears in the accounts.

At the same time, Option 5 allows national accountants to deliver the new data that users need. It is indeed the job of national accountants to give an extensive picture of all future pension obligations of our economies. If they do not do it, who will?

As such, Option 5 seems to me an efficient compromise proposal.

**Option 5 : case of general government employer scheme
and social security** (flows in italics are new flows or new values of flows)

	<i>Red italics are changes to 1993 SNA</i>	General government as employer and as organizer of social security		Households		Corporations	
		Uses	Resources	Uses	Resources	Uses	Resources
D122	Imputed employer contributions	<i>12</i>			<i>12+11</i>	11	
D.44	Property income attributed to policy holders	<i>4+6=10</i>			<i>4+6=10</i>		
D6112	Employee contribution (GG employers schemes)		<i>1.5+4=5.5</i>	<i>1.5+4=5.5</i>			
D6112	Employee contribution (social security)		<i>3.5+2+6=11.5</i>	<i>3.5+2+6=11.5</i>			
D6111	Employer contribution (GG employers schemes)		<i>12</i>	<i>12</i>			
D6111	Employer contribution (social security)		11.0	11.0			
D623	Pensions (GG employers schemes)	11.0			11.0		
D621	Pensions (social security schemes)	13.0			13.0		
<i>D7X</i>	<i>Transfers to households (Social security actuarial imbalance) saving</i>	<i>2.0</i>			<i>2.0</i>		
B8		-8.0		+19.0		-11.0	
B9A	Net lending/ net borrowing	-8.0		+19.0		-11.0	
	<i>New accumulation account for unfunded pension liabilities</i>						
<i>D8.1X</i>	<i>Adjustment for the change in net equity of households in unfunded employer schemes</i>	<i>12+5.5-11=6.5</i>			<i>12+5.5-11=6.5</i>		
<i>D8.2X</i>	<i>Adjustment for the change in net equity of households in social security pension schemes</i>	<i>11+11.5-13=9.5</i>			<i>11+11.5-13=9.5</i>		
B9X	Net lending/ net borrowing adjusted	-24.0		+35.0		-11.0	
	Financial accounts	General government		Households		Corporations	
		ΔAssets	ΔLiabilities	ΔAssets	ΔLiabilities	ΔAssets	ΔLiabilities
F2	Cash	-8.0 (1.5+3.5+11-11-13)		+19 (+11+13-3.5-1.5)		-11	
<i>F6X</i>	<i>Change in unfunded employers pension liabilities (actuarial calculation)</i>		<i>6.5</i>	<i>6.5</i>			
<i>F6Y</i>	<i>Change in unfunded employers pension liabilities (actuarial calculation)</i>		<i>9.5</i>	<i>9.5</i>			
B9X.B	Net lending/ net borrowing adjusted	-24.0		+35.0		-11.0	
	<i>Other changes in volume of assets accounts</i>	ΔAssets	ΔLiabilities	ΔAssets	ΔLiabilities	ΔAssets	ΔLiabilities
B10.2	Changes in net worth due to other changes in volume of assets	0		0		0	
	<i>Revaluation account</i>	ΔAssets	ΔLiabilities	ΔAssets	ΔLiabilities	ΔAssets	ΔLiabilities
B10.3	Changes in net worth due to nominal holding gains/losses	0		0		0	

		General government		Households		Corporations	
		Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
	Opening balance sheet						
	Various financial instruments	50.0	150.0	50		100	50
<i>AF6X</i>	<i>Unfunded employers pension liabilities</i>		<i>80.0</i>	<i>80</i>			
<i>AF6Y</i>	<i>Unfunded social security liabilities</i>		<i>120.0</i>	<i>120</i>			
B90	Net worth	-300.0		250		50	
	<i>Closing balance sheet</i>						
		<i>Assets</i>					
	Various financial instruments	42.0	150.0	69		89	50
<i>AF6X</i>	<i>Unfunded employers pension liabilities</i>		<i>86.5</i>	<i>86.5</i>			
<i>AF6Y</i>	<i>Unfunded social security liabilities</i>		<i>129.5</i>	<i>129.5</i>			
B90	Net worth	-324.0		285		39	