Report on the Meeting of the Task Force on Employers' Retirement Schemes[1]

September 21-23, 2005

Introduction

The task force was established at the suggestion of the Advisory Expert Group on National Accounts. The International Monetary Fund (IMF) and the U.S. Bureau of Economic Analysis (BEA) jointly sponsored the meeting. The meeting was chaired by Messrs. Adriaan Bloem (IMF) and John Ruser (BEA).

Accounting in full for pension liabilities

A discussion paper on this topic was presented by Anne Harrison (OECD). Anne explained the background behind the *1993 SNA* treatment of pension schemes, and summarized the main features of that treatment:

1) Output is measured separately for autonomous private pension schemes, and other life insurance;
2) Output for non-autonomous pension schemes is not recorded separately and is treated as ancillary to the employer's main output;
3) Employer's contributions (part of compensation of employees) are measured as the actual contributions to funded pension and social security schemes;
4) Employer's contributions are imputed for unfunded pension schemes – while the *1993 SNA* recognizes that this imputation should be based on actuarial considerations, in practice it suggests that it be based on benefits paid in the current period;
5) Actual employee contributions are recognized for all pension (and social security schemes);
6) Property income attributed to beneficiaries, and therefore supplementary contributions, is only recorded for funded pension and life insurance schemes, and is measured as the investment returns on the fund assets (the insurance technical reserves). The investment returns include interest and dividends but not holding gains from securities. This means that two funds that are otherwise similar except that one has interest bearing and one has non-interest bearing investments are shown having different amounts of premium supplements and thus output.

[1] Based on a draft prepared by Mr. Brian Donaghue (expert)

For non-autonomous funds, the treatment of output as ancillary to the main activity of the employer is not in line with the economic nature of this activity, which provides services to the beneficiaries rather than to the employer. Therefore, this activity should be considered as a secondary activity of the employer, and the costs borne by the household sector.

Considering the economic nature of pension contributions:

1) The contributions by employers and employees should be at least equal to the increase in future benefits, discounted to present value, resulting from work done by the employee in the current period;
2) The difference between this amount and the actual contributions should be used to derive the imputed value of employer contributions to unfunded pension schemes;
3) Supplementary contributions, which are paid out of property income redistributed to future beneficiaries, should be at least equal to the increase in the present value of future benefits due to past service. This increase results from the decrease in the discount period;
4) No change is required in the recording of employee's contributions.

The *1993 SNA* distinguishes funded from unfunded schemes but makes no mention of the fact that some "funded" schemes may be under or over funded. The calculations described in 1 and 2 above should apply also to determine an imputed contribution (additional to actual contributions) by the employer in the case of an under-funded scheme and an imputed transfer from the schemes to the employer in the case of an over-funded scheme.

The CMFB/Eurostat view, while accepting the general approach outlined above, is that an important distinction remains between funded and unfunded pension schemes. There are a number of characteristics backing up this position, described in a section below, which lead to the proposal to record stocks and flows relating to unfunded pension schemes in a set of supplementary accounts rather than in the core accounts.

The consensus of the task force discussion was that economic analysis would be better served if analysis of pension schemes shifted from the current focus on the assets of pension schemes to their liabilities, and took account of the contractual nature of employer-employee relationship. This entails an actuarial approach to defined benefit schemes. The funding arrangements, and fund assets, are important but do not define the pension benefit to the household. This change would provide a more consistent treatment of (particularly) government schemes, which have different funding arrangements but essentially the same economic effect. This change would improve the present recording of employer balance sheets, and also reflect the asset situation of households who behave as if they have an asset for all these schemes.

Peter Harper (Australian Bureau of Statistics) outlined the treatment of defined benefit pension schemes in the Australian National Accounts. Australia has recorded the unfunded pension liabilities of governments and the counterpart unfunded pension assets of households since the introduction of the *1993 SNA* in 1998. The treatment is broadly consistent with that outlined in the issues paper *The Statistical Treatment of Employers' Pension Schemes* prepared by the IMF and discussed by the AEG at its December 2004 meeting.

Defined benefit schemes in Australia are mainly operated by governments, and comprise funded, unfunded, and partly funded schemes. The treatment adopted in the Australian national accounts reflects the view of Australian economic accountants of the economic nature of these schemes, the need to maintain consistent treatment of pension schemes between the Commonwealth (Federal) and various State and Territory governments, and the fact that liabilities for these schemes are already recorded in the balance sheets of all governments, irrespective of the degree of funding. Non-government defined benefit and mixed defined benefit/defined contribution schemes follow mainly cash-based accounting conventions, but are relatively unimportant compared with government pension schemes.

The starting point in compiling data for these schemes is the actuarially based estimate of the net present value of the employer liability and household asset associated with promised retirement benefits. The change in the liability position from one period to the next is decomposed into the following components:

- Imputed employer contributions for new and existing employees for service provided in the current period;
- Plus imputed property income on the outstanding liability to provide retirement benefits (property income attributed to insurance policyholders) arising from the reduction in the discount period;
- Plus revaluations;
- Plus revisions due to changes in actuarial assumptions and the extent of the benefits payable under the scheme;
- Less benefits payable.

The recording in the accounts is as follows:

- Defined benefit pension obligations are recorded as a liability on the balance sheet of the general government sector, and as an asset on the balance sheet of the household sector;
- Imputed employer contributions are recorded as compensation of employees in the income accounts of the general government and household sectors;
- Imputed property income attributed to insurance policyholders is recorded in the income accounts of the general government and household sectors;
- Changes in technical reserves due to transactions (imputed employer contributions plus imputed property income less benefits payable) are recorded as the incurrence of a liability in the financial account of general government and an acquisition of a financial asset in the financial account of households;
- Revaluations and changes in actuarial assumptions and/or defined benefits are recorded in the other changes in assets accounts.

Defining output of defined benefit pension schemes

The Australian view is that the output of pension schemes (both autonomous and non-autonomous) should be based on the cost of managing these schemes (including capital costs) and that the cost should be attributed to the beneficiaries (households). Conceptually the service charge should be classified as part of compensation of employees, including an amount to cover the service provided after retirement, but in practice simply recording the funding as compensation of employees in the period in which the service is provided might be a more practicable alternative.

Defined benefit schemes can be either over or under-funded, and the difference between fund assets and the actuarially determined liability should be recorded as an asset (if over funded) or liability (if under funded) of the employer or other sponsor of the scheme. The defined benefit scheme itself should have zero net worth.

The institutional sector and industry to which the imputed output is classified is also an issue that requires clarification. If the activity is recorded in the sector and industry of the employer then it could result in a number of industries producing life insurance and pension fund products. The Australian preference would be if possible to establish the non-autonomous fund as a quasi-corporation classified to the financial corporations sector and financial services industry.

Peter van de Ven (Statistics Netherlands) described the problems that the recording of output of autonomous pension schemes has raised for the Netherlands because investment income from transactions (interest, dividends) is treated as property income but holding gains or losses are not. The Netherlands has a number of large autonomous defined benefit schemes which are responsible for very substantial holdings of assets. The calculation of output following the *1993 SNA* is derived as: actual premiums earned plus premium supplements minus benefits due minus change in insurance technical reserves due to transactions. Because a large part of the investment income of autonomous pension schemes in the Netherlands derives from holding gains and losses on securities, which are in fact held for that purpose, the application of this formula has resulted in volatile and sometimes even negative measures of output for these schemes.

Examination of the operating process of these schemes indicates that in determining the level of contributions a service charge is calculated explicitly, and charged to the policy holder as an implicit part of total contributions. To approximate this service charge, two mutually consistent indirect methods can be applied:

- Output = costs + (expected) profits
- Output = contributions (ex ante) + (expected) investment income – (expected) benefits – (expected) change in insurance technical reserves.

The first formulation comes from the production account. The second from consolidating all the entries in the current accounts but because the “expected” elements cancel out, it reduces to the first.

The expected holding gains and losses should be included in these calculations because the insurer does not differentiate between sources of receipts in setting the level of contributions and thus of the service charge. However, the question arises whether all income and profits should be included in calculating the service charge, or only funds allocated to the underwriting function.

Task force discussion on this topic reached the conclusion that it is appropriate to use expected transactions and expected holding gains and losses to explain the service charge, and that use of expected holding gains and losses in this way does not contravene the *1993 SNA* rules on the treatment of holding gains and losses because it is merely a way to determine the actual service charge. However, only funds used in the underwriting function should be included in this calculation, or in other words, investment income from own funds should continue to be excluded. Further work is needed on the implications of using expectations in the practical calculation of pension fund output.

The question was raised whether the cost of providing non-autonomous pension benefits requires imputation or could remain as ancillary activity of the employer. It was agreed that conceptually, managing non-autonomous pension schemes was secondary rather than ancillary activity; but that where the cost is minor, an ancillary treatment could still be used. Where possible, the pension fund should be classified as a quasi-corporation operating in the financial corporations sector and deemed to be providing market services. It was further agreed that the output of non-autonomous pension schemes should be valued at cost, and that the output is consumed by the household sector. The OECD sees an unnecessary complication in separating the output of non-autonomous general government employers' pension schemes. This output is already recorded in the *1993 SNA* and is allocated conveniently to the final consumption of the general government, as any other nonmarket output, which is implicitly consumed by households, such as education and health.

It was agreed that in general the service flows corresponding to output should be recorded as a deduction from property income attributed to policyholders. If the whole of the property income is imputed, then an addition to it to cover the service cost needs to be made.

Developing actuarial estimates

Peter Harper provided a brief description of the process involved in compiling data for unfunded pension schemes in the Australian national accounts. In the case of Australia the compilation process is greatly facilitated by the fact that data is already included in government accounts.

Task force discussion centered on whether compilation of these data would be feasible, and whether they would be reliable, even if they were not included in government accounts. Peter Harper noted that the data are compiled without evident problems even for small Australian governments, and that the process should be reliable if done by professional actuaries following international best practice. He also noted that while revisions are inevitable following actuarial reviews, in practice the reviews have usually changed the liabilities by about 2 percent, and that because this change is included in the other economic flows category it does not affect the main economic aggregates. Some task force members suggested that the Australian experience might be an exception and that most governments are still in the process of developing actuarial data, but the contrary view was also put forward that appropriate data is anyway required for the internal management of pension schemes and might therefore be available even if it is not yet published in the accounts.

Joe Wilkinson (Statistics Canada) commented that it would be very difficult to compile consistent data for Canada under the current cash-based *SNA* treatment because unfunded pension schemes are migrating to a funded basis and therefore the proportion of funded versus unfunded stocks and flows is continually changing. Also, given that governments are recording these data in their own accounts it would seem "bizarre" to exclude them from the national accounts.

A description of the process of developing actuarial estimates for defined benefit pension schemes in the United States was given by Tonya Manning (Aon Consulting). Tonya outlined the types of pension plan sponsors[2] and types of pension plans found in the US and then provided more detailed information on the data required to carry out actuarial studies for defined benefit pension schemes, and the typical processes involved in those calculations.

Defined benefit pension plans are found in both the private and public sectors and cover both plans designed for a single employer and plans covering multiple employers. Plans can be traditional defined benefit or hybrid defined contribution plus defined benefit, and can be funded or unfunded.

The input data relating to the employees (e. g. age, gender, period of employment, current wage or salary rate, expected time until retirement) and plan details (e. g. retirement benefit formula(s), early retirement provisions, pension plan history) are provided by the employer (or sponsor) and are combined with external data such as various bond rates and life expectancy tables. The data and methodology used are required to adhere to standards set out by legislation and actuarial standards, although some discretion is given to the employer in the use of economic data and to the actuary's professional judgment. The actuarial estimates are usually derived individually for each employee and then combined to give an overall result, although it is possible to use relatively homogeneous employee/beneficiary categories to develop more approximate estimates. Actuarial estimates inevitably involve a number of assumptions and changes in those assumptions will change the results of the calculation, sometimes substantially. In particular, changes in the discount rate used to discount future benefits to current value can substantially affect the present value of pension liabilities.[3] The standards require that the discount rate

[2] Either the employer or autonomous fund manager.

[3] E. g. Increasing the discount rate by 1 percent can reduce liabilities by around 10 percent for a mature plan, or 20 percent for a plan with mostly young employees.

should be based on high quality bond rates relevant to the employer and with a time to maturity appropriate to the discount period.

A number of different valuations (i. e. using different sets of assumptions in the actuarial calculations) can be provided for various purposes, but the two most important for accounting purposes are:

a) the projected benefit obligation (PBO); and
b) the accrued benefit obligation (ABO).

The PBO is calculated by first estimating the total pension benefits the employee will earn during his entire career with the employer, allocating this equally to his years of service and then calculating the amount attributed to his years to date. The ABO is calculated only for the years of service to date using current wage and salary rates. The PBO is consistently higher than the ABO during the employment period with a large difference in early years slowly decreasing towards the retirement date when their values coincide. The task force consensus was that the ABO would be the more appropriate valuation to use for national accounting purposes. The accounting standards generally currently prescribe use of the PBO valuation in the balance sheet, with the ABO valuation being provided in the notes to the accounts. However the task force was informed that international accounting standards are also likely to move to the use of the ABO valuation on the balance sheet in the future.

There was a discussion about how discount rates are chosen. This is a matter of some choice between the employer, the accountant and the actuary but the usual outcome is to choose the rate of high quality bonds relevant for the employer in question.

The case of multi-employer schemes was also discussed. In these a single pension fund takes on the responsibility for managing the assets of the fund and administering the payout of benefits. The fund may take over the responsibility for ensuring the adequacy of the fund to meet its liabilities in which case the employer has no further liability. (Future employer contributions being routed through households.) The pension fund in this case is operating on an insurance basis, hoping to generate more than sufficient investment income to cover future benefits.

Tonya indicated that the cost of preparing actuarial estimates, given adequate data sources, was of the order of half a staff year, and around one staff month per year would be required for an annual update.

Borderline between employer pension schemes and social security schemes

Bo Bergman (Statistics Sweden) described the Swedish pension system and its current treatment in the Swedish national accounts.

The current national Swedish pension system was instituted in 1994 and consists of three parts. The major part, with contributions of 16 percent of wages and salaries[4], is a notional defined contribution (NDC) pay-as-you-go (PAYG) system (titled Inkomstpension). The Inkomstpension is supplemented by a funded defined contribution (FDC) scheme with contributions set at 2.5% of wages and salaries, and an unfunded non-employer related basic pension. The pension system is compulsory, and covers the whole population. There are also 'private' (i. e. negotiated employer-employee contracts), mainly defined contribution schemes, which complement the national pension system, and which are similar for both private and public sector employees. Most of these schemes are funded, but unfunded or partly unfunded schemes still exist for civil servants.

The classification of the FDC was discussed before the new pension arrangements were introduced and it was obvious at that time that the SNA/ESA framework did not provide satisfactory guidance. The FDC is classified to the social security sector, but this classification was reviewed in 2002 and in 2004, Eurostat decided that the FDC should be split from the rest of the pension system and classified to the insurance corporation sector. This new classification will be applied from 2007.

The basic pension is clearly within the ambit of social security, but the Inkomstpension is more difficult to classify. This scheme is classified as defined contribution because the benefits that will be provided are strictly related to the contributions, there is no lateral (i. e. between current beneficiaries) redistribution of income involved. The scheme is titled a notional defined contribution because there are no funds held to provide the future benefits. Current contributions are used to provide current benefits, and future benefits will be provided from future contributions. A link between contributions and benefits is recorded in individual beneficiary accounts. The pension benefits in these accounts are indexed to the growth in average income, less 1.6 per cent, and the average annual benefit for each beneficiary is calculated by dividing the notional balance in the account by age specific unisex life expectancy.

There is also an automatic 'balancing' mechanism. This mechanism increases or reduces the value of the notional liabilities to keep them in line with assets built up from contributions and the value of a buffer fund. Therefore the 'return' on the contributions made by or on behalf of beneficiaries reflects, amongst other things, the level of contributions received in later periods. This clearly adds an element of longitudinal (i. e. between generations) redistribution of income to the Inkomstpension. In principle, there is no recourse to government to provide future benefits, beyond the need for government to maintain the Inkomstpension system itself – that is, the individual bears the whole financial risk.

The FDC currently being classified as a social security scheme means that, as it is now in its growth phase, net general government 'revenue' is recorded, which gives a misleading view of the government's financial sustainability. The liability associated with this

[4] Up to a specified ceiling.

system is calculated (about 135 percent of GDP) and published by the Social Insurance Office, but is not recorded in the national accounts.

The task force agreed that this arrangement has elements of both a multi-employer pension scheme and a social security scheme, and is difficult to classify using current *SNA/ESA* guidelines.

The Swedish pension arrangements have been seen as a model by a number of other European countries, particularly in Eastern Europe, who have also introduced “notional defined contribution schemes.”

Recording of defined benefit pension schemes

Brian Donaghue (consultant, IMF) presented proposals for changes to the recording of defined benefit schemes, based on an analysis of the consistency and coherence of the treatment currently adopted for these schemes in the *1993 SNA.*

In the *1993 SNA*, a social insurance scheme is regarded as being funded only if reserve assets actually exist. When they do, these are assumed to belong to the future beneficiaries of the scheme. There is no discussion of the actuarial liabilities of the scheme and, in consequence, of the possibility of a scheme not being exactly funded. Any scheme without reserves is regarded as being unfunded. Although in the case of a defined contribution scheme future benefits directly depend upon the pension fund reserves, strictly the beneficiaries have a claim on the fund rather than ownership of the fund’s assets. For defined benefit schemes, a liability exists depending on an actuarial assessment of the benefits that the employer (or sponsor) will eventually be obliged to provide because of service provided to the current date. These benefits, which comprise the employer (sponsor) liability and beneficiary (household) asset, do not logically depend on the value of the assets held as pension fund reserves, or indeed, whether any reserve assets are held at all.

The reliability of defined benefit obligations ultimately depends on the viability of the employer (or sponsoring organization), so that unfunded defined benefit obligations incurred by a government may well be more reliable than funded obligations incurred by a private sector employer. The liabilities of defined benefit schemes are regularly estimated by actuaries following well established procedures, and therefore there is also no reason in principle why such liabilities cannot be estimated reliably. Therefore pension obligations meet the accounting criteria for recognition as liabilities. That is:

- They represent a claim on the employer (sponsor) that will result in the future outflow of economic resources;
- It is probable that the outflow of resources represented by the claim will eventually occur;
- The value of the outflow can be reliably measured.

The *1993 SNA* approach is inconsistent in that it does not follow the underlying principle of the *SNA* that similar economic events should be treated similarly. The liabilities of funded and unfunded defined benefit schemes both arise from contractual agreements, and the nature of the benefits, eligibility criteria, and valuation of the liability do not depend on the source of funding. There is no economic reason why unfunded schemes (or the unfunded parts of partially funded schemes) should be treated differently from funded schemes.

The *1993 SNA* treatment of defined benefit schemes is also not consistent with that adopted by the *Government Finance Statistics Manual 2001*, or by international accounting standards.

Reimund Mink (Directorate General Statistics, European Central Bank) and Dieter Glatzel (Eurostat) provided an alternate view of the appropriate treatment of pension schemes, based on a recommendation from the Committee on Monetary, Financial and Balance of Payments statistics (CMFB) in July 2005. That recommendation was:

1. to leave the core accounts unchanged;
2. to adopt a treatment for unfunded employer pension schemes and social security schemes, identical to that for funded schemes, but to be recorded in a set of supplementary accounts.

The rationale behind the CMFB/Eurostat recommendation is:

- There are significant measurement problems in establishing the value of the liabilities of the fund. One factor giving unease is that, as confirmed by the actuaries in the meeting, changes in the discount rate used can cause very significant changes in the estimated liabilities. This in turn significantly affects the figures for government debt both in absolute levels and as far as the movement over time is concerned;
- There is also unease that the derivation of liabilities is determined by a model rather than observation;
- In a number of large EU countries, it is difficult to draw the boundary line between unfunded employer pension schemes many of which refer to the government as employer and social security schemes. Both are funded on a PAYG basis and thus from the point of view of government may be seen to be close substitutes;
- Recent experience in Europe is that both social security and employee pension benefits may be altered unilaterally and with retrospective effect at any time;
- The size of social security liabilities is much greater than that for employer pension schemes. The EDG moderators recognize this and thus do not propose including liabilities for these schemes. By contrast, and given the difficulties of distinguishing the borderline between the schemes, the EU suggestion is to include both sets of liabilities but in supplementary accounts;
- From an analytical point of view, the behavior of households and governments differ under funded and pay as you go schemes, otherwise why introduce funded schemes;

- The current treatment aligns with statistical recording in financial statistics, because funded schemes effectively carry out financial investments, which is not the case for unfunded schemes.

The task force majority view was that, while there was understanding of the concerns behind the approach preferred by CMFB/Eurostat, the rationale given for their approach was not felt to be convincing, for the following reasons:

- Unfunded pension schemes and social security schemes are not always seen as close substitutes; unfunded pension schemes may be a closer substitute for funded pension schemes;
- Governments can, and sometimes do, abrogate their liabilities, including loan liabilities, but those liabilities are still recorded in the accounts;
- Measurement problems have not prevented unfunded pension schemes being recorded for many corporations and governments; such measurement is required under accrual accounting standards which have already been adopted by several governments and are expected to be adopted by most OECD (and some non-OECD) countries in the near future. The 1993 SNA should be forward looking and not limited by possible temporary difficulties in obtaining suitable data. Actuarial estimates are needed for the pension contributions component of compensation of employees and these use exactly the same modeling as would be used for unfunded schemes;
- Revisions due to changes in actuarial assumptions (including changes to discount rates) can be accommodated in the system via other economic flows
- The 1993 SNA treatment imposes a ‘penalty’ on the debt of governments operating funded pension schemes versus those with unfunded schemes, because only funded schemes show pension liabilities;
- It is not obvious that the behavior of households and governments differ under funded and unfunded pension schemes; households appear to treat their pension asset interchangeability regardless of whether it is funded or not;
- It was suggested that an alternative to having a set of supplementary accounts could be to provide sufficient detail in the core accounts to permit the flows and stocks relating to unfunded schemes to be removed for analytical purposes.

Francois Lequiller put forward for task force consideration a possible compromise approach to recognizing liabilities for both employer pension schemes and social security schemes. He expressed concern that a possible divergent approach among OECD countries on the treatment of these important entities in the national accounts could seriously disrupt the process of developing international comparisons. In addition, he recommended that the revised SNA give a clear recommendation that, when there is an exchange of pension liability against other financial assets between a scheme for which the SNA records a liability and a scheme for which it does not, this transaction is still entirely recorded as a financial transaction.

He noted that the position of the EDG moderators was to recognize liabilities of all employer pension schemes (especially general government as an employer) even if such schemes were unfunded, but not to change the *1993 SNA* treatment of social security schemes. In contrast the position favored by the CMFB and Eurostat is to report all unfunded pension liabilities (employer schemes and social security), but as supplementary, rather than core accounts. The split between OECD countries on these issues reflects real differences between countries in the ways in which pension schemes are organized.

Francois Lequiller highlighted merits and deficiencies of the proposals of the EDG moderators and CMFB/Eurostat. The approach favored by the moderators has the merits that it:

- Follows the trend in business accounting;
- Is in line with future public finance standards;
- Avoids changes to economic statistics resulting from changes from PAYG to funded schemes.

But the demerits are that it:

- Does not allow for a separate category of liability when a pension scheme, as distinct from social security, is unfunded;
- Does not treat the case where government employee pensions are covered by a social security scheme;
- Does not explain what happens when pension liabilities move from employer systems to social security systems, or the reverse.

The approach favored by the CMFB/Eurostat has the merits that it:

- Provides the maximum amount of information to users;
- Takes into account the gradation of the << strength>> of liabilities associated with different schemes;
- Takes into account the difficulties in estimating liabilities of unfunded schemes.

But the demerits are that it:

- Does not resolve the explicit exchanges of liabilities between different types of pension schemes (France Telecom, and other cases);
- Is not clear on the inclusion in the cost of labor of actuarial based contributions to unfunded defined benefit schemes;
- Could undermine the accuracy of the measure of profitability in the SNA.

The proposed OECD compromise is:

- *In agreement with the EDG moderators' position* to incorporate the liabilities of unfunded employer pension schemes in the core accounts;
- *In agreement with the CMFB/Eurostat position* to treat the stocks and flows of unfunded pension schemes as a separate category, leading to alternative balancing items;

- *In agreement with the EDG moderators' position* to keep the flows and stocks relating to social security outside the core accounts;
- *In agreement with the CMFB/Eurostat position* to include an estimate of contributory social security liabilities in a supplementary set of accounts.

An important additional OECD recommendation is:

- To record systematically the pension liabilities associated with government employees in the core accounts regardless of whether or not they are labeled <<social security;>>
- The rationale of this recommendation is that government is the sponsor whether labeled <<employer>> or <<social security.>>

In addition the OECD recommends investigation of mixed systems (Sweden, Poland, Hungary, and Chile) to determine the appropriate treatment of the associated stocks and flows. It also recommends that the new *SNA* should state that, when an (explicit or implicit) pension liability is exchanged against another financial asset (for instance cash) between a scheme for which the SNA records a liability and a scheme for which the SNA by convention does not record a liability in the core accounts, this transaction in recorded as a financial transaction in the accounts of both parties involved.

Task force discussion confirmed that a proposal on the treatment of pension funds needs to be found which will satisfy both those who wish to include imputed liabilities for unfunded schemes and those who wish to adhere to liabilities for funded schemes only. There was, though, much more support for including all elements in the core accounts, allowing removal of some items for analytical purposes, than for the alternative of having separate accounts which could optionally be aggregated for analysis.

It was noted that a comparability problem already exists between governments which have funded versus unfunded employer pension schemes, and that this problem of comparability is compounded by the fact that the border between social security and government employer pension systems varies from country to country according to institutional arrangements. It is a matter of some importance to clarify the simple definition of social security in the *1993 SNA* to allow the economic distinctions between employer schemes and social security schemes to be applied. The essential distinction was agreed to hinge on whether the benefits are tied to the employer-employee relationship (and are therefore contractual in nature) or are provided by a more general scheme targeting income distribution.

Developing country issues concerning pension schemes

Ramesh Kolli (Central Statistical Organization, India) presented information on the impact on the national accounts of recording pension schemes for developing countries, with the main focus on India.

India does not have a pension scheme covering the entire population of the country. Employer pension schemes mainly cover government employees, and the formal private sector employees. The pension scheme for government consists of an unfunded defined benefit scheme, providing an annual pension together with a lump sum payment, and a defined contribution provident fund. A new defined contribution pension scheme was introduced in January 2004, and applies to all new employees after that date. Formal private sector employees are covered under the Employee Pension Scheme which is a defined contribution pension scheme.

The main problem for the Indian national accounts arises from adopting the 1993 SNA recommendation to use benefits paid as a proxy for contributions payable. The problems arise because:

- There is an abnormally high dependency ratio for the Indian civil service leading to an over estimation of compensation of employees, and GDP;
- Because pension liabilities continue to be paid by the Indian government even after entities have been privatized, the consumption is incorrectly shown against the general government sector;
- Similarly, where States have been reorganized the parent state continues to pay pensions and incurs the consumption cost;
- Following a revision of retirement age, pension payments were lower for two years, with resulting lower compensation of employees, and lower GDP;
- With the introduction of the new defined contribution scheme the real cost of the old defined benefit scheme will gradually fall, but will be still be high as measured by the benefits paid;
- The pension benefits are changed in accordance with pay revisions for existing employees, and this leads to volatility in GDP estimates.

Therefore an exercise has been carried out to develop an improved methodology to estimate employer contributions to unfunded pension schemes in India. The method used in the exercise uses rates of pension contribution by employees on foreign service. These rates are based on actuarial calculations, and imply that the government is contributing indirectly that amount as an imputed contribution.

Summary information was also provided on SNA recording issues for other important developing countries:

- Indonesia and South Korea
  - These countries nominally have defined contribution schemes, but they are under funded because of unforeseen changes in the number of new retirees and in pension benefits;
  - This results in problems in recording transfers made to these schemes by the governments, and in recording the granting of new rights.
- Philippines
  - The Government Service Insurance System is a contributory defined benefit scheme; the scheme attained a surplus in 2004. As a result, it made a one

billion pesos payment to general government, and made additional one-off pension payments to households. It is not clear how these payments should be classified.

- Malaysia
  - The pension system is similar to India; government employees are covered by an unfunded defined benefit scheme.

Allocation of net assets of pension schemes

Peter van de Ven lead a brief discussion of the allocation of net assets associated with the under or over funding of autonomous defined benefit pension funds, including multi-employer pension schemes. This is particularly an issue for the Netherlands, where defined benefit schemes are required to hold 'buffer' funds. Also, because some of the fund assets are held as equity, stock market fluctuations can cause the degree of over-funding to be very volatile. It is also an issue for some developing countries, particularly where formally autonomous pension schemes are under funded.

Two situations were identified, the first where the autonomous fund has recourse to the employer to make up under-funding, or conversely the employer can take advantage of over funding to reduce its normal funding for a period, and the second where no such recourse is permitted (at least formally).

In the first case the consensus was that the pension fund would always have zero net worth, with the difference between the actuarially determined liability and the fund assets being an accounts receivable from the employer (if fund assets < liability) or accounts payable (if fund assets > liability).

In the second case the solution is less obvious. If the scheme is under funded with no recourse to the sponsor, it could be considered to have negative net worth. However, if the under funding persists, ultimately the household will get fewer benefits, and therefore perhaps there should be a write down (other changes in the volume) of assets for the household sector. Although there may be no formal agreement to make up the difference, the government may in fact provide the additional funding, as can be seen to have happened in the cases of Indonesia and South Korea. If such payments are ex gratia they would be classified as transfers. However, if the government were seen to have a constructive obligation to supplement under funding, then there would be a government liability to the fund, and a corresponding asset held by the fund.

If the fund is over funded (the Netherlands, Philippines) it could be considered to have a positive net worth, but once again the consequences are likely to be felt ultimately by either, or both, the employer or the beneficiaries. If the surplus results in a payment back to the employer, the employer benefits from the over funding. If additional payments are made to the beneficiaries the household sector receives the benefit. As can be seen above both these events occurred in the case of the Philippines.

The task force was not able to reach a consensus on this issue in the time available. More information should be sought from the international accounting debates on the attribution of ownership of any surplus or deficit on the pension fund reserves.[5]

Conclusions of the Meeting

1) Output of non-autonomous pension schemes
   - In contrast to *1993 SNA* conventions, output for non-autonomous pension funds should be recognized;
   - Output of non-autonomous pension funds should be measured at cost (which might include the cost of involving an insurance company);
   - This output is consumed by the beneficiaries of the funds (i. e. households).
2) Property income for non-autonomous pension schemes
   - In contrast to *1993 SNA* conventions, for unfunded schemes, income should be imputed to the policyholders. This income should be equal to the property income due to the reduction in the discount period (see conclusion 3.2) plus the service charge.
3) Output of autonomous pension funds
   - It is appropriate to use expected transactions and expected holding gains and losses to explain the service charge of autonomous pension funds. However, further work is needed on the implications of using expectations in the practical calculation of pension fund output;
   - The value of property income attributed to the beneficiaries (used as contribution supplements) should represent the expected property income on the accumulated value of benefits, due to the unwinding of the discount factor applied to the value of these benefits, plus the service charge. The fact that some of this property income may be funded by holding gains is not a reason to deduct this amount from the redistribution.
4) Actuarial estimates
   - The accumulated value of benefits should be calculated only on service to date (ABO) and not take projected future levels of wages and salaries into account (PBO);
   - The actuarial basis for calculating the value of the asset to the household is consistent with the employer's liability to provide future retirement benefits due to service provided to the current date;
   - A PBO estimate be derived and shown as a memorandum item in the accounts.
5) Actuarial and accounting standards
   - Professional practice confirms the consistency of actuarial estimates and accounting conventions;

[5] Brian Donaghue notes: *Although I do not think we reached this conclusion at the meeting, the neatest solution would be to assign a positive or negative net worth to the pension fund, and classify the transactions or other flows when they occur as the under or over funding is unwound.*

- Accounting conventions are likely to move from the inclusion of PBO to ABO based estimates in the balance sheet, but PBO based estimates are expected to continue to be available.

6) Discount rate
   - An acceptable discount rate would be the interest rate on high quality securities relevant to the sponsor of the pension scheme.

7) Multi-employer schemes
   - A multi-employer defined benefit pension scheme typically assumes liabilities for all employees within the scope of the scheme; in that case an individual participating employer does not incur any further liabilities once he has joined the scheme, apart from the regular contributions to the scheme, until he withdraws from the scheme.
   - The task force did not explore all aspects of unfunded multi-employer defined benefit schemes, including the question how the liabilities should be recorded that represent the participating employees' claims on future benefits.

8) Pension schemes
   - Pension schemes are schemes set up to provide retirement benefits to participants, based on an employer-employee relationship;
   - They include funded, unfunded, and partly funded schemes;
   - They may or may not be mandated by government;
   - They can be autonomous or non-autonomous;
   - Autonomous schemes are included in the pension subsector of the financial corporations sector;
   - Non-autonomous schemes are included in the sector of the sponsor, unless quasi-corporations can be established for the pension funds, in which case they are included in the pension subsector of the financial corporations sector.

9) Recording of pensions
   - A clear majority of the task force recommended that all pension liabilities of employers should be recognized, irrespective of the degree to which the schemes are funded;
   - Schemes set up by government for its employees and in which the benefits rise from the employment contract should be treated as employer schemes, even if they are labeled "social security."
   - They also recommended that a comprehensive recording of the stocks and flows of all pension schemes should be recorded in the core accounts;
   - Specific guidance needs to be given to so-called "notional defined contribution" schemes;
   - However, recognizing practical problems and user needs, a majority also recommended separately identifying the flows and stocks components of unfunded schemes.

10) Social security schemes
   - Social security is essentially a redistributive process where benefits provided are not directly linked to the size of contributions;

- Some governments operate a scheme (composite social security) which combines this basic social security function with what is effectively a multi-employer pension scheme;
- The task force noted with interest the proposal of Eurostat and the OECD that the updated *SNA* include a supplementary set of accounts for these composite social security schemes;
- The criteria for distinguishing basic social security from employer related pension schemes need to be reviewed as a matter of urgency.

11) Transfer of pension liabilities between schemes

- The updated *SNA* should include recommendations regarding the treatment of transfers of (explicit or implicit) liabilities between different types of schemes.