

**Fourth meeting of the Advisory Expert Group on National Accounts  
30 January – 8 February 2006, Frankfurt**

FOR INFORMATION

**Consistency Issues**

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## Consistency issues

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## ***Decision tree***

The paper on the delineation of the public sector suggests a decision tree to determine whether an NPI falls in the publicly controlled part of corporations or in general government. At the discussion in Bangkok, there was some unease that this may not be a completely watertight way to determine the allocation of NPIs. In addition, if a decision tree is useful for government controlled NPIs, is there a case for having a decision tree for determining the sectoral allocation of all units in the economy? Attached at the end is an example of what such a tree might look like. (It was drawn up before the discussion on government SPVs so assumes that, as at present, all non-resident units belong to the rest of the world. Depending on the outcome of the units discussion, some revision may be necessary.)

This tree uses some more steps than those suggested in the delineation paper for allocating publicly controlled units between general government and the publicly controlled sub-sectors of financial and non-financial corporations but gives an exhaustive decision tree for all units in the economy. The main sectors of the economy are shown in boxes with double borders. The subdivision of financial and non-financial corporate sectors into public, foreign controlled and national private sub-sectors is also shown. The case of NPIs and their allocation to various sectors is also apparent from the chart.

### ***Would this be a useful chart to incorporate in chapter IV?***

The AEG agreed it would be useful to include the decision tree in the SNA in addition to the description of sectoring according to function to illustrate the role of production within sectoring.

## ***The market /non-market distinction***

The SNA makes a distinction between three types of production; market, production for own final use and non-market. This division into three followed long and complicated discussion during the revision process before the 1993 publication about how to deal with production which was marketable but not marketed. The major examples are subsistence agriculture, used for household final consumption and own account construction by enterprises. The name “other non-market” was chosen reluctantly because no better name was then apparent. Unfortunately, this is often seen to imply that this third sort of production is also some sort of non-market production and often text is written as if there are still only two choices, between market and non-market.

In fact it is possible to enumerate four different types of production.

Type A is of the sort which is indisputably market; the production of goods and services for sale at prices which are “economically significant”. That is the prices are set by the producers to cover all costs and make a profit and consumers have complete freedom about whether to purchase the products and the quantity to be purchased. In SNA terms, the prices are significant for supply and demand and they satisfy the terms of the elaboration given in the delineation paper.

Type B production is production for use by the producer. This may be subsistence agriculture or own account construction, as noted above. The characteristic of this production is that the products are suitable for sale on the market and, in principle, could command an economically significant price. Some construction projects are so specific that it is impossible to say what the corresponding “market price” would be but it is clear that a producer will only undertake the work himself if he believes that there are sound commercial reasons for undertaking this activity in house rather than out-sourcing it. In short, therefore, the criterion that the price is significant for supply is met. If the cost of own account production were higher than a certain level, producers would refrain from the production. The “certain level” is determined by their own demand for the product and thus meets the second criterion for economically significant prices.

Type C production is supplied to individual units other than the producer but at prices which are too low to satisfy the economically significant criterion. It is production by public entities in receipt of sufficient funds from government to make good the shortfall of receipts from sales over costs that they can not be regarded as independent of government.

Type D production is supplied collectively to all units in the economy by units of general government. Although it is stated to be possible for all industrial activity to be carried out on either a market or non-market basis, in fact it is very difficult to imagine provision of public administration and defence being carried out on a market basis. It is possible for government to subcontract the running of a prison service and paying the operator of the prison a market rate, but this is not different in principle to government acquiring stationary and vehicles at market prices. The service supplied *by* government rather than *to* government is provided without charge to the public at large.

There are two discriminants which determine these four types of production. One is whether the production is actually marketed or not. The other is whether the production is supplied at economically significant prices.

Type A production is marketed and has economically significant prices

Type B production is not marketed but has economically significant prices

Type C production is marketed but does not have economically significant prices

Type D production is not marketed and does not have economically significant prices.

Looking at this demarcation, it is clear that the discussion leading up to the 1993 revision on whether the production was marketed or marketable was insufficiently clear since it did not make adequate distinction between type B and type C production though this distinction is fundamental to the sectoral allocation of units. From this enlarged distinction some other consequences follow.

For type B production, it is not clear that it needs to be restricted to production used for *final* demand. The SNA refers in para 5.11 to the production of milk and subsequent conversion to butter or cheese, for example. The discussion on ancillary production and on the output of holding companies, SPVs and multi-territory enterprises suggests that production for use as intermediate consumption by another unit in the same group of enterprises, or within a multi-establishment enterprise, can be accommodated in this type of production without difficulty.

Type C and type D production together constitute production by units allocated to general government. This reveals that the present expression “non-market” does not bear on whether the product is marketed or marketable, or on how much is marketed, but simply on whether it is supplied at an economically significant price. Further, and rather neatly, type C production corresponds to individual consumption and there might be corresponding type A production. Type D production corresponds to collective consumption and there is no similar type A production.

In the paper on the informal sector, there is discussion about the market criterion that all or most production needs to be marketed. This criterion for market production can be relaxed; it is only that there are economically significant prices which is important. For the informal production, all that is needed is that the prices are economically significant and at least some is actually marketed. This does not then need to introduce a different criterion for a “market producer” in the household sector.

***Does this exposition of four rather than three types of production allow for a consistent approach to delineating production by government units, ancillary units and informal production?***

The AEG agreed further work is required to refine the issues underlying the market/non-market distinction.

## **Non-profit institutions**

There are issues here about consistency internal to the SNA but also between the SNA and the handbook on NPIs.

The chart on the possible decision tree shows how NPIs are diffused among various sectors with some in general government, some in financial and non-financial corporations and some in NPISHs. The NPI handbook suggests compiling accounts where all these NPIs are identified.

***Should the sector classification include identifying NPIs within government and the corporation sectors for ease of compilation of an NPI satellite account? If so, would this extra information be included as standard or supplementary items? If either, would the identification within corporations appear before or after distinguishing the public, foreign controlled and national private sub-sectors?***

The AEG agreed with the first point but came to no conclusion on the second or third points.

For corporations, as just noted, there is a recommended sub-sectoring showing publicly controlled, foreign controlled and national private sub-sectors. There are no publicly controlled NPISHs; those NPIs which are publicly controlled non-market producers are included within government. However, there may be foreign controlled NPISHs and the role of these might be significant in countries having suffered major natural disasters.

***Would it be desirable to suggest that NPISHs should be sub-sectored into foreign controlled and national private elements? If so, should this be a standard or supplementary breakdown?***

The AEG agreed with the first point but came to no conclusion on the second point.

Among market NPIs also there may be some degree of foreign control. However, given the criterion that NPIS cannot be a source of income, profit or financial gain for their owners, does this mean that there would be no reinvested earnings shown for these entities?

The AEG agreed there is a need for clarification on reinvested earnings in relation to NPIs.

***Do the rules on recording reinvested earning for foreign controlled units apply to foreign controlled NPIs?***

When the idea of distinguishing individual and collective consumption was first proposed by Jean Petre in 1981, he suggested that NPISHs as well as general government might have both sorts of consumption. Late in the 1993 review process, it was suggested to adopt the simplifying convention that all NPISH consumption should be individual. With the diversification of NPI activity and the increasing role of these units as public advocacy bodies, should this rule be relaxed so that while the default allocation would be that NPISH consumption is individual, if there is clear information about collective consumption type activities, this should be recorded as such?

***Should it be possible that some NPISH consumption is recorded as collective consumption rather than the default assumption of individual consumption?***

The issue of NPIs delivering collective consumption is a new one and so is outside the scope of the current update.

## **Unpaid labour**

The SNA presently has some seemingly contradictory advice on unpaid labour. Para 6.86 (below with emphasis added) states that an estimate should be made for unpaid labour involved in construction projects.

6.86. It will usually be necessary to value the output of own-account construction on the basis of costs as it is likely to be difficult to make a direct valuation of an individual and specific construction project that is not offered for sale. When the construction is undertaken for itself by a business enterprise, the requisite information on costs may be easily ascertained, but not in the case of the construction of dwellings by households or communal construction for the benefit of the community undertaken by informal associations or groups of households. **Most of the inputs into communal construction projects, including labour inputs, are likely to be provided free so that even the valuation of the inputs may pose problems. As unpaid labour may account for a large part of the inputs it is important to make some estimate of its value using wage rates paid for similar kinds of work on local labour markets.** While it may be difficult to find an appropriate rate, it is likely to be less difficult than trying to make a direct valuation of a specific construction project itself.

In para 7.8 it is stated that the balancing item for unincorporated enterprises, mixed income, includes an element representing the compensation for unpaid labour inputs.

7.8. After deducting compensation of employees and taxes, less subsidies, on production from value added, the balancing item of the generation of income account is obtained, described either as the operating surplus or mixed income depending upon the nature of the enterprise. This balancing item is also shown on the left side of the account under uses, regardless of whether output and value added are measured at basic prices or at producers' prices. It measures the surplus or deficit accruing from production before taking account of any interest, rent or similar charges payable on financial or tangible non-produced assets borrowed or rented by the enterprise, or any interest, rent or similar receipts receivable on financial or tangible non-produced assets owned by the enterprise. **The balancing item is described as the operating surplus except for unincorporated enterprises owned by households in which the owner(s) or members of the same household may contribute unpaid labour inputs of a similar kind to those that could be provided by paid employees. In the latter case, the balancing item is described as mixed income because it implicitly contains an element of remuneration for work done by the owner, or other members of the household, that cannot be separately identified from the return to the owner as entrepreneur.**

But in para 7.21, it is stated that no compensation of employees is estimated for voluntary work.

7.21. Compensation of employees is recorded under uses in the generation of income account and under resources in the allocation of primary income account. Compensation of employees is defined as:

the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period.

Compensation of employees is recorded on an accrual basis; i.e., it is measured by the value of the remuneration in cash or in kind which an employee becomes entitled to receive from an employer in respect of work done during the relevant period, whether



paid in advance, simultaneously or in arrears of the work itself. **No compensation of employees is payable in respect of unpaid work undertaken voluntarily, including the work done by members of a household within an unincorporated enterprise owned by the same household.** Compensation of employees does not include any taxes payable by the employer on the wage and salary bill - for example, a payroll tax. Such taxes are treated as taxes on production in the same way as taxes on buildings, land or other assets used in production.

One reading of this last statement is that there is no compensation of employees shown as such for household members working in an unincorporated enterprise, but there is compensation included in the value of mixed income. However, this paragraph also makes clear that no imputation is to be made for volunteer workers in, say, NPISHs, and seems to contradict the statement in para 6.86 above relating to unpaid labour in construction projects.

Many unincorporated enterprises may be involved in the production of goods and many NPISHs may be involved in the production of services. However, there is no absolute division that might suggest that there should be an imputation of the cost of labour made for the production of goods but not of services.

***Should these contradictory statements stand? If so what rationalisation for the difference can be given?***

The AEG agreed that the statements should be elaborated to provide better clarification on this issue. The value of volunteer labour should not be included in the core accounts.

## **Re-routing**

Paras 3.31 to 3.33 read as follows.

### ***Recognizing the principal party to a transaction***

- 3.31. When a unit carries out a transaction on behalf of another unit, the transaction is recorded exclusively in the accounts of the principal. Some service output may be recognized with the intermediary. As a rule one should not go beyond this principle and try, for instance, to allocate taxes or subsidies to ultimate payers or ultimate beneficiaries under the adoption of assumptions.
  
- 3.32. For example, purchases a commercial agent makes under the orders of, and at the expense of, another party are directly attributed to the latter. The accounts of the agent only show the fee charged to the principal for intermediation services rendered.
  
- 3.33. A second example is the collection of taxes and the payment of subsidies, social benefits, etc., by one government unit on behalf of another. A central government may, for example, serve as an intermediary for local governments in collecting taxes. Then, if the central government lacks discretion about the amount of collection or distribution of the relevant monies, the transactions are recorded directly in the accounts of the local government. In general, tax revenues will be allocated directly to the non-collecting government when (a) it has full or partial authority over the setting of the tax, or (b) it receives automatically under the provisions of tax law a given percentage of the tax collected or arising in its territory.

This text is relevant in the case of ancillary units and rationalises the reallocation of their expenses to the units they serve. It has also been cited as reason to reroute the transactions of certain government owned SPVs via the government accounts. There is no proposal to do similar re-routings for private SPVs. Depending on the outcome of the discussions on units, this text should be revisited. Does it mean that this option of rerouting is a legitimate means of recording when “carrying out a transaction on behalf of another unit” can be postulated or should it be written to specify exhaustively in which cases this is to be done?

### ***What are the implications for paragraphs 3.31 to 3.33 in the light of the units discussion?***

The AEG said there was an important distinction between re-routing and imputation of flows. There could not be an exhaustive list of re-routings; many re-routings will have to be identified as such on a case-by-case basis.

## ***Unincorporated joint ventures***

This issue concerns consistency with international accounting standards

During the discussion within the Canberra Group, it was clear that most participants were extremely reluctant to show assets as being subject to joint ownership and thus have their total value split across more than one balance sheet. The papers on leases follow this direction. However, BOP staff at the IMF have pointed out that for very large projects, including especially but not exclusively petroleum extraction, activity is conducted by several enterprises acting under a variety of forms but often without a single unit controlling all operations and assets. The following is an extract from the IASB web site concerning one such arrangement, joint ventures. (Emphasis added) Note that joint ventures may involve enterprises resident in different countries.

Summary of IAS 31 A joint venture is a contractual arrangement whereby two or more parties undertake an economic activity that is subject to joint control. These are of three types:

Jointly controlled operations

Jointly controlled assets

Jointly controlled entities.

Joint control exists only when the strategic financial and operating decisions relating to the economic activity require the unanimous consent of the parties sharing control.

A venturer recognises its interest in a jointly controlled operation by recognising in its financial statements the assets that it controls, the liabilities and expenses that it incurs, and its share of the income that it earns from the sale of goods or services by the joint venture.

*A venturer recognises its interest in jointly controlled assets on a proportional basis.* It also recognises any liabilities or expenses it incurs, its share of liabilities or expenses incurred jointly, and any income from the sale or use of its share of the output of the joint venture.

***For consistency with international accounting standards, should the SNA consider apportioning the ownership of assets across different enterprises as done in the IASB recommendations?***

The AEG considered it did not have sufficient information on which to base a conclusion. The issue of the consistency between IASB and SNA is important but extensive. It may need exploring outside the context of the update.

## **Guarantees**

Some of these points may be covered in the discussion on guarantees.

In Bangkok in July, the AEG was sympathetic to the idea that standardised guarantees might be treated “like insurance”. The proposals in the issues paper for this meeting are somewhat like insurance but use some different conventions, as listed below.

If a single fee is paid at the outset to cover a guarantee for a number of years, the guarantee paper treats it all as output in the year it is paid; the insurance treatment would be to say that the service was provided over a multi-year period and record output on an accrual basis.

Just as the insurance company earns property income on prepaid premiums, the guarantor will also earn property income on fees paid up front. For the insurance company, we treat these as premium supplements adding to output. It would seem reasonable to make the same adjustment for the guarantor’s output. This is not included in the guarantee paper.

The liability the insurer has towards the policy holder is determined by the premiums levied (including the premium supplements). It is reasonable to suppose the guarantor’s liability should also match the fees paid plus property income earned on them. The guarantee paper has this liability appearing via the other changes in assets account with no immediate link to the fees charged even though in the discussion about implicit subsidies, the equality between fees and liabilities must be established.

Claims under an insurance policy are normally recorded as current transfers. The guarantee paper suggests payments on standardised guarantees would be recorded as capital transfers. Consistency would suggest treating these as current transfers and only payments on one-off guarantees (not covered by financial derivatives) as capital transfers corresponding to the treatment of exceptionally large insurance claims.

***Should the treatment of standardised guarantees reflect the considerations developed for insurance on the time output is delivered, the treatment of property income earned by those providing the service, the current/capital nature of calls on the guarantees and the relationship between the fees payable and the liabilities of the guarantor?***

As noted in the guarantee paper, the inclusion of loans at nominal value and assets representing the degree of default on the loans represents double counting in the national balance sheet. ***Is this inconsistency sufficient to reconsider the recording of loans at nominal value? If not, how is the asset held by the beneficiary of the guarantee to be described?***

## **Own funds**

The SNA states that lending own funds is not production and for this reason specifies that own funds should be included in the calculation of FISIM. Experience since then has identified this exclusion as the cause between “global” and “detailed” FISIM because the borrowers do not know whether their loans come from intermediated funds or own funds. Experiments in Eurostat and discussion in the task force on financial services led to the recommendation that all lending, including of “own funds” carries a service element and therefore the exclusion of own funds from the calculation of FISIM should be dropped.

Before the financial services task force reported, the non-life insurance task force was asked whether own funds should be excluded from the property income redistributed by insurance companies. The answer from the task force, approved by the AEG, was that own funds should continue to be excluded. The most frequent reason given was that these funds were excluded from the calculation of financial services. Because of the time of reporting of the two task forces was not synchronised, we have a potential inconsistency.

***Should own funds be excluded from the calculation of property income to be redistributed by insurance companies if the AEG agrees not to exclude own funds from the calculation of financial services?***

The AEG confirmed that own funds should be excluded from the calculation of property income for insurance companies, but FISIM should be calculated for lending from own funds.

There is a further question concerning own funds. In some jurisdictions, but not in the international accounting standards, there is a concept of own funds which essentially refers to the financial soundness of a financial institution and is intended to ensure that the customer's money is not overexposed to risk because of the net worth of the financial institution.

***Does the SNA need to define a concept of own funds and if so how?***

The AEG agreed that own funds need to be defined and their treatment elaborated.

## **Life insurance**

Separate groups have examined non-life insurance, pension funds and financial services other than insurance. No group has looked at life insurance. Changes have been proposed to the distribution of property income to distributed to non-life insurance policy holders and to pension fund beneficiaries. Changed treatment of reinsurance of non-life insurance is proposed. The use of expected claims is to be introduced into the calculation of output of non-life insurance. The view of the ownership of the assets of pension funds is proposed to change; instead of saying these belong to the beneficiaries, it is proposed instead that they belong to the pension fund but the fund has a liability towards the beneficiaries (which may or may not exactly match the assets in question).

***When agreement is reached on the appropriate treatment of private pension funds, should recommendations for life insurance be brought into line with these recommendations and those for non-life insurance?***

The AEG agreed.

## ***Redistribution of property income***

Property income payable and receivable is shown in the distribution of primary income account, giving the strong impression that it is an allocation of the primary incomes generated by production activities in the current period or an immediate reallocation of other property income flows in the same period. However, this need not necessarily be the case. The amounts recorded as dividends are those that enterprises declare as payable. Because they wish to have a steady pattern of dividends over time, in some years they may withhold some of the current period's primary income and in some years may make dividend payments in excess of the current period's primary income. This excess may be funded by the liquidation of assets or from holding gains realised in the same or earlier periods. The source of the funding does not affect the classification of the payment as dividends (property income). Likewise, when a bank pays interest, it is recorded as such without verifying what the source of the funding for the payment is. Given the increasing diversification of financial institutions, it is quite possible that some interest may in fact be paid from holding gains made by the bank from dealing in instruments other than loans and deposits.

Given this, the stricture that property income payable to insurance policy holders should be property income received by the insurance company excluding any holding gains seems questionable. The discussion on pension funds suggested that the correct amount of property income attributable to future pensioners should be a sum calculated as an appropriate interest rate times the level of liabilities of the fund to the beneficiary at the beginning of the year. It is in fact the increase in the liability due to the future pensioner because the pension date has become one year nearer. It is accepted that this should be the appropriate amount registered as property income payable to the beneficiary regardless of the source.

Although life insurance has never been discussed explicitly in the lead-up to the update, it seems straightforward to say that the property income payable to the beneficiaries should also represent a return to the beneficiaries which in most cases would be adequately represented as a rate of interest times the liability outstanding at the start of the year. Including this sum as the amount of insurance premium supplements payable in the case of life insurance would go a long way to avoid the case of negative output for life insurance companies when only actual interest or dividends are included in the redistributed property income treated as premium supplements. It would also lead to similar levels of output for life companies with similar liabilities but one with a portfolio of interest bearing assets and one with assets bringing capital gains.

If this principal is accepted for life insurance, it would seem appropriate to follow it for non-life insurance also.

The role of own funds is relevant here also but not in the way that the SNA presently describes them. The purpose of "own funds" is to provide a source of finance for meeting liabilities in the case that the investment policy of the insurance company is unsuccessful in the sense of providing insufficient revenue in the current year to meet its liabilities falling due in the year. The level of own funds has little relevance to the amount of property income which should be regarded as being redistributed to the policy holders.

***Should the amount of property income distributed to insurance policy holders (for both life and non-life insurance) represent the opportunity costs of money to the policy holders of having financial claims on the insurance companies?***

The AEG concluded that property income is not treated in a fully consistent manner in the SNA. Expected price increases may affect decisions taken by producers but holding gains and losses themselves do not enter production. There are occasions where property income flows may reflect holding gains and losses but there are no general specifications about when this may or may not happen. Peter Harper volunteered to lead a group to pursue this further.

## ***Ownership of financial assets***

In several places the SNA talks of at least some of the assets of pension funds and insurance companies as belonging to the beneficiaries or policy holders. This is a simplification. Share holders do not own the physical assets of a company; the company has a liability towards the shareholders equal to the value of these assets. The discussion on pension funds has clarified two aspects of the ownership of financial assets. The first is that the liabilities towards participants in a defined benefit pension plan should be estimated actuarially and not simply set at the level of the assets being held by the fund. Secondly, even if the sums should be equal (as they are in the case of a defined contribution plan), technically it is not that the assets belong to the beneficiaries, it is that the assets are matched by a liability towards the beneficiaries. The claim which the beneficiaries has on the fund is in respect of this liability not on the particular assets held by the fund.

Insurance companies set their premiums according to a formula which supposes that the amount of premiums received, plus the property income generated on them, will be at least sufficient to meet claims on the company. The level of “reserves” representing pre-paid premiums (including premium supplements) and outstanding claims can thus be seen to represent the level of claims expected to be received. Again there are two aspects to note. The reserves are not the assets of the policy holders; they simply match a liability the insurance company is expected to have towards the policy holders as a group. Secondly, because this liability is not exact, but is an estimated amount, it is strictly a provision rather than a liability and recognition of this alters the asset boundary of the System.

***Should the SNA make clearer the distinction between assets available to meet the liabilities of certain financial corporations and the liabilities themselves?***

The AEG agreed.

***Does the recognition that some of these liabilities are based on the expected value of payments due make these provisions rather than liabilities? If so, does this change the asset boundary?***

The AEG noted that the value of some liabilities may be based on expected claims but thought the question of provisions should be put on the research agenda. The OECD volunteered to take the lead on this issue, taking into account the practices of insurance companies and international accounting standards.



## **Very large insurance claims**

The EDG on non-life insurance concluded, and the AEG concurred, that exceptionally large insurance claims should not be recorded as a current transfer but as a capital transfer. Some further specification would be beneficial, however.

When an exceptionally large claim arises, the existing provisions are insufficient, by definition of what is meant by exceptionally large. In this case a new provision has to be established. It is payable by the insurance company to the policy holder. It is funded by the insurance company drawing on assets other than insurance provisions for regular claims. Showing this as a redistribution of wealth is appropriate but there is a timing element to consider.

The SNA currently says that claims are payable when the event giving rise to them occurs and the claim is shown as paid in that period. However, for these very large claims this may be questioned. It may be reasonable to establish a claim as payable from the insurance company to the policy holder at the time of the event. However, it is unlikely that the final amount of the claim will be known at that time and even more unlikely that actual payment will be made in that time period. Further, it is frequently the case that the insurance company may have to pay not only the size of the claim eventually agreed but also interest on this amount for the time the claim has been unsettled.

This leads to the suggestion that insurance provisions should be partitioned into two; those relating to regular claims and those relating to exceptional claims. The regular claims would have the same time of recording as now, on a strict accrual basis, with the claim shown as payable in the period when the event giving rise to the claim occurred. Those relating to exceptional claims would give rise to a new form of provision with matching asset for the policy holder at the time the claim is lodged but it should be recorded when actually paid. This would include any amounts paid on account before the matter is finally settled. In the meantime, adjustments to the amount due from reappraisals of the claim would be recorded as further capital transfers at the time the reappraisals are due and any interest payable on the claim should be recorded on a strict accrual basis as payable but accruing.

***Should exceptionally large claims be recorded on the basis of the time at which agreement on amounts payable and paid are reached rather than always on the basis of the time at which the event giving rise to the claim occurred?***

The AEG thought the rule of recording claims at the time the event to which they relate occurred should be preserved.

There is another issue to be settled in the case of exceptional insurance claims. A claim which is exceptional to one party may not be so to the other party. For example a natural disaster for a small country may not be particularly unusual for an insurance company with global coverage of disasters. Further, a claim which is exceptionally large for a direct insurer may not be exceptionally large for a reinsurer. Many of these instances will involve residents in two or more countries and asymmetric treatment of claims payable as a current transfer by one party and a capital transfer by another will lead to global imbalances. The SNA recommends (but does not always follow the recommendation) that a transfer should be recorded as capital if one party regards it as capital but it is not clear that the party paying the claim would necessarily know how it was regarded by the receiving party.

If the proposal immediately preceding on the time of recording of exceptionally large claims were adopted, then the problem would also give rise to asymmetries in timing as well as in the current/capital nature of the payments.

***What steps can be taken to avoid asymmetric recording of exceptionally large insurance claims as current transfers by one party and capital transfers by the other?***

The AEG agreed that inconsistencies in treatment will arise due to the relative importance of catastrophic events in countries of significantly different sizes. In particular, there will be inconsistencies in the classification of transfers as either current or capital based on their relative size.

Jacques Magniez agreed to produce a note setting out the consequences of these issues.

## **Annuities**

One sort of life insurance takes the form of transferring one set of assets for an annuity. This is an amount of money, payable annually until the death of the person involved, The sum may be fixed or may be indexed but the amount payable is predetermined, The uncertainty comes from the length of time the annuity is to be paid. For a number of annuities, taken together, a reasonable estimate can be made of the likely liability for the whole though every single one may be subject to considerable uncertainty. (Here again actuarial estimates are needed and it might be more accurate to call the liabilities of the insurance funds “provisions”.)

The SNA does not discuss how annuities should be recorded. They are a common form of private pension provision, however, and some guidance would be helpful. In terms of the 1993 SNA, private pension provision is not treated as a social insurance schemes. Premiums paid are not recorded as current transfers but as a use of saving and net worth. Payments are taken as a run down of net worth and not as any form of current income. Once it is recognised that some form of property income is payable on the remaining liabilities, it becomes clear that this recording is incomplete.

For any company offering annuities, there following evolution of the balance sheet occurs.

There is a reduction in the liabilities at the start of the year (LS) due to the payments made to existing subscribers (A);

There is a reduction in the future liabilities to existing subscribers of (B);

There are new enrolments whereby new subscribers contribute new capital (C);

This represents payment in the current year of D and future liabilities of E (thus  $C=D+E$ )

There is investment income arising which should led to a property income distributed to existing and new subscribers (F);

The end of year liabilities (LE) stand at  $LS - A - B - D + E + F$

A simplifying assumption would be that the level of liabilities is in steady state, thus  $LE = LS$  because the composition of the cohort of beneficiaries does not change so  $B = E$ . Thus we would have  $F = A + D$ , or property income in the year exactly matches liabilities paid in the year. This could be recorded in the accounts as

Property income payable to subscribers of F,

“Premium supplements” payable to subscribers by the companies of F,

Adjustment item in the use of income account of F

The change in the level of liabilities ( $F + E - D - B - A$ ) is zero by assumption

This has the attraction of recording the income from even a private pension fund in the current accounts but, like pension funds, the amounts of inflows and outflows each year may not match and in the case of outflows exceeding inflows may indicate a situation which is not sustainable in the long term. A more rigorous recording would show the first three items as above but there would be no assumption that the change in the level of liabilities was zero. A positive increase in liabilities would mean that more people were taking out annuities than dying or that the actuarial estimates of life length were too optimistic; , a

negative figure would mean that people were living longer than expected and/or that too few new subscribers were being recruited to make up the short fall.

***Should the SNA elaborate on the case of private pension provision via the mechanism of annuities as given above?***

Anecdote: In France it is possible to buy property not by an outright sale but via an annuity. This and any other similar schemes would be covered by the above proposal.

The AEG agreed that this issue should be clarified by e-discussion.

## ***Discount rates***

It is now proposed that there should be a number of places in the SNA where a percentage should be used in the calculation of current values. These include a rate of return on capital; the discount rate to be applied for guarantees; the reference rate to be used in the calculation of FISIM; the interest rates to be used on bonds, for instance. In a perfectly functioning market with perfect foresight, there is a case to be made that these rates should be equal when expected inflation is allowed for.

***Should there be some brief discussion on the possible relationship between these sorts of factors?***

The AEG agreed that the links should be set out in a special section (“box”) in the relevant chapter of the SNA.

## ***Inventories***

The SNA states in paras 6.64 and 6.104 that for crops stored from harvest to winter or for wine stored for several years before consumption, there is a storage activity involved and part of the increase in price of these commodities between the time they enter inventories and leave them is continuing production (storage) and not simply holding gains and losses. However no information is given on how to separate the storage element. Further, it seems that it is only if the original producer stores the goods that the storage activity takes place; for an intermediary such as a wholesaler, it seems that the whole of the increase in value is to be treated as holding gains and losses.

A suggestion made to and accepted by the Canberra II Group was the following.

Goods which are deliberately held in storage generate income when the expected increase in price is higher than the expected increase in the general price level over a pre-determined period not longer than the end of the accounting period.

The value of the income is equal to the expected increase in the relative price. Any unexpected change in the relative price gives rise to holding gains and losses.

If the inventories are still held in stock at the end of the accounting period, the income contributes to saving which is recorded as expenditure on the stock in question.

If the stock changes hands within the accounting period but is still held in stock by the new owner for some or all of the remainder of the period, then the income is partitioned between the old and new owner depending on the proportion of the expected price rise which takes place before and after the sale.

Inventories held in stock for more than one accounting period may give rise to income in each of these accounting periods.

These principles apply to material and supplies, finished goods and goods for resale.

These proposals mean that the act of storage is not confined strictly to crops and wine, though these may still be the prime examples to quote as illustrations. It also allows for storage to take place regardless of who stores the commodity during the period in question.

### ***Are these clarifications on the treatment of storage acceptable?***

There is a further problem with work in progress. The SNA in para 6.77 suggests that if a product takes four years to construct and has a value at the end of the period of 200, then, still assuming no inflation, work in progress of 50 should be recorded in each of the four years. However, consistent with the notion of discounting future income an alternative view is possible. Suppose that there is a discount rate of five per cent. Then in each year there will be a return to the work already put in place of five per cent. This would give a time series of 43.2, 45.4, 47.6 and 50.0 for the work put in place and other income of 2.2, 4.5 and 7.1 in each of years two to four giving the value of the partially complete structure as 43.2, 90.7, 142.9 and 200.0. These are the values that purchaser of the partially completed structure would be willing to pay, given that he would forgo the income from the finished structure for up to three years. The figuring behind this example is given in the table below.

	Year 1	Year 2	Year 3	Year 4
Value of final product in each year	172.8	181.4	190.5	200.0
Value of construction activity (one quarter of final value)	43.2	45.4	47.6	50.0
Income accruing on work put in place in year 1		2.2	2.3	2.4
In year 2			2.3	2.4
In year 3				2.4
End year value	43.2	90.7	142.9	200.0

***Is this clarification of the valuation of work in progress useful?***

The AEG agreed that such clarifications would be useful. Comments on the wording set out in the paper should be sent to the Editor.

## ***Maintenance***

In the 1993 SNA, capital repairs are defined as those which extend the life length or improve the efficiency of an asset. Repairs which are not capital are treated as current. In the light of the discussion on capital services, it can be seen that capital repairs, defined as here, bring associated capital services. Initially it seems reasonable to say that current repairs do not. However, if we consider two assets, one of which is repaired regularly and one which is not, then it is clear that the former will provide a higher level of services than the latter. Thus it could be argued that the definition of capital repairs should be changed to be those which prevent the reduction in life length or efficiency of an asset, rather than those which actively prolong them. Clearly this definition could be abused, but examples should make clear what is intended. Mending a puncture in a tyre is not a capital repair; replacing the tyres of a vehicle is.

There would be an important consequences of this change. Current maintenance is treated as intermediate consumption when carried out by corporations but adds to final consumption expenditure (and thus GDP) when carried out by government. Treating more current maintenance as capital would lead to a more symmetric treatment. Most of what is now current maintenance would be treated as fixed capital formation, increasing GDP, but the level of consumption of fixed capital would increase leaving NDP closer to its present level.

A further desirable effect of this proposed change concerns assets whose value is uncertain, for example historical monuments. Even if the value is unknown, in principle there should be an estimate made of consumption of fixed capital. Under the proposal here, the appropriate value of cfc would be the level of regular maintenance required by the asset.

***Is this proposed change to the definition of capital maintenance acceptable?***



