

**SNA/M1.07/14**

**Fifth Meeting of the Advisory Expert Group on National Accounts  
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**Long-term Research Agenda: Paper on Operationalizing the Agenda**

**Prepared by UNECE**

## THE SNA LONG-TERM RESEARCH AGENDA

Note prepared by the UNECE Secretariat

### INTRODUCTION

1. Even as the work on the 44 issues progressed, the ISWGNA started preparing a list of topics that remain outside the scope or timetable of the 1993 SNA Update. A page devoted to this subject was opened at the UNSD website (<http://unstats.un.org/unsd/sna1993/research/rIssueList.asp>) where the statistical community could propose topics to be included in the Long-Term Research Agenda.
2. To make this agenda operational, the ISWGNA decided that the AEG should review the topics proposed for long-term research at its March 2007 meeting. The UNECE secretariat was asked to prepare a consolidated list of all issues raised so far and to coordinate the collection of topic descriptions from those who have suggested them. The draft list of topics presented below is based on proposals posted on the special UNSD website, proposals made by the ISWGNA and the AEG as reflected in their respective reports, and proposals sent directly to the ISWGNA.
3. The draft list of topics has been shared with IMF BOP Divisions. They confirmed that the SNA list takes into account all items raised by the BPM6 with the exception of some issues related to direct investment that are outside the scope of national accounts.
4. The ISWGNA agreed that the following twenty topics be considered by the AEG for inclusion on the research agenda:
  - (1) Clarification of income concept in the SNA – should holding gains be included?
  - (2) Final consumption of corporations;
  - (3) The relationship of SNA and IASB;
  - (4) Distinction between current maintenance and capital repairs;
  - (5) High inflation;
  - (6) Accrual interest in the SNA – the debtor or creditor approach?
  - (7) Equity valuation and its implications;
  - (8) Provisions;
  - (9) Broadening the fixed asset boundary to include other intellectual property assets;
  - (10) Treatment of Private-Public Partnerships;
  - (11) Consolidation, both for government and private enterprise groups;
  - (12) Wider use of fair value for loans;
  - (13) Recognition of social security entitlements as liabilities;
  - (14) Reverse transactions;
  - (15) Debt concessionality;
  - (16) Leases to exploit natural resources such as mineral deposits;
  - (17) Reinvested earnings;
  - (18) Output of central banks: taxes and subsidies on interest rates applied by central banks;
  - (19) Inclusion of international organizations in the SNA;
  - (20) Government social services.

5. The AEG is asked to review the draft list and the justifications. More concretely, the AEG is asked to comment on the following:

- Which topics should be on the long-term research agenda?
- Are there any topics that need to be added to the list?
- Should the descriptions of some topics be extended, shortened or clarified?
- Should some topics be merged together (e.g. IMF has suggested that topics 6 “Debtor-creditor approach” and 17 “Reinvested earnings” should be included in topic 1 “Clarification of income concept in the SNA”, since interests and earnings should be dealt with in the general context of income)?

## **DESCRIPTION OF THE ISSUES TO BE INCLUDED IN THE SNA RESEARCH AGENDA**

### **(1) CLARIFICATION OF INCOME CONCEPT IN THE SNA - SHOULD HOLDING GAINS BE INCLUDED?**

Prepared by Peter Harper, ABS

#### The issue

6. A basic tenant of the SNA is that holding gains are not considered to form part of income. The income accounts in the SNA are transaction accounts. A transaction is an economic flow that is an interaction between institutional units by mutual agreement or an action within an institutional unit that it is analytically useful to treat like a transaction, often because the unit is operating in two different capacities<sup>1</sup>. Holding gains and losses, which are due to changes in the level and structure of prices, are not transactions, because there is no interaction between institutional units<sup>2</sup>. The particular relationship between income and holding gains is discussed in the 1993 SNA paragraph 8.15, which explicitly states that holding gains and losses accruing during the accounting period do not form part of (disposable) income.

7. The exclusion of holding gains from income is raised as an issue from time to time, and it has been suggested that alternative measures of income should be considered in the core SNA accounts. However, the issue has not been considered as part of the current update. It was not on the list of issues agreed to by the Statistical Commission; presumably because including holding gains as part of income would have been a fundamental change to the system and fundamental changes were outside of the scope of the update. The exclusion of this issue from the update was confirmed at the first AEG meeting, although discussion at a number of AEG meetings indicated that this was an issue that many thought worthy of further research.

8. However, the current update process did consider whether the current convention of excluding holding gains from income was being consistently applied. A paper for consultation was prepared by Peter Harper, and the result of that consultation was strong agreement that there was in fact no inconsistency in the SNA. As this consultation process started from the premise that holding gains are excluded from income, the question of whether the SNA should be changed in this regard was not canvassed.

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<sup>1</sup> 1993 SNA para 3.12

<sup>2</sup> 1993 SNA para 3.57

### Reasons for inclusion in the Research Agenda

9. This topic is proposed for the research agenda because it is one that attracts interest from time to time, both from national accounts ‘theoreticians’ and also from users of the accounts. Many users come from a business accounting perspective, where holding gains (or at least realised holding gains) are considered as part of income. Some users have also suggested that including holding gains in income would strengthen the (economic) links between income and other key elements of the system; notably consumption.

10. Para 8.15 of the SNA makes it clear that the current concept of income is narrower than the concept of income as understood by economists. Any research on the issue should focus on this essential point – what concept of income should be measured in the SNA and why should this be the appropriate measure. The ‘why’ part can only be properly answered by gaining an understanding of the purpose of a system of national accounts, and what concept of income best serves this purpose. This issue should not be addressed solely from a theoretical perspective, but it should involve consultation with key users of national accounts.

11. If it is considered that holding gains should be included as part of income in the system, a subsequent question is how should this treatment be actually given effect? As mentioned above, the income accounts as currently constituted are transaction accounts, and holding gains are not transactions. A way would need to be found around this, although this is a second order issue compared to the more fundamental question as to what should actually be measured in income.

### Time horizon

The topic should be considered in the long-term.

## **(2) FINAL CONSUMPTION OF CORPORATIONS**

Proposed by Anne Harrison, Editor, SNA Update

### **(3) THE RELATIONSHIP OF SNA AND IASB**

Prepared by UNSD

#### The issue

12. The International Accounting Standards Board is an independent, privately-funded accounting standard-setter based in London, UK. The Board members come from nine countries and have a variety of functional backgrounds. The IASB is committed to developing, in the public interest, a single set of high quality, understandable and enforceable global accounting standards that require transparent and comparable information in general purpose financial statements.

13. In addition, the IASB co-operates with national accounting standard-setters to achieve convergence in accounting standards around the world. Nearly 100 countries currently require or permit the use of, or have a policy of convergence with IFRSs (International financial reporting standards). The US Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) also issued on 27 February 2006 an agreement in which they 'each acknowledged their commitment to the development of high quality, compatible accounting standards that could be used for both domestic and cross-border financial reporting. The FASB and the IASB pledged to use their best efforts (a) to make their existing financial reporting standards fully compatible as soon as is practicable and (b) to co-ordinate their future work programmes to ensure that once achieved, compatibility is maintained.

#### Reasons for monitoring the works of IASB

14. For purpose of relevance, the consistency of the SNA with International Accounting Standards set by the International Accounting Standards Board (IASB) should be monitored. A number of issues deliberated by IASB were incorporated in the 1993 SNA update, namely employee stock options and the treatment of BOOT schemes. It is necessary that the ISWGNA continues to follow the deliberations on various issues taken up by the IASB and provides intermittent reports on those issues that may have an impact on SNA methodology.

15. Currently there are two topics on the agenda of the IASB that may have an impact on SNA methodology.

#### **IAS 38 Intangible Assets – Advertising and Promotional costs**

16. *Summary of the issue:* At its September 2006 meeting, the IFRIC agreed to take on a project to consider when costs incurred for advertising and promotional activities (including catalogues) may be carried forward in the balance sheet. In so doing the IFRIC agreed that it would pay particular attention to paragraphs 68-70 of IAS 38, which state that advertising and promotional expenditure must be recognized as an expense when incurred but do not preclude recognizing a prepayment when payment for the goods or services has been made in advance of the delivery of goods or rendering of services.

#### **IAS 41 - Recognition and Measurement of Biological Assets and Agricultural Produce in Accordance with IAS 41 (proposed amendments referred to the Board in January / February 2007)**

17. *Summary of the issue:* This project was originally discussed between September 2003 and May 2004. The project is considering two questions in respect of IAS 41:

- how an entity should account for an obligation to replant a biological asset; and
- what the exclusion from taking into account increases in value from “additional biological transformation” means in the context of paragraph 21 of IAS 41.

#### Time horizon

Intermittent reports on the issues taken up by the IASB that may have an impact on SNA methodology.

#### **(4) DISTINCTION BETWEEN CURRENT MAINTENANCE AND CAPITAL REPAIRS**

Proposed by Anne Harrison, Editor, SNA Update

## (5) HIGH INFLATION

Prepared by Brent Moulton, BEA

### The issue

18. It has long been recognized that high inflation can distort measures of property income, since a portion of the property income is required simply to counteract the real holding losses that occur for financial instruments that are not indexed for inflation. By the 1970s, when inflation was an important problem throughout much of the world, the treatment of interest under high inflation was considered an important issue for national accounts. However, over the last decade there has been a lack of consensus on the treatment of interest under high inflation. The guidance given by Annex B to chapter XIX of *System of National Accounts 1993* is not in agreement with chapter 7 of the OECD manual on *Inflation Accounting*. At the 1998 IARIW conference, papers were presented in support of each approach, and a spirited debate took place between the proponents of the two recommended treatments. Subsequently, the ISWGNA established an electronic discussion group (EDG) to address the problem. The results of the EDG, however, were inconclusive, as reported in a paper presented to the first meeting of the AEG.<sup>3</sup> At that meeting, the topic was accepted as part of the agenda for the SNA update.

19. Although some work was done on the topic during the update, including a note prepared by Marshall Reinsdorf of the U.S. Bureau of Economic Analysis, the topic received only limited attention and a consensus was not reached on the best approach. An issue paper presented at the fourth AEG meeting in Frankfurt, citing “the lack of a single universally accepted treatment of interest under high inflation,” recommended that the subject should remain on the research agenda—a recommendation accepted by the AEG.<sup>4</sup>

### Reasons for inclusion in the SNA research agenda

20. The main reason that the topic was not brought to conclusion during the SNA update is that it was pushed aside by higher priority topics. The issue of high inflation is a somewhat technical, conceptual issue that may not easily be resolved by a short presentation or discussion. If the full attention of national accounts experts is brought to clarify the issue, however, it seems possible that a satisfactory set of recommendations can be made. If a paper or set of papers could be prepared, presented, and discussed at an appropriate forum (for example, the OECD’s Working Group on National Accounts or a similar international forum), it seems likely that a consensus could be reached.

### Time horizon

21. It is expected that the issue could be resolved in the medium term (three to five years).

<sup>3</sup> See World Bank, “Accounting for interest under high inflation,” SNA/M1.04/14, paper for information presented at first meeting of the Advisory Expert Group on National Accounts, 16-20 February 2004, [http://unstats.un.org/unsd/nationalaccount/AEG/Papers/m1\(p\)interest.pdf](http://unstats.un.org/unsd/nationalaccount/AEG/Papers/m1(p)interest.pdf).

<sup>4</sup> “AEG issue number 8: Interest under high inflation,” paper for information presented at fourth meeting of the Advisory Expert Group on National Accounts, 30 January–8 February, 2006, <http://unstats.un.org/unsd/nationalaccount/AEG/papers/m4Inflation.pdf>.



## **(6) ACCRUAL OF INTEREST IN THE SNA – THE DEBTOR OR CREDITOR APPROACH?**

Prepared by Peter Harper, ABS

### The issue

22. Through the 1990's and into the 2000's a vigorous discussion was conducted among the international statistical community about the appropriate way to record interest – particularly interest on securities such as bonds – in the SNA. Two general approaches were identified in the discussion, the so-called 'debtor' and 'creditor' approaches. At the heart of the issue is the interpretation of paragraphs 7.93 and 7.100 in the 1993 SNA – what do these paragraphs mean, and is the meaning they convey the 'correct' treatment of interest ?

23. Under the debtor approach, the stream of interest payments is considered to be fixed at the time the security is issued – in other words, the future interest payments, both coupon and in the form of the 'unwinding' of any discount, are known with certainty. It is known as the debtor approach because it views the accrual of interest from the perspective of the issuer of the debt.

24. Under the creditor approach, which views the accrual of interest from the perspective of the holder of the debt, interest is determined by the current market rate of interest. As this rate may change from period to period, so may the interest payments. Importantly, as future interest rates are not known, then future interest payments are also not known. As a consequence, this approach draws a clear distinction between interest and the contractually agreed cash flows (which are known into the future).

### History

25. In order to progress discussion, the ISWGNA established an Electronic Discussion Group (EDG) in 1999 to obtain the views of a broad group of users and compilers on how macroeconomic statistics should record the accrual of interest on bonds and other tradable debt securities. The EDG was hosted by the IMF (see [www.imf.org/external/np/sta/na/interest/index.htm](http://www.imf.org/external/np/sta/na/interest/index.htm)). The EDG was closed in September 2002. The moderator of the EDG provided a report in October 2002. The conclusion of the moderator was:

“Although participants to the EDG remained strongly divided on how the *1993 SNA* should have treated the accrual of interest on debt securities given its overall framework, the moderator is of the opinion that a majority would accept that the present text probably recommends that the amount of interest on debt securities and the time path of its accrual are determined at inception of the instrument.”

26. The ISWGNA meeting in April 2002 reached a similar conclusion. The meeting also noted that no new economic situation had emerged that would importantly change the arguments used at the time the 1993 SNA was drafted. In view of the importance of the issue, the ISWGNA invited the UN Statistical Commission to approve this "no change" interpretation. Twenty-one out of the 24 members of the

Statistical Commission supported the ISWGNA recommendation. Two members disagreed, and one member pointed out that, although it considered the ISWGNA interpretation correct, the creditor approach would be conceptually preferable.

#### Reasons for inclusion in the SNA research agenda

27. Because the Statistical Commission had recently considered the issue, it was not included on the initial list of issues for consideration for the update of the 1993 SNA. Some countries suggested it be added, as did the IMF's Committee on Balance of Payments Statistics. However, the AEG decided at its meeting in Washington in February 2004 not to add the issue.

28. Notwithstanding this, there remains a strong view among certain national accountants and balance of payments statisticians that the issue has not been fully dealt with and that further consideration of the issue is warranted. Furthermore, discussion of certain update issues -- such as the treatment of concessional loans, non-performing loans, interest on index-linked debt securities and interest in arrears -- showed that the debtor/creditor debate has implications beyond the recording of interest on securities. It is for these reasons that the topic is being placed on the SNA Rev. 1 research agenda.

#### Time horizon

29. It is expected that the issue would be able to be resolved in the medium term.

#### References

30. The IMF EDG mentioned above contains a range of papers relating to the issue, including the moderators report. The papers linked to the EDG under the 'reactions of others' link contains a number of papers in which the proponents of the both approaches argue their position.

31. A report to the 2004 IMF Committee on Balance of Payments Statistics from the Balance of Payments Technical Expert Group on the topic 'Interest on Debt Securities' provides further information on the issue -- see [www.imf.org/external/pubs/ft/bop/2004/04-6.pdf](http://www.imf.org/external/pubs/ft/bop/2004/04-6.pdf).

32. The ISWGNA report to the 2003 Statistical Commission meeting, which inter alia discusses the issue, can be found at [www.unstats.un.org/unsd/statcom/doc03/2003-9e.pdf](http://www.unstats.un.org/unsd/statcom/doc03/2003-9e.pdf).

## **(7) EQUITY VALUATION AND ITS IMPLICATIONS**

Prepared by Pat O'Hagan, Statistics Canada

### The issue

33. Equity is both a complex financial instrument and measure of corporate net worth. As such, its treatment in the 1968 SNA, the UN 1978 provisional guidelines on balance sheet and reconciliation accounts and SNA93 have been less than satisfactory. Specifically, aspects of the discussion on equity valuation remain incomplete, despite implications for the treatment of income arising from equity.

34. Equity valuation was not identified as an SNA93 update item. However, it was proposed at an OECD Working Party on Financial Statistics meeting in 2004 that it be added as a clarification item. Subsequent to this, the OECD Task Force on the Valuation and Measurement of Equity (TFVME) was struck, including representation from the IMF and ECB. After 2 meetings, this group transmitted its recommendations to the AEG. While three of four of the recommendations were supported by the AEG, one of the three items remains under review by an informal sub-group of the AEG.

### Reasons for inclusion in the SNA research agenda

35. It is recommended that the topic of equity components valuation as well as the implications of equity in the sequence of accounts and with respect to the measurement of income be added to the research agenda. Selected issues are discussed below.

### ***Valuation of corporate and other equity sub-components***

36. In the balance sheet account (BSA) SNA holds up the market valuation of corporate equity as the ideal. The TFVME supported this principle, and articulated issues and approaches by which to measure or approximate market values. In doing so, TFVME had cross discussions with the group reviewing the IIP benchmark definition of direct investment in order to ensure as much general consistency as possible. There was general agreement on valuation methods, but not to the point that would necessarily ensure consistent estimates between the BSA and IIP or across countries.

37. That being said, there are different ways to slice corporate equity, and one of the stumbling blocks of this exercise was that the components of equity were not adequately articulated. This shortcoming is reflected in both SNA93 and SNA93 Rev1. The asset instrument corporate equities has the following dimensions: It can be portfolio investment, inter-company (direct) investment or it can represent participation in an unincorporated business; the first two of these sub-categories can be comprised of marketable securities or non-marketable shares; and, both portfolio and inter-company investment can be domestic or foreign. This issue is further complicated by the fact that the component detail is generally not the same for equity assets and liabilities, with the asset side typically more detailed. These sub-components can have differing valuation and income considerations, and require a more thorough treatment such is afforded other financial instruments (e.g., financial derivatives, deposits, insurance and pension reserves, etc.).

38. In particular, a discussion of inter-company versus portfolio investment is required, at a minimum, to enhance the valuation of equity practices and to ensure compatibility with the IIP direct investment valuation principles. By more thoroughly considering equity components, there is a reduced risk of inconsistencies on valuation of the equity sub-components and on the treatment of the income arising from the sub-components.

39. It is proposed that this topic be included on the AEG research agenda.

### ***Residual corporate net worth***

40. Since corporations are owned by their shareholders, it is reasonable to assume that their shareholdings are an estimate of the net worth of corporations. In a situation where all asset-liabilities are valued at market the corresponding net worth value (sometimes referred to as net asset value) should, in principle, equal the net market value share liability. However, in both SNA and in the real world there are good reasons why they do not, giving rise to residual corporate net worth. SNA (including the current re-draft) does not properly confront this reality (describing it more as a possibility), and leaves considerable ambiguity as to the nature of residual corporate net worth. There are two main reasons why residual corporate net worth arises.

41. First, in SNA all assets and liabilities are not at market value (e.g., loans). This is a statistical reason why the shares at market value would not equal the net asset value for the corporate sector, giving rise to residual corporate net worth. Taking the example of the loans, the market value of the equity of banks would most certainly reflect the impact of a significant change in non-performing loans or significant fluctuations in interest rates, on bank financial positions; however, this would not be reflected in SNA estimates of bank net asset values. Any or missing or mis-valued assets would have a similar impact.

42. Second, residual corporate net worth can arise for conceptual reasons – specifically, that the market value of corporate shares and the net asset value are different concepts. Only by chance would these measures coincide. One reason for a fluctuating gap between the two measures would be speculative (excess demand) equity market swings. Expansions and corrections in the stock market will determine the value of corporate shares at market value, but may have little to do with the underlying income earning potential of the net assets of corporations. These differences can add to the analytical capacity of the accounts.

43. Residual corporate net worth seemingly has both a statistical and an analytical aspect to it. It is proposed that this topic be included on the AEG research agenda.

### ***The value of equity and income flows***

44. Book value equity changes are driven by two main factors: Net new issues of shares (in the Financial Account) and undistributed earnings (saving in the Capital Account). Saving is calculated after cash distributions in the form of dividends.

45. Market value equity changes in the SNA are driven by two main factors: Net new issues in the Financial Account and revaluations of equity positions in the

Revaluation Account. The undistributed earnings of corporations are typically factored in to the fluctuations of their shares outstanding at market value, and are therefore implicitly reflected in the Revaluation Account.

46. There are two basic types of income flows on equity identified in SNA93 – dividends and re-invested earnings. Another component of the return on equity is capital gain; however, these are included in the Revaluation Account.

#### *Dividends*

47. Dividends are a type of property income, typically cash distributions to the shareholders (collective owners) of corporations. These are generally viewed as a distribution of profits, but given their irregularity it has often been argued that dividends do not relate well to sector income arising from current production. In particular, cash dividends can include the distribution of capital gains and exceed earnings in a period. Given these characteristics, it may be advisable to open up a discussion as to the nature of dividends.

48. Included with dividends in SNA are distributions/withdrawals of income from quasi-corporations. There is an issue in SNA as to where the line might be drawn between a “withdrawal” by a quasi-corporation as income and a “withdrawal” as equity.

#### *Re-invested earnings of direct investment enterprises and parent governments*

49. Corporate saving arises from undistributed earnings, and is used to finance investment. SNA93 currently has an adjustment to undistributed earnings of foreign direct investment companies under the name of re-invested earnings (RIE) – specifically, that income be imputed back to parent enterprises and subsequently be reflected as imputed re-investment in the subsidiary (in the Financial Account), since it is a required source of funds for investment. This concept has been extended to public enterprises and their parent governments in the current re-draft of SNA93.

50. The rationale for RIE is that it reflects accrual accounting and the ultimate ownership of the earnings. However, arguably RIE is based on book value accounting of parent enterprises only, and sector accounts’ flows are better focussed on economic transactions and not on the ultimate ownership of earnings. Further the application of RIE is uneven across the sectors, applying only to non-resident and government direct investors.

51. Analytically, it can be argued the application of RIE distorts the sector accounts and the national saving investment link, as well as the balance of payments surplus/deficit. Further RIE are already reflected in the market value of parent enterprises equity positions, such that allocating it in the flows is redundant; and, given that the Financial Account cannot accommodate income, it does not reconcile with the stock-flow framework of the SNA (see the following section).

52. It is proposed that this topic be included on the AEG research agenda.

#### *Equity in the sequence of accounts*

53. Since the release of SNA93, there has been a serious stock-flow inconsistency in the sequence of accounts related to equity. It arises from the re-invested earnings concept, and it exists because the financial account cannot accommodate income flows (in this case, the change in retained earnings – a book value equity concept). A simple example serves to illustrate this issue.

54. Assume an opening balance sheet of total market value equity of \$100 in period t-1, net new equity issues of +\$10 in period t and a 10% revaluation of outstanding equity over period t. Closing equity balances are \$120.

**Stock-flow framework for economy wide totals: Equity**

|                    | BS at t-1 | Flows at t | OCAA at t | BS at t |
|--------------------|-----------|------------|-----------|---------|
| Equity assets      | 100       | 10         | 10        | 120     |
| Equity liabilities | 100       | 10         | 10        | 120     |

55. Assume re-invested earnings are +10 in period t. In order to balance the sector accounts of non-residents and national corporations, any adjustments to sector saving for re-invested earnings of +10 must be reflected (the imputed re-investment) in the sector financial accounts. This alters the flow column by a +10. However, since the closing balance sheet is constrained to be \$120, an adjustment of -\$10 must be made to close the accounts. The only logical account for such an entry is the Other Changes in Asset Account.

**Stock-flow framework for economy-wide totals: Equity with re-invested earnings**

|                    | BS at t-1 | Flows at t    | OCAA at t     | BS at t |
|--------------------|-----------|---------------|---------------|---------|
| Equity assets      | 100       | 10 + 10 (RIE) | 10 – 10 (RIE) | 120     |
| Equity liabilities | 100       | 10 + 10 (RIE) | 10 – 10 (RIE) | 120     |

56. It was proposed by the TFVME that the Revaluation Account be used to make the required adjustments to offset the RIE effect on the sequence of accounts, as a second-best solution. It is second-best as it seriously compromises the relevance of the revaluation account, with respect to equity at a time when this information has taken on substantially increased analytical importance in most economies. This recommendation has not yet been implemented as yet in the SNA93 Rev1 re-draft.

57. However, what seems to be required is a re-examination of the treatment of equity stock-flow items, so as to avoid the need for second-best approaches in SNA. A review of stock-flow issues for each of the sub-components of equity (foreign or domestic, marketable or non-marketable, portfolio or direct) is advisable.

58. It is proposed that this topic be included on the AEG research agenda.

***Investment Funds***

59. The broad category of equity in SNA also includes a number of collective investment schemes (both open-end and closed-end) under the broad heading of Investment Funds. It has been agreed to separately identify investment fund units from corporate shares and other equity in the SNA93 re-draft.

60. However, given the diversity and growth of these funds, and of the incomes and sometimes structural changes accompanying the evolution of these funds, it may be useful to identify and broaden the discussion of the sub-components of these types of schemes (mutual funds, closed end funds, income trusts, etc.) and of their principal investments (equity funds, foreign funds, income funds, etc.).

61. It is proposed that this topic be included on the AEG research agenda.

Time horizon

## (8) PROVISIONS

Prepared by Francois Lequiller, OECD

### The issue

62. In business accounting, there are three degrees of “promises”: liabilities, provisions and contingent liabilities. Their definitions are the following. A *liability* is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits or service potential. A *provision* is a liability of uncertain timing or amount. A *contingent liability* is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity. While there is a difference between a liability and a provision, both are to be recorded in the balance sheet and thus affect the main balancing items (such as profit), while contingent liabilities are to be recorded only as memorandum items, and do not affect the main balancing items. Another similar business accounting concept, but on the asset side, is *impairment of assets*.

63. There is no clear corresponding definition of provisions or impairment of assets in the SNA. First, the SNA doesn't even include a definition of a liability (there is a definition of an asset, but not of a liability). Second, while the 1993 Rev. 1 has made some small progress by recognizing more “provisions” than before (in particular for non-life insurance), it does not give any general or consistent recommendation on “provisions”. Some promises that would be qualified as provisions in business accounting are now implicitly recognised in the SNA, but without using the word and strangely, with different impacts on the accounts. For example, the following are recognised implicitly: depreciation, pension provisions, terminal costs of equipment (e.g. provisions for dismantling nuclear power stations), non-life insurance provisions, impairment of assets for non-performing loans. However, while the first four will impact the net saving and net lending/borrowing of the entity, the last one is a kind of memorandum item that neither affects net saving nor net lending/borrowing. At the same time, the SNA ignores a number of other provisions recognised in business accounts. For example, SNA 1993 Rev. 1 includes provisions for standardized *loan* guarantees but does not mention the very common provision for standardized *equipment* guarantees, without any rationale for this difference in treatment.

### Reasons for inclusion in the SNA research agenda

64. It seems that the main reason for which national accountants reject a systematic incorporation of provisions is the fact that provisions can appear, contrary to liabilities, in the balance sheet of one entity and not, at the same time, as a counterpart entry in the balance sheet of another entity. The quadruple entry rule is thus not verified (some say the symmetry of the tables is not ensured). This happens essentially because a provision is something that is recognised by the entity which makes the promise (for example a provision for dismantling costs) and, forcibly, not by a counterpart entity<sup>5</sup> (which can even be not known at the time of the provision<sup>6</sup>).

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<sup>5</sup> The sentence could also apply to loan impairments, which are recorded by the bank but not by the debtor. Note that fixed assets have no counterpart, so that the notion of financial assets having no counterparts is not a heresy.



65. However, this argument of asymmetry is very weak when set against the need of users of the SNA to show the real situation of entities regarding their balance sheet and main balancing items. For example, today, the SNA overestimates the net worth of banks (by not taking into account impaired loans), and shows a biased measure of their profits, by not taking into account the change in their stock of impaired loans. This non-recognition of the principle of provisions will be even more difficult to sustain in the future as national accounts attempt to show accurate accounts for general government, when governments are more and more likely to record provisions themselves, as recommended by the International Public Sector Accounting Standards Board (IPSASB). When a major provision will be recorded by a government, with no corresponding record in the SNA version of the accounts, the inconsistency will become obvious.

66. It is therefore proposed to include in the short-term in the research agenda of the SNA the item “provisions” with the objective of: (1) incorporating a future global recommendation on provisions in the SNA, (2) exploring a flexible treatment for both the stocks (e.g. the creation of a special additional, asymmetrical account as part or in addition to OCV) and the flows (e.g. creating additional, asymmetric, balancing items of operating surplus, saving and net lending/borrowing), with the objective of recording the stock of provisions and/or the stock of assets at impaired value, the changes in the stock of provisions and impaired assets and their impact on the main balancing items, thus reducing the gap between business accounts and national accounts. The project should explore also recommendations regarding the consolidation of provisions (see reference paper attached).

#### Time horizon

67. It is proposed that the topic is considered in the short-term.

#### References

68. The treatment of provisions in the national accounts: elements for the review of the SNA, François Lequiller, STD/NAES(2004)7, paper presented at the 2004 OECD Working Party on National Accounts.

<http://www.oecd.org/dataoecd/53/49/33740137.pdf>

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<sup>6</sup> E.g. when the provision for dismantling cost is recorded, no one knows which enterprise will get the contract of dismantling which may occur thirty years ahead...

## **(9) BROADENING THE FIXED ASSET BOUNDARY TO INCLUDE OTHER INTELLECTUAL PROPERTY ASSETS**

Prepared by Charlie Aspden, OECD

### ***Innovation***

#### The issue

69. The introduction of the 1993 SNA Rev. 1 is seeing the expansion of the fixed asset boundary to include expenditures on research and experimental development (R&D) as defined by the Frascati Manual (FM), namely: ‘research and experimental development to comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and use of this stock of knowledge to devise new applications.’ The FM identifies three principal components of R&D and defines them thus:

- a) Basic research, defined to be experimental or theoretical work undertaken primarily to acquire new knowledge or the underlying foundation of phenomena and observable facts without any particular application or use in view;
- b) Applied research, defined to be original investigation undertaken in order to acquire new knowledge... directed primarily towards a specific practical aim or objective;
- c) Experimental development, defined to be systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.

70. It is evident that R&D captures part, but not all, of the innovation process. It excludes expenditures by the production and engineering departments of an enterprise on developing new products and the systems to produce them and staff training. These same departments may also be responsible for identifying a potential new product and referring it to the R&D department to develop the science behind it.

71. In addition, an enterprise may incur other expenditures before a new product goes to market. These include market research to determine the demand for the product and marketing expenditures to promote the new product.

#### Reasons for inclusion in the SNA research agenda

72. All innovation is undertaken with the expectation of recovering the costs over a number of years, or, looked at another way, it is expected to provide benefits to the enterprise over a number of years that have a present value at least equal to the costs incurred. Thus innovation expenditures have the characteristics of fixed assets. To further this issue, a detailed analysis should be made of the business accounting recommendations in this field.

73. If expenditures on the innovation process should be extended beyond R&D, how should its scope be defined and how should capital formation, consumption of fixed capital and capital services be measured?

Time horizon

***Marketing assets***

The issue

74. Marketing assets include brand names, mastheads, trademarks, logos and domain names. Marketing is a key driver of brand value and big corporations invest heavily in building and supporting their brands by advertising, sponsorship and other measures to build a positive image with customers. A brand can be interpreted as far more than just a corporate name or logo. It is the overall impression a customer or potential customer gains from their experience with the company and its products. Interpreted in that wider sense it can also be seen to encompass some of the key characteristics of goodwill such as customer loyalty. Also, investment to build and support brands would seem to go hand in hand with research and development aimed at developing new or improved products. One issue that would have to be resolved is whether all marketing costs could be classified as investment or whether some is in the nature of current consumption. A detailed analysis should be made of the business accounting recommendations in this field.

Reasons for inclusion in the SNA research agenda

75. Expenditure on advertising is large. For example, total advertising expenditure in Australia is currently around A\$20 billion a year which is close to 3% of GDP and more than double the magnitude of expenditure on research and development. This could possibly provide a practical means of accounting for these important intangible assets as produced assets. A disadvantage is that the 'cost of creation' approach may not necessarily provide a realistic estimate of brand value, but we also have this problem for other produced intangibles in SNA including research and development (if it is adopted into SNA). Another problem is how to dissect marketing into brand building and intermediate consumption components. For those expenditures identified as being of a capital nature how should consumption of fixed capital and capital services be measured?

Time horizon

***Human capital***

The issue

76. Apart from any staff training required in bringing a new product to market, innovation expenditures are disembodied from the people undertaking the innovation. Therefore they exclude to a large extent the “investment in human capital”.

77. Human input is the major input in most production processes, and the value of that input is to a large extent dependent on the knowledge that humans bring to the production process. It is well recognised that an educated population is vital to economic well-being in most countries.

78. The gaining of knowledge by humans entails the provision of education and training services by parents, private and public education establishments and employers, and the effort made by people to acquire knowledge. Expenditures by households and government on education and training are recorded as final expenditures (and actual final individual consumption by households) in the System, and such expenditures by enterprises are recorded as intermediate consumption. The unpaid training provided by parents, relatives, etc. and the effort made by people to acquire knowledge are outside the System.

#### Reasons for inclusion in the SNA research agenda

79. It might be argued that some forms of knowledge make no contribution to future production, while other forms, such as training in numeracy and literacy, do. Also, other than the individual being educated, those incurring the expenditure of providing education and training generally have no, or only partial, control of the human capital created.

80. To what extent, if any, should the acquisition of knowledge by humans be recorded in the system as fixed capital formation? What should be recorded as capital formation in satellite accounts if excluded from the core accounts? How should capital formation, consumption of fixed capital and capital services be measured?

#### Time horizon

#### References

Papers on the Canberra II EDG:

John R. Baldwin, Desmond Beckstead and Guy Gellatly, *Canada's Expenditures on Knowledge Capital*, 11F0027 No. 0XX, ISSN: 1703-0404, Statistics Canada, February 2005

Tony Johnson, *Goodwill and Other Intangible Assets in the SNA*, Australian Bureau of Statistics, September 2005

## **(10) TREATMENT OF PRIVATE- PUBLIC PARTNERSHIPS**

Prepared by Cor Gorter, IMF

### The issue

81. PPPs are generally understood to be arrangements whereby elements of the acquisition and operating of infrastructural projects that were traditionally undertaken by the public sector are transferred to the private sector. These elements may include legal ownership of the infrastructure for an agreed number of years, the financing of the asset, and production of services related to the exploitation of the asset. PPP arrangements vary widely in character and typically involve large financial resources. They are popular in several countries for financing and operating (rail) roads, education and health facilities, and even prisons. From the point of view of the public sector, the main attraction of this limited privatization is the efficiency gains they promise. However, by using the private sector to finance these projects governments may avoid showing explicit government debt. Furthermore, PPPs bear considerable fiscal risks to government (e.g., in the shape of guarantees, etc.) and the accounting of such risks may affect policy decisions. It is therefore imperative that statistics appropriately reflect these hazards; the present 1993 SNA does not provide sufficient guidance in this respect.

82. Several issues need to be resolved. A main question is who should be considered the economic owner of the fixed asset: government, the private enterprise, or maybe both to some extent. A related question is whose balance sheet should show the external financing of the project. Further questions concern the classification and valuation of the transactions taking place between government and the private enterprise during the period covered by the operation of the asset.

### Reasons for inclusion in the SNA research agenda

83. PPPs were proposed as an 1993 SNA update issue (issue number 24) by the Canberra II Group on the Measurement of Non-Financial Assets. The Group discussed the issue of economic ownership on the basis of the criteria economic control and who has the risks and rewards of the assets. As the relative importance of these factors are likely to vary with each PPP, it appeared to be very difficult to formulate generally applicable rules. The Group came to a similar conclusion regarding the operation of the assets. Headway had been made in Eurostat's *ESA 95 Manual of government deficit and debt*,<sup>7</sup> the UK Accounting Standards Board and the International Accounting Standards Board (IASB), but none of the proposals found a strong backing in the Canberra II Group.

84. The AEG discussed an Issues paper on PPPs during its January/February 2006 meeting.<sup>8</sup> The AEG acknowledged that a general description would be very useful but that the issues are very complex. It was therefore suggested that the material might appear as an annex to the updated *SNA*. Representatives of the Australian Bureau of Statistics, the Office for National Statistics, and the International Monetary Fund offered to draft a text for the annex.

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<sup>7</sup> Section IV.4.2, Long term contracts between government units and non-government partners.

<sup>8</sup> The document was prepared by Brett Kaufmann, Robin Lynch, Christoph Maier, and John Pitzer.

85. Statisticians should consider the rules that the IASB and the International Public Sector Accountants Standards Board (IPSASB9) adopt regarding PPPs,<sup>10</sup> even if these are not decisive for the statistical treatment. By end-2006, the IASB arrived at a conclusion on how the private sector should account for PPPs.<sup>11</sup> The IPSASB has started its own project for public sector financial reporting on PPPs, but an end date is not yet known.

86. In view of the limited progress made up till date, the ISWGNA decided it would be better to add this topic to the Research Agenda.

#### Time horizon

87. An agreement in the IPSASB may well take until its meeting in mid-2008. A proposal for the statistical treatment of PPPs could then be expected by the end of 2008.

#### Documentation

88. AEG document and conclusion:

<http://unstats.un.org/unsd/sna1993/description.asp?ID=23>

Overview IFRIC 12:

<http://www.iasb.org/Current+Projects/IFRIC+Projects/IFRIC+12+Service+Concession+Arrangements/Meeting+Summaries+and+Observer+Notes/IASB+October+2006.htm>

### **(11) CONSOLIDATION, BOTH FOR GOVERNMENT AND PRIVATE ENTERPRISE GROUPS**

Proposed by Francois Lequiller, OECD

### **(12) WIDER USE OF FAIR VALUE FOR LOANS**

Proposed by Francois Lequiller, OECD

### **(13) RECOGNITION OF SOCIAL SECURITY ENTITLEMENTS AS LIABILITIES**

Proposed by Francois Lequiller, OECD

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<sup>9</sup> The IPSASB is part of the International Federation of Accountants (IFAC).

<sup>10</sup> PPPs are often referred to as “service concessions arrangements” in public and business accounting.

<sup>11</sup> The International Financial Reporting Interpretations Committee (IFRIC, the interpretative arm of the IASB), issued a near-final interpretation-IFRIC 12, Service Concessions Arrangements, on November 30, 2006. It concluded that the asset should be recorded with the unit that has the controls over it, which usually is government. The private operator receives either a financial asset in the shape of a right on cash payments from government for services rendered, or an intangible asset in the shape of the right to charge users of the public asset.

## **(14) REVERSE TRANSACTIONS**

Prepared by IMF

89. Work on a complex group of transactions known as reverse transactions has been pursued for several years. These transactions take their name from two common characteristics: (i) a commitment to reverse the transaction on a specified future date (or on demand), and (ii) that, although legal ownership is transferred to the purchaser, the risks and benefits of ownership remain with the original owner. Reversible transactions include repurchase agreements, securities lending without cash collateral, gold swaps, and gold loans/deposits.

### *Repurchase agreements and securities lending*

#### The issue

90. A securities repurchase agreement (repo) is an arrangement involving the sale of securities at a specified price with a commitment to repurchase the same or similar securities at a fixed price on a specified future date. (A repo viewed from the perspective of the “cash provider” is called a reverse repo.) When the funds are repaid (along with an interest payment), the securities are returned to the “cash taker”. The provision of the funds earns the “cash provider” interest that is related to the current interbank rate, not the property income earned on the security “repoed”. Full, unfettered ownership passes to the “cash provider” but the market risk—the benefits (and risks) of ownership, such as the right to holding gains (and losses), and receipt of the property/investment income attached to the security—are retained by the “cash taker” as if no change of ownership had occurred, in the same manner as when collateral is usually provided. Repos are usually undertaken as a liquidity management tool, and they are often used by central banks as part of their monetary policy. In some countries the repo market is large, amounting to a sizable portion of the total outstanding government bonds.

91. The 1993 SNA and BPM5 recommend that repos/reverse repos be treated as collateralized loans. One rationale given at the time was that the “cash provider” did not often have the right to on-sell a security acquired under a reverse repo. However, the right to on-sell has become almost universal. It is this development that has caused one difficulty in the measurement of repos, in that, if the recipient of the security that has been repoed (or lent) on-sells the security, it will be double counted as owned by both the original owner and the purchaser. The solution to the double counting is that the recipient of the security which on-sells should show its “short position” as a negative asset in the instrument involved being recorded.

92. Securities lending without cash collateral is similar to a repo, except that no cash changes hands. The borrower obtains full and unfettered ownership in the same way, and instead of cash provides the lender with collateral, usually securities. The lender of the securities does not acquire full and unfettered ownership of the securities received as collateral. The lender of the securities receives a payment from the borrower, called a “fee”.

#### Reasons for inclusion in the SNA research agenda

93. In view of the problems that repos and securities lending both pose for statistical measurement—that the ownership change is not recognized, and the two parties can claim ownership to the same security at the same time—the IMF Committee on Balance of Payments Statistics (BOPCOM) gave extensive consideration to the issue in between 1998 and 2001. The BOPCOM reached the conclusion that repos should be recorded as collateralized loans, and that if the security acquired under a repo were on-sold outright, it should be recorded as a negative asset in the instrument being on-sold. For securities lending no transaction should be recognized; if the security borrowed is on-sold, it should be recorded as a negative asset, in that instrument, by the party that borrowed the security. Following the work of the BOPCOM, the Intersecretariat Working Group on National Accounts reached the same conclusion in 2002.

94. As part of the BOPCOM's consideration, several countries participated in a survey of financial institutions, to find out more about their internal recording practices for repos and securities lending. The survey showed, among other things, that a significant minority of respondents record repos in what has come to be known as the "four-way-approach", that is, they record them as both collateralized loans and as transactions in the underlying security.

95. In July 2005, the AEG concluded that, while progress has been made, especially with regard to possibility of recommending the so-called "four entry approach", there is insufficient time to resolve the remaining issues for inclusion in the updated SNA. Similar considerations apply to the timetable for the revision of the Balance of Payments Manual, fifth edition. Moreover, as reverse transactions also affect monetary and financial statistics, the involvement of statisticians from this area is an essential part of the process, and, to date, their involvement has not been extensive. Accordingly, the statistical treatment of reverse transactions was placed on the research agenda, with a view to seeking to obtain a resolution in two or three years.

#### Time horizon

96. A resolution to this issue should be reached in two or three years.

#### *Gold Swaps and gold loans*

#### The issue

97. Gold swaps are usually undertaken between monetary authorities. The gold is exchanged for foreign exchange deposits (or other reserve assets) with an agreement that the transaction be unwound at an agreed future date, at an agreed price. Gold loans or deposits are undertaken by monetary authorities to obtain a non-holding gain return on gold which otherwise earns none. The nature of gold swaps and gold loans/deposits is similar to that of repos and securities lending, in that the market risk toward the underlying asset remains with the original holder. The statistical implications of gold swaps and gold loans/deposits are complex and have not been fully worked through. Work is still being undertaken by the IMF BOPCOM to address the implications.

#### Time horizon



98. Following the work of BOPCOM.

**Key documents**

99. Repurchase agreements, securities lending, gold swaps and gold loans: An update (SNA/M2.04/26) at

<http://unstats.un.org/unsd/sna1993/papers.asp?pID=1&ID=1>

100. Reverse Transactions (SNA/M1.05/25.1) at

<http://unstats.un.org/unsd/sna1993/papers.asp?pID=1&ID=1> .

## (15) DEBT CONCESSIONALITY

Prepared by Andrew Kitili, IMF

### The issue

101. Debt concessionality has gained prominence in discussions on assessing the amount of transfers, notably to developing countries. Debt concessionality arises when a creditor lends below market terms. Such action derives an element of transfer to the debtor similar to a subsidy in production<sup>12</sup>. There are many reasons why creditors lend at below market terms. Government or its units usually provide loans at low or zero interest terms with the aim of providing a benefit to the recipient or to encourage some action by the recipient. Industrialized countries lend to developing countries at below market terms for development reasons.

102. The demand for data on transfers has increased tremendously after the Millennium Development Goals (MDGs) declaration in 2000. The MDGs sets the level of concessional lending to developing countries as one of the indicators of monitoring the development targets. The HIPC debt sustainability discussions focuses on a specific threshold of debt concessionality. However, while it is recognized that lending at concessional terms derives a transfer to the debtor, there is no consistent definition or measure of debt concessionality. The need for clear guidance on debt concessionality has been highlighted. For example, the lack of a unique definition of concessionality, was highlighted as a key difficulty<sup>13</sup> in the discussions leading to the replenishment of the World Bank's IDA 14.

103. While the main manuals on macroeconomic datasets recognize the notion of transfers in lending, none has a systematic framework for recording these transfers either in flows or positions. The 1993 SNA recognizes the subsidy element of concessional loans but only for loans to employees, with the concessionality recorded as being in wages and salaries in kind (see paragraph 7.42); however, the guidelines offer no explicit explanation of the adjustment to interest required by a double-entry accounting system. Like the 1993 SNA, the *Government Finance Statistics Manual (GFSM) 2001*, recognizes the subsidy element of concessional loans to employees as being in wages and salaries in kind in paragraph 6.14 of the manual. The *Balance of Payments Manual, Fifth Edition (BPM5)* recognizes that concessional loans encompass a transfer element that needs to be imputed (see paragraph 104) but does not elaborate on how this should be done. The *External Debt Statistics: Guide for Compilers and Users (Debt Guide)* recognizes concessional debt but falls short of defining debt concessionality (see *Debt Guide* paragraph 6.22).

104. There is need, therefore, to provide a consistent definition and measurement of concessionality and to possibly account for these transfers explicitly in national accounts, including extending the proposed treatment to the other macroeconomic datasets as a way to promote consistency of treatment. The key issues in debt concessionality are the recognition of what debt concessionality—irrespective whether the debt is new or is being rescheduled— involves, and the measurement of the transfers in economic accounts arising from such concessionality.

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<sup>12</sup> See 1993 SNA paragraph 7.76 (b)

<sup>13</sup> See IDA 14 (November 2004). Debt Sustainability and Financing Terms in IDA14: Further consideration on Issues and Options, paragraph 17.

### Reasons for inclusion in the SNA research agenda

105. In December 2004, the Balance of Payments Technical Expert Group (BOPTeG) discussed the issue on debt concessionality and recognized that while there is no agreed definition of concessional loans, the existing guidance in the Debt Guide, and features such as an intention of the creditor to convey a benefit in a noncommercial setting, such as official loans,<sup>14</sup> could be drawn upon in drafting the revised BPM5. The need for further investigation was recognized.

106. Debt concessionality was further discussed by the IMF Committee on Balance of Payments Statistics (Committee) in June 2005 but no consensus was reached to include transfers arising from debt concessionality in the core accounts. In January 2006, the Advisory Group on National Accounts came to a similar conclusion. It was agreed that further research was needed, and that in the meantime, if the transfer element was considered important for some countries, it could be provided as supplementary item to the balance of payments—calculated as a one-off transfer at the point of loan origination equal to the difference between the nominal value of the debt and its present value using a relevant market discount rate.

107. In the discussions, there was a division of opinion as to whether transfers from debt concessionality should be current or capital; a concern that some of the proposals discussed could potentially run counter to some core national accounting principles; and reservations on the measurement of the transfers, for instance, the difficulties in obtaining a relevant market reference rate especially if the debtor was unable to access capital markets.

108. Based on the above, it is evident that debt concessionality has become an important statistical subject but there is very limited international guidance on how transfers arising from it should be recognized and measured. There is need therefore for more research in this subject with a view to providing international definition and statistical methodology.

### Time horizon

#### References

- Balance of Payments Manual, Fifth Edition, IMF, (1993)  
Debt Sustainability and Financing Terms in IDA14: Further consideration on Issues and Options, International Development Association (2004)  
Debt Relief Under the HIPC Initiative: Context and Outlook for Debt Sustainability and Resource Flows, IMF (2001)  
External Debt Statistics: Guide for Compilers and Users, IMF, (2003)  
Enhanced HIPC Initiative-Creditor Participation Issues, International Development Association and International Monetary Fund, April 8, 2003  
Enhanced HIPC Initiative - Guide Book, IMF  
Global Finland: [http://global.finland.fi/uutiset/teksti\\_popup.php?id=1797](http://global.finland.fi/uutiset/teksti_popup.php?id=1797)  
Government Finance Statistics Manual, IMF, (2001)  
Grants and Concessionality in IDA 13: International Development Association (2001)

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<sup>14</sup> Official creditors are defined in paragraph 6.5 of the *Debt Guide*.

Lissandro Abrego and Doris Ross, Debt Relief Under the HIPC Initiative: Context and Outlook for Debt Sustainability and Resource Flows, IMF Working Paper WP/01/44, September 2001

Millennium Development Goals: (<http://www.un.org/millenniumgoals>)

System of National Accounts, 1993

## **(16) LEASES TO EXPLOIT NATURAL RESOURCES SUCH AS MINERAL DEPOSITS**

Prepared by Charlie Aspden, OECD

### The issue

109. One of the items for review in the update of the 1993 SNA was the treatment of leases and licences to use and exploit natural resources. Three different types of natural resources were considered:

- a) Natural resources that have infinite lives and where use in production does not affect the nature or value of the asset. Examples include land and the radio spectrum.
- b) Natural resources that are subject to replenishment and which can be used indefinitely providing their use is restricted. Examples include non-cultivated forests and fish.
- c) Natural resources that are not subject to replenishment (at least on a human time scale) and whose use in production eventually exhausts them. Examples include mineral and petroleum deposits.

110. In respect of the first two types, the ISWGNA and AEG were able to reach what they considered a satisfactory conclusion, but in the case of the third type they were unable to do so. Finally, however, the ISWGNA concluded that the revised SNA should recommend that:

- d) economic ownership of the natural resource resides with the lessor;
- e) the lessor pays royalties (i.e. rent) to the lessor to use the natural resource; and
- f) only the lessee, and not the lessor, is undertaking production.

### Reasons for inclusion in the SNA research agenda

Several members of the ISWGNA felt that this was not an entirely satisfactory treatment and it should be put on the long-term research agenda.

### *Alternative treatments*

111. For the most part, inanimate natural resources other than land are mainly used for extractive purposes. The lessor retains ownership of the resource, though this diminishes as extraction takes place. The lessee takes control of the resource, in the sense of having power to make decisions on the rate of extraction (possibly within some limits laid down by the lessor), but does not acquire ownership of the whole resource.

112. The Canberra II Group took the view that this implies ownership of the resource is divided between the lessor and the lessee, and recommended a treatment that was subsequently rejected by the AEG. This was to treat leases on sub-soil assets as financial leases. The argument being that when the lease allows the lessee to exploit a mineral or energy deposit over many years the lessee effectively becomes the economic owner of the deposit and the royalty payments can be viewed as payments of principal and interest on a financial lease. A refinement of the financial lease treatment is to have two loans: one corresponding to the value of the asset that is used up by the lessor (either by depreciation for a fixed asset or depletion for a sub-soil

asset) and the other corresponding to the residual value of the asset when ownership reverts back to the lessee, but this received little support from the AEG.

113. This approach has the advantage of recording the value of the sub-soil asset on the balance sheet of the extractor (i.e. the lessee) that is consistent with commercial accounting and a financial asset on the balance sheet of the lessor equal to the present value of the expected future royalty payments and the remaining value of the resource at the end of the lease. A major practical problem with the financial lease approach for sub-soil assets is the need to make revisions to the flows as revisions are made to its estimated remaining value.

114. A second alternative is to have the extractor working as if "on contract" to the owner without taking ownership of the deposit. The lessee retains some of the resource rent, enough to cover costs and make some profit and hands the rest over to the lessor. However, this is not how commercial accounting is done where the deposits are recorded in the extractor's accounts. It also implies that the lessor is a producer, and so it would lead to government being recorded as engaged in mining activity. Furthermore, it does not provide an ideal interface to environmental accounting.

115. A third alternative is to treat the resource as inventories and to treat the lease as a contract for the sale of the resource. Hence, as the resource is extracted it would be recorded as a sale from the owner to the extractor. Appearances and disappearances of sub-soil assets would be made via the other changes in volume account as estimates of the volume of resource were revised. This would be a substantial change to the SNA, as there is currently no concept of inventories of non-produced assets and no concept of non-produced assets as intermediate inputs. Payments for the use of sub-soil assets would be treated as payments for a good, while payments for the use of resources not subject to depletion, such as land, would continue to be treated as rent.

#### Time horizon

116. The topic should be put in one Long-Term Research Agenda.

#### References

117. Apart from the first alternative, all the above options were considered at length during the preparation of the 1993 SNA. The first alternative is described in detail in *Leases and Licences (Part 2)*, prepared by Anne Harrison, <http://unstats.un.org/unsd/nationalaccount/AEG/papers/m4LeasesPart2.pdf> and a worked example comparing it with the recommendation in 1993 SNA rev. 1 can be found on the UNSD website.

## **(17) REINVESTED EARNINGS**

Prepared by Eurostat

### The issue

118. According to the concept of reinvested earnings, the difference between the entrepreneurial income of the enterprise and the actual distribution of dividends in the accounting year would be regarded as an acquisition (or withdrawal if negative) of equity by the owner.

119. This treatment presents two major advantages:

- It would represent a full accrual accounting for equity income, consistent with the basic principles of accruals underlying SNA. Dividends cannot be considered as a distribution out of income in the sense normally used in the SNA which refers to income earned in the current period and corporations do not view them in that way.
- It would solve the problem of the borderline between dividends and withdrawals of equity and its implication on the owner's net lending/net borrowing. The AEG has agreed that "exceptional" payments of dividends corporations to government had to be recorded as withdrawals of equity (and not dividends as in the current SNA). But what is "exceptional"? The reinvested earnings approach rationalizes this problem: the net lending/net borrowing of the owner would not anymore correspond to dividends but would correspond to entrepreneurial income. This is consistent with the fact that the entrepreneurial income represents the accrued income of the (quasi) corporation in the current period, which is considered by the owners as the economic return of their equity investments.

120. For instance, if the entrepreneurial income is 100 and dividends paid 220, the property income by the owner will correspond to dividends (220) plus equity income/reinvested earnings (-120), and its net lending/net borrowing will equal 100. In the owner's financial account, cash will be recorded corresponding to 220 and shares and other equity will decrease (-120).

121. In the enterprise accounts, dividends (220) plus equity income (-120) will correspond to a total of uses of 100, counterbalancing the entrepreneurial income (100) on the resources side. Net leading/net borrowing is equal to zero. In the financial account, cash (-120) on the assets side is counterbalanced by a reduction in liabilities towards the owner (shares and other equity -120).

### Reasons for inclusion in the research agenda

122. Eurostat considers that the concept of reinvested earnings should be extended to public and private quasi corporations, to public corporations and to private corporations, when the units concerned are publicly controlled or when there is a single owner with controlling interest (at least 50%). This issue should be examined, as this new treatment would, in our opinion, improve the consistency of the system.

123. An important advantage for the system as a whole would be to generally allow more recording of income than hitherto, and to accordingly deflate the revaluation accounts by that portion that reflects the mere accumulation of undistributed earnings

(the accounting example above is the reverse case, probably less common, of distribution in excess of the profit).

124. From the point of view of government accounts, reinvested earnings allow reporting a government deficit inclusive of losses (profits) of public corporations in a similar manner as if a subsidy scheme existed to cover the loss of the year.

Time horizon

125. There is need for short-term research.



## **(18) OUTPUT OF CENTRAL BANKS: TAXES AND SUBSIDIES ON INTEREST RATES APPLIED BY CENTRAL BANKS**

### The issue

126. In the Frankfurt meeting the AEG decided on the estimation and allocation of central banks' output. The national accounts should distinguish between market and non-market output of central banks. The non-market services of central banks should be treated as acquisition of collective services by general government with a matching transfer from the Central Bank to the Government. Market output is provided on an individual basis to all sectors of the economy against payment for the services.

127. However, the group noted that the financial intermediation of central banks may include policy measures e.g. the interest rates could be set higher or lower than market interest rates. The usage of off-market interest rates by central banks may cause distortions in measuring output and value added. The solution is to separate the policy measure from the market service and to use market interest rates as the prices for the service.

### Reasons for inclusion in the Research Agenda

128. Although the AEG agreed in principle with the market/non-market split of the output of central banks, it was recognized that it could be difficult, if not impossible for countries, to implement this proposal in practice. Countries were allowed some flexibility in applying the distinction.

129. Further, the AEG reviewed two options to treat the off-market interest rates applied by central banks: to record them as current transfers or as taxes/subsidies on production. On balance the group supported the second option i.e. deviations from market rates should be classified as taxes and subsidies. These should be identified explicitly when they are significant. However, due to the uncertainty surrounding the details, the AEG considered it useful to review these issues further and put them on the long-term research agenda.

### Time horizon

130. It is proposed that the topic is included in the Long-Term Research Agenda.

## **(19) INCLUSION OF INTERNATIONAL ORGANIZATIONS IN THE SNA**

### The issue

131. In the current SNA international organizations are part of the rest of the world. Paragraph 4.165 specifies that: For purposes of the System, international organizations are treated as units that are resident in the rest of the world. The SNA does not distinguish international organizations separately and gives very little or no guidance on the concrete treatment of the transactions between the international organizations and the national economies.

132. Unlike the SNA, the European system of accounts contains an additional classification of the rest of the world sector. Paragraph 2.92 specifies the European Union institutions as a separate sub-sector of the rest of the world.

### Reasons for inclusion in the Research Agenda

133. In practice, the activities of the international organizations can affect significantly the economy of a country and a region where they are located. One example is Kosovo. Therefore it is proposed that the transactions between international organizations and the economies of the countries (regions) where they are located be further explored. The research should also consider the measurement of the output of international organizations and consistency between national accounts, employment and populations statistics.

### Time horizon

134. It is proposed that the topic is included in the Long-Term Research Agenda.

**(20) GOVERNMENT SOCIAL SERVICES**

The issue

135. The issue was raised by Cuba and is reflected in paragraph 37/104 of the thirty-seventh report of the Statistical Commission. It concerns estimates of government social services based on imputations of inputs and labour value. AEG is asked to consider whether the topic should be included in the Long-Term Research Agenda.

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