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REPORT ON THE  
MEETING OF NATIONAL ACCOUNTS EXPERTS

held at the Château de la Muette, Paris  
on 3rd to 5th July 1991

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INTRODUCTION

1. A meeting of national experts was held in Paris on the 3rd to the 5th July 1991. It was attended by 38 representatives from 22 Member countries, by observers from statistical offices of 4 Central and East European countries, namely the Czech and Slovak Federal Republic, Hungary, Poland and USSR, and by observers from the United Nations Statistical Office and the Statistical Office of the European Communities. Lists of the participants and the documents considered at the meeting are attached as annexes to this report.

REVIEW OF THE DRAFT REVISED SNA

2. The discussion of this point was based on the Secretariat Note, ESD/STAT/SNA(91)3, "SNA Review: Suggested Points for Discussion" and the reports on the meetings of the SNA Co-ordinating Group in Washington, D.C. 3-7 December 1990 and in Harare, Zimbabwe, 8-17 April and the report on the 26th Session, 4-13 February 1991 of United Nations Statistical Commission, which were annexed to the note. The experts were invited to seek clarification of the decisions taken at the last 2 meetings of the SNA Co-ordinating Group; to indicate decisions taken at these meetings which would present serious problems in their country and to explain country specific institutional features, which would help the authors of the Revised SNA to clarify the draft. The following points were taken up:

- i) Private non-profit institutions serving households and subsectoring of the household sector

3. At the Harare meeting the experts of the SNA Co-ordinating Group reversed an earlier decision to treat private non-profit institutions serving households as a subsector of the household sector and recommended that PNPI serving households should be considered a separate sector.

4. Although there was no disagreement concerning the conceptual desirability of treating NPI serving households as a separate subsector, some delegates, pointed out that they would not be able to treat NPI as a full sector due to lack of data and therefore wanted guidance from the Blue Book on how to treat the NPIs in such a case. It was pointed out that the Blue Book is a conceptual, theoretical framework for the national accounts and that practical recommendations to establish the national accounts should be covered in future hand books on national accounting and not in the Blue Book.

5. As to the subsectoring of the household sector, the Delegate from the United States informed the meeting that the subsectoring of households is of special concern to ILO, and that an ILO conference next year will take up this question. Employment statistics might have implications for the household subsectoring in the national accounts. It was also pointed out that it might be difficult to apply the recommended subsectoring in practice.

ii) "Commercial/Market" producers

6. The revised SNA proposes to replace the present SNA distinction between "industries" and "producers of other goods and services" by "commercial/market" producers and "non-commercial/non-market" producers, the difference being that own account producers will be grouped with other producers instead of with industries.

7. Several delegates felt rather uneasy about both the new terminology and the underlying concept, namely grouping "non-marketed but marketable" output together with "non-marketable" output. In developed market economies it would mostly refer to owner-occupied dwellings; in other countries own-account production in agriculture can be important. It was pointed out that the proposed distinction would be very useful in supply and use tables and would be welcomed by analysts. There seemed to be a general agreement that "non-marketed but marketable" production should be distinguished and shown separately as far as possible.

iii) Statistical units in agriculture

8. Although the principle that the statistical unit in agriculture should be the same as for other market producers was not questioned, Delegates from Ireland and from Poland stated that they will have difficulties in collecting data on the proposed basis. The Representative of Poland also raised the question of how to interpret the concept of "agricultural holding" in the context of economies in transition.

iv) Research & Development

9. At its Washington meeting in December 1990 the SNA Co-ordinating Group reversed an earlier decision to treat R&D as capital formation and decided to keep the present SNA's recommendation to treat R&D as intermediate consumption. A functional breakdown of business expenditure was, however, recommended to distinguish these outlays, as well as satellite accounts for R&D.

10. Some experts, notably from France and Poland, regretted that the SNA Co-ordinating Group had gone back on its previous recommendation. The Polish observer found it strange to treat literary/artistic achievements as capital formation if they generate income over more than one accounting period, and not treat R&D in the same way, especially as it would be extremely difficult to evaluate the artistic achievement. The French Delegate stressed that analysts would not understand the proposed treatment, as they normally considered R&D as an investment, and that therefore the new recommendation would create problem for the future, especially as it would imply an inconsistency with business accounts. It was explained that the previous decision to treat R&D expenditure as a fixed asset concerned only some R&D expenditure. The question was then what type of R&D should be treated as capital expenditure and which should be considered intermediate consumption; for example historical research. As it was very difficult to draw a borderline, the SNA Co-ordinating Group finally decided that all R&D should be treated in the same way and that the 1968 SNA recommendation should be kept. It was also pointed out that the new SNA will specifically recommend that R&D output sold to other establishments or

enterprises should be considered as production and that large-scale R&D activities should be considered as separate establishments.

v) Rent on governmental buildings

11. The revised SNA's recommendation to impute a rental value for government buildings based either on market value or on cost (including capital cost) met with very strong opposition from the national accounts experts. Several delegates stressed that this constitutes a fundamental change in SNA and is not in line with the mandate for the SNA review, namely to undertake clarifications and simplifications. Many delegates thought that the new principle and its consequences had not been fully investigated. Rental value on government buildings would affect government final consumption expenditure and consequently GDP, but the practical considerations for calculating the rental value had not been taken into account. If countries cannot give reasonably good estimates for the rental value, the decision will turn out to be a rather bad one, as it might destroy international comparability of government consumption. The new recommendation is going back to the treatment of government buildings of SNA of 1953, which the present SNA abandoned in 1968, because of the practical difficulties in implementing the 1953 recommendations. Some delegates were of the opinion that imputations should be kept to a minimum in the new SNA whereas this proposal introduced new ones, which had to be carried through the whole system. Other delegates also found it disturbing that the imputed capital cost on government buildings would be shown as operating surplus of general government. It was also stressed that there ought not be too many differences between the SNA and government accounts, but the rental value of government building would introduce a major difference between them. Despite this opposition towards the new SNA recommendations, a member of the SNA Co-ordinating Group explained that the proposal was supported by other regions in the world, especially in Asia.

12. A show of hands at the end of the discussion, gave the opposition to imputing a rental value for government owned buildings an overwhelming majority. Only one country was for the imputations and three countries abstained.

vi) Consumption subsidies

13. The SNA Co-ordinating Group ultimately decided to retain the present SNA treatment of subsidies despite having decided at a previous meeting to introduce the concept of consumption subsidies, which might be useful in countries with highly subsidised goods and services for large groups of the population, such as in the economies in transition.

14. The Polish observer underlined that there was no need for special treatment of subsidies in Poland, as Poland was moving rapidly towards a market economy.

vii) Income

15. The discussion on this item touched upon two questions, namely factor income/primary income and entrepreneurial income. With regard to factor income the Delegate from the United Kingdom stressed that the United Kingdom has a strong view on this point. The United Kingdom finds the factor income a

very useful concept as well as GDP at factor cost which they intend to continue to use. He also thought it rather strange to consider indirect taxes as primary income for government, as this makes the aggregate "primary income" less interesting. The Delegates from Canada and Netherlands supported the point of view that GDP at factor cost is a very useful concept. Canada publishes GDP at factor cost on a monthly basis and in their opinion it is the most useful concept for productivity studies. The Delegate from the Netherlands agreed that on an aggregate level the factor cost concept is useful, but not value added by branch at factor cost. A member of the SNA Co-ordinating Group explained that factor income had been replaced by primary income as the experts of the SNA Co-ordinating Group found the concept "factor of production" ambiguous and with no economic significance. He also pointed out that the present SNA does not use the expression "at factor cost", but "at factor incomes".

16. As to {entrepreneurial income}, the Danish Delegate questioned the recommendation to keep the concept of entrepreneurial income in the revised SNA in respect of unincorporated enterprises. It implies dividing interest flows for households between those related to the consumer role and those related to producer role. The reason for keeping private unincorporated enterprises in the household sector is due to exactly this difficulty.

#### viii) Pensions

17. The SNA Co-ordinating Group recommends retaining the 1968 SNA treatment of pensions together with the introduction in the Blue Book of a special annex covering various aspects of the treatment of pensions in the national accounts.

18. The Representative of Eurostat explained that this implies that the ESA treatment of pensions will be different from SNA, as it treats all pension systems in the same way, giving households an undeniable claim on the reserves. Although pensions in SNA were discussed at a meeting in Paris in 1983, this subject has been overlooked in the SNA review and it is now too late to make a study of the problem and include new recommendations in the revised SNA. The French Delegate regretted that the 1968 SNA will be retained for pensions. They felt that the ESA recommendations for autonomous pensions funds is preferable to the SNA recommendations. Contributions to these funds are considered to be social contributions financing social benefits. The Chairman of the meeting expressed the Secretariat's concern over ESA and SNA differing on this question.

#### ix) Inflation accounting

19. The experts noted the retention of the 1968 SNA recommendations on this point and that an annex to the Blue Book will discuss the problems related to interest and capital gains in case of high inflation.

#### x) Accounts

20. The Dutch Delegate introduced what he described as a rather technical issue. He felt that the draft revised SNA does not discuss in sufficient detail the functions of the accounts and the purposes of showing data in a complete set of T accounts, namely that each account relates to specific economic process and that each account has a balancing item with a specific

analytical meaning. However, the capital account has two balancing items, which is unusual and problematic, since the question arises: What item balances what? The account also includes items presented on the unconventional side of the account with a negative sign. The problem disappears if the accounts are translated to matrix form. The Dutch Delegate suggested that the capital account should be split in two parts each with its own balancing item.

xi) Use of SNA in countries in transition

21. The SNA Co-ordinating Group has recommended that transition issues, such as constitutionally one-party systems, large construction projects jointly undertaken by several countries, subsidies, comparable prices, etc., should be dealt with in a Transition Handbook.

22. The Polish Representative stressed that the Polish national accounts will be completely in line with SNA and that Poland does not want a special system. For example, subsidies to housing will be treated as in Western economies; barter transaction is a phenomenon which also exist between developing and developed countries; comparable prices will no longer be used in Poland. On the other hand a handbook on data sources and methods of estimation is urgently needed and would be extremely welcome, especially when old data sources will be lost and new ones have to be developed. A special problem was mentioned in this context, namely the problem of public, private and foreign ownership. The Representative from USSR also pointed out that they wished to use the common SNA rules, and that a handbook would be very useful, but she was afraid it might come too late. It was explained that the Transition Handbook was not a special system, but a handbook on how to apply the new SNA in Central and East European countries during the transition period with its specific problems. According to the UNSO Representative, a UNSO consultant will start working on the handbook in October and a first draft is expected by the end of 1991.

xii) Wealth-only assets

23. The SNA Co-ordinating Group is recommending a special category of capital asset, "wealth-only" assets or "stores-of-value" assets. It would cover gold, other precious metals, jewellery, and other valuables which any sector might acquire as stores of wealth. Although the new concept might be useful for the household sector, it would also be important for the enterprise sector -- for example when pension funds are invested in assets like paintings. Since in the new SNA only monetary gold would be classified as a financial asset, commodity gold held by institutions other than the central bank could be classified as a wealth-only asset.

24. The United Kingdom Delegate disagreed with the decision of the meeting of SNA Co-ordinating Group in December 1990; there had been strong support at last year's Meeting of OECD National Accounts Experts for the United Kingdom view that certain type of gold should be treated as a financial asset for any sector. He felt that practical implications should be explored more before a final decision is taken. There also need to be clearer indications of what assets should be considered as stores of value.

25. The United Kingdom objection was noted and the Chairman was confident that it will be brought to the attention of the Statistical Commission.

xiii) Transport margins

26. The Austrian Delegate took up the question of transport margins. The revised SNA recommendation that transport margins should only include transport services paid by the purchaser is a deviation from the present SNA. It will complicate commodity flow analysis and create problems in input-output tables. The French Delegate agreed that the wording was not clear. He thought that all transport finally borne by the purchaser should be included in transport margins. In reply, it was pointed out that the treatment recommended in the new SNA better reflected transactions which actually take place.

EMPLOYMENT STATISTICS

27. The basis for the discussion on this point was the Secretariat Note, ESD/STAT/SNA(91)2 "Labour: Population and Jobs", and Room Document ESD/STAT/SNA/RD(91)2 "Employment Cost Index rebased to June 1989". The Secretariat Note had been discussed at the meeting of the SNA Co-ordinating Group in Harare, April 1991 and the Eurostat Representative gave a summary of this discussion. The Secretariat Note had also been discussed at the meeting of the OECD Working Party on Employment and Unemployment Statistics in May 1991, and a staff member gave a summary of the discussion at that meeting.

28. There was general agreement that the new SNA should include a chapter on population and employment statistics, discussing concepts and definitions, spelling out differences with ILO guidelines and with data sources, such as Labour Force surveys, with regard to production boundary, job attachment, residency, etc., and giving recommendations. The discussion then focused on four questions:

- What should the quantity measure of labour input be?
- Should one undertake quality adjustments as suggested in ESD/STAT/SNA(91)2 to obtain compensation of employees at constant wage rate?
- Should these adjustments be extended to self-employed, which would mean estimating their wages and salaries in some way?
- Should the owner of one-person corporation be considered as an employee or self-employed?

29. The delegates agreed unanimously that hours worked is the best quantity measure of labour input and should therefore be recommended in the revised SNA. It was, however, recognised that there are certain difficulties with this measure, especially with regard to self-employed as it is difficult to collect data on their hours worked and hours worked by self-employed cannot be assumed to change in the same way as for employees. The Netherlands has therefore preferred person-years/fulltime equivalent. This measure was considered to be next best labour input measure, although it was pointed out that it can be misleading when hours worked change; it can give decreasing labour input due to structural changes, as demonstrated in Australian estimates. It was,

however, preferred to number of employees. Other problems mentioned with regard to labour input measures are multiple jobs and hours worked in the shadow economy.

30. The quality adjustments as proposed in ESD/STAT/SNA(91)2 to obtain labour input at constant compensation were rejected by the meeting. It was, however, rather generally agreed that volume measures should be obtained by adding hours worked in different occupations to a weighted sum, i.e. weighting by skill of employees to obtain a simple volume measure. The German Delegate thought that it was less important what skills were chosen; it could be left to countries to decide.

31. Regarding one-person corporations the majority view was they should be considered as self-employed and not as employees. It was pointed out that this might create drafting problems in the Blue Book as the text is based on legal criteria. As to the income of these self-employed, the Australian Delegate pointed out that imputing compensation of employees for the self-employed could result in a negative return to capital, and the French Delegate considered that earnings should be classified as operating surplus or mixed income, not compensation of employees, and be allocated to households, not to non-financial enterprises.

#### EXTENDING NATIONAL ACCOUNTING WITH REGARD TO NATURAL AND ENVIRONMENTAL RESOURCES AND TO EXPENDITURES ON POLLUTION ABATEMENT

32. The discussion on this point was based on the Secretariat Note ESD/STAT/SNA(91)4 "An overview of the recent international discussion", which was introduced by the Secretariat. The delegates were invited to consider the following questions:

- Should a monetary value be attached to scarce natural resources?
- If so, should this value be deducted in calculating value added?
- To which natural resources should this allowance be applied, -- oil, minerals, forests, fisheries?

33. There was general agreement that defensive expenditures and costs for environmental degradation should not be considered as areas where changes in the main national accounts are necessary, although one delegate argued that there was little difference between deducting depletion of natural resources and deducting costs of environmental degradation. Many delegates felt that monetary values could be placed on scarce natural resources and that, in principle, depletion of national resources should be taken into account in national accounts. The United Kingdom Delegate stressed, however, that there were both theoretical and practical problems involved especially with regard to non-reproducible reserves, and that forest and fish reserves constituted a set of problems which are different from those of mineral deposits. He felt one should concentrate to begin with on depletion of mineral reserves, as there already is a market for extraction rights and, if reasonable estimates can be obtained in that area, move on to fish stocks.

34. Several countries have in fact already started experimenting with estimates related to depletion of natural resources:

- Australia is concentrating on balance sheet estimates for mineral resources but does not intend at this stage to incorporate them in income and expenditure flows.
- The United States is developing satellite accounts for petroleum and forests, although more data are available for oil than for forests. Two different approaches are used, with the reserves treated either as fixed asset or as stocks. For each approach several different valuation methods are used. The Satellite account model will be used to show the impact of different approaches and valuation methods on the national accounts. It was, however, considered as a low-level effort, as only one person is working on the project.
- Canada has a project for setting up balance sheets for petroleum and forests. The first estimates will be available in 1993, some satellite accounts in 1994 and time series will be developed at a later stage.
- Finland has just started an evaluation of forest reserves, value of natural growth, growth of timber and use of timber products. Both economic and ecological futures are taken into account.
- In Norway, analysts are working on balance sheets for oil reserves covering volume, depletion and new findings.
- Sweden is presently working on balance sheets for mineral reserves and forests. Time series are available, starting in 1980 and they will probably be published towards the end of 1991. No attempt has been made so far to reflect these estimates in the flow accounts.

35. It was pointed out by the Secretariat that the present work seems limited to balance sheets and revaluation accounts, without the implications being carried through to the flow accounts. It was stated that the topic under discussion looked beyond the horizon of the present review of SNA and should therefore be considered from a longer-term point of view.

36. It was argued that mineral deposits can be sold before extraction and should therefore appear as assets (with an associated value) in their natural state. The activity of "extraction" should be seen as one of transforming (or "transporting") the deposits and the value of output and value added should exclude the original value of the sub-soil deposits. This approach was consistent with treating mineral deposits as if they were inventories of raw materials.

37. The Netherlands Delegate thought that one has to decide if reserves are stocks (inventories) or fixed assets as they are treated differently in national accounts and have different effects. He rather favoured treating them as stocks. The problem of new findings could be handled on the reconciliation accounts, which already take into account losses of stocks and therefore also could cover new reserves. The Danish Delegate found it difficult to consider natural resources as stocks, because additions to stocks have to result from

production; reserves are unreproducible and findings of new reserves are not the result of a production process. Both the Delegates from Austria and the United Kingdom argued that a third category of assets should be introduced for natural reserves, as they are neither stocks, nor fixed assets and that they should be valued and shown separately in the balance sheets.

38. The majority of delegates favoured restricting depletion estimates to balance sheets and reconciliation accounts at the present stage and considered that reserves were more like inventories than fixed assets. For future work in this field it was suggested the data which countries intend to publish and their estimation methods should be examined although the topic will not be put on the agenda of next year's meeting.

#### THE DISTRIBUTION OF IMPUTED BANK SERVICE CHARGES OVER ECONOMIC BRANCHES

39. The SNA Co-ordinating Group has maintained its recommendation that imputed output of financial intermediaries should be calculated as their total property income received, excluding interest received on their own funds, minus their total interest payments. They also agreed that the Revised SNA should recommend allocating the imputed output among users, although no definite guidelines have been developed. The Co-ordinating Group suggests that the allocation could be based on a reference rate. The note ESD/STAT/SNA/RD(91)7 "Calculation and Breakdown of the Indirect Financial Intermediation Service Charge" prepared by Jacques Bournay, INSEE, France, proposed a method for such allocation based on reference rates, which can be applied if a consistent set of data is available on flows, outstanding claims and liabilities and on financial earnings.

40. The meeting found the paper very useful as it showed clearly that it is possible to allocate the imputed output among users based on a reference rate and what such an exercise might involve from definitional, methodological and practical points of view. For example, the Delegate from the United States expressed great interest in the paper, as services to depositors are already allocated to users in the United States national accounts and various models are being explored to allocate services also to borrowers. The Italian Delegate also found the French approach promising. Both the Canadian and the German Delegates and the Representative of Eurostat considered that imputed output of financial intermediaries should be allocated to users and, in fact, this is already done both in Canada and Germany, though by different methods.

41. Questions were raised, however, on some aspects and consequences of the method. The Delegate from Netherlands stated that the total interest margin can differ from the imputed output based on a reference rate. If the difference between assets and liabilities of banks is great, the difference between the actual interest margin and the margin based on the reference rate will also be large. It was therefore important to decide which one of the two margins should be considered the imputed output. Moreover the reference rate method would change the actual interest flows on the income and outlay accounts and it would affect the disposable income of households. The Netherlands would prefer the actual margin, as did the Canadian Delegate because the result should not deviate from the book profit of banks. The German Delegate also stressed that whatever method adopted it must not affect the net lending by sectors.

42. Other definitional questions concerned which assets and liabilities should be considered to be "service-bearing", an expression coined by the German Delegate. They might not be seen the same way by borrowers and lenders. The nature of interest on banks assets and liabilities are also different; interest on deposits is low because banks provide a service by taking care of the money (the service element is not included in the interest), while it is high on loans because a part of the interest is a payment for a service. Should bills and bonds be included as well as shares and notes and coins? If the reference rate is close to the market rate, the imputed service on bonds would be small, but it would be high on shares. Another question on the definition of interest was raised by the Austrian Delegate. How should interest rate subsidies be treated in this model?

43. With regard to reference rates, some delegates thought that the use of only one reference rate might not be sufficient and that several may need to be defined which are relevant to different types of assets and liabilities and/or sectors. It was pointed out by the Portuguese Delegate that in an economy with rapidly changing institutions and financial instruments, such as Portugal, it would be rather difficult to calculate a reference rate which would not fluctuate too much over time. Moreover, a fixed rate would depend more on monetary policy than on financial intermediation.

44. The complexity of the proposal worried the Delegates from Canada, Netherlands and United Kingdom. Although the United Kingdom Delegate agreed that the 1968 SNA recommendations are not satisfactory, he doubted that the result of a much more complex method would be better from an analytical point of view. He also considered that there are still too many open questions, for example the question of one or several reference rates; only one rate would give a high allocation of imputed services to households while several rates would give a different result. He also stressed that allocation of imputed services to detailed industrial branches would increase the complexity. The Canadian Delegate advocated a more simplified method based on actual interest margin allocated to users by actual gross lending and gross borrowing.

45. Some countries, notably Austria and Denmark, pointed out that if countries did not adopt the same method to calculate the imputed output of financial intermediation, international comparability would be seriously jeopardised.

#### STATISTICAL INFORMATION ABOUT ACTUAL SCRAPPING OF CAPITAL ASSETS BY VINTAGE

46. Four countries had contributed notes for this agenda item, describing methods used by statistical offices, namely:

- ESD/STAT/SNA/RD(91)11 "Capital goods: stocks, ages, lifetimes", prepared by Eric H. Smeets, Netherlands Central Bureau of Statistics;
- ESD/STAT/SNA/RD(91)10 "The capital and repair survey", prepared by Statistics Canada;

- ESD/STAT/SNA/RD(91)4 "Definitions and methodologies used in Finland for estimating flows and stocks of fixed capital", prepared by Olavi Lehtoranta, Central Statistical Office of Finland;
- ESD/STAT/SNA/RD(91)5 "Statistical information on fixed assets retirements and methods of calculation of age characteristics", prepared by V. Sokolin and A. Dementiev, State Committee of the USSR on Statistics.

47. The two first papers describe new surveys on capital expenditures used to complement or replace other data sources and methods for capital stock estimates in Netherlands and Canada and were discussed first. The survey in Netherlands covers 10 types of assets for four divisions of the industrial classification, while the Canadian survey covers 30 types of equipment in 45 major industry groups. An interesting aspect of the Dutch survey is that it is done by visits to the enterprises instead of relying on postal questionnaire. The capital stock estimates in both countries are based on ownership criterion, while the new survey-based estimates refer to users of capital goods. Several delegates wondered if data would also be available on an ownership basis. At present this was not the case in either Canada or Netherlands, but the possibility will be investigated in the future.

48. A main purpose of both surveys was to obtain more reliable information on discards and service lives of machinery and equipment. These are the weakest points in capital stock estimates and have been criticised in both countries. The Dutch survey has resulted in a data base on disinvestment and average service life which provides, for example, information on changes in service lives. The service lives obtained by the new Canadian survey are quite different from earlier estimates, and they are now publishing three different series on discards and depreciation. Several participants showed great interest in the new service life estimates in Netherlands and Canada and said they would like to receive more information.

49. In Finland too, surveys have been undertaken to improve the capital stock estimates. The quality changes are not well reflected in the price indices which are used in the estimates of capital stocks and these estimates also fail to reflect shorter service lives of capital goods. Surveys have therefore been undertaken to obtain data on replacement values of existing assets and expected service lives of the goods. Unfortunately not enough resources are available for the project. It was difficult to get good data on replacement costs because the questionnaires were too disaggregated, while on the other hand the questionnaire was too aggregated with regard to service lives.

50. The paper from USSR described a project which confronts theoretical assumptions and hypotheses concerning scrapping and service lives in stock estimation based on perpetual inversion method (PIM) with actual data reported by users/owners of capital goods in periodical censuses of equipment and in other reports on acquisition and retirements of equipment. The present statistical system based on the centralised planning of all economic activity in USSR has provided a unique opportunity for such a comparison. The study was limited to machinery and equipment in industry, because of the lack of reliable data on buildings and constructions. The estimates were based on an historic cost valuation, because suitable price indices are not available to

convert to replacement costs. The average age of useful equipment was shown to be rather similar to those in western economies. USSR does not intend to undertake a survey of capital goods; it would be a heavy project needing two years of preparation.

51. The United Kingdom Delegate pointed out that PIM gives good results in periods of economic stability, but it tends to give wrong results in times of fluctuations as it underestimate the withdrawals from stocks, which could be caught by a survey. He wondered if any country had tried to estimate the different rates of withdrawal at different levels of economic activity. The German Delegate found the correlation between withdrawals and the business cycle an important question, but in his opinion there was quite a lot of unused capital in periods of low growth rate, but which anyhow was kept in the stock of capital goods. Scrappings were more related to investment activity than to general economic activity.

52. Finally, the Chairman draw the attention of the meeting to a recent OECD study published in the series of Department of Economics and Statistics Working Papers, namely n 99 "The Measurement of Output and Factors of Production for the Business Sector in OECD Countries", May 1991 [OECD/GD(91)92]. This gives capital stock estimates made by the OECD Secretariat according to the PIM for all OECD countries including several which are not currently publishing such estimates themselves.

#### THE MEASUREMENT OF UNPAID HOUSEHOLD PRODUCTION

53. The discussion of this point was based on the Secretariat Note:

-- ESD/STAT/SNA(91)5 "Non market household production and its measurement"

and five Room Documents:

-- ESD/STAT/SNA/RD(91)3 "Estimating the value of household work in Canada", prepared by Statistics Canada;

-- ESD/STAT/SNA/RD(91)6 "Definition of household goods and services production sector in National Accounts system of the USSR", prepared by S. Lynbavina and V. Sokolin, State Committee of the USSR on Statistics;

-- ESD/STAT/SNA/RD(91)9 "Value added in households", prepared by Ann-Lisbeth Brathaug, Statistisk Sentralbyrå, Norway;

-- ESD/STAT/SNA/RD(91)12 "Short remarks on the Polish experience with estimates of the value of unpaid household production", prepared by Pr. Leszek Zienkowski, Central Statistical Office and the Polish Academy of Science, Poland;

-- "Household production and national accounts", by Heinrich Lützel, Statistisches Bundesamt, F.R.Germany.

54. In the introduction to the subject, the Secretariat underlined that national accountants in many countries have shown and still are showing great interest in measuring unpaid household production, as is testified, for example, by the number of papers presented at the meeting. The paper reviewed the recommendations proposed in the revised SNA for the production boundary (which excludes unpaid production of services with a few exceptions, while including all own-account production of goods), the various approaches and methods in estimating unpaid household production and the differing result they give. The Secretariat invited the meeting to consider the following points for discussion:

- Is it desirable to produce estimates of unpaid household production at regular intervals of time on a harmonised basis?
- Should standards be formulated for the measurement procedures to be applied? If so,
- Which method appears most appropriate, or should different methods be used simultaneously?
- Which types of market activities should be chosen as substitutes for valuation of unpaid household production?
- What definitions and what kinds of activities should be taken into account?
- Which relevant data are presently available or will become available in the near future for use in such measures?

55. Regarding the first point for discussion, there was a general agreement that work should continue on the measurement of unpaid household production. These estimates should be done outside the traditional national accounts in satellite accounts. In this way the estimates would not change GDP, but could be added to GDP if so wished (Germany, Netherlands). Mrs. Goldschmidt, an OECD consultant in this field, raised the question of what such a satellite account should cover. Only the parts which SNA is leaving out, or complete own-account production of goods and services (as in Norway), or the latter plus voluntary work (as in Germany)? She thought that the answer would depend on the purpose of the accounts. Were they constructed to fill gaps or give an overall view of unpaid household production? Personally Mrs. Goldschmidt preferred a coverage as wide as possible, which could be implemented gradually.

56. Several countries (Canada, Netherlands, Austria, for example) favoured a rather cautious approach to developing estimates of unpaid household production. Both Netherlands and Austria wondered if this should actually be done by statistical offices, as such a project involves a great element of modelling. Some Delegates, notably from Canada, Germany and Netherlands, thought the time was not ripe for international recommendations in this area and that it might even be dangerous at this stage. One should, however, work towards standards since international recommendations would facilitate the work in individual countries. Austria said that OECD could play a role in describing the various methodologies in use, their possibilities and limitations, and the results they give. Mrs. Goldschmidt thought it was

important that a pool of knowledge was built up internationally in this field, and that OECD could contribute to that.

57. With regard to estimation methods it was generally agreed that the output approach was conceptually the most appropriate method (Germany, Norway, Mrs. Goldschmidt), but that it is also the most difficult approach and few estimates are therefore derived this way. As an example of the difficulties, the German Delegate mentioned the quality of output. The French Delegate, however, did not favour the output approach. Mrs. Goldschmidt suggested that estimates could be made according to the output approach for a small group of households as some sort of benchmark estimates.

58. Most countries use an "input" approach, based on time-budget surveys. Within this approach Germany considered that the opportunity cost valuation was not relevant, as decisions are not only based on economic criteria; they preferred the specialist substitute method, based on the costs of employing specialists working in the household. With regard to the opportunity cost method, the United Kingdom Delegate pointed out that in case of child care this method would give high values for high income earners and low values for low income earners which he found unacceptable and one more argument for the specialised substitute method. The German Delegate considered that the most problematic aspect is not the evaluation method in itself, but the difficulty of obtaining good data from time-budget surveys because they are very costly. France and Norway also preferred the specialist substitute method. Norway has, however, experimented with both global substitutes (based on municipal workers), specialist substitute (based on wages in occupations, characterised by low-paid female employees), and opportunity cost methods (based on earnings in the person's regular job).

59. The latest Canadian study has generated estimates according to opportunity costs, "individual function", i.e. specialised substitute replacement cost, housekeeper replacement cost and a minimum wage valuation of household work. The Canadian Delegate found it difficult to say which was the best estimate, but he probably preferred the housekeeper replacement method. Mrs. Goldschmidt preferred the global substitute method based on market wages of the substitute working in the household, which could give good estimates if the right substitute is found. She would then rank the other methods in the following order of decreasing interest, emergency substitute, specialised worker substitute and opportunity cost.

60. Very little was said concerning the set of activities to be covered. The Polish observer, however, pointed out that in the Polish study only "instrumental" activities were included, not "expressive" ones, which excluded for example care and education of children.

61. Regarding the last point for discussion -- availability of data on unpaid household production -- the discussion showed that time-budget surveys have been undertaken or will be undertaken in several countries. Netherlands have undertaken three time-budget surveys, Austria has obtained time-budget data from its microcensus. In Finland a survey of living conditions of children also covered household work in families with children. In Poland the next estimates will be for 1992. The next time-budget survey in Australia will be made in 1992 (the previous one being only a pilot survey), and Canada plans its fourth survey for 1992.

62. The observers from Poland and USSR stressed the importance of unpaid household production in economies where shortages are endemic.

63. Mrs. Goldschmidt concluded the discussion by saying that one should not postpone expansion of knowledge in this field. As a means to increase knowledge sharing, she proposed improving communications among those involved in this type of research via information networks. She also found that the time is ripe for international co-operation and co-ordination in areas such as time-budget surveys, coverage of activities and population to be covered. The German Delegate supported these proposals because one can learn from each other's work.

64. The Chairman noted that the measurement of unpaid household production was a topic of growing interest in several OECD countries. The OECD might consider providing "clearing-house" function by acting as a depository for reports on time-budget surveys and on estimates of the value of unpaid household activities, and by circulating summary reports on this work to interested researchers.

#### LINKS BETWEEN THE CENTRAL PRODUCT CLASSIFICATIONS AND THE CLASSIFICATION OF HOUSEHOLD GOODS AND SERVICES BY FUNCTION

65. The basis for discussion of this point was the Room Document ESD/STAT/SNA/RD(91)8 "Classification of households goods and services", prepared by Erling Fløttum, Central Bureau of Statistics of Norway. This presented ongoing international work in the area of classifications of products, household goods and services, purposes/functions, etc., which can be applied in the revised SNA and the options which are available. The points which the meeting was invited to reflect on were the scope for flexible classifications: classifications by branch and by product; the role of the product classification (for the production account only or also for commodity flow work); a purpose classification for CHGS; and links to the classification of functions of government used in connection with government final consumption expenditure.

66. The Representative of Eurostat explained that a review of the links between the purpose classification of consumption and the CPC had been carried out by Eurostat but the results had never been published. He hoped that work on the classification of industrial inputs by purpose (COIP) could be revised and could be included in the revised SNA in a chapter on functional classifications. This chapter would also contain one for households (CHGS), for government (COFOG) and for non-profit institutions (COPNI).

67. The Austrian Delegate thought it was very important to have a cross classification between product and functions and favoured a one-to-one correspondence even if some approximation is involved. The Delegate from the Netherlands considered that a functional classification is needed for the analysis of consumer behaviour. He opposed imposing a one-to-one correspondence at all costs. Unfortunately there is conflict between making SNA compilation easy and useful for analysis. Germany pointed out that one cannot avoid having several classifications, e.g. by industry and by function but that all should have a clear conversion key to a product classification; Germany recognised that this would mean sacrificing purity to get a one-to-one

link. The Representative of Poland was against a one-to-one approach, taking insurance services and bicycles as examples. The Representative of Eurostat pointed out that CPC is an aggregation of products, not a product classification, so under one heading there are mixes of products, which make a one-to-one link difficult.

68. The Chairman concluded that there was a division of view with some countries favouring allocating each CPC heading to only one CHGS heading, and others supporting a functional classification in SNA without such a one-to-one correspondence.

#### OTHER BUSINESS

##### i) Treatment of VAT on land transfer

69. The Delegate from Canada raised a question about how to treat VAT on new residential buildings where VAT is levied on the full market price including the associated land value. The present treatment to include the VAT on land transfer in the VAT on housing did not seem a satisfactory solution. The meeting came to the conclusion that there is no satisfactory treatment of VAT on land transfer and that the solution adopted in Canada is probably the least unsatisfactory one.

##### ii) Services statistics

70. The OECD Secretariat reported on the progress on service statistics. A meeting of experts on service statistics would be held 8-10 July 1991 at OECD, and the agenda of the meeting was distributed for information. A main point of the agenda was the terms of reference of an OECD Working Group on Services Statistics. As OECD work on Services Statistics is decentralised and involves several directorates, such a working group would be an important co-ordination instrument. The importance of international co-operation in this field, especially with Eurostat, was also underlined. Other points on the agenda of the services meeting would be the questionnaire on the measurement of value added at constant prices in service activities, problems relating to international trade-in-services, and the development of short-term services statistics, which are needed for monitoring the economic activity in a situation where two thirds of GDP is generated in service industries. The Secretariat also reported that preliminary reports of output and employment in service industries had been sent for checking and updating; 18 replies had been returned to the Secretariat so far. The next step would be to merge the two reports for publication.

##### iii) Household consumption of medical goods and services

71. There was a brief description of the recently distributed questionnaire on the Treatment of Household Consumption of Medical Goods and Services in the National Accounts and its purpose. The replies to the questionnaire received so far from Member countries were presented in Room Document ESD/STAT/SNA/RD(91)13. Countries which had not yet completed the questionnaire were urged to do so as soon as possible.

iv) Topics for future meetings

72. The following topics were suggested by the delegates for future meetings:

- Multifactor productivity (Australia)
- Unpaid household production, examination of survey procedures (the Secretariat)
- Hidden economy, OECD country experiences (the Secretariat)
- Revision of SNA (Austria, Germany)
- Imputations in national accounts, related to taxes (Austria)
- Accuracy of data, a paper on the reliability of NA and the size of revisions (United Kingdom)
- SAMS (Poland, Germany)
- Accrual/Cash basis, how to reconcile them (Poland)
- Rebasings of constant price estimates (Netherlands)

73. Delegates were invited to send in other proposals before the end of the year, and subsequently the topic "Price and Unit Value Indices for Foreign Trade in National Accounts" was suggested by Austria.

Annex

LIST OF DOCUMENTS  
LISTE DES DOCUMENTS

- ESD/STAT/SNA/A(91)1/PROV• Agenda  
• •••• Ordre du jour
- ESD/STAT/SNA/M(91)1•• Report on the meeting of National Accounts  
experts - 3-6 July 1990  
• •••• Compte rendu de la réunion d'experts en  
comptabilité nationale - 3-6 juillet 1990
- ESD/STAT/SNA(91)2•• Labour: Population and jobs  
• •••• Main d'oeuvre : les concepts de population et  
d'emplois
- ESD/STAT/SNA(91)3•• SNA review: Suggested points for discussion  
• •••• Révision du SCN : Proposition de liste de  
points à examiner
- ESD/STAT/SNA(91)4•• Extending national accounting with regard to  
natural and environmental resources and to  
expenditure on pollution abatement - An  
overview of the recent international  
• •••• discussion  
• •••• Extension des comptes nationaux aux  
ressources naturelles et de l'environnement  
et aux dépenses de lutte contre la pollution  
- Une revue des débats internationaux récents
- ESD/STAT/SNA(91)5•• Non-market household production and its  
• •••• measurement  
• •••• La production non marchande des ménages et  
son évaluation
- ESD/STAT/SNA/RD(91)1•• Gold in international systems of national  
accounts  
• •••• (Non traduit en français)
- ESD/STAT/SNA/RD(91)2•• Employment cost index rebased to June 1989  
• •••• (Non traduit en français)
- ESD/STAT/SNA/RD(91)3•• Estimating the value of household work in  
Canada  
• •••• Estimation de la valeur du travail domestique  
au Canada

- ESD/STAT/SNA/RD(91)4•• Definitions and methodology used in Finland  
for estimating flows and stocks of fixed  
capital
- •• Estimation des flux et des stocks de capital  
fixe : définitions et méthodologie utilisées  
en Finlande
- ESD/STAT/SNA/RD(91)5•• Statistical information on fixed assets  
retirements and methods of calculation of age  
characteristics
- •• Information statistique sur la mise au rebut  
des actifs fixes et méthodes de calcul des  
caractéristiques par âge
- ESD/STAT/SNA/RD(91)6•• Definition of the household goods and service  
production sector in national accounts  
systems of the USSR
- •• Définition du secteur de la production de  
biens et services par les ménages dans le  
système de comptabilité nationale de l'URSS
- ESD/STAT/SNA/RD(91)7•• Calculation and breakdown of the indirect  
financial intermediation service charge
- •• Calcul et répartition de la production  
indirecte de service d'intermédiation  
financière
- ESD/STAT/SNA/RD(91)8•• Classification of household goods and  
services
- •• (Non traduit en français)
- ESD/STAT/SNA/RD(91)9•• Value added in household
- •• (Non traduit en français)
- ESD/STAT/SNA/RD(91)10•• The capital and repair expenditures survey
- •• Enquête sur les dépenses d'investissement et  
de réparation
- ESD/STAT/SNA/RD(91)11•• Capital goods: stocks, ages and lifetimes
- •• (Non traduit en français)
- ESD/STAT/SNA/RD(91)12•• Short remarks on the Polish experience with  
estimates of the value of unpaid household  
production
- •• (Non traduit en français)
- ESD/STAT/SNA/RD(91)13•• Households consumption of medical goods and  
services
- •• (Non traduit en français)

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END-OF-TEXT