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[Comments on the full set of provisional AEG recommendations.](#)

Dear Mr. Cheung,

On the basis of the 44 provisional recommendations now available from the AEG, we would like to express our appreciation of the updating process so far, both related to the efforts and contributions of the individuals and the national and international agencies involved in the work, as well as to the implementation of this comprehensive project according to the established time table. This certainly represents a remarkable achievement.

We have already given our views on the individual AEG recommendations in a number of consultations rounds, the most recent one with deadline July 31, 2006. It follows from these comments that we broadly support the provisional recommendations on the updating of the issues that have emerged since the 1993 SNA was prepared, and these comments will not be repeated here.

In our comment, we will focus on some more overarching aspects of the updating process and the provisional recommendations. In this respect we will comment on the totality of the recommendations from a more comprehensive statistical and administrative perspective and may also to some extent modify earlier views given in the context of the individual issues.

A major responsibility in managing a national statistical system is to set the priorities for all types of statistics, and in this connection also to assess the benefits and costs involved in implementing the recommended changes to the 1993 SNA. The “benefits” should be recognized by a broad segment of users, and not mainly appeal to an academic interest. By “costs” we refer not only to additional staff requirements in statistical offices and increased burdens on respondents, but also to the risks of disruptions in the availability of national accounts data and a deterioration of accuracy and international comparability.

It is important to underline that no matter how fascinating the technicalities of the individual provisional *recommendations* are, there is also a *decision-making* process that should not be seen as mere formality. The consultations conducted so far cannot be taken as a substitute for this process. In this connection we are concerned that the progressive drafting of the updated SNA based on the provisional recommendations may in fact make it difficult to have an open-minded discussion at the meeting of the UN Statistical Commission in 2007.

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Our primary concern is that when all the provisional recommendations are seen as a whole, we are confronted with much more than an updating of the 1993 SNA. There are fundamental and comprehensive changes suggested to the 1993 SNA that go beyond what could reasonably be expected when the criteria for the updating were approved. Considering the range of changes indicated by the provisional recommendations, it would be more appropriate to talk about a 2008 SNA rather than a revised version of the 1993 SNA, as the methodological and empirical consequences of some of the proposed changes are in many respects more far-reaching than what happened from the 1968 SNA to the 1993 SNA. In this context, we are especially referring to the increased capitalisation that makes the central GDP concept less relevant without providing any workable alternative. In addition we are concerned about the significant increase in imputations and the reliance on expectations as well as the increased complexity in general.

It is noticeable that three of the provisional recommendations (concerning capitalisation of research and development, capitalisation of military weapon systems, and imputed return to capital in non-market services) were discussed at length in connection with the 1993 SNA, where it was eventually decided not to change the core accounts in these areas. Some of these (return of capital and research and development, although mainly the former) were mentioned as subjects for further research in the section: *Looking ahead: the research agenda* (p. xliii 1993 SNA). In our view, the substantial and exhaustive international discussions that should precede such fundamental changes have not taken place, and have in fact not been possible within the limited time span of the updating process (also counting the work in the Canberra II group). The implications of the three mentioned recommendations alone would be an *increase in GDP of about 5 per cent* which goes far beyond what could be expected from an updating.

We strongly oppose a procedure whereby *first* irrevocable decisions to introduce fundamental changes are taken, and only *afterwards* the investigations of the methodological and empirical feasibility of the changes are carried out, as it now seems to be suggested in several cases. We also believe that this is in conflict with the basic criteria for the updating. What have been the established contents of core accounts for more than 50 years should not be fundamentally changed in connection with an “updating”, also putting the very continuity of national accounts series at risk, as compilation of back series may not be a realistic possibility.

Even though the situation in Denmark concerning statistical resources and capability is privileged compared to many UN member countries, we have to carefully prioritize their use, and in particular not employ them in areas where they add little or nothing to our knowledge about society, or even – as we believe may be the consequence of some of the provisional recommendations – may have a negative effect on the type of information we are able to supply to the public.

In our view, it is essential that the updated system should be a realistic possibility also for all those countries (which may in fact be the majority of the almost 200 member states of the UN) that are still struggling to implement the 1993 SNA. A system that can only realistically be implemented by a very limited number of countries in any foreseeable future would be very problematic. Furthermore the still more important political and administrative uses of national accounts, not least in the EU, require the utmost care not to undermine their credibility.

Against this background, the following provisional recommendations could be seriously questioned and should be rejected: The capitalisation of R&D expenditures, the estimation of a return to capital to be included in the measure of non-market output, the capitalisation of destructive military weapons, and the suggested changes to the treatment of unfunded pension schemes. Issues such as research and development and unfunded pension schemes could with advantage be elaborated in the satellite accounts that may easily be adjusted to changing economic realities and

new insights. As we see the suggested change to the treatment of R&D as the most fundamental, comments on this issue are given most weight in the following.

Research and Development (R&D)

Regarding the provisional recommendation to capitalise R&D, we find that this is a fundamental change to the system, and with the unresolved problems of theoretical, methodological and empirical nature that have been identified in the updating process it is clearly outside the scope of this update. We see the issue of R&D as just one single element of the much broader question of the treatment of intellectual capital and the knowledge-based economy in general. The ongoing international discussion of these items, both in terms of their relevance for economic growth and the measurement of productivity is inconclusive, and recently the *Seminar on Creation, Recognition and Valuation of Intellectual Assets* held by the UNSD in New York 13-14 July 2006, illustrated the range of unresolved conceptual problems and weakness of data sources. Similarly, the background document to the *Joint Meeting of the Canberra II Group and NESTI [National Experts on Science and technology Indicators] – Capitalisation of R&D* in Berlin, May 31-June 1, 2006 points to the range of the unresolved problems. It is noticeable that both these meetings took place after the provisional recommendation on capitalisation of R&D was made in July 2005.

Although many countries do collect data on R&D expenditures according to the guidelines in the *Frascati Manual*, it is recognized by the OECD that the results have major shortcomings concerning comparability over time, between industries and between countries. The reference to the existing OECD data as a proof that the data problem can be solved is premature. Thus, the OECD finds that the data reported by the individual countries have serious quality problems, and consist of fragmented series that “may have large discontinuities, making international comparisons impossible”. Against this background the OECD only uses the reported official data as input into a data model that on a number of assumptions produce an estimated data set (ANBERD), which may differ significantly from the reported data (Source: *Research and development expenditure in industry, 2004 edition, OECD 2005*). These problems are confirmed by our knowledge of our national R&D figures (compiled by an independent research institute). In order to have an empirical basis for our position on this issue, Statistics Denmark has just completed a satellite system for R&D for the years 1990-2002, following the provisional recommendation of AEG¹.

We believe that existing data on R&D expenditures are basically only *indicators* related to scientific and technological developments, and as such not absolute measures fit for introduction into the national accounts. For example, an examination of Danish R&D expenditure data has revealed that as much as one third of the reported expenditures are closer related to the current operations of the enterprises than to the creation of future income. In addition there are major conceptual and empirical measurement problems related to both output values and capital stock values, and the choice of imputation methods and other assumptions become decisive for the levels of these values that have no observable counterpart in the real world. It will for example be completely arbitrary how much of the current capital services from existing R&D capital should be assumed to enter into the cost-determined output value of R&D.

It is remarkable that the present discussion of R&D has been resumed on the premises of the discussion that took place 20 years ago in connection with the 1993 SNA (and which can be found very well documented on the UNSD SNA web site). Major new developments in the knowledge economy in the meantime do not play any role, and new concepts, such as innovation expenditures other than R&D, are not explicitly dealt with (the first edition of the *Oslo Manual* on innovation data was published in

¹ *Nationalregnskabsmæssigt satellitregnskab for forskning og udvikling 1990-2002* (With an English Summary). Available on Statistics Denmark’s web site www.dst.dk later this month.

1992). In the case of Denmark, it has been found that this type of innovation expenditures is of the same magnitude as the reported R&D expenditures.

Some have argued that the national accounts would lose *relevance* if R&D were not to be capitalised. We find this argument difficult to follow. Firstly, if this were in fact the case, this shortcoming has obviously existed throughout the 50-year period, where national accounting has gained huge influence. Secondly, capitalisation of R&D, as now suggested, would not make national accounts a sufficient R&D data source for productivity analysis. Analytical users would still have to rely on supplementary data or satellite system for their R&D studies, and would probably prefer not be limited by the assumptions and imputations made on R&D output and capital in the national accounts.

The by now rather obvious failure by the large majority of countries in implementing the 1993 SNA recommendation on own-account production of software should be seen as an indication of the major conceptual and practical problems related to obtaining expenditures by purpose.

We have also noted that those who, in principle, support the capitalisation of R&D have not come to any agreement about the treatment of (or even the definition of) “free” R&D. Considering the extent of government participation in R&D in many countries, these differences cannot be seen as trivial, as it now seems to be the position taken in the provisional recommendation.

The fundamental change implied by capitalisation of R&D is also illustrated by the fact that in practise it would *hardly be feasible to compile long back series*, as the implementation of this change depends on new or improved statistics that do not yet exist, and cannot be carried back in time more than perhaps 5 or 10 years. Even though the first version of the *Frascati Manual* appeared in 1963, R&D data for individual countries are, in general, only available (if at all) for a much shorter period. Consequently this change would imply a permanent break in the time series. The nature of the proposed change is, therefore, more fundamental than, for example, the distribution of FISIM or capitalisation of mineral exploration, where source data were largely available back in time. Also this aspect speaks in favour of postponing any decisions on possible changes to the core accounts, until a much broader and consistent approach related to the knowledge economy and intellectual assets has been fully investigated and shown to be empirically feasible – and in that case most probably resulting in a fundamentally different system of national accounts where, for example, the net aggregates will be the central concepts. But such a system cannot be introduced step-wise.

Return to capital in non-market output

We are opposed to include yet another imputation which will in many cases be based on insufficient statistical information and arbitrary assumptions. This issue represents a resumption of a discussion that took place in connection with the 1993 SNA, without any new arguments being put forward.

The basis for the proposed imputation is the value of the fixed assets owned by the non-market producers. It is obvious from table 20 in the ESA 95 data transmission program that only very few of the 15 old Member States of the EU have this information. Since the statistical systems of these 15 countries are rather well developed, compared with many countries in the rest of the world, we would expect the situation to be even worse on a worldwide level.

Even if there were full information on the fixed assets a rate of return still have to be decided. The recommendation gives some indicative guidelines regarding this decision, but in the end it will be a decision of a somewhat arbitrary nature, and it would not even create “comparability” with market producers, as major parts of the productive assets are left out of this imputation.

Capitalisation of destructive military weapons

There are no new developments of this issue since the discussions prior to the 1993 SNA. Considering that this issue is still controversial, gives rise to unresolved methodological problems, and that it is foreseen that the necessary source data will in many cases not be made available (secrecy) and have to be replaced by assumptions about fixed shares of the defence budget or other conventions. Consequently it is preferable to leave this issue out of the updating process.

Unfunded pension schemes

At present the provisional recommendation on the treatment of unfunded (or under-funded) employer pension schemes is being reconsidered by a special Task Force, and while we support this process, and agree that there is a need for some clarifications on this issue, we would like to make the following brief comments. Firstly, the proposed treatment not only involves the recognition of the liabilities of the employer, but also involves recording of the associated economic flows in a rather complex way, which only a limited number of highly professional users will be able to understand. Secondly, most of these economic flows are based on imputations, which are in contrast to the principle of keeping the number of imputations in the System to a minimum. Thirdly, the well-known difficulties with the distinction between pension schemes for government employees and social security schemes can – or more precisely will – lead to situations where only small formal differences between the schemes in two countries result in different classifications and thereby different treatments. Considering the size of these schemes this could hamper the international comparability.

Concluding remarks

We find it important to maintain national accounts statistics as a *set of multipurpose data* that users can transform, aggregate or otherwise manipulate to fulfil their specific needs. The proposals for increased capitalisation are mainly driven by one specific user need, namely productivity studies. Requests in earlier revision rounds for adjusting the national accounts to specific needs, such as welfare measurements and measurement of sustainable GDP, were rejected, and have successfully been referred to satellite systems that can contain much more relevant information for such specific purposes. The same should be considered for the relevant data set for productivity analysis, where the core national accounts would anyway never serve as a sufficient data base.

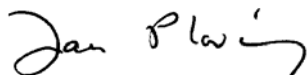
Some of the reservations raised in this comment are sometimes met by the argument that as national accounts data are, in general, not very reliable anyway, we should not be too concerned about introducing some additional unreliable or imputed data into the accounts. This argument is, of course, not acceptable as guidance in producing official statistics. (We have noted that the resolution on Strengthening Statistical Capacity (Ecosoc resolution 2006/6) adopted in July 2006 by the Economic and Social Council of the UN specifically expresses concern about the use of imputed data).

Being responsible for the overall statistical systems, we believe that national accounts should be seen as a part of the broader system of economic statistics, where the individual types of statistics are comparable and consistent across fields, based on the application of common definitions and classifications. Not least thanks to the leading role of national accounts, this process has been successfully developed over the years, and we are therefore concerned about what we see as a somewhat narrow approach to some of the updating issues the assumption being that only data sets that are separately identified in the core accounts or in compulsory supplementary accounts will be available for analytical uses, which is not what our current experience shows.

Thus, the massive success of national accounts as a framework for statistics worldwide implies that the “ownership” of this system is not limited to national accounts experts or even the broader national accounts community, and the final outcome of the updating process has to reflect the much broader interest in what happens to national accounts.

Having outlined our concerns above we find it important to underline that Statistics Denmark strongly supports the principles underlying the updating process, as also witnessed by the active participation of our staff members in the work of both the Canberra II group and the Advisory Expert Group. We feel a strong commitment to continue this work towards a successful completion of the updating project.

Yours sincerely,

A handwritten signature in black ink that reads "Jan Plovsing". The signature is written in a cursive style with a long, sweeping tail on the final letter.

Jan Plovsing

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cc: Statistical Offices of EU Member States and EFTA Countries, and Eurostat.