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SESSION 4:

Review of the Central Product Classification (CPC)

SOME CONSIDERATIONS CONCERNING REVISION OF CPC

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I. Introduction

1. The revision of an international classification is a very important and far-reaching task. This is especially true if the classification in question is part of an interrelated system of international classifications. This is all the more true if one takes into account that the classification in question is already part of various statistical systems. In the case of CPC one can find references in the new SNA 1993¹ as well as in the SEEA². Some countries also implemented CPC in their survey system or in the National Accounts. Furthermore, it should be borne in mind that in other derived classifications CPC plays a central role. One example is the CPA (which is the European Community version of CPC); another example are the economic tourism classifications, which are derived from ISIC Rev. 3 (SICTA³) and from CPC, respectively, at least in the case of the European version of the global tourism classification family.
2. It makes no difference whether one views the ongoing revision work on CPC a "revision" or just the elaboration of a final version. The effects of the new CPC are widespread. On the other hand, nobody would deny that a revision seems to be necessary. The Voorburg Group Report⁴ contains many recommendations for revision, concerning both single details as well as the whole structure of some divisions and groups of the present CPC.
3. The Voorburg Group Report is thus a very important starting point for the review of CPC. However, the Report limits itself to some extent. It considers only services and more or less those services for which pilot survey experience has been gathered under Voorburg auspices.
4. This short paper intends to complement the Voorburg Report by
 - a.) discussing some principal issues that should be considered in the review process, and by
 - b.) addressing some services areas which have not yet received due consideration.

However, it is not claimed that all the relevant issues are considered here.

II. Principal issues

1. Coverage of CPC

5. The present CPC includes categories for all products which can be subjects of domestic and international transactions or which can be put into stocks. Furthermore, CPC not only covers products which are an output of economic activities, including transportable and non-transportable goods and services, but also land and other intangible assets which arise from legal and accounting actions such as patents, licenses, trademarks and copyrights (intangible assets). It is argued that - although non-produced assets are not regarded as products in the SNA - they have been included in the CPC because there is substantial national and international trade in them. Furthermore, in addition to land CPC also includes a major part of tangible assets, namely all constructions and civil engineering works.
6. From these explanations it is clear that CPC intends to include not only products, even if it regards itself as a product classification. In my opinion, there could be two ways of treating

with that in a revised CPC. The first one would be to restrict a revised CPC to products only. (This is the CPA approach; the tangible and intangible assets are treated as separate and distinct classifications.) The second way would be to retain these assets in the CPC. However, they should be separated from the real products part and coded differently. This second way would mean that there is no real change in the coverage of the CPC publication, yet the differences in the conceptual basis would be more explicit.

7. However, irrespective of the solution followed, the new SNA has to be taken into account. As known, the new SNA enlarged the production boundary in that now also the production of literary artistic works is included. Also payments to use a patent are now treated as a payment for a service and the action of making the patent available to another user is treated as output. Secondly, the new SNA pays much attention to the asset side of the system. New classifications both for tangible and intangible assets including non-produced economic assets, such as non-cultivated biological resources and water resources, were elaborated.

2. Market versus non-market

8. Neither ISIC Rev. 3 nor CPC makes any distinction concerning market or non-market. This does not mean that such a distinction would not be of interest. On the contrary, for National Accounts this differentiation is a quite fundamental one. However, there are good reasons for not incorporating such a distinction into the system of economic classification. In my opinion the new SNA is another reason for not specifying regarding market or non-market. While in the old 1968 SNA two of the three basic transactors of the system were considered as non-market producers (producers of government services, producers of private non-profit services), the new SNA changed its position fundamentally. Non-market activities are now defined on the basis of a cost coverage criterion rather than by considering what the characteristics of non-market production are. Thus, in the former National Accounts system non-market services were more or less restricted to only a small part of the activity spectrum (for example education, health, cultural and social services). In the new system there is principally no relation between market and non-market activities, thus not even making possible any consideration of introducing such a distinction in the classification system.
9. However, the new SNA-based situation may have another influence on a revised CPC, namely with regard to the level of detail in certain areas. In the case of non-market services the output of these services is by convention measured by the costs incurred. Thus, there is inevitably a 1:1 correspondence between the non-market statistical unit and the product category attached to it. Therefore, the possibility of defining a unit, which itself depends on the book-keeping and accounting structures, limits the products that can be distinguished. Even if the new SNA changed the definition of non-market, most of the "classical" non-market activities in the area of education, health, cultural and social services will still be non-market; a fact that should deserve attention in the review process of CPC.

3. Relation to ISIC Rev. 3

10. It is not intended to reopen the discussion whether a central product classification should be structured according to activities (as done in the CPA) or structured according to "physical properties and the intrinsic nature" of the products (as CPC does).⁵ It is also not questioned that CPC did consider the industrial origin of the goods and services in that it attempted to group into one CPC subclass only products that are produced by a single industry.

Furthermore, it is recognized that the industrial origin could only be applied to the extent the Harmonized System had allowed for. However, there are two aspects of the relation to the activity classification to be mentioned here.

11. Even if CPC will retain its basic structure, a more explicit comparison for each single activity in ISIC Rev. 3 with the corresponding categories in CPC should be made at least for the review purpose. From CPA experience it has to be stated that in several cases it turned out that CPC did not provide a subclass for a specific activity, or not an adequate subclass which seemed to cover that activity. At some stage of the elaboration process of CPA it was considered to include for many activities a sub-category named "other". As the HS claims to cover all physical products, this is a special problem of the services. Such "other"-subcategories - wherever appropriate - make the classification also more flexible concerning the dynamic changes occurring in many of the services areas (not only in telecommunications).
12. The other aspect refers to the relation between ISIC Rev. 3 and a revised CPC. There are some inconsistencies between these classifications now. In some cases CPC should be changed in order to be in line with the activity classification. However, there are cases where it would be better to change ISIC Rev. 3. Such cases are already mentioned in the Voorburg Report. Even if such cases are not of great economic importance the problem needs to be discussed seriously.

4. Relation to HS

13. Of course, this is primarily a topic for the goods' part of CPC. However, two aspects seem worthwhile to be considered, at least one also being relevant for the services' part of CPC.
14. The way the HS defines its headings and subheadings determines the structure of CPC to a large extent and - of course - also the industrial relation between CPC and ISIC Rev. 3. Numerous examples could be quoted to illustrate the problem that the attribution of a HS item to a ISIC Rev. 3 class results in quite unsatisfactory relations seen from the industrial origin point of view. In my opinion, not all these cases are of a kind that one could argue that the customs authority would not be able to make the relevant distinction. To quote just one example: HS 6506.10 comprises safety headgears made of any material. In CPC reference is given to ISIC Rev. 3 class 2520. Thus, safety headgears made of metal are supposed to be produced in manufacturing of plastic products. (Clearly, the bulk of safety headgears is made of plastics.) - Of course, there is no easy solution to problems of that kind. In case of a future revision of the HS (1996 ?) efforts could be undertaken in order to introduce some additional subdivisions. Anyhow, a kind of stock-taking seems to be valuable during the revision process and it could be also considered to incorporate in a future CPC publication such a list of inherent problems.
15. The second point concerns services which usually are (at least partly) manifested in a physical form, such as architectural plans and cinematographic films. Even if the HS does not cover services, it covers the physical appearance of such services. Since CPC has the same coverage as the HS, CPC includes in addition to the services as such also the physical appearance of the respective services. In other words, CPC makes some double-counting. It should be considered how to treat these HS-items in a revised CPC. One possibility could be to regard these HS-items only as "footnote" items or at least to mention this issue in the text.

III. Selected service areas

1. Trade services

16. Even if there are services which develop more dynamically than trade, trade is still one of the major parts of the tertiary sector. Yet, it still seems to be unclear what should be measured by a product classification for trading and how the elements should be structured. There were already two papers by W. Neece⁶ presented at former Meetings of the Voorburg Group on that subject. He compared the CPC and the CPA approach in trade. While the CPC structures the trade categories according to the goods traded and giving reference to the specialized stores only, the CPA approach is that there should be a product category also for non-specialized trade. However, those are not further subdivided by goods traded. W. Neece favours the CPC approach because of the main interest to show trade data (more specifically revenue data) by goods traded; thus enabling to produce tables that either show trade data by trade branches, subdivided by goods traded, or trade data by goods sold, subdivided by the selling trade branches.
17. The above stated analysis starts from the assumption that the trade products are represented by the trade revenues. This is what CPC might have in mind: to establish a grouping of goods which are sufficiently detailed to show trade revenues by goods traded. However, in that case CPC should make no reference to ISIC Rev. 3 at all. On the other hand, the CPA approach is also unsatisfactory as detailed subcategories are provided for specialized trade only. However, CPA had in mind that the trade margins are to be viewed as products of trade, thus, too much detail is inappropriate. Obviously, it follows that the subcategories for specialized trade are too disaggregated, as such items would only be useful if separate subbranches of a NACE Rev. 1 trade class are existent. CPA would view a classification of goods traded as an annex classification to CPA. - Whatever approach will be taken in a future CPC, a more theoretical-based review seems necessary. Clearly, at the moment neither the CPC nor the CPA approach is satisfactory.

2. Transport services

18. Transport services are classified in Section 7 of the present CPC together with storage and communication services. Three out of five divisions relate to transport services, the other ones to supporting and auxiliary transport services and to post and telecommunication services. With the exception of telecommunication and certain kinds of supporting services, most of the other transport services seem to be quite traditional. They were not subject to model or pilot surveys as far as it is known to me.
19. Nevertheless, some discussion should be devoted to the structuring of the various freight transportation services (land, air, water). The present CPC delineates these subclasses of freight transportation by using two classification criteria at the same time: kind of goods transported and mode of appearance (e.g. containerized or not). The question is: which of the two criteria determine the product (= transport service) ? If it is argued that different products have different prices, it has to be concluded that the means of transport should be the criterion used.⁷ Of course, both are interrelated as the kind of good (and its mode of appearance) to a large extent determines the means of transport (the vehicles to be used for liquid gases are different from the ones to be used for transporting mail or computers). Thus, the changes involved would not be huge. However, it would be emphasized that CPC

is an economic product classification rather than an aggregated version of a transport classification.

3. Environmental services

20. As already mentioned in the introductory paragraph, the UN system of "Integrated Environmental and Economic Accounting" (SEEA) makes reference to CPC in the part dealing with environment-related disaggregation of SNA. In particular, CPC is used to develop an accounting system for environmental protection and related activities. Environmental activities are viewed to be activities of recycling and of sewage and refuse disposal, of sanitation and similar activities.

21. The CPC subclasses of division 94 are used to substructure these environmental protection activities. All the subclasses of division 94 have reference to ISIC Rev. 3 class 9000. However, it seems very doubtful whether all these services are covered by ISIC Rev. 3 class 9000. Especially the following subclasses, which in the SEEA are viewed as "other environmental protection services", seem not to be covered by class 9000:

- 940040 Cleaning services of exhaust gases
- 940050 Noise abatement services
- 940060 Nature and landscape protection services
- 940090 Other environmental protection services n.e.c.

According to the explanatory notes these items cover emission and pollution monitoring, controlling and abatement services. Thus, these services may partly be viewed as technical services as concerns monitoring and controlling. They may also be viewed as services belonging to government services. Furthermore, some parts of these services may be regarded as research services (for example studies on the relationship between environment and climate), which are listed in the explanatory notes of subclass 940060.

22. In any case, the CPC subclasses of division 94 are the only ones having a relationship to environmental aspects. There are no other CPC service categories in which certain environmental aspects are mentioned. However, in several areas - for example construction, architectural and engineering, technical, research services - one could imagine a relation to environmental interests. It should be mentioned that incorporating environmental aspects into economic classifications proves to be difficult⁸, however, considering the importance given to environmental aspects, it seems to be worthwhile to take up this issue.

4. Industrial services

23. CPC division 88 covers agricultural, mining and manufacturing services, defined as services rendered on a fee or contract basis by units mainly engaged in the production of transportable goods, and services typically related to the production of such goods. Included are assembly, installation (other than construction), maintenance and repair services (other than vehicles, office machinery and computers, household goods). Thus, there are four different kinds of services to be covered by division 88:

- services incidental to manufacturing (services provided as an input to agriculture, mining and manufacturing),

- manufacture on a fee or contract basis (which is manufacturing under special arrangements between an ordering and a producing unit),
- installation services (other than construction), and
- maintenance and repair services (other than vehicles, office machinery and computers, household goods).

It is common to all these categories that they are characteristic activities of agriculture, mining and manufacturing.

24. However, these different kinds of industrial services are not fully separated in the given structure of CPC division 88. For example the subclasses concerning the manufacturing services are just labelled as manufacture on a fee or contract basis. Furthermore, there are ISIC Rev. 3 classes whose characteristic output is just manufacturing on a fee or contract basis (for example finishing of textiles, printing, casting and forging). They would deserve separate subclasses. In addition, there are some overlappings between subclasses of division 88 (for example 88630, 88670) and other ones dealing with repair services. It thus seems worthwhile to elaborate a more adequate structure for these industrial services in a future CPC. It would also be of help if the explanatory notes would be reviewed accordingly.

Footnotes:

- 1 Commission of the European Communities, International Monetary Fund, Organisation of Economic Co-operation and Development, World Bank; System of National Accounts 1993, Brussels/Luxembourg, New York, Paris, Washington D.C. 1993.
- 2 United Nations, Integrated Environmental and Economic Accounting, Studies in Methods, Series F., No. 61, New York 1993.
- 3 Draft Standard International Classification of Tourism Activities (SICTA), Report prepared by the World Tourism Organization, United Nations, PROVISIONAL ST/ESA/STAT/Ser. M/83, 8 September 1992.
- 4 Recommendations for Changes to the Services Part of the Provisional Central Product Classification, Ninth Meeting of the Voorburg Group on Services Statistics, Sidney, 17 - 21 October 1994.
- 5 However, one should not deny that the structure of CPC is to a large extent quite similar to that of ISIC Rev. 3. Furthermore, one could ask whether products can be defined without any (even implicit) link to activities and the underlying statistical units.
- 6 W. Neece, Some Basic Issues in the CPC, 7th Voorburg Meeting; W. Neece, Conceptual and Technical Issues in the CPC, with emphasis on Wholesale and Retail Trade, 8th Voorburg Meeting.
- 7 See: J. Eefting, Comments on CPA in the transport sector, internal Eurostat-paper, March 1992.
- 8 See for example: A. Franz and N. Rainer, Classification in environmental accounting, Some observations on the present state, in: A. Franz and C. Stahmer (eds.), Approaches to Environmental Accounting, Heidelberg - New York 1993.