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**PROPOSALS FOR THE CLASSIFICATION OF INTELLECTUAL PROPERTY PRODUCTS IN
MSITS AND EBOPS**

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PROPOSALS FOR THE CLASSIFICATION OF INTELLECTUAL PROPERTY PRODUCTS IN MSITS AND EBOPS

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Introduction

1. In late 2007 the OECD Task Force on R&D and Other Intellectual Property Products (TFIPP) was formed with the principal aim of developing a handbook to provide guidance on the compilation of gross fixed capital formation (GFCF) and other capital measures¹ of intellectual property products (IPPs). The major reason for taking this initiative was the recognition of R&D as a fixed asset in the updated 1993 SNA, now officially referred to as the 2008 SNA. But the handbook will also provide guidance on the three other types of intellectual property products: software and databases; entertainment, literary and artistic originals (hereafter referred to as “originals”); and mineral exploration and evaluation. In the case of software the guidance will be based on the report of the 2002 OECD Software Task Force, and in the case of originals the guidance will be based on the report of 2003 EU Task Force on Entertainment, Literary and Artistic Originals.

2. International transactions play an important part in the capital formation of software, R&D and originals and hence it is important to accurately quantify the various product flows. IPPs can be transported by various means: they can be stored on a physical medium and transported or they can be sent electronically, but this is of no relevance when measuring GFCF². Also, whether IPPs are goods or services is not an issue when measuring GFCF. But the distinction between goods and services is a very important categorization parameter in the Balance of Payments (BOP) and the mode of transport of IPPs influences their categorization as goods or services to some degree. By contrast, the categorization parameters that are important for the national accounts are first, the identification of particular types of IPPs and second, whether they are to be used as fixed assets, household final consumption (HFC) or intermediate consumption (IC). While there is some categorization by type of IPP in the BOP it is insufficient for national accounts purposes and there is no categorization by usage. This misalignment between the BOP and national accounts was identified in the reports of both the OECD software task force and the EU originals task force as a hindrance to the measurement of GFCF. Not surprisingly, the OECD TFIPP turned its attention to the categorization of IPPs in the BOP shortly after its formation.

3. The determination of whether transactions in IPPs should be recorded as GFCF, IC or HFC depends on a number of factors:

- a) what sort of unit acquires the product,
- b) the nature of the product or how the product is to be used, and

¹ Capital stock, consumption of fixed capital (CFC) and the provision of capital services.

² Other than that all the costs of acquisition should be included when estimating GFCF.

c) in the case of licences to either use or reproduce, the terms of the contract.

4. It is not that easy to obtain information about these factors and it is probably impracticable for BOP statisticians to attempt do so for all IPPs, although it may be practicable for some. This has a number of implications for measurement, but the most important one is that aggregates - free of omission or duplication - should be available for each type of product (or groups of products) of interest, so that the differentiation between capital and consumption can be checked if there is one from the data source and can be imputed if there is not one. For example, it is highly desirable that short and long-term licences to use computer software should be separately identified, but it is critical that they should be in one aggregate and not fragmented. Given that nearly all categories of transactions in IPPs are recorded as trade in services in the BOP but some are recorded as trade in goods, then it follows that the preferable source for aggregate estimates of IPPs would be trade in services surveys. For the purposes of the BOP, the components that should be recorded as trade in goods can then be excluded, while the aggregates needed by national accountants and other users not concerned with the goods and services division should be available as supplementary or memorandum items.

5. The remainder of this paper tries to explain the needs of the national accounts with respect to the categorization of international transactions in IPPs and then proceeds to evaluate how well the proposed changes to EBOPS would satisfy them.

Needs of the national accounts

Software

6. It is clear that the most important deficiency with the BOP categorization of transactions for the purpose of measuring GFCF of IPPs is with respect to software. Over the last six months there has been considerable debate about whether it is desirable that the classification of long-term licences to use non-customized software (and audiovisual products) provided on disks, etc. should be classified as goods in BPM6. To cut a long story short, the ISWGNA wrote to the chair of BOPCOM expressing concern about the proposed classification of these licences as goods and made an alternative proposal to classify them as services. A consultation of major stakeholders was conducted, including the Task Force on International Trade in Services and the Task Force on International Merchandise Trade, but the outcome was indecisive. Subsequently I proposed a compromise solution with two variants, as follows:

"1(a) The draft BPM6 remains unchanged.

1(b) The draft BPM6 is changed so that ALL non-customized software with an end-user licence supplied on physical media should be treated as a good, i.e. both long-term and short-term licences, but with a change to create a specific item in the BPM6 goods account "non-customized or standard software supplied on physical media".

2. EBOPS and MSITS specify that non-customized software with end-user licences should be recorded as memorandum items. It is critical that all data relating to end-user software, but especially licences to use, should be collected in the same enterprise surveys. There should be a split between those licences to use that qualify as consumption (a year or less) and those that could qualify as fixed capital formation (more than a year). This could be derived either via surveys or possibly using information from software publishers, but this would require international co-operation.

The MSITS would then provide all the data required for national accountants and others to measure international flows of software and the problem with double counting would be eliminated for estimating GFCF and minimized for measuring exports and imports.

The BPM could have memorandum items showing total exports and imports of software."

7. It is evident that option 1(a) has been chosen, i.e. the classification in the draft BPM6 is to remain, and some additional items have been included in the draft EBOPS.

8. From a national accounts perspective, the requirement is for the separate identification of the following software products referred to in table 10.4 of the draft BPM6:

- 1) Customized software and non-customized originals (GFCF).
- 2) Non-customized software – outright sales of copies and long-term licences to use (GFCF and HFC).
- 3) Non-customized software – short-term licences to use (IC and HFC).
- 4) Non-customized software - licences to reproduce (IC and GFCF).

9. In addition, there are some other types of computer services not included in table 10.4 that are of interest:

- 1) Computer services of a capital nature (GFCF and HFC): hardware and software consultancy, implementation and installation services; analysis, design and programming of systems ready to use. These are included in the category *Computer services* in both BPM5 and BPM6.
- 2) Computer services of a consumption nature (IC and HFC): repairs and maintenance of computers and peripherals; data recovery services, provision of advice on matters related to management of computer resources; systems maintenance and other support services, such as training; data processing; web page hosting services; provision of applications, hosting clients' applications, and computer facilities management. These, too, are included in the category *Computer services* in both BPM5 and BPM6.

10. With the exception of Licences to use non-customized software provided on disk for perpetual use all six of the above components are included in either Computer services or Charges for the use of intellectual property in the draft BPM6, and could, at least in principle, be identified via a revision to EBOPS and the MSITS. Although Licences to use non-customized software provided on disk for perpetual use is classified to goods, it is proposed that the MSITS should recommend that it be collected using SITS and be combined with other licences to use software in a memorandum item.

11. Categories (1) and (5) could be combined as these two items have similar characteristics. If it is not possible to separate categories (2) and (3), then their aggregate should be provided.

12. Licences to reproduce are in *Charges for the use of intellectual property* - a different BOP category than the other five software categories identified here.

13. In earlier correspondence, BOPCOM has been informed that the delineation of licences to use between those that convey a perpetual use and those with a periodic licence fee does not very well match the recommendations of the 2008 SNA concerning those licences to use that should be recorded as gross fixed capital formation and those that should be recorded as intermediate consumption. It would be better to distinguish between licences to use for a year or less and licences to use for more than a year.

Audiovisual products

14. The situation regarding audiovisual products in BPM5 and BPM6 is much the same as for computer software. In BPM6 there is the category *Audiovisual and related services* rather than the category *Computer services*. Other than that, the classification in BPM6 is identical. With one exception the same is true of BPM5: distributive rights for audiovisual products for a limited period or a limited area are included in *Audiovisual and related services*.

15. The national accounts requirements for audiovisual products are essentially the same as they are for computer software. A major problem with the existing BOP categories is that they comprise many types of flows including fees to actors and fees for motion picture production. The major requirement is to separately identify transactions in existing originals (or parts thereof) and newly created customized products, and payments for licences (or royalties). Like software, licences to reproduce and/or distribute originals and licences to use can be fixed assets in certain circumstances.

Other personal, cultural and recreational service products

16. All these products are for either final or intermediate consumption.

R&D

17. In BPM5 and MSITS, R&D transactions fall into three categories: *Other royalties and licence fees, Research and development services* and *Acquisition or disposal of nonproduced, nonfinancial assets*. The first two of these categories are in the current account and the third is in the capital account. In BPM6 R&D transactions fall into two categories: *Charges for the use of intellectual property* and *R&D services*. As far as R&D is concerned, the major change in categorization is that payments for the acquisition of patents have been removed from *Acquisition or disposal of nonproduced, nonfinancial assets* in the capital account to *R&D services* in the current account.

18. As can be seen from paragraph 10.134 of the draft BPM6, the definition of *R&D services* is wider than that in the 2008 SNA and the FM because it includes other product development that may give rise to patents. It would therefore be appropriate to identify that part of *R&D services* that is not part of the SNA definition of R&D. In all other respects this category appears to be an appropriate categorization of trade in R&D originals and R&D inputs into the production of R&D originals. Nevertheless, it would be desirable to sub-categorize it to separately identify the acquisition and disposal of proprietary rights (patents, copyrights, trade secrets, etc.) so that *R&D services* excluding them can be reconciled with funding data from R&D surveys³. Hence, the following breakdown could be provided:

- 1) R&D as defined in the SNA (creative work undertaken on a systematic basis to increase the stock of knowledge)
 - a. Provision of customized and non-customized R&D services
 - b. Sale of proprietary rights (patents, copyrights, industrial processes and designs, etc.)
- 2) Other R&D services (testing and other product/process development activities beyond R&D as defined in the SNA)

19. It may be best to source some of the data in item (1b) separately from administrative sources. It would therefore be useful if this item were broken down by type: Patents, Copyrights, Industrial processes and designs (including trade secrets) and Other.

Franchises and trademarks

20. Franchises and trademarks continue to be classified as non-produced assets and the services they produce are for either final or intermediate consumption.

³ Investigations by the TFIPP have revealed that there is no one best source of data for international transactions in R&D. In practice, national accountants and balance of payments statisticians will use data from a number of sources, including: SITS, FDI surveys, R&D surveys and data from administrative sources, such as patent offices, in order to derive consistent estimates of international flows of R&D for the national accounts and BOP.

Capital transfers

21. Transfers of intellectual assets and services are common between affiliated enterprises and should be recorded in the capital account of the BOP. It is almost certainly the case that they are under-reported, probably to a great extent, but it is an area of increasing interest and efforts will probably be made in the future to improve matters. Therefore, it is highly desirable that they be separately identified in EBOPS and MSITS. As for *R&D services*, above, it is desirable that the transfer of patents should be separately identified.

Evaluation of the draft EBOPS

22. The following proposals concerning IPPs are made for EBOPS in the draft MSITS:

- | | |
|-------|--|
| 8 | Charges for the use of intellectual property, n.i.e. |
| 8.1 | <i>Licenses to reproduce and/or distribute computer software A</i> |
| 8.2 | <i>Licenses to reproduce and/or distribute audiovisual and related services A</i> |
| 8.3 | <i>Outcomes of research and development A</i> |
| 8.4 | <i>Franchises and trademarks licensing fees A</i> |
| | |
| 9.2 | Computer services |
| 9.2.1 | <i>Computer software A</i>
<i>(of which originals) B</i> |
| 9.2.2 | <i>Other computer services A</i> |
| | |
| 10.1 | Research and development services (<i>Subject to further discussion in NA R&D group</i>) |
| | |
| 11.1 | Audiovisual and related services |

Alternative EBOPS groupings

- | | |
|---|--|
| 2 | <i>Audiovisual transactions</i> |
| 3 | <i>Computer software transactions D</i> |

2. Updated from MSITS 2002

3. Computer software transactions; would be a grouping of computer software goods; computer software services; and licenses to distribute or reproduce computer software; [need to align with Ch 3 eventually]

Software

23. As already described, the biggest deficiency in the BOP for software is the inclusion of Licences to use non-customized software provided on disk for perpetual use in trade in goods. While the item Computer software transactions in Alternative EBOPS groupings would be of interest to users, an additional item Licences to use computer software would be invaluable for national accountants.

24. Although less than ideal from a national accounts point of view, with this addition the proposed categories would go a long way to meeting the needs of the national accounts.

Audiovisual products

25. A breakdown like that for software is required.

R&D

26. A breakdown of R&D services as described above is needed. Alternatively, sales of proprietary rights (patents, copyrights, etc.) could be presented as “of which items”.

Capital transfers

27. It is proposed that capital transfers of computer software, audiovisual products and R&D products (with patents shown separately) be included as supplementary items.

Summary

28. The identification of international flows of IPPs is important for the accurate measurement of GFCF. For R&D and computer software it is critically important because of their substantial magnitude. SITS play a key role in providing these data, and to do so most effectively requires extending their scope a little beyond the BOP definition of services to include all flows of IPPs.

29. It is proposed that the above proposals concerning IPPs for EBOPS should be amended as follows, with the amendments underlined:

- | | |
|------------|--|
| 8 | Charges for the use of intellectual property, n.i.e. |
| 8.1 | <i>Licenses to reproduce and/or distribute computer software A</i> |
| 8.2 | <i>Licenses to reproduce and/or distribute audiovisual and related services A</i> |
| 8.3 | <i><u>Licenses for the use of the outcomes of research and development A</u></i> |
| 8.4 | <i>Franchises and trademarks licensing fees A</i> |
| | |
| 9.2 | Computer services |
| 9.2.1 | <i>Computer software A</i>
<i>(of which originals) B</i> |
| 9.2.2 | <i>Other computer services A</i> |
| | |
| 10.1 | Research and development services |
| 10.1.1 | <u>Creative work undertaken on a systematic basis to increase the stock of knowledge</u> |
| 10.1.1.1 | <u>Provision of customized and non-customized R&D services</u> |
| 10.1.1.2 | <u>Sale of proprietary rights arising from R&D (patents, copyrights, etc.)</u> |
| 10.1.1.2.1 | <u>Patents</u> |
| 10.1.1.2.2 | <u>Copyrights</u> |
| 10.1.1.2.3 | <u>Industrial processes and designs (including trade secrets)</u> |
| 10.1.1.2.4 | <u>Other</u> |
| 10.1.2 | <u>Other R&D services (testing and other product/process development activities)</u> |
| OR | |
| 10.1.1 | <u>Creative work undertaken on a systematic basis to increase the stock of knowledge</u>
<u><i>of which sales of proprietary rights arising from R&D: patents, copyrights, industrial processes and designs (including trade secrets) and other</i></u> |
| 10.1.2 | <u>Other R&D services (testing and other product/process development activities)</u> |

- 11.1 Audiovisual and related services
 - 11.1.1 Audiovisual products
(of which originals)
 - 11.1.2 Other audiovisual services

Alternative EBOPS groupings

- 2 *Audiovisual transactions*
Licences to use audiovisual products
- 3 **Computer software transactions D**
Licences to use computer software

Capital transfers

- Computer software
- Audiovisual products
- R&D products
- Of which proprietary rights arising from R&D: patents, copyrights, industrial processes and designs (including trade secrets) and other