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THE TREATMENT OF ORIGINALS AND COPIES IN THE NATIONAL ACCOUNTS DRAFT ISSUES PAPER

Paper submitted by OECD

I. EXECUTIVE SUMMARY

1. Originals and copies were included on the Canberra group's agenda for two reasons. The first of these was to confirm whether the position adopted by the task force on software was appropriate for other instances where originals were sold in the form of copies, such as the case with literary and artistic works. The second was because of some concerns, expressed at the 2002 OECD National Accounts Meeting, that the recommendation of the OECD/Eurostat Task Force on Software that payments for licences to use software could be recorded as investment, would lead to a double-counting of investment (both originals and copies being recorded as gross fixed capital formation). This was despite the widely held view that the recommendations made were fully consistent with the SNA on originals and copies (paras 6.1443-6.147) and with the SNA position on software (para 10.92).

2. The issue has been discussed by the Group at its last three meetings and the Group has concluded that the recommendations made by the Task Force for licenses-to-use (copies) are

applicable generally and should stand but that minor modifications are needed to the recommendations made for licenses-to-reproduce, which implies a small change to the current SNA.

The SNA position on originals and copies

3. Paragraphs 6.143 to 6.146 can be summarised as:

The production of originals and copies is a two stage process. The first stage results in the production of an original and the second stage results in the production of copies. The original is an intangible fixed asset. The owner may use it directly in production or to produce copies, with both uses resulting in consumption of fixed capital of the original by the owner. The owner may also license other producers to make use of the original in production. In these cases, the owner is treated as providing services to the licensees. These services are recorded as part of the intermediate consumption of the licensees, and as consumption of fixed capital of the original in the accounts of the originator.
Proposals for Originals and Copies

4. The Canberra Group reviewed the OECD/Eurostat recommendation and considered two alternatives for the treatment of originals and copies. All three are summarised below:

Proposal 1: Payments for licenses-to-use copies and licenses-to-reproduce copies should be treated as payments for part of the original.

Proposal 2: Copies are the outcome of a production process in their own right, and payments for licenses to use them should be treated as investments if the conditions for investment set out in the Task Force report are satisfied. Payments for licenses-to-reproduce should be treated as intermediate consumption, as set out in SNA 6.146 (the OECD/Eurostat Task Force recommendation). The question of final consumption does not arise since the act of reproduction is a production process. They may however be recorded as exports if the reproduction is licensed to take place abroad.

Proposal 3: Payments for licenses to use and licenses to reproduce the original 'idea' should be treated as rental payments.

Recommendation

5. The Canberra Group tackled the issue in two parts: considering the issues of licences-to-use and licences-to-reproduce separately.

6. The Group concurred with the view of the OECD/Eurostat Task Force that copies are the outcome of new production. Where the copy is expected to be used repeatedly in production for more than one year, and where expenditure is above the small-tools cut-off point, expenditure should be recorded as gross fixed capital formation. This applies to all one-off purchases as well as the situation where the purchaser makes a series of payments over time, if it is the intention of the purchaser to use the copy until the end of its economic

lifetime, which is usually the case. The conditions-of-sale relating to copyright and ownership, which are often attached to copies, should be interpreted, within the SNA, as conveying the ownership of (economic benefits to be derived from) the copy to the purchaser but restricting the right to make further copies.

7. On licenses-to-reproduce, the Canberra II Group has come to a slightly different position to that of the Software Task Force. The Group has concluded that, where licenses-to-reproduce are not operational leases, the sale of the lease should be considered as the sale of all of or part of the original. This will require a slight modification of SNA 6.146. The Canberra Group is considering what should constitute an operational lease vis-à-vis the sale of a part whole of an asset in the issue regarding licenses and leases.

Impact of Proposals on the SNA

8. For Licenses-to-use, the recommendation made by the Canberra Group implies no change to the current SNA treatment of originals and copies. However it is recommended that an elaboration to the current SNA be made to remove ambiguities that arise on the issue of ownership, particularly in the context of software, following the principles set out in the OECD/Eurostat Final Report on Software that are briefly summarised below:

> Where the purchaser makes an up-front, one-off payment the owner of the copy should be considered to be the purchaser. This is in line with the treatment of households' expenditure on copies of literary and artistic originals such as books, CDs etc. If the purchaser is a business or government, the value is above the small tools limit and the copy is expected to be used repeatedly in production for a year or more then the acquisition should be considered investment. For software, this is consistent with the view that software satisfies the key characteristics of an economic asset.
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> The same conclusion on the treatment of a copy acquired by a business or government holds when the payment is by means of a series of payments over time, as long as the same conditions on usage are met and it is the intention of the purchaser to use the copy repeatedly in production until end of its economic lifetime. In theory the full value of the reproduction should be recorded as fixed capital in the first year of acquisition, with annual license payments corresponding to repayment of capital and interest payments thereafter, following the usual national accounts rules for financial leases. Where this is difficult to implement it is acceptable to record the whole of each licence payment as gross fixed capital formation when it occurs.

9. For Licenses-to-reproduce however some changes will be necessary, namely to paragraph 6.146. A proposed new paragraph 6.146 is set out below with changes in italics:

The owner may also license other producers to make use of the original in production. The latter may produce and sell copies, or use copies in other ways, for example, for film or music performances. Two cases arise:

> *Where the license is an operational lease*, the owner is treated as providing services to the licensees that are recorded as part of their intermediate consumption. The payments made by the licenses may be described in various ways, such as fees, commissions or royalties, but however they are described they are treated as payments

for services rendered to the licensee by the owner. The use of the asset is then recorded as consumption of fixed capital in the production of services by the owner. These services are valued by the fees, commissions, royalties, etc. received from the licensees.

Where the licence is not an operational lease, the sale of the licence should be considered as a sale of all or part of the original. The decline in the value of the original to the owner is recorded as negative fixed capital formation and not as consumption of fixed capital. The eventual decline in the value of the licence in use will be recorded as consumption of fixed capital in the accounts of the licensee, now recorded as the owner (and user) of part of the asset.

II. BACKGROUND

10. At the 2001 OECD National Accounts Experts Meeting a joint OECD/Eurostat Task Force was set up to investigate the measurement of software in the national accounts. This was in response to concerns that the wide range of software capitalisation rates, as a per cent of GDP, reflected measurement differences rather than economic reality.

11. By investigating country practices and by comparing empirical evidence related to the proportion of purchased computer services that was recorded as fixed capital the Task Force confirmed that measurement was the primary cause of differences between countries, (OECD, 2002).

12. The Task Force made a series of proposals concerning software, some relating to own-account software estimation and some relating to purchased software. For the latter, the Task Force concluded that significant differences existed in the treatment of software copies, which the Task Force referred to as licenses-to-use in order to differentiate conventional packaged software from licenses-to-reproduce; which explicitly refer to payments for the right to reproduce copies of originals.

13. The recommendation of the Task Force was that the sale of licenses-to-use reflected new production of copies and that expenditure on licenses-to-use that satisfied the normal accounting rules for capitalisation should be recorded as gross fixed capital formation. However because the terms and conditions relating to software copies usually come with some stringent restrictions on legal ownership, reflecting the ability of users to make cheap copies if they so wished, the Task Force also made some recommendations on the ownership criteria that should apply for national accounts purposes. These are summarised below but are shown in detail in the Annex.

Where the purchaser makes an up-front, one-off payment the owner of the copy should be considered to be the purchaser. This is in line with the treatment of households' expenditure on copies of literary and artistic originals such as books, CDs etc. If the purchaser is a business or government, the value is above the small tools limit and the copy is expected to be used repeatedly in production for a year or more then the acquisition should be considered investment. For software, this is consistent with the view that software satisfies the key characteristics of an economic asset. It can be used

repeatedly over a long period of time, unlike services, which are consumed as they are produced. Moreover this is consistent with the way software is treated in business accounts.

The same conclusion on the treatment of a copy acquired by a business or government holds when the payment is by means of a series of payments over time, as long as the same conditions on usage are met and it is the intention of the purchaser to use the copy repeatedly in production until end of its economic lifetime. In theory the full value of the reproduction should be recorded as fixed capital in the first year of acquisition, with annual license payments corresponding to repayment of capital and interest payments thereafter, following the usual national accounts rules for financial leases. Where this is difficult to implement it is acceptable to record the whole of each licence payment as gross fixed capital formation when it occurs.

14. For licenses-to-reproduce, the Task Force recommendation was consistent with SNA 6.143 which states that: The owner may also license other producers to make use of the original in production. The latter may produce and sell copies, or use copies in other ways; for example, for film or music performances. In these cases, the owner is treated as providing services to the licensees that are recorded as part of their intermediate consumption. The payments made by the licenses may be described in various ways, such as fees, commissions or royalties, but however they are described they are treated as payments for services rendered by the owner. The use of the asset is then recorded as consumption of fixed capital in the production of services by the owner. These services are valued by the fees, commissions, royalties, etc. received from the licensees.

15. There has been little, if any, criticism that the recommendations made by the Task Force were not consistent with the SNA. However, there was some concern that the SNA had inadvertently introduced double-counting of capital formation, since both originals and copies were being captured. This concern was explicitly recognised in the Task Force Final Report; which concluded that the issue was not unique to software or other assets that could be easily reproduced but to virtually all produced fixed assets too, since many other fixed assets are produced using fixed assets.

16. The reason for the singling out of software reflected the fact that the physical costs of software reproduction were relatively small and, so, this created the perception that a uniquely different type of double-counting was being introduced. A view emerged, among a few people, that rather than treat software reproductions as being the result of a process of production, the reproductions were actually part of the original, and so, with the exception of reproduction costs, copies were not the outcome of new production.

17. The Task Force had considered this option in their deliberations but concluded that the total costs of reproduction were unlikely to be as small or insignificant as initially presumed; since costs such as advertising were likely to be significant, and, moreover, that software copies, like other copies (such as books) were the result of a production process. Moreover the Task Force took the view that the decision on whether to capitalise assets could not be dependent on the magnitude of the associated costs of production.

18. For licenses-to-reproduce, criticism of the Task Force recommendation reflected those circumstances where the payments were clearly unlike operational leases and were significant; thus amounting to a change in ownership in whole or in part., Where payments reflected the full-value of the 'original' the Task Force recommendation and the SNA also recognised a change of ownership; although this was not explicitly stated in the Task Force recommendation. So in this circumstance all views were consistent.

III. PROPOSALS CONSIDERED BY THE CANBERRA GROUP

19. The Canberra Group was invited to review this issue under the broader heading of originals and copies, since decisions made on software impacted on this broader category of production and expenditure. Three proposals were formulated:

Proposal 1 treated the dissemination of the original as the sale of (parts of) a fixed asset and recorded this as negative capital formation by the owner of the original. A licence-to-reproduce is regarded as passing the ownership of part of the original to the third party reproducer and the licence-to-use as a passing of ownership to the ultimate user. Both a licence-to-reproduce and a licence-to-use can be regarded by the licence holder as a fixed asset in their own right distinct from, although originally part-of, the original. Apart from reproduction costs there is no output related to copies or licences-to-produce.

Proposal 2 (the OECD/Eurostat Task Force recommendation) treated the dissemination of the original as further production, additional to the production of the original, in which the decline in value of the original is recorded as consumption of fixed capital. This further production may be undertaken either by the originator or a third party holding a licence-to-reproduce. The agreement incorporated in a licence-to-reproduce is regarded as an operating lease where annual payments are due and recorded as intermediate consumption. Licences-to-use that satisfy the accounting rules for capital formation should be regarded as fixed assets. The purchaser of the copy is the economic owner of the copy.

Proposal 3 treated dissemination as a further production activity, additional to the production of the original, always provided by the originator. The original is conceived to be an 'idea' without physical form that requires 'access devices' to allow it to be used. After the original has been produced subsequent production is of access devices to it. Dissemination takes place via operational leases whereby payments are recorded as service provision (rentals). Ownership of the original stays with the originator in perpetuity and payments to use the original 'idea' are always treated as a lease where the originator is the lessor, irrespective of whether the access devices conveying the original 'idea' are produced by the originator or by a third party. Acquisition of the means of using the original 'idea' is always partitioned into two elements, the rental of

the original 'idea' and the acquisition of the access device which facilitates the dissemination in practice.

IV. RECOMMENDATION OF THE CANBERRA GROUP

20. This paper does not represent the arguments for and against each of the proposals. A decision was made by the group to consider separately licenses-to-use and licenses-to-reproduce. A vote was taken at the Washington meeting (held in March 2004), and, on both issues, the vote was strongly in favour of the recommendations, which are meant to apply to all originals and copies; including literary and artistic originals.

21. On licenses-to-use, (with the exception of two participants) the Group voted strongly for and endorsed the position set out by the OECD/Eurostat Task Force that:

> Licenses-to-use (or copies) are the result of a two-stage production process, beginning with the production of an original. The production of a copy results in output whose value should embody all reproduction costs, including the value of intellectual property tied-up in the license-to-use (copy). Where the license-to-use (copy) is expected to be used repeatedly in production for more than one year, and where expenditure is above the small-tools cut-off point, expenditure should be recorded as fixed capital formation. This applies to all one-off purchases and where the purchaser makes a series of payments over time, if it is the intention of the purchaser to use the copy until the end of its economic lifetime; which is usually the case. The conditions-of-sale relating to copyright and ownership, which are often attached to copies, should be interpreted as restricting the right-to make further copies and the owner of the copy, or license-to-use, is the purchaser.

22. On licenses-to-reproduce the Canberra II Group agreed unanimously to adopt the following position; which was a combination of proposals 1 and 2, and the recommendation is to amend SNA 6.146 as follows (with changes in italics):

> The owner may also license other producers to make use of the original in production. The latter may produce and sell copies, or use copies in other ways; for example, for film or music performances. *Two cases arise*:
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> *Where the license is an operational lease,* the owner is treated as providing services to the licensees that are recorded as part of their intermediate consumption. The payments made by the licenses may be described in various ways, such as fees, commissions or royalties, but however they are described they are treated as payments for services rendered to the licensee by the owner. The use of the asset is then recorded as consumption of fixed capital in the production of services by the owner. These services are valued by the fees, commissions, royalties, etc. received from the licensees.
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> *Where the licence is not an operational lease,* the sale of the licence should be considered as a sale of all or part of the original. The decline in the value of the original to the owner is recorded as negative fixed capital formation and not as

consumption of fixed capital. The eventual decline in the value of the licence in use will be recorded as consumption of fixed capital in the accounts of the licensee, now recorded as the owner (and user) of part of the asset.

23. The Canberra Group is considering what should constitute an operational lease vis-à-vis the sale of a part or whole of an asset in the issue regarding licenses and leases, but this does not directly affect this recommendation.

V. IMPACT ON THE SNA AND GDP

24. Some change is required to the current SNA description of originals and copies. In fact, as set out above, the recommendations imply a change to the description of licenses-to-reproduce so that any licenses that are not operational leases can be treated as fixed capital formation. For licenses-to-use no change is necessary but it would be helpful nonetheless for the SNA to reinforce the message that copies (licenses-to-use) are the outcome of production and that their value should embody all reproduction costs, as set-out in paragraph 22 above.

25. In addition a more detailed description on when software is to be treated as fixed capital formation is needed in the SNA. The current paragraphs on software should be expanded to provide a more detailed description of when software should be recorded as fixed capital formation (following the recommendations set out in the Software Task Force Final Report as reproduced in the Annex.)

26. The impact on GDP in most countries is unlikely to be significant. Certainly for licenses-to-use, most countries already adopt practices in line with the recommendations set out by the Canberra II Group. For licenses-to-reproduce the impact is entirely dependent on the extent to which leases are not treated as operational leases, which in turn depends on the outcome of the leases and licenses issue. In any case, the impact on GDP is unlikely to be significant because both intermediate consumption of licenses-to-reproduce and (sales) output of licenses-to-reproduce will disappear, when the licenses-to-reproduce are not operational leases

27. In the United Kingdom however large changes to GDP could occur, up to 1% (Ahmad, 2003). This reflects the fact that the UK National Accounts, currently record nearly all expenditure on software copies by businesses/government as intermediate consumption; although the change to GDP could be considerably lower if offsetting changes are made to gross fixed capital formation on other products.

BIBLIOGRAPY

Ahmad, N (2003): "Measuring Investment in Software", OECD, STI Working Paper DSTI/DOC(2003)6.

Ahmad, N (2002): "Accounting for Software Licenses in National Accounts", Room Document 12, Paper presented at the OECD National Accounts Meeting 2002.

Harrison, A (2004): "Originals and Copies – Summary of consequences of the three different proposals", Paper presented to the Canberra Group EDG, February 2004.

Harper, P, Lynch L, Ahmad, N (2003): "The treatment of originals and copies in the national accounts", Paper presented to the Canberra Group EDG, October 2003.

Lynch, R (2002): "Accounting for Software Licenses in National Accounts", Room Document 8, Paper presented at the OECD National Accounts Meeting 2002.

OECD (2002): "Report of the OECD Task Force on Software Measurement in the National Accounts", OECD, October 2002.

Pitzer, J.S, (2003): "The Treatment of Original and Copies in System of National Accounts 1993", Paper presented to the Canberra Group EDG, September 2003.

ANNEX – OECD/EUROSTAT TASK FORCE ON SOFTWARE: RECOMMENDATIONS ON SOFTWARE PURCHASES RELATED TO MODE OF PAYMENT

1. Simple purchase

When a copy is purchased with a single (up-front) payment. The copy provides capital services to the user for the duration of its lifetime, the user owns the copy in the normal sense of the term (the software company cannot for example repossess the copy), and so it is clear that this transaction should be recorded as a purchase of an asset if the small tools rule is satisfied and the copy is to be used repeatedly in production over time.

2. Annual payments

Two specific cases are considered:

(I) Sequence of annual payments (an initial payment followed by smaller "maintenance" updates)

These transactions should be interpreted as purchases of software copies in the first year and purchases of updates (improvements to the first version) in subsequent years. Making an initial payment for acquisition of the software, followed by a series of smaller "maintenance license" payments in subsequent years, is little different in practice from making one up-front payment for the software reproduction, and so the treatment should be, in practice, the same, that is, that all payments should be recorded as investment, as and when they occur (as long as the small tools rule is satisfied and the copy is to be used repeatedly in production over time).

(II) Sequences of regular (equal) annual payments

One particular and important type of transaction is when payments for a license-to-use are made annually in order to extend the use of the software. If the purchaser intends to use the software repeatedly in production until the end of its economic life then the treatment should follow that for a sequence of annual payments set out in (I) above. The full value of the software reproduction should be recoded as fixed capital formation in the first year of the acquisition of the software, with annual license payments corresponding to interest payments thereafter, following using usual national accounts rules for financial leases. Where this is not practical it is acceptable to capitalise the annual license payments as and when they occur.

3. Licenses-to-use intended for use of less than one year

Licenses intended for use for less than one year should be treated as intermediate consumption. At present the value of these types of licenses is not significant but this may change if software is made available through the Internet, for example, on a "pay per use" basis. Licenses-to-use not intended for use of more than one year, do not lead to the creation of an asset, neither in the capital stock of the provider nor the user. From the outset it can be established that the software will not last for more than one year as it is the intention of the

user to “destroy” it beforehand, and so under these circumstances cannot be considered an asset.

4. Rentals

Rentals should merely be viewed as one of the payment mechanisms for licenses-to-use. And, so, where there is intent to rent a reproduction for its expected economic life and where it is to be used repeatedly in production, payments should be recorded as investment.

Please note that the symbol on this document CES/AC.68/2004/22 is the official UN document symbol and corresponds to paper no. 14 on the OECD website for the meeting.

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