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**VALUATION AND TIME OF RECORDING OF TAXES AND SOCIAL
CONTRIBUTIONS¹**

Paper submitted by Statistics Denmark²

INTRODUCTION

1. Recently the question of the valuation and time of recording of taxes and social contributions in the accounts has attracted renewed attention, and it has become an issue in the SNA updating process. The reason for this has been an increased focus on the operational result of the government in general and in particular the net lending of government recorded in the national accounts. In the European Union, this item is an important political issue because it plays a central role in managing the Euro via the EDP-procedure.

2. The central problem is how to define taxes and social contributions not expected to be paid, and how they should be recorded in the accounts. At the micro level, all assessed taxes are expected to be paid because they are a legal obligation, and an ability to pay was evidenced at the time the income was generated. At the macro level, however, we know that usually a minor part of the assessed taxes will never be paid.

¹ The Statistical Division has submitted the present documentation after the official deadline due to resource constraints.

² Paper prepared by Ole Berner.

3. According to SNA93 (and ESA95 before it was changed in 2001), all taxes evidenced by tax assessments etc. should be recorded as taxes. The minor part which is never paid should be recorded either as the writing-off of bad debt by the government (for instance, because of bankruptcy) or – if the debt is cancelled by mutual agreement – as a capital transfer from the government. In both cases, the time of recording should be when the debt is written-off or cancelled by mutual agreement, i.e. when the transaction takes place.

4. While there is general agreement that the time of recording of taxes should be when income is generated or transactions take place, which generates tax liabilities, there is the question of whether taxes never paid should be accounted for within the national accounts system. In the recent discussions that have been concentrated on the effects on the government accounts, it has been argued that all taxes not expected – at the macro level - to be paid should not be allowed to improve the net lending of the government.

5. Two alternative methods have been proposed to obtain this result:

- The first is to reduce the amount of assessed taxes – or taxes recorded according to the accrual principle – by estimated amounts of the part that is expected never to be paid. Only the reduced tax-amounts should be recorded (net revenue recording) everywhere in the system. The estimates of the reduced amounts could either be done directly by reducing the assessed amounts or by a time adjustment of cash flows (the time adjusted cash principle), depending on the nature of the data sources.
- In the second method, taxes are still recorded on an accrual basis but the amount of taxes expected never to be paid is recorded as a capital transfer from the government to the sectors that did not pay (capital transfer method). Nothing is recorded as writing-off of bad debt. Thus, unpaid taxes will not improve the net lending of government

6. These two methods, which have the same effect on the net lending of government, have been introduced as a change to ESA95, and the Task Force on Harmonization of Public Sector Accounting (TFHPSA) considers recommending that these principles are introduced in the updated SNA.

7. The purpose of the present paper is to analyze whether these two methods are consistent with the principles of the National Accounts in general as formulated in the 1993 SNA. The paper starts out considering what the central manuals (SNA, ESA95 and GFSM 2001) state with regard to how unpaid taxes should be recorded. In the chapter entitled “Accrual versus net accounting in general”, the general principle of accrual accounting is illustrated. In the chapter entitled “The net revenue recording principle of taxes and social contributions”, the net revenue recording principle is evaluated for different kinds of taxes. A consistent capital transfer method is described in the chapter entitled “Capital transfer method”. In the chapter entitled “Conclusion”, it is concluded that the net revenue recording will have far-reaching and unwarranted consequences for the system of National Accounts while a variant of the capital transfer method would be feasible within a consistent system.

UNPAID TAXES IN THE MANUALS

8. In the three manuals (SNA, ESA and GFSM 2001), it is stated in which cases no taxes should be recorded in the system, even though they have in principle accrued, namely:

- Some transactions and other events that, under tax legislation, ought to impose on the units concerned an obligation to pay taxes, permanently escape the attention of the tax authority. Tax revenue should exclude all such unreported taxes. Only those taxes that are evidenced by tax assessments and declarations, sales invoices, customs declarations, and/or similar documents are considered to create assets for government units. (SNA 7.59 and ESA 4.82)
- ... only those taxes and social contributions that are evidenced by tax assessments and declarations, customs declarations, and similar documents are considered to create revenue for government units. (GFSM 2001 3.56)

9. This means that, for instance in the case of hidden or illegal activity, no taxes should be imputed.

10. In the SNA, there are in addition the following special cases:

- In **some countries**, and for **some taxes**, the amount of taxes eventually paid may **diverge substantially and systematically** from the amount due to be paid to the extent that not all of the latter can be **effectively construed as constituting financial liabilities** as these are understood within the System. In such cases, it may be preferable, for analytical and policy purposes, to ignore unpaid tax liabilities and confine the measurement of taxes within the System to those actually paid. Nevertheless, the taxes actually paid should still be recorded on an accrual basis at the time at which the event took place that gave rise to the liability. (SNA 8.50)

11. It has been argued by some that this could be interpreted to mean that the tax amounts not paid due to bankruptcy, death etc. should not be recorded. The wording, however, suggests that this is not the case. If it were, the text should have been "In **all countries**, and for **almost all taxes**, the amounts of taxes eventually paid may **diverge systematically**". Instead, the interpretation could be that there are cases where assessed taxes are not pursued by the authorities and therefore the assessed amounts are never collected. In our opinion, this paragraph should be maintained and probably be clarified to cover all those extraordinary situations it was originally meant to deal with. In particular, we find that the emphasis on whether a claim can be effectively construed as constituting financial liabilities as these are understood within the system has to be understood in the context of the micro-macro nature of the SNA: "The SNA may be implemented at different levels of aggregation: at the level of individual economic agents, or institutional units as they are called in the system; for groups of such units, or institutional sectors; or at the level of the total economy" (see par. 1.2).

12. In the GFSM 2001, however, the following is stated:

- In addition, it is typical that some of these taxes and social insurance contributions that have been assessed will never be collected. It would be inappropriate to accrue revenue for an amount that the government unit does not realistically expect to collect. Thus, the

difference between assessments and expected collections represents a claim that has no real value and should not be recorded as revenue. The amount of taxes and social security contributions that is recorded as revenue should be the amount that is realistically expected to be collected. (GFSM 2001 3.57)

13. This paragraph can only be interpreted to mean that the minor parts of assessed taxes that are not paid due to bankruptcy, death etc. should be deducted from the assessed amounts and only the reduced amounts recorded in the accounts. The paragraph, however, seems to be in contradiction with GFSM 2001, 10.36, which states:

- With regard to financial assets, a creditor may determine that a financial claim can no longer be collected because of the debtor's bankruptcy or other factors. If so, the creditor should remove the claim from its balance sheet by means of another volume change.

14. Although the essence of this paper deals with questions related to the system of national accounts as a whole, the GFSM 2001 is also important in this context for two reasons. Firstly, it deals specifically with taxes and social contributions seen from a general government sector point of view, and states that the final purpose of the manual is to harmonize the GFS system with the 1993 SNA to the extent consistent with the goal of supporting economic analysis of the general government sector. Secondly, and against this background, it is important to distinguish the GFS from the full system of national accounts such as SNA or ESA. In the GFS there is more freedom in the definition of the individual transactions concerning timing and valuation, as it is not necessary to deal with the counterpart's accounting. Concepts, borderlines etc., which are found useful in the GFS, cannot automatically be inferred to be valid in a broader national accounts context.

ACCRUAL VERSUS NET ACCOUNTING IN GENERAL.

15. In the 1993 SNA (and the ESA95 until the changes made in 2000 and 2001 by Council and Commission Regulations), all economic transactors and transactions are accounted for in a quadruple bookkeeping system on an accrual basis. For each non-financial economic transaction between two agents, the system will show an entry in the non-financial accounts either as uses or as resources for the two agents (or the sectors to which the transactors belong). This is simultaneously mirrored in the financial accounts of the two agents and reflected in their closing balance sheets at the end of the year. Institutional sector accounts in the system can be seen as aggregations of individual accounts for all the economic agents/institutional units which belong to a given sector (SNA 1.2).

16. The SNA bookkeeping is illustrated in Table 1 for a sale of goods or services worth 100 from a producer (creditor) to another economic agent (debtor). The sale is financed through trade credits granted by the producer to his customer. We assume for the sake of simplicity that nothing else happens in year $t=1$ and disregards the costs of production, the existence of opening balance sheets, changes in market prices of assets, etc. The closing balance sheets of year $t=1$ therefore show assets in trade credits and net worth of 100 by the producer and liabilities in trade credits of 100 by the customer, whose financial net worth is -100.

17. The debtor does not meet his obligations the following years. In year $t=n$, the only event is that the customer (debtor) goes bankrupt. This is reflected in the other changes in volume of assets accounts of the two parties and the assets/liabilities in trade credits are consequently extinguished for the creditor/debtor respectively. A net worth of zero is shown in the closing balance sheets of year $t=n$ for both parties.

Table 1 SNA-accounting for bankruptcy

	Costumer/debtor		Producer/creditor	
Year t=1				
Prod. Account	uses	resources	uses	resources
Market output	100			100
Financial account	changes in assets	changes in liabilities and net worth	changes in assets	changes in liabilities and net worth
Trade credits		100	100	
net lending (+) / net borrowing (-)		-100		100
Balance sheet End of year t=1	assets	liabilities	assets	liabilities
Trade credits		100	100	
Net worth		-100		100
Year t=n				
Other changes in volume of assets account	change in assets	liabilities	change in assets	liabilities
Loss in trade credits		-100	-100	
Balance sheet end of year t=n	assets	liabilities	assets	liabilities
Trade credits		0	0	
Net worth		0		0

18. If the system were changed only to reflect transactions that result in claims which are eventually collected, then the system would change to net revenue recording. In the simplified example in Table 1, production and sale of goods and services by the producer and all related entries describing financing and other changes in volume of assets (the case of bankruptcy) would no longer be recorded in the system. In that case, the system of accounts would not be able to catch important legally binding economic transactions and a distorted picture of the production process by industry or by sector would be given.

19. Furthermore, net revenue recording for non-financial and financial transactions in a given year could not be finalised until it is known for sure whether the resulting financial claims are eventually collected or not. This would, in many cases, not be recognised by the creditor before the debtor either goes bankrupt (corporations) or dies. The net revenue recording relies in principle on full knowledge at the micro level of all financial claims that are never met, which kind of transactions gave rise to these claims and when they took place. This is contrary to the 1993 SNA, which uses full accrual accounting because its timing is in full agreement with the way economic activities and other flows are defined and accounted for by economic agents and it will automatically capture any accumulations of arrears in the form of obligations that were due to be paid but have not yet been paid. In principle, according to SNA it is possible to set up the final accounts just after the end of the period in question. In general, any accounting system must follow either an accrual principle or a cash accounting principle to finalise the accounts at the end of the period in question. Data availability and thus reliability may at that point in time be unsatisfactory, but these are practical problems and irrelevant to the fundamental principles of the system, where later events do not influence earlier events.

20. An accounting system for the whole economy based on a general use of the net revenue recording principle could probably not be implemented, either in principle or in practice. It would certainly leave out a part of production that actually took place and fractions of all kinds of transactions throughout the economy and thus it would give a distorted picture of economic performance. The relevance of such a system could be questioned. Would the situation be different if the net revenue recording principle were applied to a certain group of transactions only, such as taxes and social contributions? But why record a certain group of transactions vis-à-vis the government sector differently from other transactions and sectors?

THE NET REVENUE RECORDING PRINCIPLE OF TAXES AND SOCIAL CONTRIBUTIONS

21. In this chapter, the effects of the net revenue recording of taxes and social contributions on the system of national accounts is analysed. Net revenue recording is understood to mean that no taxes expected to be unpaid are included in the recorded tax-amounts. The estimates of the net amounts could either be done directly by reducing the assessed amounts (based on historic non-payment ratios) or by a time adjustment of cash flows (the time adjusted cash principle). In the following sections, the recording of various types of taxes and social contributions according to the net revenue recording principle will be examined.

Corporate taxes

22. The first example will be a corporate income tax never collected due to bankruptcy of the corporate enterprise in question. This case is fairly simple: in year $t=1$, income is earned by the corporate enterprise and an income tax is assessed/declared for that year. In the SNA, this is shown in the secondary distribution of income account as an entry under D.51 *Taxes on income* on the uses side for the corporate enterprise and on the resources side for general government. This is simultaneously reflected in the financial accounts of the two parties, and as the tax is not paid in the year $t=1$ by the corporate enterprise, an entry under F.79 *Other*

accounts payable/receivable is shown for the respective sectors. When the government in year $t=n$ writes off this claim due to the bankruptcy of the corporate enterprise, this asset/liability is extinguished by entries in the *Other changes in volume account* similar to the hypothetical example given in Table 1.

23. Under the regime of net revenue recording, this will be accounted for in a very different manner. When government in year $t=n$ writes off the income tax debt due to bankruptcy of the corporate enterprise, then the accounts for year $t=1$ have to be revised. All entries described above for this example in year $t=1$ have to be deleted and no entries will take place in year $t=n$. This reflects the fact that the net revenue recording principle has a narrower accounting boundary than the SNA: only transactions that eventually result in a cash payment are accounted for. It also introduces retroactive accounting, since it might take many years to realise whether a financial claim is actually collected or not due to bankruptcy or other events.

Taxes on income from employment

24. In many countries, taxes on income from employment are deducted by the employer and paid directly to general government (PAYE-taxes). According to SNA93, the gross wages and salaries are recorded as if they were paid to the households sector, which subsequently pays the taxes directly to general government. The enterprises' role is thus only to carry out transactions on behalf of another unit, and the role of the enterprise is not shown in the accounts.

25. Assuming that a corporation fails to pass these taxes on to the government, due to bankruptcy, what will then happen if the time-adjusted cash principle for taxes is being followed? This is illustrated in Table 2 below.

26. The gross wages and salaries are not changed because they are still to be recorded on an accrual basis. In the example below, it is assumed that 100 are recorded on the resource side of the secondary distribution of income account for households (B.5, Balance of primary income). Let us further assume that the accrued taxes on this income is 30 but over time in total only 20 is actually paid, the missing 10 being caused by bankruptcies. According to the time-adjusted cash principle, only 20 should be recorded on the uses side as D.51, Taxes on income. If nothing more were to be recorded, this would leave us with an erroneous disposable income (80) in the households sector because they have not received the missing 10, which are withheld by the corporation.

Table 2 Households, Secondary distribution of income account

Uses		Resources	
		B.5	Balance of prim. income 100
D.51	Taxes on income 20		
?	Correction. 10		
B.6	Disposable income 70		

27. In order to measure the correct disposable income in households, a correction of 10 from households has to be introduced. To be more precise, it is essential that the total assessed

amount is deducted from the primary income in order to arrive at the correct disposable income in the household sector.

28. The conclusion is that, even if the net revenue recording principle is used, the amount recorded as uses in the secondary distribution of income account of households has to be on full accrual basis for taxes on wages and salaries withheld by the employer. In developed countries, this is a considerable amount, sometimes more than 50 percent of the total taxes.

29. The correction item would under the net revenue recording principle have to be recorded either as a direct transfer to the corporation or as a tax paid to the government followed by a transfer from the government to the corporation. A third solution could be to impute a negative tax from the corporation to the government.

Social contributions

30. Under this heading, only D.6111, Employers' actual social contributions, and D.6112, Employees' social contributions, are dealt with here. Furthermore, we assume for simplicity that social contributions are only paid to the general government sector.

31. Consider first D.6112, Employees' social contributions. In SNA93, those payments are included in the compensation of employees received by households and subsequently recorded as paid from the households to the general government. In practice, however, these payments are usually deducted by the employer and paid directly to general government.

32. If a corporation, due to bankruptcy, fails to pay the deducted employees' social contributions, the situation is similar to the case (mentioned above) of taxes on income from employment. The net revenue recording principle in this case also calls for recording the full accrued amount at the use side of the secondary distribution of income account for households.

33. Regarding D.6111, Employers' actual social contributions, the situation might be different. In SNA93, this flow corresponds exactly to D.121, Employers' actual social contributions, which form part of compensation of employees. If this identity is going to be maintained, D.121 also has to be recorded on the time-adjusted cash basis. This means that compensation of employees will no longer be recorded on accrual basis because part of it is recorded on the time-adjusted cash basis. The counterpart to the changed valuation of compensation of employees is a change in gross operating surplus.

34. If, on the other hand, the identity between D.121 and D.6111 is abolished, it could still be decided to record D.121 on accrual basis. This would probably lead to some confusion and would obviously demand some redrafting of the text in the SNA related to these transactions.

35. If an enterprise due to bankruptcy fails to pay the Employers' actual social contributions, the situation in this case is again similar to the case of taxes on income from employment above, calling for a recording of the full accrued amount in the household's accounts.

Taxes on products

36. By their very nature, taxes on products are always collected by “a unit acting as an agent for another unit”, i.e. an enterprise acting as an agent for the tax authority. The enterprise is registered with the tax authority, and there are legal regulations for the reporting and payments of the amounts due to the government. Even if the taxes are not paid by the enterprise, the tax claims of the government will be determined and recorded in the financial accounts. According to the accrual principle, these claims will remain as an asset in the government’s balance sheet until they are either totally or in part paid out of the bankruptcy estate or written-off as another change in the volume of assets.

37. If, on the other hand, it is decided to apply a time-adjusted cash principle, that part of the tax which is eventually not paid is considered not to have accrued, and the tax collection by the enterprise, that originally led to the tax claim, never to have taken place. This rewriting of history becomes, however, particularly difficult to handle, because it involves transactions in goods and services, and the production and generation of income accounts. It may be noted that the principle of accrual accounting, so to speak, originated in the goods and services part of the system. It was not adopted in the system as a matter of choice but as a necessity for the accounts to become meaningful and to give an economic and analytically relevant description of the real part of the economy (and to broadly be in agreement with the rules for business accounting).

38. The following explains why the introduction of partial cash accounting collides with the basic structure of the production part of the SNA93/ESA95. Why this is so is most easily seen within the framework of the supply and use table, the contents of which must be consistent with the goods and services account and the production account and the generation of income account for the nation as a whole, as well as the production accounts and generation of income accounts by branch and by sector. A simplified version of this table is shown in Table 3 below. The identities of this table must always be fulfilled at any level of aggregation. In order to evaluate their full implications, accounting rules that represent a deviation from the accrual principle should also be explained in terms of this framework.

Table 3. Simplified use table (input - output table)

	Industries			Final Uses	Total
	1	2	Total		
Products 1	10	60	70	30	100
(at basic prices) 2	15	53	68	132	200
Total at basic prices	25	113	138	162	300
Net taxes on products	5	7	12	40	52
Total at purchasers prices	30	120	150	202	352
Value added at basic prices	70	80	150	.	.
Output at basic prices	100	200	300	.	.

Note. Based on ESA Table 9.10. For this illustrative table, a one-to-one correspondence between products and branches is assumed.

39. In the example in Table 3, there are two industries producing two products. Industry 1 produces only product 1 and the output at basic prices is assumed to be 100. Correspondingly, industry 2 produces product 2 and the output value is 200. Net taxes on products are assumed to be 52 in total. The value of GDP is 202 which can be calculated from the production side as 300-150+52 or from the expenditure side as the sum of final uses.

40. Initially, in the use table all the accrued taxes on products are included in the purchaser's prices of either final uses or intermediate consumption. These taxes are separated out in a special row in the use table at basic prices. The sum of all entries in this row is equal to the accrued taxes on products.

41. Assume now that 2 out of the 52 net taxes on products were never collected by the government, and are eventually written off. If the time-adjusted cash approach is accepted, the sum of the row for net taxes on products should be 50, and one or more of the entries reduced accordingly.

42. As these taxes have actually been paid by the final or intermediate users, the entries in the row "total at purchaser's prices" reflect economic realities and cannot be changed without distorting the description of the economy. This also implies that GDP from the expenditure side (202) should not be affected by a switch to cash accounting. The only possibility within the framework would be to reduce the entries in the row for taxes on products to add up to what is eventually paid to government, to retain the total at purchaser's prices, and subsequently to increase the basic value of some products. At the detailed commodity flow and branch level, this would necessarily imply an arbitrary adjustment of some entries in the accounts.

43. It would be easy to downscale all elements in the "net taxes on products" row to add up to 50, and to upscale all basic value cells so that the elements of the "total at purchasers' prices would be left unchanged. This would be an automatic macro adjustment not underpinned by any micro information. The upward adjustment of the basic value cells will increase the output and the value added at basic prices with 2. This procedure would only be possible if the complete set of accrual data exists from the outset. If only cash data on taxes are available, it is not easy to see how it can be ascertained that the underlying difference between supply and use does not somehow in the balancing process spill over to the expenditure side, and thus affect the GDP.

44. More sophisticated methods may be applied, but it is difficult to imagine that production at basic prices at the most detailed level can be increased (in this example with 2) based directly on primary statistics related to who are the producers and who are the users of this additional output. Therefore, even if the adjustments seem easy to implement at the aggregated level, it is in practise not possible to implement it in a reliable manner at the detailed level.

45. The total at purchasers' prices for all uses will therefore remain unchanged, including intermediate consumption, and value added at basic prices therefore increases from 150 to 152. If the original value added at basic prices, as obtained from the statistical sources, were retained, GDP from the production side would in this case be only 200 ($=150+50$), and the system thus not balanced. It should be noted that, even if basic production statistics are collected in producers' prices, VAT will not be included, which is by far the dominant type of tax on products.

46. The above implies a new definition of basic prices. This new definition would then read as follows (with the extension shown in *italics*):

- the basic price is the price receivable by the producers from the purchasers for a unit of a good or service produced as output minus any tax payable on that unit as a consequence of its production or sale (ESA 3.48);
- *plus that part of such taxes which is not eventually collected by government.*

47. In the system of national accounts, basic prices are defined consistently for products, branches and sectors. With the new definition of basic prices, it would therefore be necessary to make separate estimates for the item "taxes on products which are not eventually collected by government" for each product, branch and sector (and broken down by types of tax). Under the net revenue recording principle, unpaid taxes in the case of bankruptcies would not be recorded in the system and this could have unfortunate implications for the description of the economy. The fact is that, in the net revenue recording method, the tax liability of a bankrupt enterprise is never shown, although the tax liabilities may at least partly have contributed to the bankruptcy. The later bankrupt enterprise is shown in the accounts as being better off than it is in reality.

48. Although this might, under normal circumstances, be only a minor problem, it could have rather severe consequences for the description of the economy during larger economic crises, where the taxes never paid might increase considerably. Economic analysis of such a

crisis would be distorted by the fact the business sector, in particular, would be shown to be better off in the accounts than in reality.

General remarks

49. The previous paragraphs describe the accrual versus time-adjusted cash accounting from a principal point of view on the basis of the micro-macro nature of the SNA system. It could be argued that, despite the principal problems that arise from the introduction of net revenue recording at the micro level, these problems might in practice be overcome at macro level. If the relative size of the left-out transactions is moderate at macro level, then the net revenue recording for a specific group of transactions (for example taxes) is easily fitted into the accounting framework, disregarding the underlying micro transactions. But even in that case, at least two questions must be answered: i) is it acceptable in an economic accounting system to allow the recording of some transactions to be dependant on future events? It might very well put the national accountants in a difficult situation. The amount of taxes never paid depends both on future trade-cycles (bankruptcies) and on the various administrative initiatives with respect to tax collection in future years; and ii) what is the meaning of final national accounts figures in such a situation? The true figures on a time-adjusted cash basis would be difficult to incorporate when they emerge - in some cases, many years after the period in question.

50. It can be argued that accrual accounting might lead to upward biased estimates of the financial situation for creditors and a downward bias for debtors. To address that problem, would it then be an idea to treat all losses due to bankruptcies and death the same way throughout the system as capital transfers from creditors to debtors? Would debtors then never be bankrupt from a national accounting perspective?

CAPITAL TRANSFER METHOD

51. To meet the critique of the full accrual accounting for taxes in overestimating the financial situation of general government, an alternative to net revenue recording for taxes has been introduced: the capital transfer method.

52. The EU regulation introducing net revenue recording for taxes in the ESA95 introduces the capital transfer method as an alternative to net revenue recording. If this option is used, taxes are recorded on a full accrual basis consistent with the SNA93, but the impact on government finances of all taxes never actually collected is neutralised by a capital transfer from general government to the institutional units who never meet their assessed tax liabilities in full or partially. In the SNA93 and ESA95, only cancellation of tax liabilities by mutual agreement between the two parties is accounted for by a capital transfer. The capital transfer in a given period is, according to the EU regulation on taxes, equal to all tax liabilities finally cancelled without being met in all future periods which originate from taxes accrued in that period. In Table 1 (the case of bankruptcy), the capital transfer method according to the EU regulation would be reflected by a cancellation of all entries for tax liabilities in the financial account and in the balance sheet of year (t) and other changes in volumes in year (n) and the introduction of a capital transfer in year (t) from the creditor to the debtor.

53. In the revised ESA, accounting for taxes requires, in theory, full knowledge of future tax payments, the period in which they were originally accrued or tax claims eventually cancelled linked to the period for which they were originally assessed. In practise, this requirement is, of course, impossible to meet and it is permitted to use coefficients for taxes never collected based on past experience.

54. Furthermore, according to this method a capital transfer is registered at a time when both parties still recognise a tax claim and no transactions at micro level take place which indicate a capital transfer. Such a financial liability, as this is understood in the SNA93, does exist at the end of the period in question.

55. To meet these important points of criticism, it might be worth considering registering the offsetting capital transfer for taxes never collected in the period when the final cancellation of the debt actually takes place either by mutual agreement or by unilateral writing off in the case of death or bankruptcy. In such a case, no retroactive accounting or estimation based on passed experience is needed. In Table 1, a capital transfer of 100 and a transaction in the financial account in trade credits of the same amount would be shown in year (n) and no entries in the other changes in volumes of assets account for that year. All entries in year (t) would be left unaffected. This idea is not analysed further in this paper, but it is certainly worth looking into before net accounting is introduced to the SNA.

CONCLUSION

56. The analysis in this paper has shown that the use of the net revenue recording principle, where taxes that have accrued but are eventually not being collected by government should not be recorded in the system, will have far-reaching and unwarranted consequences for the system of national accounts.

57. It is therefore recommended that, even if net revenue recording in relation to Government Finance Statistics may be preferable in order to show fair values in the government accounts, it should not be introduced in the SNA.

58. The major problems with net revenue recording of taxes and social contributions in the national accounts are:

- it introduces an anomaly if only taxes and social contributions should be reduced by the amounts never expected to be paid, as other creditors in the economy may experience losses of the same magnitude as the government (especially as the government is usually in a favourable legal position to collect debt – after being a privileged creditor);
- the use of the National Accounts as a basis for economic analysis will deteriorate because the liabilities in relation to taxes which later are not paid will not be shown in the system. Enterprises will thus be shown as being better off than they are in reality;
- if the net revenue recording principle is introduced as a general rule for taxes, certain kinds of taxes would still have to be recorded according to the full accrual principle. This will be the case for taxes on income and social contributions where enterprises act on

behalf of other units. In developed countries, this is a considerable amount, sometimes more than 50 percent of total taxes.

59. If the accrual principle is maintained but it is desirable to exclude the effect of taxes never paid from the net lending/net borrowing of government, and symmetrically of all other sectors, the capital transfer model could be considered. However, it might be worth considering that only taxes finally written off in the actual period should be recorded as capital transfers from general government to the relevant sectors.

60. The above analysis and conclusions are strictly methodological and should not be taken to imply that the practical methods applied by national accountants, who in general have to work with data that are less than ideally fitted to the concepts of national accounting, are unacceptable or deficient. Difficulties in the practical implementation should, however, not be allowed to blur the methodological framework. Furthermore, some countries may, for a variety of reasons, have chosen explicitly to deviate in certain respects from the international systems.