SNA/M1.04/08

Recommendations on the treatment of taxes on holding gains in the SNA

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Executive summary

In the 2002 OECD National Accounts Expert Meeting, a member country raised the issue of the contradiction in the SNA classification of taxes on holding gains: *taxes on holding gains are deducted from income while the tax base (the realized holding gains) is not included in the SNA definition of income*. The issue was forwarded to the ISWGNA which included it in the list of issues for possible revision of the SNA and asked the OECD to moderate the discussion and propose, if necessary, changes in the next edition of the SNA.

The OECD prepared a full discussion paper and designed a questionnaire to obtain the opinion of its 30 member countries. Twenty five countries responded to the questionnaire out of the 30 OECD member countries. Three international organizations (IMF, Eurostat, and OECD) also expressed their views.

The issue

During the second part of the 90s, important (potential as well as realized) holding gains were made by households. However, the SNA definition of income excludes holding gains, and was therefore not affected by these (potential or effective) revenues. On the contrary, as (realized) holding gains are taxed and included in the SNA's category "taxes on income", taxes on holding gains affected negatively the SNA measure of income. This contradiction clearly misled some users of the accounts.

Some alternative solutions

One obvious solution to resolve the contradiction would be to integrate holding gains in the definition of income. However, two arguments led the moderator to avoid proposing such a change: (1) it would be a too ambitious change of the structure of the SNA, at least in respect of the issue raised on taxes on holding gains; (2) many economists may not want to include holding gains in income, as they are very volatile.

The solution proposed was therefore to re-classify taxes on holding gains as capital transfers, thus eliminating their impact on income. Classifying taxes on holding gains as capital taxes is consistent with the fact that many households view these taxes as being as exceptional as the holding gains themselves. However, from the point of view of the government, these taxes are a current income.

Nevertheless, the main problem in re-classifying the tax appeared to be a practical one. In most countries, the tax on holding gain is completely embedded in the income tax (simply because realized holding gains are considered revenues…). It is therefore very difficult to distinguish this item from the overall amount.

Based on this discussion, two questions were put forward to experts of OECD member countries. First, as a principle, would you support a change of the classification of taxes on holding gains as capital tax? Second, would you be able to implement such a change?

Experts were split on the first question about the principle of changing the classification. Thirteen supported the change while fifteen supported not to change. The results of the second question were easier to interpret: a large majority (eighteen) responded that they would not be in a position to separate taxes on holding gains from other taxes on income. Only six countries responded that they could.

Preferred recommended solution

In the view of the moderator, these results show that an immediate change of the SNA is premature. It would not be reasonable to impose a change now while half the countries are not convinced that it is correct as a matter of principle and two thirds are not able to implement it. However, economists should benefit from the information on taxes on holding gains available in countries where this is possible, in order to compile alternative measures of household income and saving rate.

1. As a result, the moderator proposes that the SNA should not be changed regarding the classification of taxes on holding gains which should remain part of D51, current taxes on income.

2. However, the SNA should recognize the breakdown of D51 between taxes on income from production and taxes from holding gains as necessary information for the users.

3. Also, the SNA Rev 1 should discuss and present alternative measures of household income, excluding taxes on holding gains.

Implications to the System

Implications are limited to recommendations 2 and 3.

As a consequence of recommendation 2, paragraph 8.52 of the SNA should be changed (changes are underlined) to (1) include a sentence recommending the separate calculation of taxes on holding gains, and (2) distinguish inside the overall category D51 “Taxes on income”: (a) taxes on individual or household income excluding holding gains, (b) taxes on the income of corporations excluding holding gains, (c1) taxes on holding gains of individuals or households (OECD 1120), (c2) taxes on holding gains of corporations (OECD 1220) , (d) taxes on winnings from lotteries or gambling.

As a consequence of recommendation 3, paragraph 8.15 of the SNA should be augmented by a discussion on an alternative measure of household disposable income, excluding taxes on holding gains. The main text attached proposes such a discussion.

Questions to the AEG

Does the AEG agree to avoid opening the issue on the re-classification of holding gains as revenues on the simple basis of the contradiction mentioned above?

Does the AEG support the view that taxes on holding gains should continue to be classified as current taxes on income (D51)?

Does the AEG support the view that SNA Rev 1 should discuss and present alternative measures of household income, excluding taxes on holding gains?

The treatment of taxes on realised capital gains in the SNA

This paper discusses the contradiction in the SNA between the treatment of holding gains/losses and the treatment of taxes on holding gains/losses. The formers are excluded from the SNA concept of income, while the latter are included. In other words, taxes are subtracted from income, while the tax base is not included in income. As Alan Greenspan expressed it in an August 2001 speech that will be quoted several times in this paper, "*households [may] view the tax on capital gain as a subtraction from those capital gains and not from income*".

This issue was raised during the 2002 OECD National Accounts Expert Meeting by the US representatives. It was subsequently forwarded to the ISWGNA, which included it in its list of pending issues for possible SNA revision. The OECD proposed to act as the moderator.

The present paper is from the OECD. It explores three solutions to this contradiction. The first solution, very ambitious, would be to resolve the contradiction by incorporating holding gains in the income accounts. This appears to be a consistent solution. However, it would modify significantly the framework of the national accounts and therefore is not proposed as a practical solution. Second, is the proposal of the US representative to reclassify taxes on holding gains in the capital account rather than in the current account. However, if less ambitious conceptually, this solution would have some difficulties to be implemented in practice. The last solution is to do nothing and continue to live with the contradiction, but leaving the possibility to the users to calculate alternative measures of household income.

This paper has been circulated to OECD national accounts heads together with a short questionnaire. OECD member countries were asked to express their opinions. The result of this informal consultation is presented in section ….

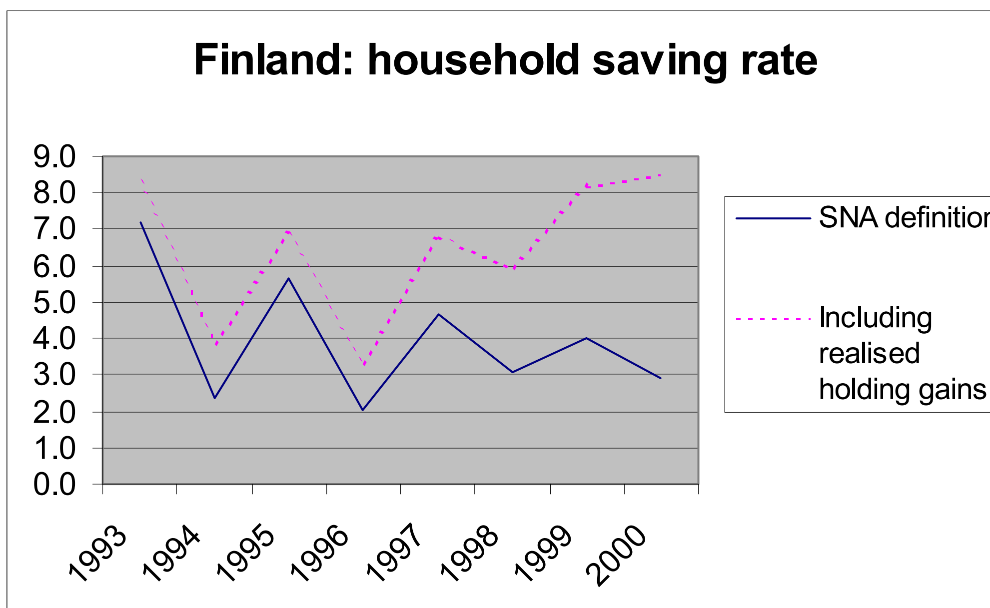
1. Holding gains and taxes on holding gains have both an impact on consumption[1].

It is now a long established economic result that capital gains and losses have an impact on household consumption. Alan Greenspan reports that "*conventional regression analysis [on US data] suggests that a permanent one-dollar increase in the level of household wealth [*whose movement is heavily affected by capital gains and losses*] raises the annual level of personal consumption expenditures approximately 3 to 5 cents after due consideration of lags*". Many economists assume that this "wealth effect" has been a strong motor to the sustained household consumption during the second part of the 90s. Many feared that capital losses on the stock market will have the opposite effect.

Conducting further his analysis, Alan Greenspan notes that *"the amount by which a capital gain affects spending may well be a function of whether or not the gain has been realized.[…] This suggests that the propensity to spend out of realized gains is likely to be greater than the propensity to spend out of unrealized capital gains"*. Alan Greenspan quotes that the propensity of consumption for realised capital gains on homes is estimated at 10 to 15 cents a dollar, but should be less for realised capital gains on the stock market. However, one would assume that the actual consumption behaviour depends on how much cash is made available for spending than on the realised holding gain per se.

[1] In the whole document, the words "holding gains" are used, for simplicity, rather than "holding gains and losses", but the author is fully aware that, in principle, what is said of holding gains applies symmetrically to holding losses. It can only be noted however, that, for obvious reasons, realised holding losses may be less frequent than realised holding gains.

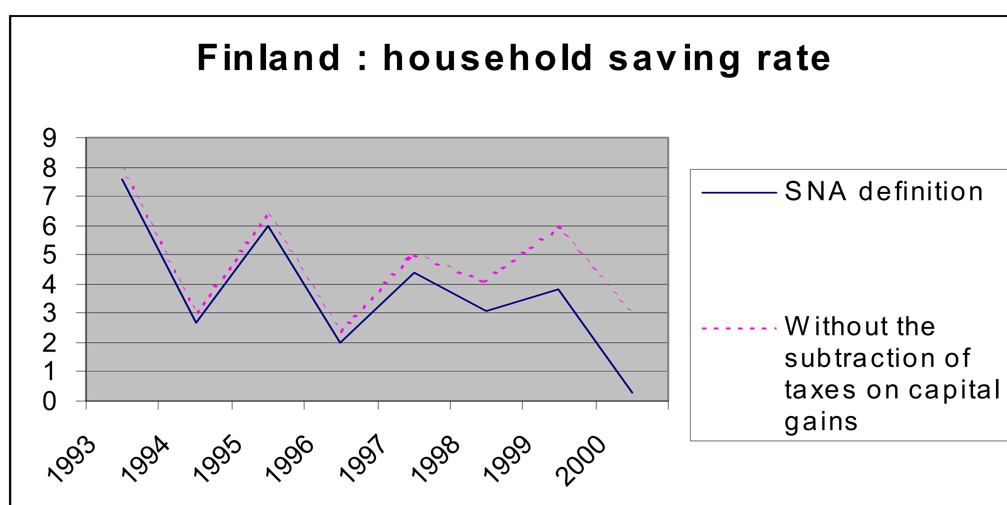
Further evidence from the recent period shows that, in some countries, the amount of realised capital gains had a strong impact on the perceived income and saving of households. The graph below compares the household saving rate for Finland using the standard SNA definition, which does not include holding gains, and an alternative saving rate, including realised holding gains[2]. As can be seen, the picture of the saving rate during the end of the 90s is quite different when using the alternative definition, that includes realised capital gains in income (and in saving).



[2] The source of this graph is the paper presented by Finland to the OECD National Accounts Expert Meeting of 2002: "Employee Stock Options and Holding Gains in National Accounts: An Empirical Paper fron the Finnish Household Sector Point of View". The source of the data on realised holding gains is the Finnish tax administration.

The SNA sets of accounts do include holding gains in the "revaluation accounts" (but do not show the breakdown between potential and realised holding gains). In fact, many of the studies conducted on the impact of holding gains on consumption use data coming from this source. However, in the framework of the SNA, the revaluation accounts are located far "below" the income accounts and do not impact on income, but only on the balance sheet.

At the same time, in many countries, realised holding gains are taxed, thus reducing their impact on households' income and, by consequence, consumption. Taxes on holding gains are of course reflected in the national accounts. However, contrary to their tax base (the realised holding gains), they appear in the income accounts, under the heading *(D51) Taxes on income*, and come as a decrease of the current income of households. Calculations made in the US by the BEA and the FED show that "*of the 4.6 percentage points decline in the [US] personal saving rate between 1995 and 2000, a full percentage point is attributable to the increase in federal and state capital gains taxes paid over that period*". The data for Finland, on the same period, confirms that taxes on capital gains can have a significant impact on the measured saving rate as shown on the graph below.



This situation may appear strange. Some users may hold the view that it would be logical that income should reflect the amount of *net* realised capital gains, this is *realised capital gains minus capital gains taxes*. Others would find it logical that income is not at all affected by the amount of *net* realised capital gains. By not recording the capital gains in income but recording the tax on capital gains, the SNA stands paradoxically between these two apparently "logical" solutions.

However, taxes on capital gains are not the only taxes that are classified in the SNA as current taxes on income, while their tax base is not included in income. At least for households, taxes on non-income items (such as property taxes or taxes on wealth) are included in current taxes. So the determination that an item is not part of income does not imply that the associated tax cannot be part of an aggregate that includes income taxes. However, the difficulty with capital gain taxes is its potential to mislead users. Most non-specialist users would either suppose that realised holding gains are included in the definition of income, or suppose that both the tax and the tax base are excluded. Given the volatility of capital gains taxes, these wrong assumptions could lead to wrong conclusions on propensity to consume, changes in tax rates and the sustainability of government spending levels.

2. Why reject holding gains but not reject taxes on holding gains?

Before discussing the reasons why the SNA does not include holding gains in the income accounts but does include taxes on holding gains, it is useful to recall how the SNA records, in practice, holding gains and how the difference between potential and realised holding gains is (not) shown in this framework. We will use a simple example.

Let us take the case of a household having 1000 dollars in listed shares (AF5) at the beginning of the period (10 shares at the market value of 100 dollars each). Let us suppose that the price of shares is multiplied by three during the period. Also, just before the end of the period, the household sells 3 shares at 300 dollars each and keeps this amount of 900 dollars as cash (AF2). Taxes on holding gains are 50% of realised holding gains.

Household
Opening balance sheet

Assets		Liabilities
AF5 Shares	1000	

Household
Financial account: sale of three shares at 300 each

Changes in assets		Changes in liabilities
F2 Cash	+900	
F5 Shares	-900	

Household
Revaluation account: multiplication by three of the price of shares

Assets		Liabilities
AF5 Shares	+2000	

Household
Income account: payment of tax of 50% of realised holding gains

Uses		Resources
D51 Taxes on income	+300	

Household
Closing balance sheet

Assets		Liabilities
AF2 Cash	600	
AF5 Shares	2100	

As can be seen these operations involve only the accumulation accounts except for the tax on holding gain. The sale of 900 dollars of shares is recorded, at market price, in the financial accounts. It results in a negative movement of 900 dollars in shares (F5), compensated by a positive movement of cash (F2). Total capital gain is recorded in the reevaluation account, and is equal to 2000 dollars. While not shown in the accounts, this corresponds to a potential capital gain of 1400 dollars on the shares that are still owned by the household at the end of the period (1400 = 7 * 200), and 600 dollars of realised capital gains, of which 300 dollar is paid to the general government for tax[3]. It is interesting to note at this point that there is no

[3] In fact realised holding gains for the tax authorities do not refer only to the realised holding gains *of the period* as in this simplified example. See further down for a discussion of the difference between the SNA definition and the tax definition.

entry "realised capital gains" in the national accounts. In practice, it is today impossible to distinguish between realised capital gains and potential capital gains in the standard national accounts. This is unfortunate as it was noted before that the propensity to consume realised capital gains might be higher than that on potential capital gains, and this information is lacking to users[4]. We will come back later on this difference between potential and realised gains.

Let us now try to explain why holding gains (whether potential or realised) are not included in the SNA definition of income. Unfortunately the SNA manual does not really discuss this. The paragraph titled "Links with economic theoretic concepts of income" simply states that (8.15) "*[real] holding gains or losses …are specifically excluded from [real] disposable income in the System*". The same is true of other paragraphs: (6.59) "*holding gains accruing on goods held in inventory after they have been produced must not be included in the value of output*"; or: (7.10) "*output, intermediate consumption and consumption of fixed capital are all defined and valued in such a way as to exclude holding gains*".

In fact, this issue and its link with economic theory has been discussed outside the SNA. A good introduction to this difficult debate (to which apparently contributed an impressive list of economists such as Hicks, Samuelson, Malinvaud…) can be found in an paper by A. Vanoli.[5] Arguments in favour or against the inclusion of holding gains refer to the difference between expected holding gains and observed holding gains[6], to the concept of permanent income, and to the volatility of holding gains. Besides purely academicals discussions on the definition of income, one important reason not to include holding gains in income appears to have been their volatility. One of the main uses of the SNA data on income is to confront it to consumption: changes in income explain changes in consumption, the background being the basic Keynesian consumption equation. In this context, some argued that the core definition of income should not include elements of income that are not predictable nor having a sufficiently strong permanent component. In other words, the marginal propensity to consume out of capital gains differs from the marginal propensity to consume out of ordinary income by so much that the two categories should be considered separately in an analysis of consumption.

This argument is easy to understand. But, it appears completely unfitted to resolve the issue we are discussing in this paper, for the simple following reason. If holding gains are too volatile to be included in the definition of income, then this applies by construction to taxes on holding gains, which should not be subtracted from the core definition of income! In other words, what is true for the tax base should be mechanically true for the tax itself. We have therefore tried to find other arguments, and suggest two of them, both linked to the accounting framework of the SNA.

The most important and obvious one is that it is difficult to accept the idea that holding gains are the result of production. As paragraph 12.67 of the SNA puts it: "*holding gains accrue purely as a result of holding assets over time without transforming them in any way*". In other words, there is no activity

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4 The OECD National Accounts Expert Meeting of October 2002 has discussed the possibility of including a memorandum item in the financial accounts for realised capital gains. There are in fact serious statistical problems to compile this data (see box on realised holding gains).

5 "Comptabilité nationale et concepts de production, de revenu et de capital: une revue critique", in Comptabilité nationale. Nouveau système et patrimoines, Economica, 2001, p 25-49. Also, in pages 418/419 of his monumental "A History of National Accounts", A. Vanoli quotes R. Eisner's "Extended Accounts for NIPA", 1988, p 1624-1625, as a proponent of incorporating holding gains in the concept of income. A. Vanoli adds: "*He [R. Eisner] however rightly remarks that these gains may record ample fluctuations and include more transitory components than ordinary income flows. He thus proposes to show them as memorandum items, and suggests the use of alternative aggregates to take them into account*."

6 Recently, Moulton and Fixler proposed to explore the inclusion of "expected holding gains" in the definition of production.

("transformation") linked to benefiting of holding gains, and thus there is no value-added created in the economy and, therefore, no income. As national accountants want the accounts to provide measures of income that originates from production of goods and services, income should not include holding gains.

However, this is not a totally sufficient reason to understand that holding gains are excluded from income. Holding gains and losses could be distributed among agents with the total being equal to zero. In other words, the holding gains of some agents would be balanced by holding losses of others. But this is not true and leads us to our second reason.

A holding gain of one agent does not correspond to a holding loss of another. Net holding gains can be positive for the economy as a whole. Holding gains made by one economic agent do not even correspond to a flow from one agent to another. They are not transactions between economic agents. Thus they do not find their place in the framework of the income accounts of the SNA, in which what is received by an economic agent is paid by another (the famous quadruple accounting framework).

Holding gains, like transactions, affect the net wealth of agents, but do not do it symmetrically. For shares, the SNA conventional accounting could look as if the holding gains of households owning the shares were matched by the holding losses of the enterprises that issued the share. Indeed, to an increase in the price of shares recorded in the revaluation account of households corresponds a symmetrical increase of the value of shares for the businesses, on the liability side. This could be seen as a counterpart recording. However, it is quite obvious that, by definition, shares are not real liabilities for businesses, and this recording is purely conventional. But, even if it could appear as convincing, this apparent accounting balance applies only to financial assets and cannot be generalised to non-financial assets. For example, an increase in the price of dwellings owned by households will be recorded on the asset side of the revaluation account, and there will be no counterpart recording in any other account[7]. This is also true of realised holding gains (see box). After all, a holding gain, whether realised or not, results from a difference in time and is not related to a transaction at one moment.

[7] Among assets, financial assets are characterised by the fact that they appear, by construction, always at the same time on both sides of the accounts, on an asset side and on a liability side. This is not true of non-financial assets, which are only assets and never liabilities.

Realised and potential holding gains

The SNA mentions realised holding gains in paragraph 12.72: "A holding gain is said to be realized when the asset in question is sold, redeemed, used or otherwise disposed of, or the liability repaid. An unrealized holding gain is therefore one accruing on an asset that is still owned or a liability that is still outstanding at the end of the accounting period. A realized gain is usually understood as a gain realized over the entire period over which the asset is owned or liability outstanding whether this period coincides with he accounting period or not[8]. However, as holding gains are recorded on an accruals basis in the System, the distinction between unrealized and realized gains, although useful for some purposes, is not so important in the System and does not appear in the classifications and accounts."

This is unfortunate, because, as mentioned in the main text, the propensity to consume realised capital gains is higher than for potential holding gains and this information would therefore be useful to users. This is why the OECD proposed to have it as a memorandum item, as a decomposition of the total revaluation appearing in the revaluation account, but this proposal, may be difficult to implement in practice (see end of this box).

However, this absence can be explained. Despite they seem more "real" than the potential holding gains[9], realised holding gains are not very different from an accounting point of view: as potential holding gains, they are not transactions in the sense of the SNA.

There is a difference between a potential and a realised holding gain. The first results from a passive ownership of the asset whose price changes, while the second implies an active change in the asset composition. One way of formulating it would be to say that the gain becomes realised when the uncertainty of the asset composition is reduced. For example, an increase in the price of shares generates a potential holding gain that remains uncertain but becomes realised when the owner reduces its uncertainty by transforming the share into cash, for example, through selling it to someone else. However, this is not fully convincing because, in some cases, there can be realised capital gains without reducing the global uncertainty of the asset composition (sell of shares with immediate re-buy of other shares).

Despite there is a transaction occurring in the case of a realised holding gain and not in the case of potential holding gains, this transaction does not support the holding gain itself but pertains to the underlying asset. In other words, no more than for potential holding gains, is there a flow relating to the realised holding gain that goes from one economic agent to another. There is an exchange of assets, not of holding gains.

A final point is that, in our aggregate macro-accounts, the transaction which supports the realised holding gain may not appear in the accounts, because of consolidation. For example, intra households' transactions are not shown.

The compilation of data on realised holding gains may be quite difficult. One of the most natural sources would be to use the tax base of taxes on holding gains. However, even if this data can be made available, it remains that it would measure only the *taxable* holding gains and not all realised holding gains. In the US, for example, holding gains for most sales of dwellings, assets held in individual retirement accounts, assets subject to estate taxes, and assets donated to charities are generally not taxed. As tax bases could differ between countries, even the taxable holding gains would not be internationally comparable.

Therefore, the result is that, from a "quadruple" accounting point of view, there is no room in the non-financial accounts of the SNA for holding gains, whether realised or not.

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[8] The definition of a realised capital gain for tax authorities is different than the one for the SNA. For the tax authorities, realised capital gains will be equal to the difference between the price at which the household bought the asset and the price at which it sold the same asset, whatever these dates. The SNA reflects flows occuring during the accounting period, and applies the accruals principle. Holding gains are thus those pertaining to the period under review. In other words, a realised holding gain for a given period will reflect the difference between the price at which the household sold the asset and the price of the same asset *at the beginning of the period*. A recent paper for the OECD Working Party of Tax Statistics (DAFFE/CFA/WP2(2002)47) interestingly explores the difficulty of treating taxes on holding gains on an accrual basis.

[9] For a household, a realised holding gain may appear as as liquid on its cash account than its salary or payments received for its output. Of course, the former is probably considered an exceptional income, but may be consumed in consumer durables, also an exceptional expenditure from the point of view of the household.

On the contrary, it is easy to understand that taxes on holding gains constitute an effective transaction between two economic agents. It is a flow which increases/reduces the net wealth of one agent, while, at the same time, having an exact opposite impact on the net wealth of the counterpart agent. Taxes reduce the net wealth of households or businesses and, at the same time, increase the net wealth of the general government.

The conclusion of this paragraph should be now clear. The SNA excludes holding gains but includes taxes on holding gains mainly because of its accounting framework. The first solution to resolve the contradiction would therefore be to change the framework by re-incorporating holding gains in income, *even if not incorporating it in production*.

However, this would change significantly the accounting framework of the SNA. For example, basic identities such as "GDP production approach" equal to "GDP income approach" may not hold any more. Also a decision should then be taken on whether total capital gains should considered as income or only realised capital gains. Such a change in the framework would seem really too ambitious and would need much more reasons to support it than the simple issue of the contradiction between the tax and the tax base which covered by the present paper. This leads us to the second solution.

3. Why not exclude taxes on holding gains from income?

The SNA, without discussion, classifies taxes on holding gains as current taxes, with impact on income[10]. At the OECD national accounts expert meeting of October 2002, the proposal was made to re-classify the taxes on holding gains in the capital accounts, rather than in the current accounts. Thus, income would not be affected at all by holding gains, whether the tax base or the tax on holding gains. This proposal corresponds to the alternative "logical" solution discussed in the beginning of the paper.

We will now discuss this proposal. As taxes are transfers in the SNA, the discussion will focus, first, on the borderline between "current transfers" and "capital transfers" and then on the borderline between "current taxes" and "capital taxes".

Current transfers and capital transfers

On the contrary to the scarcity of the discussion on the inclusion of holding gains in income, many paragraphs of the SNA cover the difference between current and capital transfers. Here are a few of them:

Par 8.3: "A capital transfer is one in which the ownership of an asset is transferred or which obliges one or both parties to acquire, or dispose of an asset".

Par 8.31: "*A transfer of cash is capital when it is linked to, or conditional on, the acquisition or disposal of an asset (other than inventory[11]). Institutional units must be capable of distinguishing capital from current transfers and must be presumed to treat capital transferred during the course of the accounting period in the same way as capital held during the period. For example, a prudent household will not treat a capital transfer that happens to be received during a particular period as being wholly*

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[10] Paragraph 8.52 lays down the definition of "taxes on income (D51)", which is a current transfer. It first simply says that "*taxes on income consist of taxes on incomes, profits and capital gains*", and then adds (in 8.52.c) that "*taxes on capital gains consist of taxes on the capital gains (described as holding gains in the System's terminology) of persons or corporations which become due for payment during the current accounting period, irrespective of the periods over which the gains have accrued. They are usually payable on nominal, rather than real, capital gains and on realized, rather than unrealized, capital gains*."

[11] Inventories are excluded here, probably, in order to avoid concluding that transfers of cash linked to the simple sale of ordinary (non-capital) goods and services would be classified as capital tranfers.

available for final consumption within the same accounting period. Conversely, a household making a capital transfer (e.g. the payment of an inheritance tax) will not plan to reduce its final consumption by the whole amount of the transfer. The paragraph strangely but interestingly adds*: "Unless institutional units are capable of distinguishing capital from current transfers and react differently to them, it becomes impossible to measure income, both in theory and in practice*."

Par 8.32: "*Current transfers consist of all transfers that are not transfers of capital. They directly affect the level of disposable income and should influence the consumption of goods and services. In practice, capital transfers tend to be large, infrequent and irregular, whereas current transfers tend to be comparatively small and are often made frequently and regularly. However, while size, frequency and regularity help to distinguish current from capital transfers they do not provide satisfactory criteria for defining the two types of transfer. For example, Social Security benefits in the form of a maternity or death benefits are essentially current grants designed to cover the increased consumption expenditures occasioned by births or deaths, even though the events themselves are obviously very infrequent."*

According to these paragraphs, the main criterions to classify a transfer as "capital" rather than "current" are the following: (1) the transfer should be linked to an asset, (2) the transfer has a certain degree of exceptionality and/or the economic agent should not consider that it entirely affects the flows of the accounting period. This second criterion is compatible with the spirit of the definition of the current accounts in the SNA (and thus to the definition of –current—income), which is that it applies to flows that are entirely related to the accounting period. On the contrary, flows that have effects over a period larger than the accounting period are to be classified in the capital accounts[12].

Current taxes and capital taxes

Paragraph 10.136 defines capital taxes (D91): *"Capital taxes consist of taxes levied at irregular and very infrequent intervals on the value of the assets or net worth owned by institutional units or on the values of assets transferred between institutional units as a result of legacies, gifts inter vivos or other transfers. They include the following taxes:*

a) Capital levies: These consist of taxes on the values of the assets or net worth owned by institutional units levied at irregular, and very infrequent, intervals of time. Capital levies are treated as exceptional both by units concerned and by the government. [...]They include betterment levies: i.e., taxes on the increase of the value of agricultural land due to planning permission being given by government units to develop the land for commercial or residential purposes (GFS 4.5).

b) Taxes on capital transfers: These consist of taxes on the values of assets transferred between institutional units. They consist mainly of inheritance taxes, or death duties, and gift taxes; including gifts inter vivos made between members of the same family to avoid, or minimize, the payment of inheritance taxes. They do not include taxes on sales of assets as these are not transfers[13].

Capital taxes should not be confused with "taxes on capital". Taxes on capital (or taxes on wealth) are classified in the current transfer category "Other current taxes" (D59) as explained by Paragraph 8.53:

[12] While this paper does not discuss it, this opens the possibility of recording holding gains in the capital account.

[13] This last sentence is interesting because one could think it refers specifically to taxes on holding gains. However, it is not true. First taxes on realised holding gains imply the sale of an asset but are not a simple tax on the sale of an asset. This is confirmed by the reason given to exclude these taxes: it is because the sale of an asset is not a transfer that they are not included here. The sentence was probably added to exclude from this category classical (VAT like) indirect taxes levied as a percentage of the sale of a good or service.

Current taxes on capital consist of taxes that are payable periodically, usually annually, on the property or net wealth of institutional units. [...] They exclude taxes on property or wealth levied infrequently.

On the whole, one can conclude that the main criterion for classifying taxes as capital taxes is not essentially that they are linked to an asset but that they are exceptional. Indeed taxes which tax base is the capital (or wealth) owned and paid annually are classified as current taxes. This confirms the spirit of the capital account of the SNA: it refers to flows that are exceptional in regard to the duration of the accounting period.

Taxes on holding gains can be more or less exceptional

In this context, it is not so obvious, as the SNA does it, to classify taxes on holding gains as current taxes, for the simple reason that the holding gain itself may be exceptional, and thus the tax. Let us take the case of a household selling its house (and probably buying another one), realising in this operation a holding gain and paying accordingly a tax on this realised holding gains[14]. The tax is linked to an asset (the house), and the tax on the realised holding gain is obviously exceptional (as well as the holding gain itself). Owing to the SNA criterions, there is no room for discussion: the tax should be treated as a capital tax. And this would be consistent with the exclusion of the holding gain from income, also because of its exceptionality.

However, the situation would be different from the point of view of a real estate company that buys and sells regularly houses, and expecting, in some cases, to realize holding gains. If the tax paid on holding gains is still linked to assets, the payment looks much less exceptional than in the case of the above household. The same is true when considering realised holding gains on the stock market. Some households will sell shares on very exceptional cases, for example when they are decided to change the composition of their assets (for example buying a house). But some businesses or households will intervene on the stock market on a day to day basis with the objective of realising capital gains. In the first case, the tax will be exceptional, in the second it will be more regular.

One may therefore conclude that, using the criterions of the SNA, there is no single solution that fits all situations: (1) for some tax payers, the tax is exceptional and should be classified, as the exceptional holding gain, outside the current income concept; (2) for other tax payers, the tax may not be exceptional, but the holding gain is therefore no more exceptional, and both should logically impact the current icome, and not one of them.

The SNA is so complete that it seems to give even a response to this uncertainty: (10.134) "*There may be cases in which it is difficult to decide on the evidence available whether to classify a cash transfer as current or capital. When there is serious doubt, the transfer should be classified as current rather than capital*." However, it remains that if this recommendation would apply to taxes on holding gains, then it should logically apply to holding gains themselves (even if they are not cash transfers).

The proposal of re-classifying taxes on holding gains in the capital accounts in order to resolve the conceptual contradiction may appear therefore as appealing. However, as seen above, some holding gains, including for household, would, if one accepted to modify the SNA, be correctly classified as *current* rather than *exceptional*. In this context, it remains to be proved, including econometrically, that the exclusion of the tax on holding gains from the current account improves the overall ability of the current

[14] The example is not fully realistic, in the sense that it assumes that taxes on holding gains are due on sales of a house which constitute the residence of the household. In general, taxes on holding gains exclude those realised when selling a house in which the household resides in order to acquire another house in which the household will reside.

income data to explain movements of consumption. Would we gain on conceptual consistency while loosing on economic ground? The non-subtraction of taxes on holding gains from income would also have as a consequence that changes in the level of the tax would not affect any more disposable income. This would probably be as difficult to explain as the current inconsistency between the treatment of the tax and of the tax base.

4. The view of the other party: the general government

We have just discussed the issue of the classification of holding gains from the point of view of tax payers.

In macro-economic accounts, the point of view of the receiver of taxes, the general government (in itself a macro-economic agent) has evidently some importance. It is therefore useful to analyse the issue specifically from its point of view, and, also, to explore what are the recommendations of other statistical manuals specialised in the analysis of general government such as the *IMF GFS* and the *OECD Revenue Statistics*. Both manuals are quoted as a general reference by the SNA (Par 8.46) and a systematic correspondence is made in the SNA, between its detailed tax categories and the categories of these manuals.

From the point of view of the government, the exceptionality of a tax takes another dimension. Tax payers are numerous (except for very special taxes), so what is exceptional for one tax payer is simply epsilon for the general government. In other words, by the simple application of the statistical rule of great numbers, the sum of the flows of exceptional micro transfers becomes a regular macro flow. As a result, there should be no capital taxes from the point of view of the government, except, perhaps, for very specific, large and exceptional compulsory levies on very large (public) enterprises. Even the classification of inheritance taxes as capital tax in the SNA is questionable from the point of view of the government. Indeed, death is, unfortunately, quite a regular occurrence, on a demographic statistics basis. As a result, inheritance tax receipts constitute a quite regular macro-economic flow, much more regular than the macro-economic receipts from taxes on holding gains, which depend heavily on the business cycle and of periods of speculation. Surprisingly, from the point of view of the general government, the first are classified in the SNA as capital taxes (exceptional) while the latter as current taxes (regular)[15].

Both the OECD revenue statistics manual and the GFS manual do not retain in their main classification the essential distinction made by the SNA between current and capital taxes. At the one digit level, it is the base on which the tax is levied that governs the classification of receipts in these manuals, and not the recurrence or non recurrence of the tax. The first digit categories are the following: 1, income, profits and capital gains, 2 and 3, payroll or manpower, 4, property, 5, goods and services, 6, multiple bases, other bases or unidentifiable bases[16]. In this context, the logic behind the inclusion of capital gains in the first category of these two manuals is that capital gain is implicitly considered by them as an income!

In continental Europe, the most scrutinised general government aggregate is, without contest and because of the Growth and Stability Pact, the net lending/borrowing (B9). This aggregate is neutral to the classification of taxes as current or capital. In other countries, the current surplus/deficit remains an important aggregate. In the UK, the current surplus/deficit of the public sector is the statistical cornerstone

[15] Even more puzzling: holding gains on non financial assets often occur on the occasion of a death, as heirs have to cash the assets in order to share them. Inheritance tax and holding gains taxes are, in this case, very much linked.

[16] It should be noted however, that, in the two digit level of headings 4 and 5, a distinction is made between recurrent and non-recurrent taxes,

of the so-called "golden rule[17]". However, in this alternative system of accounting, confirming what is suggested above, SNA capital taxes, such as the inheritance tax, are very logically re-classified, as current receipts[18].

In the GFS system of accounting, "revenues" and "expenses" are separated from "transactions in financial and non –financial assets/liabilities" by the core GFS balancing item "net/gross operating balance". In this system, "revenues" consist of all taxes, including taxes classified as capital by the SNA. In other words, the GFS system does not consider useful to separate, from the point of view of the government, capital taxes from the "current" taxes, as the SNA does it.

The conclusion of this paragraph is therefore that, from the point of view of the government, taxes should be always (or nearly always) classified as current, and only very rarely as capital. The proposal to increase the amount of capital taxes in the SNA with taxes on capital gains would therefore not go in the right direction.

Practical difficulties in separating taxes on income and profits from taxes on capital gains.

At this stage of parts 3 and 4 of the paper, one could conclude that there are two solutions: satisfy the point of view of some of the tax payers, which is that taxes on capital gains are capital taxes, or, satisfy the point of view of the general government which is that both are current receipts. As the SNA puts it: (Par 8.33) *"It is possible that some cash transfers may be regarded as capital by one party to the transaction and as current by the other. For example, the payment of an inheritance tax may be regarded as a capital transfer by the household but as current transfer by the government. [..] In an integrated system of accounts such as the SNA, however, it is not feasible to have the same transaction classified differently in different parts of the System."* Should one conclude that the SNA has decided on a compromise, satisfying the tax payers on the inheritance tax, and the general government on taxes on holding gains? Perhaps practical difficulties may have also explained this choice.

In most countries, taxes on capital gains are embedded in the income tax collection system. This is not illogical at all considering that realised capital gains are (but are not considered such by the SNA) an income. This may complicate seriously, on a practical basis, the compilation of separate data for taxes on capital gains from taxes on other income. When the tax on capital gains is calculated separately from the tax on other income, it may probably be possible to extract it from the income tax[19]. But when the tax on income is calculated directly on the income including capital gains, it is impossible to distinguish the two flows. There is a tax on income, and income includes holding gains, that's all. In this case, a recommendation that would lead to separate the two taxes in order to re-classify the taxes on capital gains as capital would simply not be applicable.

A rapid overview of the *OECD Revenue Statistics* which contain both detailed categories "taxes on holding gains of individuals" (1120) and of "corporations" (1220) show that there are only few countries that report separately data for these two time series (Australia, Finland, Ireland, Italy, Switzerland, UK,

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[17] Which says: current expenditures should be covered by current receipts (investment can be covered by borrowing).

[18] See page 8 of http://www.statistics.gov.uk/pdfdir/psa0902.pdf. However, this is not the case in the USA. The BEA figure for "current receipts" do not include estate and gift taxes.

[19] This is the case, for example, in France, where the collection of taxes on capital gains is embedded in the income tax collection system but the amount due for taxes on holding gains is compiled separately from the one on other income (the tax on holding gain has a flat rate). However, there is only one payment for the whole of the tax and the author does not know if the tax administration stores the information that would allow separating the two conceptual flows.

USA[20]). Some other countries may not have taxes on holding gains but most apparently have difficulties in separating these data. The same can be concluded when analysing the table 900 of the OECD/Eurostat questionnaire on national accounts, which includes an item *D51C Taxes on holding gains*. Some countries known to have taxes on holding gains only report a global value for taxes on income and do not report the breakdown.

5. Provisional conclusions

It is now useful to recapitulate the different findings of the paper:

- There is a contradiction in excluding holding gains from income while including taxes on holding gains.
- This contradiction comes apparently from the framework of the SNA, which is not suited to record holding gains as income.
- Including (realised) holding gains in the income of the different institutional sectors can solve this contradiction, but it is too ambitious.
- There are some reasons, on a conceptual basis, to propose the less ambitious re-classification of taxes on holding gains as capital taxes, which has the appealing effect to make the contradiction disappear.
- One good reason is that, for many individual taxpayers, taxes on holding gains look probably more as a capital tax than as a current tax, using the SNA criterions.
- However, for other taxpayers, the tax is regular and does not look as a capital tax.
- For government, taxes on holding gains are without contest correctly classified as current taxes.
- It remains to be proved that the non-subtraction of taxes on holding gains from income improves the ability of income data to explain consumption.
- There may be significant practical difficulties in separating taxes on holding gains from taxes on income.

On the whole, one may see two directions of work, if one discards a major upheaval of the SNA by incorporating (realised?) holding gains in income: (1) re-classify taxes on holding gains as capital taxes, (2) do not change the current treatment and accept to live with the conceptual contradiction. The latter situation could be improved by making taxes on holding gains explicitly appear in the core accounts, in order for users to be able to exclude them, for some analytical purposes. But this would be only possible if, in practice, the tax can be compiled separately.

Based on this discussion, two questions were put forward to experts of OECD member countries. First, as a principle, would they support a change of the classification of taxes on holding gains as capital tax? Second, would they be able to implement such a change? Experts were split on the first question about the

[20] Even in the USA, which reports separate taxes on holding gains, there are real difficulties in compiling this data because US taxpayers pay a tax on combined income from capital gains and ordinary income. The reported federal capital gain tax is in fact an estimate based on the calculation for a sample of individual tax payers of what their combined tax would have been had they reported no capital gains. Results from these proxy simulations are available with a lag of two years.

principle of changing the classification. Thirteen supported the change while fifteen supported not to change. The results of the second question were easier to interpret: a large majority (eighteen) responded that they would not be in a position to separate taxes on holding gains from other taxes on income. Only six countries responded that they could.

In the view of the moderator, these results show that an immediate change of the SNA is premature. It would not be reasonable to impose a change now while half the countries are not convinced that it is correct as a matter of principle and two thirds are not able to implement it. However, economists should benefit from the information on taxes on holding gains available in countries where this is possible, in order to compile alternative measures of household income and saving rate.

4. As a result, the moderator proposes that the SNA should not be changed regarding the classification of taxes on holding gains which should remain part of D51, current taxes on income.

5. However, the SNA should recognize the breakdown of D51 between taxes on income from production and taxes from holding gains as necessary information for the users.

6. Also, the SNA Rev 1 should discuss and present alternative measures of household income, excluding taxes on holding gains.

Implications to the revised System

Implications are limited to recommendations 2 and 3.

As a consequence of recommendation 2, paragraph 8.52 of the SNA should be changed (changes are underlined) to (1) include a sentence recommending the separate calculation of taxes on holding gains, and (2) distinguish inside the overall category D51 “Taxes on income”: (a) taxes on individual or household income excluding holding gains, (b) taxes on the income of corporations excluding holding gains, (c1) taxes on holding gains of individuals or households (OECD 1120), (c2) taxes on holding gains of corporations (OECD 1220) , (d) taxes on winnings from lotteries or gambling.

As a consequence of recommendation 3, paragraph 8.15 of the SNA should be augmented by a discussion on an alternative measure of household disposable income, excluding taxes on holding gains. The following text is proposed (changes to the current text is underlined):

Disposable income as measured in the System can be compared with the concept of income as it is generally understood in economics. From a theoretical point of view, income is often defined as the maximum amount that a household, or other unit, can consume without reducing its real net worth. However, the real net worth of a unit may be changed as a result of the receipt or payment of capital transfers and as a result of real holding gains or losses that accrue on its assets or liabilities. It may also be changed by events such as natural disasters that change the volume of assets. Capital transfers, real holding gains or losses and other changes in the volume of assets due to the effect of events such as natural disasters are specifically excluded from disposable income as measured here. Capital transfers are recorded in the capital account of the System, while other changes in the volume of assets and real holding gains or losses are recorded in the other changes in assets account. According to the concept of disposable income used in the System, the net worth that needs to be maintained intact is that at the beginning of the accounting period adjusted for the value of any capital transfers received or paid, for other changes in the volume of assets and for any real holding gains or losses accruing during the accounting period. Disposable income is better interpreted in a narrower sense as the maximum amount that a household or other unit can afford to spend on consumption goods or services during the accounting period without having to finance its expenditures by reducing its cash, by disposing of other financial or non-financial assets or by increasing its liabilities. This concept is equivalent to the economic theoretic concept only when the net worth at the beginning of the period is not changed by capital transfers, other changes in the volume of assets or real holding gains or losses. Alternative measures of disposable income can be useful for economic analysis. In particular, the interpretation of the movements of households’ disposable income, and hence saving, may be affected by the

fact that holding gains and losses are not included in the core measure of disposable income, while taxes on holding gains are deducted. Two alternative measures of household disposable income can be compiled to resolve this contradiction: (a) add holding gains and losses to the core measure of disposable income (b) add back the tax on holding gains to the core measure of disposable income. The latter needs the compilation of separate data for taxes on holding gains. In any case, these alternative measures, if compiled, should be presented as additional to the core measure.

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